In the Middle of Things:

Children and their Encounters

with More-Than-Human Forest Worlds

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Signed: Hugo Turvey   Date: 21st January 2022

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Abstract

This dissertation is a post-qualitative study on young children's relationship to forest landscapes. Through a longitudinal perspective involving different groups of children, it offers a distilled view of forest experiences in the form of 'encounters' that take in more-than-human as well as human subjects. These episodes of forest-child-adult responses amount to 'common world' (Common Worlds, 2014) events that expand our conceptualisation of the social (Latour, 2005, Pacini, Taylor & Blaise, 2016). By sharing subjectivities with beyond-human life forms and forces, children are shown to co-join these lively forest activities. De-centring the human is an integral pedagogical element to paying attention to children's entanglement with other worlds (Jickling & The Crex Crex Collective, 2018) and relates well to Barad's (2007) wider 'ethico-onto-epistemological' world view, which considers all matter to be agentially connected in an ethically responsible and accountable reality. The 'encounters' serve to show that by noticing every-day events that lie 'in-between' (Deleuze and Guattari, 2013) that what is expected or planned, we can reach beyond the known. To do this requires the help of 'ghosts' of the past, figures from the world of philosophy and literature, materialized through innovative concepts that explain the world in a connected and perpetual state of 'becoming' (Deleuze, 1994). Through these concepts, this dissertation aims to push step-by-step towards 'the new' (St. Pierre, 2016).

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Prologue
Encountering Ball

The ball finds me running along the towpath. Mud mixed with puddle, tiny stones and sundry organic remnants hold it in place. The sight of it jars the working through of M.A ideas that swirl around in my mind, opening a crack for troubling questions to push to the fore: How did the ball arrive here? Is someone coming back for it? Should I stay focused on my think-run and leave the ball where it is, or does its presence compel me to react in some way? While my legs continue to jog, one foot steadily in front of the other, my mind dithers with uncertainty, up to the point where our paths collide. Impulse takes over as my left foot, my kicking foot, involuntarily engages with the roundness of the stitched leather panels, launching the ball forward. It is an expressive moment, in which foot against ball, ball against foot, move in tandem together. The trajectory is true as it is joyful and one deliberate shot follows another, sending the ball ever further along the track, its mass enlivened by the kicking action. My angled foot ensures that rhythm is maintained and only occasionally does the ball drift to one side of the path or the other, momentarily losing momentum. Even so, I cannot but wonder how long this can continue. The route back is a long one, with bumps, bends, and

gradients to complicate matters, while the light is steadily fading. Furthermore, the mud flats to the left of the path, sloping down towards the tidal flow below, are a constant danger and demand a committed attentiveness to avoid the ball running over the edge. On the other hand, I cannot deny the creeping realization that my encounter with the ball has created a new experience of running, one that has induced a *becoming running-kicking* movement, and I feel now that am bound to embrace its potentiality.

The situated context

The 'Ball' story presented itself on a regular run alongside the same woods where many of the encounters concerning the young children and forest actors who inhabit this study occur. These rich and diverse woods of 200 hectare, lying on the edge of the city of Bristol, offer a piece of wildness for those living within the urban confines of the city. As a teacher and trained forest leader at one of the city's state-maintained nursery schools, I have the privilege of accompanying a 'key group' of 10 to 12 children to these woods, as part of their 'forest experience'. The weekly or fortnightly forest visits run throughout the academic year and are supported by three or more members of staff, depending on the group, with the occasional participation of a parent

or other adult volunteer. Together with additional weekend family walks and one-off dawn and dusk trips that have been organised over the years, these forest trips enable the nursery children to leave the city for a few hours and become immersed within a woodland landscape. 'Forest experience' has a continually evolving pedagogy, underpinned by a commitment to provide the children with regular opportunities for self-initiated explorations of a 'wild' outdoor space, alongside adults who have embedded relationships with their key groups. For children who rarely go beyond the boundaries of their local community spaces, having this outlet has been transformative for their early learning and wellbeing. To be with them, stick in hand, with the time and space to chip away at clumps of earth, or to wonder about the underworlds that lie deep inside a mysterious hole, sometimes pausing to listen and notice, other times jumping feet first into something that may kick back, like the prickle of a sweet chestnut husk, is to witness how they become part of a physical space that is as diverse as it is accepting of young human attention.

As I have advanced through my research project, I have adapted my use of habitual ethnographic observational methods to try to engage with the children as subjects in their own worlds rather than as objects within my study. This has led me to follow relational mind-body-place practices, alongside of

the normal watching, listening, and recording of their activity (Pacini-Ketchabaw, et al., 2016b). I have done this by focusing on my body and my senses and being present in the moment, so that I can 'emplace' (Pink, 2009) myself within the forest landscape and children's happenings.

Regularly returning to the same locations over the course of the year, and in my case over many years, means the children can learn to live with the forest landscape, noticing discrete differences from past visits as well as being party to the more obvious seasonal changes that occur. The key person of each key group is responsible for attending to the characteristics and ongoing motivations of their key children, which includes making judgements on which specific location to visit. This may be influenced by any conversation the key person may have had with them prior to going, or else can be guided by children's responses or choices made thereafter. The fifteen-minute minibus journey to the forest is an important pre-cursor to the trip itself, in terms of offering them a transitional space from what they are leaving behind to where they are heading. Passing familiar landscapes helps to demark the route and re-introduce them to the topological features that make up their forest experience, often prompting specific memories of relatable experiences.

Whilst formally planning a forest visit runs contrary to the aim of engaging with the spontaneity of the forest landscape, and so is avoided, there are external factors such as the weather, seasonal conditions, or any forestry activity, that can have a bearing on what kind of forest trip to have. Regarding the latter point, despite the 'wild' qualities that give the woodlands a richness and diversity that cannot be replicated in parks or other closely managed green spaces, forestry disturbance, in the form of the construction of new paths or cycling circuits, as well as regular large-scale clearing of trees within forest management practices are some of the reminders of the existence of multiple, sometimes conflicting, interests that impact on the landscape. While unquestionably unwelcome, from the perspective of wanting to engage with landscape diversity, there are always potentialities to be had from what Tsing (2015, p.20) describes as "the unruly edges" of "patchy landscapes", including conversations that expand the children's awareness of what this might mean for issues such as environmental sustainability. It is also true that the woodlands do retain a degree of resilience and re-growth after such disruptions.

In telling the ball story, I also want to highlight the nature of the subjectivities that I have chosen to use in my study and how it relates to my

research and on-going practice. In the story, the ball shares subjectivity with the track and the mud, the wetness and the grass verges, as well as with me, the human subject. This is because I want to explore the idea that a 'thing' like a ball can act in the same way as a human subject, as it "intervenes and acts upon others and the world" (Lenz Taguchi, 2010, p.4). In line with Deleuze and Guattari's (2013) philosophical perspective which says that nothing can be privileged over something else within its 'plane of consistency', I have placed the ball along a hypothetical horizontal plane, so that it may become relational with all the other entities within the story, thereby acting simultaneously as one. By doing that, it has the capacity to be a 'doer' in the world, along with the other "doers" (Lather and St. Pierre, 2013), rather than remain a passive object, waiting to have something done to it. The premise that there are multiple "actants" (Latour, 2014) within an ever-changing set of world realities resonates with an ontological perspective that questions a human-centric vision of the world. It also makes sense in the context of the children's relational experiences that they have with the forest landscape, which is itself a living, changing, material environment. By exploring the possibilities that can arise out of this state of interconnectivity, I hope to dig deeper into how these multiple relationalities may materialize. In an epoch of

significant global environmental and climatic destabilization, looking beyond

the human world and its needs also seems both desirable and necessary.

Interlude:

Admiration

So hills and valleys into singing break,
And though poor stones have neither speech nor tongue,
While active winds and streams both run and speak,
Yet stones are deep in admiration.

> —*Henry Vaughan from 'Deep in Admiration', in Arts of Living on a Damaged Planet*
> Ursula K. LeGuin (2017)

Encounter:
Entering New Forest Worlds

"The word for world is forest."

—Ursula LeGuin (2010)

—A profusion of fern leaves push up out of the damp earth, accepting raindrops from dripping foliage high above in the canopy. Tender green needle shoots on drooping fir branches coalesce with the "infinite bricolage of forms, structures and evolutionary solution" (Coccia, 2017, p.25) that make up the verdant forest scene. They mingle with the other entities present, human and otherwise, seemingly oblivious to the wetness around. Turning off the main path and up the steep slope of the ravine, little boots slip, and knees kneel momentarily on the reddish earth, as the connected bodies pivot in an effort to stay balanced and find secure points of contact on the glistening hillside, "always in movement and ready to transform" (Olsson, 2009, p.190), constantly becoming but never actualizing.

A Welcoming

to the Approachable Other

I want a park, flowers,
a blue flower, rocket tree

...oh, a water!

—[named here as] Jamal

For educators of young children, moments that leave a trace, inspiring to capture more and yet more, are those that allow a child to be able to feel and experience a world that is vibrant and full of opportunity, one that can produce in them 'awe and wonder' (Rachel Carson,1998). They are times in which children move and experiment, becoming 'fully present' both *in* and *with* the world (Latour, 2014). How they do this requires careful consideration, as encounters that make a difference do not generally come about through following predictable and measurable processes and practices, rather they depend on a freedom of thought and action, a willingness to take risks and reach out into the unknown, and on being attentive to possibilities, so that

something special may happen. Working in this way means working without definition, in a state of 'becoming' (Deleuze, 2001). This is exciting because it has the capacity to produce "new modes of existence" (Deleuze and Guattari, 1994), even if it may also give rise to doubt and uncertainty.

Just as I sense that I straddle the edges of curriculum norms and structure when invoking a sense of disturbance in my everyday practice, I am bound to adopt a similarly disruptive stance to my undertaking of this study, with the knowledge that the content and direction of my writing is "as yet unthought" (Rajchman, 2000, p.17). Occupying an emerging pedagogical space where I am beginning to think about subjectivities differently or question certain knowledge constructs, has led me to think about how I might embed these ideas and approaches into my research project, while maintaining a viable and convincing argument throughout. Within this process has been the need to evaluate the nature and purpose of my research into young children's learning with forest landscapes and how the underlying principles of my emergent early year's pedagogy can satisfy this. What I have come to realize is that there can be no divergence between the two modes, if the research is to remain in-step with my teaching principles and practice. For example, as a teacher who is now thinking about how to share subjectivities

amongst groups of children, adult colleagues, and material objects, I seek to be a catalyst for learning about the world and promote others to also be catalysts at different points, according to what would resonate at a particular moment. This is in line with Mozère's (in Olsson, 2009) treatment of the Deleuzian/ Guattarian concept of a 'groupe-sujet', in which someone or, thinking post-human, something in a group, provokes encounters leading to a "collective experimentation in the moment" (Mozère, in Olsson, 2009, p.39). In the same vein, in my researcher role I want to experiment collectively with the multiple subjectivities that co-exist in the construct of this dissertation, responding to thoughts and feelings that belong to specific points in time.

Believing in freedom of thought, action and difference within this study requires an appropriate research approach which questions commonly held and over-generalized, even normative, attitudes and processes reflected in much research design. Hence, what started out as a study framed by what St. Pierre (2018, p.603) describes as "conventional humanist qualitative methodology", with pre-set criteria for presenting the research, has now become what St. Pierre (2018) terms a 'post-qualitative inquiry', characterized by post-structuralist and post-humanist paradigms. Accordingly, if the world cannot be truly measured, controlled, or contained in prescribed relationships,

then it should be embodied in a manner that defies method, rules, or pre-conceived practices, with "no recipe, no process" (St. Pierre, 2017, p.60). Such an approach implies a nonlinear method, complete with interruptions and ruptures, where writing, reading, and thinking confluence with layers of 'being' and 'becoming', leading to renewed in-depth and broad reading, thinking again and re-writing. This is much like Deleuze's (2007, p.45) "spider strategy", in which one learns concepts in an emergent way, "by following different rhythms, on very different occasions". The stance also involves moving away from dualisms that constrain thought and action, such as mind/body, nature/culture or human/non-human (Plumwood, 1993) and working first-hand with philosophy (St. Pierre, 2018). From a theoretical standpoint, having begun by drawing on the ideas of Fleer, Rogoff and Hedegaard, who use a Vygotskian cultural-historical construct on child development relations, which highlights the prominence of children's agency within social relations, I have since gone on to adopt, to borrow Barad's (2007) phrase, an 'ethico-onto-epistemological' position that is characterized by the existence of multiple agencies within an ever-changing set of realities, as expressed by Barad, Haraway, Deleuze, Guattari and Latour, among others.

The emphasis on subjectivity in post-structural and post-humanist thinking echoes my own feelings about the nature of the world and its appropriateness for studying children's interactions within forest landscapes. The myriad of 'lively activities' (Tsing, 2015, p.vii) that can be found in forests could be seen to be mirrored by children's transient movement and physicality, as they 'vibrate and resonate together with the world' (Olsson, 2009, p.6). This means that when children take in and respond with immediacy to what they see, feel, or hear at a given moment, this does not happen in isolation, rather their activities conjoin with what surrounds them. They become part of the multiplicities, whether that be in the context of the forest itself, or through the multiple histories which connect to what Haraway (2016, p.294) calls "this thick and fibrous now".

Becoming imbued with Barad's (2007) focus on intra-actions and Deleuze and Guattari's (2013) concept of appendages has encouraged me to consider the nature of entanglements within the children's experience of forest landscapes, as well my own entanglements as teacher and researcher. While conscious of the fact that asking questions which merely cry out for answers are best left to the side (Derrida, 1982), I use some thoughtful queries to help me in this. I think about what it means to be entangled and what the

relationships within that entanglement might look like. I speculate on what the

ethical perspectives might be and how these fit with a focus on the more-

than-human. And I ponder on how these forest entanglements might

converge on the subjectivities of my writing, trusting that all these wonderings

will also function as a type of welcome to an attentive audience (Derrida,

1982).

Having these concerns and wonderings to contend with are different to

those that I would have, were I choosing to adopt a more straightforward

analysis of how children learn, where I might, for example, be concerned about

the specifics of a particular methodology or about questions of validity.

However, if I am to remain true to my thinking about life and learning or, as

Weaver and Snaza (2017, p.1056) put it, "how to best listen to the world", then

these are the kind of thoughts that need to be considered in this study. In

terms of the challenges presented in adopting this path, I turn to Foucault

(2020), who advises to face difficulties through engaging *with* them. To help

me, I will begin by looking at the process of 'diffraction' (Barad, 2012, p.58),

meant in the sense of gathering and weaving theoretical ideas "through one

another", so that they may provide something new and insightful. This is what

I understand will help to make this a post-qualitative inquiry.

Encounter:
Lines of Flight

Leaves

Firm   immobile   and exposed to the elements   to the point of

merging   with them.   Suspended in the air,

effortlessly,   without having to contract a   single   muscle.

A bird

without flight.

From The Life of Plants: A Metaphysics of Mixture
—Emanuele Coccia, 2017
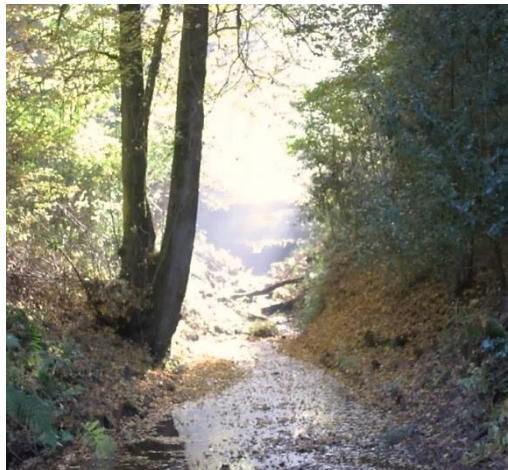
The sun loosened its autumn light over the arborial scene, casting

threads, 'as it had done for uncountable years' (Macfarlane, 2013, p.111),

amongst the foliage and twisted branches of a gnarled oak, onto a

collected body of sitting children below. The ebb and flow of words

mingled with discernible intakes of breath and exhalations, giving life to

the surrounding space in a fully immersive act (Coccia, 2017). Curling

leaves traced indeterminate downward lines from high up branches,

landing to mingle with the amorphous woodland debris below. All the

while, fractured, staccato human cries of "*Ahh....eee....ohh*" bounced

along stretched sonic contours, creating a newness with each repeating

embodiment until a sudden, urgent call of a dog cut incisions into the

woven sound-space. This prompts a collective woofing in-kind in

'becoming-dog', where the children choose to accept an invitation to

cavort with the cares and exuberant sentiments of more-than-human

worlds. "*I think the dog wants to swim...there might be a river down*

there", remarked an accompanying adult, as the yelps mingled with the

sound of splashing water and joyfulness from the assembled bodies,

"lingering on the edge of the not-yet" (St. Pierre, 2019, p.9) to form a

single, aggregate, and unique 'composition' (Deleuze and Guattari,

2013).

We arrive in a different place, where new 'constellations' open up

onto another world of 'becoming' (Deleuze and Guattari, 2013). A

stream, weighed down by its dark mass of 'nameless colours' (Murnane,

2019), moves with 'the greatest slowness' (Deleuze and Parnet, 2006,

p.34), whilst above it myriads of particulate life form a plane of

'rhizomatic flight' (Deleuze and Guattari, 2013), enveloped by the sun's

brilliant golden hue. A boy, here called Omar, enters into a new frontier,

his micro-perceptions conjoining material, semiotic and social

entanglements (Mazzei, 2017): "*There are no crocodiles here, they are in*

Africa," he declares*: "No, don't go down to the water. It's crocodiles. It's*

scary. Don't go down to it. It's Africa up there and now there are

crocodiles". Beneath the water's surface, currents gently guide the

stream towards a brick wall, causing it to transform into agitated 'liquid

lines' (Shafak, 2021) as it diffracts through the bars of a narrow metal

grate onto the concrete step below.

Looking at the world differently is to deconstruct conventional

humanist perspectives and concepts. In this forest account, humans are

viewed together with more-than-human subjects, presented as an

extended 'we', a posture Sommerville and Green (2015) adopt in their research on children and wetland habitats in Southwest Australia. Replacing 'I' with 'we' has the effect of diminishing the predominance of my own interpretations as teacher and researcher to one part of many actants in the story. My voice no longer has the constancy and credence that is bestowed upon the overarching subject but instead becomes diluted to a state of melded indeterminacy, in a similar fashion to Elif Shafak's (2021) 'liquid lines'. This position resonates with Deleuze and Guatarri's (2013, p.554) description of 'smooth space', analogous to the construction of a patchwork quilt, with its "collection of juxtaposed pieces that can be joined together in an infinite number of ways", without a discernible centre or boundaries. Both notions lead us into a world of infinite multiplicities, rather than single truths that derive from a dominant viewpoint, one in which all the players possess 'congregational' agency (Bennett, 2010). Hence, the sun rays actively bathe the bodies of the nursery children in life-giving energy, dog cries become more than mere barks but a call for others to act, while the mysterious ambiguities of a sleepy river have the power to conjure unimaginable vistas in far-flung lands. The children in the story equally

exude a vitality of their own, their movements weaving between the

paths of the other actants, non-human or otherwise. Their capacity to

embrace indeterminacy and newness surpasses that of the adults, who

are constrained by the inhibiting preconceptions of previous experience

(Sheldrake, 2020). Indeterminacy, in this instance, comes from a

particular kind of attentiveness, one that gives "attention to the here

and now of encounter, in all its contingencies and surprises" (Tsing,

2015, p.46).

The forest encounter describes what Deleuze and Guattari (2013,

p.306) refer to as a "curious mixture" of multiplicities, in which

individualities enter into "composition" with each other to produce an

aggregate of an event, or a 'haecceity'. Every element, including spatial

and temporal aspects, amounts to a "nonsubjectified affect" (Deleuze

and Guattari, 2013, p.306), each inseparable from the other and

connected through myriads of lines, whose paths are traced in almost

limitless directions and configurations (Deleuze, 1994). To produce

difference rather than something that is merely "just or correct"

(Deleuze and Parnet, 2006, p.8), we need chance encounters such as

these. Dog-becomings, as 'packets of sensations in the raw' (Deleuze

and Parnet, 2006, p. 30), strike out from the predicable pathways of

classification and order, intersecting with the threat of wholly

unexpected crocodile-becomings. There are no beginning and end

points in this dimension, just a horizontal plane of inseparabilities

(Deleuze and Guattari, 2013).

(Un)structure <> (dis)methodology

An early reflective pause:

As I struggle in-between words, thoughts, and emotions during the

readingwritingthinking process of my dissertation, troublesome questions exert

pressure, constantly pushing, resisting resolution as the premises upon which

they are based seemingly change, as each new pathway supersedes the old...

What is the roadmap for my dissertation?

How will it look and what do I want it to say?

What is its theoretical basis?

What is the practice? How does it come to life on the page?

How will the theory relate to practice and where am I in it all?

As I write new words, each subsequent idea or foray into a parallel space to that already occupied upsets and destabilizes the tentative assumptions that already exist, if precariously, which themselves are contorted or displaced by countless other prior suppositions.

The flux and the flow, always moving, re-starting, re-vising, looking for an entry point without a beginning….maybe I should start in the middle?

The writing process itself can be something of a tortuous affair for any master's student but choosing to work within the framework of a 'post-qualitative' inquiry means opening myself up to ambivalence and difference. For Deleuze (1997, p.1), "writing is a question of becoming, always incomplete, always in the midst of being formed, and goes beyond the matter of any liveable or lived experience". This, I feel, has been my experience during the writing of this dissertation. The writing has become intertwined with my thinking. "Thinking is not something 'we' do; thinking happens to us, from without," Colebrook (2002, p.38) explains. It is also a transitive process that has movement in its very essence. Where the thinking twists and turns, the writing

follows, only for it to branch out on its own, forcing the thinking to catch up.

St. Pierre (2018, p.605) describes this phenomenon as to "think-write". As my

ideas shift and bend with each text that I consume, this could be expanded to

'think-write-read'. Barad (2012) addresses the role of reading within this in-

between space of non-linearity when she talks about a 'diffractive

methodology', a concept she borrows from the realm of quantum physics.

Explaining it as "a method of diffractively reading insights through one

another, building new insights, and attentively reading for differences" (Barad,

2012, p.50), it is predicated on the entanglement of meaning and matter,

subject and object, where the reading enacts a form of knowing that can be

thought of a "cutting together-apart", to open up "agential conditions of

possibility" (Barad, 2012, p.50). Deleuze and Guattari (2013, p.2) also consider

the material nature of reading when they declare that a book "has neither

object nor subject; it is made of variously formed matters, and very different

dates and speeds". These matters can be seen as "units of measure" of equal

value, multiplicities that map the world. Thinking about how this might all

impact on my dissertation, I wonder how the mixture of matter present in my

study, which accounts for the printed words that I read and write, as well as

the theoretical ideas, voices and infinite histories contained within them, will

materialize. I recognize that these complex discursive relationships mingle with my written words so that it becomes a method of inquiry in itself (St. Pierre, 2018). Reading, writing, and thinking in this way means working experimentally, sometimes struggling to make sense of what I am doing. Within this process, the concepts that I read about jostle for space, while my voice, my thoughts, and my words, which all emerge through the writing, form the other parts of a wider embodiment of matter.

Accommodating new theoretical concepts that underpin a post-qualitative inquiry demands "a long preparation" (Deleuze & Parnet, 2006, p.5), enough time, according to St. Pierre (2018), to enable one to learn to 'live' the ideas they contain. Having determined via a circuitous route that reading and writing is at the core of the dissertation's becoming, overseeing the formation of a structure that allows for fluid spaces to emerge, while at the same time maintaining a clarity of purpose, becomes key to my endeavour. From the post-qualitative position that I have assumed, it is clear to me that the tried and tested process of conducting and presenting academic research, that is, defining a research problem with an accompanying set of research questions, completing a literature review, explaining the methods I would use for my data, analysing the data and offering findings, is not one that I can

meaningfully use. As Kuby et al. (2016) contend, both in teaching and in the world of academic research, hierarchical procedures abound. In the Early Years Foundation Stage [EYFS] Curriculum (DfE, 2020), as in guidelines for maintaining standards and validity in research practices, efforts to control the nature of teaching and learning are clearly evident. With reference to Foucault's (2020) concept of 'dominant discourses', in particular the 'disciplines' of classification and normalisation, the expectation is for teachers or researchers to work within pre-determined parameters that are governed by universal 'truths' about the nature of education and research. These expectations typically resist alternative pathways. However, having now been given the opportunity to experiment in ways that will test these expectations, means that I will agitate these 'regimes of truth', in the hope that it takes hold around the boundaries of established norms and practices (Barad, 2007).

To ensure there is space to breathe in this piece of writing, making it possible to "discover worlds" (Deleuze, 1994, p.27) and unexpected encounters, I have sought to adopt an alternative structure to fit my approach. Regarding this issue, Koro-Ljungberg (2017, p.xvii) suggests an '(un)structure' or "a structure that works against structure" rather than working without structure per se. Within it, the text is not intended to flow from beginning to

end as one might expect. Instead, the sections follow the rhythm of the

writing, reflecting the organic nature of its emergence, without there being a

natural order of things. This has resulted in a version of Deleuze and Guattari's

(2013) 'body with no organs', in that the sections materialize more as part of a

whole, rather than being organised with clear, dedicated boundaries, in the

manner of "AND...AND...AND..." (Deleuze & Parnet, 2006, p.8). The significance

of the coming together of children's forest experiences with the related forest

matter through a diffraction of the ever-expanding reading of texts, is that

there is both a fluidity and a liveliness contained within it. That said, it is a

dilution of a structure that makes the '(un)structure', rather than a dissolution.

Hence, there are sections that retain recognizable structural traits, such as the

presenting and concluding tones of the opening and closing sections, to help

orientate the reader in their reading of the text. Also, I have chosen to place

the main themes and their related theoretical conceptualisations largely in

their own dedicated sections, with the examples of how they relate to real

experiences treated separately, under the title 'Encounters'. The 'Encounters',

which relay the embodiments of children's entanglements with "beyond-

human" (Kohn, 2013) and human bodies in forest landscapes, are intended to

maintain a flow through the text by forming bridges with their connecting

sections. Lastly, there are the other photographic or textual contexts added.

Visual representations are used intermittently to help bring to life the examples taken from children's forest experience, while the 'Interludes' offer opportunities for the reader to make connections to the inter-related cultural worlds of art and literature, or just act as pauses or points of reflection.

Encounter:
Tree Conversations (Children's voices in italics)

Roots – *What are they*? They help trees to grow, they use them to connect to other trees and give them help if they need it

Do you see that tree over there in the distance? That's a lot far away. Maybe the roots go all the way to that tree. Maybe.

Maybe you're right.

Bark – *My stick* – [It taps and scrapes along and across the lines on the trunk]

You're helping the stick make a sound on the bark. Bark is the tree's skin. When it gets old it gets wrinkled.

Acorns – *It's an egg nut. It just popped in here* – [digs at the bare earth and roots under the tree and discovers old acorns.]

A tree gives you energy

Holes in the bark –

What's happened to the tree?

Is it okay? Where do [the holes] go?

I'm not sure.

We need to give it a hug.

Why?

My mum's a tree doctor.

Tree encounters encourage us to look beyond the outer skin of ancient trees, thinking about trees as thoughtful and caring beings within a relational more-than-human world (Wohlleben, 2017). They also elicit our concern for their well-being, as a 'matter of care' (Puig de la Bellacasa, (2017), causing us to want to help them.

These trees prompted us to wonder about what was going on inside of them and their roots – how is it that trees can continue to live even when they are old and look unhealthy – whether trees have family to look after them – what the cycle of life looks like – how a tree gives us energy.

Interlude:

Sticky (transcribed)

Storyer: He eats flies.

Not a frog.

He changes his colour.

He likes a stick of wood.

He loves sticking in the trees.

What is he?

Storyer: A chameleon.

Today he's a different colour.

He changes his colour at night.

He sticked on the tree.

He was playing with me all day in the forest

And then he disappeared in the tree.

I will never find him.

What tree did he go in?

Storyer: An oak.

[Checks in the tree book]

No, it was a beech.

So how will you find Sticky?

Storyer: I don't know.

—Composed in the forest by [named here as] Tanya

Nature's Enabling Entanglements

> "Irresistible attraction toward enfolding with each other is the vital motor of living and dying on earth."
>
> *—From ' Symbiogenesis, Sympoiesis, and Art Science Activisms for Staying with the Trouble' in Arts of Living on a Damaged Planet*
> Donna Haraway (2017)

The Enlightenment, which gave birth to 'The Age of Reason' some 250 years ago, changed the relationship that humanity had with Nature. It created a sense of moral superiority that philosophical thinkers bestowed upon humans through their "god-given civilizing mission" (Taylor, 2016). Nature could be grand and majestic while being at the same time an inert backdrop to human intentionality (Tsing, p.215). Out of this understanding emerged the dualistic construct of nature/culture 'hyperseparation' (Plumwood, 1993), that survives to this day. This human-centric view of the world, which sees Nature as objectified and subject to the needs of humanity, has ultimately led us, so many claim, to the current precarity of the planet, with global warming, environmental degradation, and collapsing ecosystems a reality. The 'Anthropocene', conceived by scientists as a distinct geological epoch, and

driven by a coming-together of these biological, climactic and human-induced technical forces, is already leaving an irreversible imprint on the earth. While the causes tend for this to focus on human activity, the responses also rarely lie outside potential human actions and solutions, thereby perpetuating the entrenched exceptionalism that continues to exist in human perceptions of the world (Latour, 2018). This is despite the fact that, as Latour (2014, p.13) notes, it is Earth itself that is increasingly assuming an active presence, with its evident and forceful reactions increasingly making its presence felt, while human resign themselves to "playing the role of the dumb object".

In her development of the "Chthulucene Manifesto", Haraway (2016a) questions many of the arguments around the Anthropocene discourse and pointedly offers a somewhat alternative vision of how the world and all its "Terran" inhabitants might move on from the current state of the world. Haraway (2016a, p.295) does this by arguing the need for people to recognize their "becoming-with" all other parts of life on earth, even if this means accepting life becoming "messy". Drawing on the potential benefits of a more mutualistic "self-in-relationship" (Plumwood, 1999, p.101) with the more-than-human world would make us better able to shape dramatic new 'geostories' with the earth (Latour, 2014).

Recognizing the mutualisms present within Nature is a necessary step towards altering the path defined by human-centric perceptions of life on Earth, even if, within the humanist study of ecology, it has long been recognized that Nature is an interconnected whole, part of "a system of active forces" (Sheldrake, 2020, p.80). Well before the concept of ecology even came into being, western and indigenous storytellers recounted versions of the happenings between all beings, both human and otherwise (Tsing, 2015), and recent research into interspecies relationships both corroborate and extend further our knowledge of the close links existing between different species. This includes the significant role fungi has been found to perform in networking species through its vast mycorrhizal webs, facilitating the passing of nutrients between plants (Sheldrake, 2020), while trees have been shown to organise themselves into communities to protect weaker specimens within the group (Wohlleben, 2017). The effect of this research is leading some to raise the question whether we should be thinking in terms of inter-species rather than individual genera, within the spectrum of living organisms (MacFarlane, 2019). This would mean that instead of being assigned a diminished role under a hierarchical classification of life, with humanity at the top of the pyramid, all organisms would be considered part of "webbed ecosystems

made of variously configured, historically dynamic contact zones" (Haraway, 2016, p.250).

Haraway's (2017, M25) description of organisms engaging in 'sympoiesis' or 'making-with' reminds us that "nothing makes itself". Bacteria created the oxygen that makes up the atmosphere, while plants serve to maintain it through the surface of their leaves. One of the reason plants are able to flourish on land is due to the capacity of fungi to make soil by digesting rocks (Cocchia, 2019). All this should encourage us to review the way we encounter ourselves as humans, not as solitary beings but as ecological units of "collaborative compound organisms" (MacFarlane, 2019, p.104) within multispecies worlds. The perpetual exchange that occurs between all living forms through the intake and exhaling of breath means that humans can never etch a definitive frontier between themselves and that which they share the world with (Cocchia, 2019).

From the perspective of 'world-making', in the sense of 'philosophies of being' (Tsing, 2015), other worlds outside the orbit of accepted 'common sense' views of the world can be realized, which not only disrupt reductive concepts about Nature, but present the possibility that other beings beyond the human can have their own ontologies (Kohn, 2013). Jickling et al (2018,

p.37) refer to a 'more-than-plankton world' to make the point that any species is capable of seeing the world from its own position. As worlds get shaken up, the need to be open to indeterminacy becomes ever greater, even if this requires letting go of thinking that sees aberrations to rigid structures or aspirations as the exception rather than the actual condition of the world in which we live (Tsing, 2015).

Encounter:
Forest Dance

> "Nature has been given a baton and she is conducting musical interpretations of the forest's creatures and plant life as they interact with each other, resulting in a 'live' and 'everchanging' performance in response to the atmosphere."
>
> —M. Barber (2014) comments on the Thetford Forest wildlife 'performs' Living Symphonies' premier

[The following is a first person narrative re-imagining a particular child's forest experience.]

Adi, this forest 'story' is based on your first proper forest trip. I have tried to imagine how it was for you, being with the woods, noticing what was around you. You appeared to be captivated by the experience.

The woodland, a place where trees grow tall and pavements become paths; a place of colour and sensations, from the deep green of the ivy leaves, entwined around tree trunks, to the musty scent of dark, rich soil underfoot. The stillness of the forest is punctuated with snippets of bird call from up high in the canopy, whilst down below, the end of the summer fern and brambles mingle with a mulch of broken leaves, fungi and untold multitudes of decomposing matter which provide the conditions for biological life to flourish.

The ground accepts my careful steps and inquisitive gaze, as I scan it for signs of movement. I sense a shimmer inside, a mixture of nervousness and intense pleasure at being amongst the intricate web of forest life. I feel that I am a collaborator in the invisible lines that orientate nature's dance of life, which relates me, as a human, to more-than-human bodies.

I see a trace of movement underfoot, and I drop to my knees to investigate, spotting a bug crawling over leaves. Detecting my presence, the bug halts momentarily, before continuing on its path through the organic debris of old leaves and twigs. As I increase my attention, I notice it finds the protective cover of a rotting log and

scurries out of sight. I wait, wondering if it will appear again, but then,

after a peek under the log, I am disappointed. I am curious about what

might be under the bark and leaves, with visions appearing of a world of

subterranean roots and passages that connects bugs and plants to one

another.

Moving away, my senses remain alert for some new event,

something that will draw me in. It comes with a collective of woodlice

that have been disturbed by their encounter with my fellow humans,

causing them to scatter in apparently random directions across the

coverage of the forest floor. I take my chance to bend down and gently

pick one up between my fingers. I watch its legs flay desperately, then

let it drop to the ground, instinctively sensing it wants to be back within

its community in the undergrowth. Plotting my own route, I see the

striking yellow and black shell of a snail, which is lifting up the front of

its body and waving its antenna. As with the woodlouse, the urge to

pick it up proves irresistible and I hold it between my fingers and study

its body in detail. I am fascinated by its rhythmic movement and think it

is beautiful.

Tsing (2015, p.241), in her study of matsutake mushroom pickers, notes the pickers must "stay alert to distinctive life lines within the forest". She equates these lines to a dance that is characterized by "senses, movements, and orientations" and defines the dance as "a form of forest knowledge". By aligning their movement to that of the mushrooms, they are able to find the mushrooms. Ingold (2007, p.24) similarly refers to "the lines of mushroom lives", the physical expression of which has been a source of great fascination for children, in the form of the fungi lines that can be seen growing between individual trees in the woods. For the boy, known here as Adi, being alert to worldly sensitivities, or the 'forest dance', helped him to intersect the life lines around him, thus creating his own mode of forest knowledge (Tsing, 2015). He noticed care-fully how the forest was alive and thinking (Kohn, 2013). He clearly sensed the relatings of all its co-constituents and quickly developed novel ways of noticing which helped him to "become yet another forest species" (Pacini-Ketchabaw, et al., 2016b).

Interlude:
Noticing

Tomás Saraceno, an Argentinian artist interested in the architecture of spider's webs, describes how his intimate relationship with spiders has changed the way he notices things:

"Every day, I try to enter territories, or thoughts, or ways of working, which might challenge ourselves and might challenge how we see the world. This encourages me to try to find new ways to work and to be."

Ethics

"Ethics is about responsibility and accountability for the lively

relationalities of becoming, of which we are part...Responsibility, then, is

a matter of the ability to respond. Listening for the response of the

other and an obligation to be responsive to the other, who is not

entirely separate from what we call the self. This way of thinking

ontology, epistemology, and ethics together makes for a world that is

always already an ethical matter."

—Barad, 2012, p.69

Being ethical in both research and educational practices requires an

openness towards difference, complexity, and diversity. Barad's (2007) concept

of 'ethico-onto-epistomology' does not separate out ethical practice from how

we see or act in the world. Indeed, she argues that ethics is completely

intertwined within our material entanglements, whether than be with human

or non-human entities, and that we are obligated to respond in ways that seek

"differences that matter" (Barad, 2012, p.69). Being open towards difference

cannot happen when children are measured against pre-determined notions

of competency and predicted outcomes. Instead, they become invisible,

because they are excluded from who they are, subjects in "multiple, connective

and in continuous change" (Olsson, 2009, p.45). Referring to the Deleuzian notion of a 'philosophy of difference', Wenzer (in Olsson, 2009, p.45) argues for a child to be free to be a "becoming-child of the world", whether they are "bilingual or non-speaking, happy or sad, socially skilled or uninterested".

The ethics of an encounter with the unknown brings newness, difference, and otherness (Dahlberg and Moss, 2005), as well as uncertainty and indeterminacy. Working in education, where importance is given to what is known, rather than what might become, these are not necessarily values that hold sway. However, Borgnon (in Dahlberg and Moss, 2005, p.115) argues, that if the pedagogical relationship is framed in terms of a learning event, something that is not fixed but is instead open to possibility and the play of forces, it can enable the creation of "new compositions". Emanating from a Deluezain conceptualisation of events, the learning event would be based on processes of "mutual engagement and transformation" (Lenz Taguchi, 2010, p.176) between teachers, children, and everything else present, meaning that all subjectivities within that are both affected and being affected by each other. As the event has within it a collective responsibility on behalf of its constituents, and is open to unknown potentialities, any element, including the teacher or children, have it within themselves to act in a performative way in

the here and now, rather than being constrained by pre-set or existing values

or conditions (Lenz Taguchi, 2010). This indicates a pedagogy and theory of

knowing that is based on becomings. It also helps explain Puig de la

Bellacasa's (2017, p.151) preference for a notion of "ethical doings" rather than

ethics per se. This all has a bearing on why codes of ethics be considered

problematic, since making judgements on what is to come becomes a moral

rather than ethical position, given that ethical values are relational and are

therefore contingent on the situational, emergent and unique, located in

capacity and action (Massumi, 2015).

Since ethical responsibility and accountability do not stop with the

human (Barad, 2012), events are the responsibility of all matter, meaning that

non-human organisms are "no longer 'others' but are, intimately and always,

ourselves as the body multiple" (Taylor, 2016, p.15). The concept of 'common

worlds' (Latour, 2005, Pacini-Ketchabaw, et al., 2016b) expresses the co-

habitation of the multiplicity of species that exist, including humans. The idea

that we do not solely live in human communities but within a wider set of

worldly relations that are associative, social, and affective, challenges human-

centric ethical thinking. Enacting an 'ethics-in-relation' sees us step away from

our privileged position of human exclusivity towards an ethic of 'common

worlding' (Taylor, 2013), bringing with it the capacity for creating dynamic co-emergence and co-constitution (Venn, 2010).

Puig de la Bellacasa (2017), in her proposal for fitting an 'ethics of care' into permaculture technologies, suggests that bringing about an 'ethics-in-relation' may well require a reworking of relations in more-than-human entanglements, as efforts to decentre human ethical subjectivity has paradoxically resulted in producing specific ethical obligations for humans only. In acknowledgement of these hurdles, Braidotti (2013, p. 130) calls for an ethics based on humility, since the forging of new social conditions and productive relations will not come without "injury and pain". Similarly, Bennett (2010, p.13) expresses concern that "in a knotted world of vibrant matter, to harm one section of the web may very well be to harm oneself", something that resonates with Kohn's (2013) 'thinking' forest.

Thinking about how to apply a 'common worlds' ethics to our forest experience gives us cause to think about our forestworld relationality and how we affect it by our actions. A key aim of our forest pedagogy is to be responsible and accountable, and with regards to the human contingent, this is fully embedded, in term of listening and being actively open to difference, complexity and diversity. However, 'staying with the relations', as Haraway

(2016b) urges us to do, is more challenging, being used to putting the child at the centre, as we do. Where a 'common worlds' ethics looks to shift the emphasis away from the human to a shared ethic with all co-habitants, we need to avoid thinking in terms of what forest phenomenon children can learn *about*, and instead "cultivate new modes of attention" (Pacini-Ketchabaw, et al., 2016b), p.154) that involve acting on what more-than-human partners need and can offer. We can do this by attuning ourselves to more-than-human vitality, becoming "perceptually open to it" (Bennett, 2010, p.14).

While we should be mindful that any practice or research that goes beyond where we are already will always come with risks (Stengers, 2005), what is more important is whether despite the risks we act with response-ability and remain accountable within a whole web of relations. In this, Tsing (2013, p.24), trusts in our ability to recreate inter-species sensitivities through our actions, by being "present in our work", sharing the Spinozan conception of affirmative ethics in constructing positivity within a culture of ethical responsibility. However, this positivity does not depend on optimism, rather it is about "being realistic about the new forces not already contained in our projects" (Rajchman, 2007, p.7).
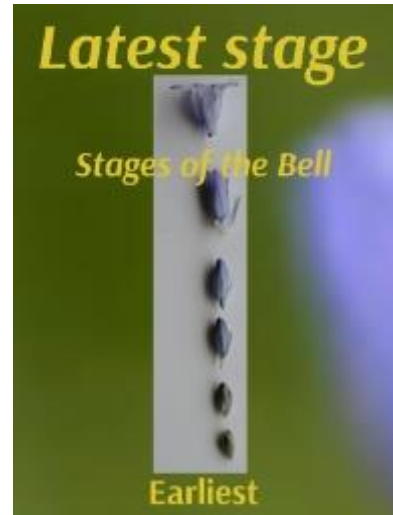
Encounter:

Transformation

?

One morning Gregor Samsa woke in his bed from uneasy dreams and found he had turned into a large verminous insect.

> —From Metamorphosis
> Franz Kafka (2014)

Hugo, Nathan sting me. He turned into a bee

> — [Named here as] Shahim

The field to the left of the avenue leading to the woods has turned into a field with buttercups. "*You can smell them*," a child says, gazing across at the flickering glints of yellow amongst the green. Alongside the road, clusters of narrow, pointed, leaves sprout where there had previously been a deep wave of bluey purple. "*Where have they all gone*?" wonders the same child, expecting bluebells to be covering the light, open spot along the avenue of copper beech trees.

"They're just not growing", says another, before indicating that *"they turned into leaves."*

Once in the woods, it is different. A darker, more intense blue than on earlier trips is discernible within the carpet of slender leaves that cover the ground. The little flower heads droop uncertainly in the breeze, as a hand approaches one of them. *"No, you can't pick them!"*, a warning leaps out from one of the assembled bodies, a sentiment borne out of discussions on how the flowers demand respect and expect protection. Forest life, like human life, is transient. We gather around to observe closely. Used to seeing cameras in action in such circumstances, a child requests to have the one sitting in my pocket and stoops low to take a picture. She points it at the tips of the stem, "because it's got the blue bits on," and presses the button, viewing the image on the little display. "So you can see blue bits on it?" I reply. Sensing her identification skills might be in question, she clarifies: "It's still a bluebell, they look like blue, and they're bells". It looks different to the full flower heads of a couple of weeks back. "It's growing for a bluebell" she reflects, qualifying her earlier statement. When she is asked what she means, she decides that "it's just started to grow as a bluebell." More

ears begin listening into this conversation with interest. "So, you think

this is a new bluebell?" I respond and she nods. Some other children are

not so sure, but no consensus is reached. Looking around, the child then

sees the same pointed leaves but with nothing on the end of the stalk

but a green pod. "Well that one's growing, or it might be a leaf already"

she concludes, with some uncertainty.

> "Flowers, out of all plants, have the greatest capacity for
> transformation through mutation, death, and re-composition."
> (Coccia, 2019).

A pedagogy that promotes the close observation of flora is not new.

Learning about plants through a logical and objective line of inquiry has

formed a part of school curriculum activity for over a century. The

pedagogical aim of such enterprises is to reveal an already known

teleological 'truth' through experiential means. However, to make the

shift towards thinking *with* materials, "alongside them, listening to and

caring for them, being with and being for things, exploring an ecology

and ethics of things" (Benso, in Pacino-Ketchabaw, et al., 2016a, p.3),

requires a different kind of knowing, one that is non-linear and

produces surprising thoughts that question and disrupt existing ways to

know. This is not a simple matter, as we learnt in the previous section.

Changing ways of thinking and jettisoning old habits are hard to do, as

St. Pierre remarks (2018). Nevertheless, when we allow the 'lively

activities' of our co-inhabitants of the world to act on the children's own

curiosity and our determination to foster these relationships, we can

enter the realm of new potentialities.

In this instance, the image of the bright yellow flowers provoked a

multisensory encounter, while the puzzle of the transformed bluebells

came out of a particular space-time constellation, bringing

indeterminacy and surprise, rather than clarity and stable knowledge. It

can be argued that the care-ful(l) examination of the bluebells and

accompanying dialogue, which also materialize with the human and

more-than-human bodies present, encourage a "speculative exploration

of ethical involvement", in that it relates back to the everyday

materialities of life (Puig de la Bellacasa, 2017, p.126, p.127). It also

highlights the point that having 'a love for what is' (Deleuze, cited in

Colebrook, 2002, p.71), opens up possibilities, while searching for

ultimate truths closes them down.

Interlude
Becoming

    ...Cold, delicately as the dark snow

A fox's nose touches twig, leaf;

Two eyes serve a moment, that now

And again now, and now, and now

Sets neat prints in the snow

Between trees, and warily a lamet

Shadow lags by stump and in hollow

Of a body that is bold to come...

        —Excerpt from 'The Thought Fox'
         Ted Hughes

Matter matters

"We are not outside observers of the world. Neither are we simply located at particular places in the world; rather, we are part of the world in its ongoing intra-activity"

—Barad, 2007, p.184

Thinking about how children experience a woodland landscape looks very different viewed through the lens of multiplicity and connectivity, when compared with through the eyes of objective rationalism. The first requires us to consider them, indeed all humans, as part of a collective of more-than-human-subjectivities, while the second promotes the separation of self versus the world. If we are to accept the premise that materialities of all kinds represent, as Taylor (2016, p.10) suggests, "an intensity, an affective meld, a convergence of forces, always unstable, mobile, emerging, becoming", then the image of an individual human as someone who is separate from the rest of the material world, therefore able to "observe, describe, measure and know it" (Taylor, 2016), as might accurately describe scientist, a teacher or a humanist qualitative researcher, would appear distinctly incongruent to this ontological understanding. Attempting to plot research and teaching paths that co-shape

complex and mutually affecting relations between children, adults and the

"vitality of non-human bodies" (Bennett, 2010, p. viii) is nevertheless extremely

challenging, when one considers the contexts in which these roles operate.

Both in the field of education and the sphere of social science research, what is

of interest is the human. In schools, the focus is on children's learning (Pacini-

Ketchabaw, et al., 2016b), whether that be through the construct of 'progress

and development' within a 'child-centred' teaching philosophy or more rigid

top-down instrumental style of education. In the world of academia, governed

by truths and the validity of knowledge relating to the human subject(s) under

inquiry, uncomfortable conversations about how this may stand up against a

different kind of knowing, a "mechanistic network for knowing" (Taylor, 2016,

p.10) are only just under way (St. Pierre, 2018). Nevertheless, where this is

changing, there is a coming together of forces involving children, practitioners,

researchers and non-human materialities through localized outdoor projects

that aim to reflect better the realities of our 'common worlds' (Sommerville et

al, 2015, Pacini-Ketchabaw et al., 2016b).

The multiplicities or multispecies entanglements of 'common worlds', in

line with Deleuzian thinking, come into being through material practices of

emergence in the form of assemblages. Assemblages, alternatively termed

"open-ended gatherings" (Tsing 2015, p.23) or agentic assemblages within

'posthumanist' ontologies, contain groupings of diverse elements which come

together to produce an "agency of the assemblage" (Bennett, 2010, p.24). In

what are uncoordinated, rhizomatic movements within encounters (Olsson,

2009), these groupings have unintentional networks of connectivity. Tsing

(2015, p.25) equates assemblages to an "interplay of temporal rhythms",

analogous to polyphonic musicality. In this analogy, the music can be heard as

a series of individual sounds but when these cross paths, they at times create

harmony while at other times disharmony. To pick out this musical complexity

requires a special kind of listening, just as to ascertain the intricacies within

agentic assemblages demands careful noticing.

To understand the processes behind distributed agencies it is helpful to

touch on Barad's (2007) concept of intra-action, which similarly explores the

entanglement or 'matterings' of human and more-than-human agencies

within relational encounters. Barad (2007) describes intra-activity as a

performative 'intra-action' between bodies, artefacts, discourses, which include

thoughts and signs, and other nonhuman things. Each has a constitutive effect

on the other and can only be considered through a process of embodiment.

So, whereas inter-actions contain attributes that can be separated out, within

intra-actions elements or agents become diffracted (Ringrose and Renold,

2016). This 'material turn' is significant, as it frames an ontology in which

phenomena are made up of "agentially intra-acting components" (Barad, 2007,

p.23). Barad (2007, p.x) elaborates on her point when she says: "To be

entangled is not simply to be intertwined with another as in the joining of two

separate entities, but to lack an independent self-contained existence". Hence,

it is only from the mutual entanglements of non-defined bodies of matter with

no prior existence that individual subjects emerge, with their own agency and

vitality, through a phenomenon she describes as 'agential realism'. As a

performative account of onto-epistomological beings, it breaches Deleuze's

(2006, p.27) "line of the horizon", into 're-territorialized' or newly

created spaces, composed of new formations of heterogeneous entities of

"living, throbbing confederations" (Bennett, 2010, p.23).

Intra-activity is important because it allows us to see the materiality of

objects and nature. By bringing together subject and object in a flattened

intra-action, what is obscured by human-centric perspectives can become

visible (Jones & Hoskins, 2016). The shifting of agency from the individual

human subject to a flowing, shared subjectivity of the material, which may or

may not include the human, has far-reaching implications for how we view

performative activity with children in the outdoors, since, as Haraway (2016, p.249) reminds us, "there are no individuals plus environments". Thinking about matter differently in the forest means focusing less on what entities are, in an individual sense, and considering instead how they might move together in relation with each other. Understanding material to be connected through its relationality and impermanence, movement and place, places it in "vibrant social-ecological-material-affective-discursive ecologies" (Pacini-Ketchabaw et al, 2016a, p.2).

Sustaining an openness in the way that I or the children re-act towards the environment's materiality, while at the same time paying attention to what the multispecies, more-than-human worlds tell us, has helped to disrupt and re-shape my thinking. For this to begin to happen, it was necessary to try to stop seeing myself, in both my teacher and researcher roles, and the children, as "becoming-knowable subjects" about more-than-human entities (Pacini-Ketchabaw, et al, 2016b, p.149), and instead find the distributed agencies that flow through mutually affecting relations, in order to seek creative ways of learning. This has allowed for collaborations to emerge in-between multiple subjects, to become "encounter(s) in motion" (Tsing, 2015, p.29), as will be demonstrated with the 'child-and-stick', or 'roots-in-soil' encounters below.

Encounter:

Stick and other stories

Becoming Child-with-Stick

She holds a stick aloft, her arm turning round slowly and

deliberately, while her eyes remain fixed on the object in motion, in

acknowledgement of the ephemeral vitality that they share in that

moment. The stick is short and strong, with the perfect degree of

holdability. It connects to the grasp of the girl's hand around its smooth

but bumpy form, before, with a sudden rearranging of the fingers and

without warning, it spins skywards, propelled by the momentum that

she gives it. As it reaches the pinnacle of its trajectory, there is a barely

perceptible pause before gravity exerts its force to bring it tumbling

down to meet the unforgiving surface of the grey asphalt below,

whereupon it bounces awkwardly before coming to rest. The playful

encounter does not stop there. Even in its stationary state on the

ground, the stick continues to exert an influence on that to which it is

connected. This is because, as Bennett (2010) suggests, even inanimate

objects contain a vital materiality, something she calls 'thing power',

which extends beyond the contexts that human subjects assume to give

them. Bennett (2010, p.6) defines it as "the curious ability of inanimate

things to animate, to act, to produce effects dramatic and subtle".

Hence, the child's playful delight in the stick as an object to experiment

with could be seen to be heightened by the stick's own vibrancy,

contributing to further imaginings: a becoming-horse, a becoming-ball,

a becoming-teacher's cane to point at chalk workings on a wall. At

points, toward the latter stages of the play episode, contextual verbal

commentary or provocations are added to what is happening, after the

active cooperation with an adult human is invited.

The event in this vignette emerges out of self-initiated play,

situated within the relational space of the nursery garden. As opposed

to the forest landscape, full of ecological diversity, including a wide

array of sticks, the more mundane surroundings of a children's play

area, albeit with a mix of textures and surfaces, and in the company of

trees and multiples of other young humans filling the space, could be

seen to have a limiting effect on multi-world intra-actions under

consideration in this study. However, the everyday nature of the

happenings is grounded in the girl's subjectivity, in the sense that they

are a re-creation of what has already happened (and is about to

happen) in-between the girl and other materials she is attracted by, be

they leaves, clay, pieces of chalk, or such like material. In all these

instances, the form of the materials makes itself appealing to her, an

advance she reciprocates, mainly through her touch. Young beech

leaves, torn off from forest sapling branches, twist in a pliable manner

between her fingers, while damp, crumbling chunky chalk breaks up in

her hands, leaving copious smears of colour on the palms of her hands.

From their perspective, they gain agency through the material-

discursive intra-active processes which evolve through them, the child,

and the broader gamut of entanglements present in the agentic

assemblages. The child-with-stick event emerges through the specific

material characteristics of both bodies, the stick, stripped down and

worn from multiple previous engagements with children in their

outdoor play, and the affective sensibilities of the child. The qualities

offered by the physical space, including the angles produced by the

seemingly static but uneven ground, as well as other surfaces and

planes, such as the open sky above, the verticality of the large cherry

trees present and the length of rope suspended from one of them,

juxtapose with the busy mass of human bodies to complete the

becoming assemblage. As Barad (2007) would argue, it is through the

intra-activity of these bodies and materialities that their distributed

agency is enacted, rather than through the agency of the girl alone.

Becoming Child-with-Conkers

> More and more,
> I have the feeling that we are getting nowhere,
> And that is a pleasure.

> — *John Cage , Taken from Artificiofeternity: "Mushroom Haiku" and "At the Middle"* (2011)

Every year, in September, the spikey seed pods which encase conkers split open to reveal dark brown, shiny conkers nestling in a protective white membrane which lines the inside of the pods. With skin unblemished and smooth, the temptation to gently prise one out of its pod and hold in one's hand is hard to resist. The urge is that much greater when there are more conkers than can be counted lying with pods split open on the grass beneath the horse chestnut trees. Maybe it is the satisfaction of amassing a treasure trove that drives a person to want to extract more and yet more of these brown seeds from their protective cases or maybe it is the conkers themselves which provoke this response in humans, their pods deliberately revealing a window onto the potentialities that lie within.

For the Becoming Child-with-Conkers, this proved to be more than a transitory desire. Deleuze and Guattari (in Olsson, 2009) develop a notion of desire in which there is a distinction between a desire

understood in terms of production or that conceived as acquisition.

Whereas desire as acquisition relates to the type of desire that is driven

by a sense of lacking, hence is reductive in its capacity, desire when

understood as production directs it to what is real, with all the

productive potentialities that come from that. Through his introduction

to the reality of conkers, he immerses himself in their materiality.

In the days and weeks after the conker collection event, he takes

every opportunity to intra-act with the collected entities, both in adult-

supported conker focused exchanges within collective small group

'gatherings' and in the independent surreptitious expressions of his

desire. The quantity of conkers in the environment diminish over time,

as they are ferreted away in bags and pockets, and even within hiding

places at the little boy's home, so it transpires. At first, with a mind to

retaining the depleting stocks, I regularly encourage him to return the

conkers. However, I come to realize that this is both untenable and

repressive. There is no way of fully controlling a child's actions in the

context of an open and enquiry-based pedagogy and, as his teacher, I

do not want to restrict these desires, from an ethical and pedagogical

perspective. I also reflect on the notion of 'affect', in the philosophical

sense of "a body's capacity to act" (Olsson, 2009, p. 148). From a human

perspective it is linked to feelings, which may be characterized by those

of "intensity, joy, and satisfaction" when there is the capacity to act, or

else by a sense of "passivity, sadness, and dissatisfaction" (Olsson, 2009,

p. 148), if this is restricted. I can see that being with the conkers in a

relational sense is untapping potential in the child. I remind myself of

the ability of the inanimate, more-than-human entity to exert 'thing-

power' (Bennett, 2010) within a collective agentic assemblage. The

presence of the conkers also has a material effect on the boy, much in

the way Rautio (2014) discovers the effect that carrying stones in

pockets can have on their child carriers. For Rautio (2014), this indicates

the extent to which children and all matter, including stones, are

constantly in a state of becoming through their encounters with each

other.

The aforementioned productive forces of desire are seen to

stimulate new understandings and ways of acting that can be even more

powerful than what is already known. While they can be neither planned

for nor directed in a pedagogical sense, tapping into their potentialities

is an ethical matter, to the extent that it recognizes a child's capacities

for becoming with others. Tsing's (2015, p.292) advocating of a 'world making' ontology, part of her rallying call for" interrupting common sense", can help to provide the space for this to happen within the context of the children's forest immersion. Since 'world making' projects adopt multidimensional perspectives towards looking at the relational world, we can assume this applies to the premiss that "every organism makes worlds" (Tsing, 2015, p.292). We should also expect that these worlds intersect each other in multitudinous 'world making' encounters or projects. Hence, we can surmise that the 'world making' project that is the nursery school forest experience has within it manifold encounters between children, adults and more-than-human entities that make up 'common worlds' (Latour, 2014, Pacini-Ketchabaw, et al., 2016b).

The intensity produced by the becoming child-with-conker's encounters with conkers carries over to encounters with chestnuts as autumn progresses. The differences between the two related species, in terms of the locations in which the trees grow, the appearance of the seeds and the form of the pods are, in part, evident to the boy, but such is the desire that he feels for the conkers, and the effect that they have

on him, that he happily transfers his capacity to act onto the new seed-pod assemblages.

Searching for new 'conkers' on one particular occasion, the concentration that the forest path extracts from him, results in slow progress being made along the trail. Becoming Conker-Finding-Stick assists in the search, banging against and prodding into the soft ground. The sounds and movements of the forest – the low thud of the sticks (there being another child in the party), the intermittent whirring of the wind as it catches the tops of the trees, the clipped voices of birds, the rustle of clusters of leaves on the forest floor – all make me stop and pause as I try to train my hearing to extract each element from the multiple interconnecting 'gatherings', in the manner of John Cage's music. The forest music assemblage(s) becomes a polyphonic assemblage, overlaying the strange squawks, utterances, and whistling sounds coming from a runny nose that emanate from the boy going about his work. As we amble along the path, it seems that rather than walking *through* the wood we are walking *with* the woods. While the sounds are connected to the auditory senses, the walking belongs to the sense of movement, connecting to the landscape in a 'common world'

version of Pink's (2010) 'Walking with Others' sensory movement

ethnographic project. Finding no luck with the 'conkers', this part of the

woodland being not well-endowed with sweet-chestnut trees, the boy

calls, "Conkers, conkers!" at the top of his voice. These calls become part

of the forest noise, which are then united by other calls, including my

own, until our voices reach the rest of the group ahead, and we pick up

the pace to rejoin them.

Rautio (2014, p.11) affirms pedagogical approaches that give

control to children and offer commitment to "unfinished and the

pointless" moments, such as one may class this 'conker' hunt venture,

before moving on. Here, the boy has control of looking for his conkers,

even though there are no conkers to be found in this part of the wood.

The fact that this resulted in falling behind the rest of the party

presented something of a dilemma but also brought unexpected

benefits. By allowing more time to engage in 'common worlding', the

boy, his companion and myself were able to momentarily co-inhabit the

space with the other-than-human forces and entities present. As

Rajchman (2000, p.7) points out, "to make connections, one needs not

knowledge, or even ontology, but rather a trust that something may

come out, though one is not yet completely sure what."

Tree-Soil-Children Entanglements

Fallen trees in a woodland offer opportunities for world making. Their

broad trunks disrupt the forest landscape, creating haphazard lines

where there were none. Whether flat on the ground or resting along the

contours of the forest landscape, they ask questions of forest users,

challenging them to find ways to navigate around or over them. This

can create new pathways for others to follow. For those that are

uprooted, some may survive this trauma by having enough roots still in

the ground to be able to continue to gain nourishment from the soil.

These trees need to 'stay with the trouble', to borrow Haraway's (2016b)

phraseology, and adapt to their changed circumstances by learning new ways of growing. This involves them in different entanglements with plants, fungi, and disparate multispecies entities that are the beneficiaries of the trees' misfortune. Those that do not survive and are left to lie where they fall, slowly rot until they eventually become part of the earth.

Children love to clamber on fallen trees, using the tactile surface of the bark and any remaining limbs as aids to their endeavours. They are also beguiled by their upturned ends, a tangled mass of severed roots and other remnants of the tree's connection to the earth. Revealing its underside, a wide trunk can expose an impressive mass of material from the ground. According to its location, the earth will consist of a particular mixture of soil and geological matter. Soil is an essential part of the tree's being. Ecologists consider soil to be alive through its 'biota' content, made up of microbiobial and invertebrate fauna as well as plants, roots and fungi, which all interact in multiple ways with other, non-living, components (Coleman, Crossley, and Hendrix in de la Bellacasa, 2017). Soil, or earth, is similarly, if differently, connected to human beings. We depend on it for life, in the same way

that we depend on other elemental matter, and stay with it in death. For

Haraway (2016a), it is significant that the human is etymologically

rooted in humus.

For the children in this encounter, the combination of roots and

earth generates an encounter that is both intense and expansive. It

becomes a "site of invention" (Stengers, et al., 2009, p.3), as earth, stick,

child and root are reinvented in an assemblage of "geological

movement" (Deleuze & Guattari, 2013, p.2). Within any multiplicity, so

Deleuze & Guattari (2013, p.2) tell us, there are lines of flight and

movements "that produce phenomena of relative slowness and

viscosity, or, on the contrary, of acceleration and rupture". Remaining

with this notion of unstable fluidity that pervades all material

relationships, multiple networks such as 'stick-boot-prod-earth or

'hand-soil-pull-root' emerge from their entangled states at varying

levels of intensity. This sees compacted, dry earth agitated by the

pulling of dangling roots and repeated shudders and blows that do their

work to loosen it from topography of the root base. Little by little,

debris from the earth crumbles and scatters back into the surrounding

forest landscape, re-creating multi-species relations with the soil,

spiders, centipedes or woodlice within it, while also generating new connections with the children's clothing, skin and hair.

Sticks are the primary tool of choice, and it matters what stick is found, in term of its weight, shape and balance. Each chosen stick becomes special and something valuable to their 'carer', just like conkers can become. Jackson (2014) notes that the care given to objects by humans is defined by the way they are used. Here, the rhythm, pace and intensity of the hitting, as with the angles applied, is an indicator of the depth of that relationship. The longer and more immersed in the task the hitter becomes, the more the "particularities of a knowing relation that thickens as it goes, as it *involves*" become (Puig de la Bellacasa, 2017, p.207). Through their shared intra-actions, the children transform the tree and related matter, as the tree and related matter themselves change the children (Pacini-Ketchabaw, et al., 2016a).

Interlude
Digging

Under my window, a clean rasping sound
When the spade sinks into gravelly ground:
My father, digging. I look down...

....The coarse boot nestled on the lug, the shaft

Against the inside knee was levered firmly

He rooted out tall tops, buried the bright edge deep

To scatter new potatoes that we picked,

Loving their cool hardness in our hands.

By God, the old man could handle a spade.

Just like his old man.

—Extract from 'Digging'
  Seamus Heaney (2006)

Rain

    The log that had supported Farad while he ate his forest pack

lunch, now holds his body in a horizontal resting position, with

his face angled towards the grey winter sky. His head, back, and legs

feel the contact of this support. He is a becoming boy-tree trunk, part

of an open-ended assemblage of different bodies, including the sky, the

branches of the surrounding trees, the damp air and the pleasure

gained from 'getting nowhere', à la John Cage (Artificiofeternity, 2011).

This is an encounter infused with a sense of place, relationality and

impermanence (Pacini-Ketchabaw, et al., 2016b).

Drops of rain start to slowly converge on this forest 'plane'

(Deleuze & Guattari, 2013), dismantling it to then re-form itself in an

'actively present' (Serres, 2012) world. Farad acknowledges this, noting

that it is "starting to rain", while he continues to sustain his attention on

what is above him and about him.

What snail? What slug?

Walking up the forest track, the passing rain leaves its presence in

shallow pools and dripping undergrowth. With each human footprint

come traces left in the soft ground. The rain also animates the

landscape in another way; a creature takes the opportunity to come out into the open, edging its way around a piece of root that lies across the path. The wetness of the ground aids its progress, while its antenna guide its orientation, seemingly oblivious to the potentially devastating consequences that connecting with the ridged soles of a child's boot would have on it. Happily, it's presence is noticed by a child, who pauses and then crouches down to fix his eyes on its body: "It's wriggling, hello snail, hello Mr Snail!" he exclaims. One or two other children also stop to take a look. I mention to them that the child had said he had found a snail. "No, it's a slug", one of them retorts. The first child looks at it again, closely. "No, it's a snail" he insists. The creature at this point has stopped moving forward and now remains motionless. From its perspective, its evolving encounter with the group of human beings brings with it highly unpredictable outcomes, as does any encounter. As anthropods are known to use their antenna for detecting scents and possibly as eyespots (Carnegie Museum of Natural History, n.d.), this particular specimen possibly decides that this human interest in it should give it cause to proceed cautiously. Interested in the difference between slugs and snails, I asked the second child what this might be.

"The snails have shells," she explains, with the assurance of a 'knower'.

As the snail-slug starts to slide again along the ground, antenna

outstretched, someone else offers another difference saying that "it has

slime", before agreeing that "snails have shells and slugs don't".

Knowing knowledge gives the knower a feeling of control,

whereas being in a zone of uncertainty leaves one open to doubt but

also indeterminacy. The first child is now confused: "But that slug, that

snail is.....in his head". He points to the end of the slug. "He thinks it's a

snail because it's got ears," suggests the second child, before reiterating,

"It's a slug, Adam thinks it's a snail but it's not, it's a slug". There is now

general consensus among the small group of children present that they

are in the presence of a slug. Returning to what one of the party had

noted earlier about slime being a characteristic of slugs, I wonder if

snails also have slime. "Yes, they're both slimy" she states: "That one has

slug slime and the other has snail slime."

Meanwhile, one of the 'knowers' notices that another child has

started to stroke the snail-slug with a leaf, commenting that "she wants

to give it some food". The creature quickly stops again and withdraws its

antenna. When I ask what has changed in the slug, the boy known here

as Adam responds: "It's in the head." Someone else says she thinks it is

reacting in this way because it is scared. The boy agrees with this idea,

so we agree to move away to see if that makes a difference. It remains

still, apart from what we cannot see, which is its breathing, that it does

through the pneumostome and its moist skin (Slugbiologyresearch, n.d.).

We continue to watch on intently, while the snail-slug chooses to wait.

Our attention serves to heighten our awareness of our relations with

other small and vulnerable creatures. "….A little bit further?" one child

eventually intercepts, trying to think of strategies that might bring out

those antenna again. "Coming out….?" wonders another tentatively,

straining to attune his senses to those of the snail-slug. A few more

moments pass before somebody says, "Let's just go", before promptly

turning on her feet, followed by one or two more. "No," insists Adam. I

remind those that continue with the inquiry that it is good to learn to be

patient in our encounters with more-than-human life forms. "How long

will it take?" Adam asks, not without reason. He then proposes to "just

wiggle him". Before we have the chance to think that through, the head

and antenna of the slug very slowly begin to reappear, leaving us feeling

vindicated in having given it our slow attention.

John Cage (Artificiofeternity, 2011), the American composer and poet, addresses indeterminacy in his much-deliberated translation of a Japanese haiku, in which a leaf is featured stuck to a mushroom. While the original translation into English conveys a lack of clarity as to what kind of leaf this was, Cage decides to extend the sense of indeterminacy to its limits, choosing to condense the text to "What leaf? What mushroom?" In doing so he wants to express not only an openness about what was acting on what during this encounter, but also the potential for experimentation and becoming that arises out of a lack of structure or order (Deleuze and Guattari, 2013/1987). As St. Pierre (2016) reminds us, it was Kant's 'ontological predicates' that introduced categories to bring order to an otherwise, in his view, chaotic empirical world. The effect of this was to 'know' what was in these unified categories, thereby generating objects of knowledge. By electing to focus on difference rather than predicated structures, Deleuze (1994), through his concept of transcendental empiricism, offers an alternative vision of the empirical world, whereby objects are actualized or made in the moment, rather than holding pre-given

forms. If one adopts this stance, it is right that there should be some

doubt as to the nature of bodies found on a forest path, since they are

emergent beings, along with other 'vital materialities' (Bennett, 2010)

present. Also, the discursive wonderings surrounding the snail-slug

prove to be "much more alive, more vivid, more difficult to forget"

(Stengers et al, 2009, p.3) than only gathering truths about one or the

other gastropod.

There is a challenge for us humans to see the relatable in the

broad arch of life forms. The simpler the organism, the less easy it is to

find our connections to the multitudinous communities and eco-

systems which are our 'terra' companions, (Donna Haraway, 2016a),

while the easier it is to dismiss such an organism as insignificant. This is

despite the fact that we are constantly being surprised by long held

assumptions about organisms, such as the idea that they should be

ordered in terms of biological complexity. Hejnol (2017), referring to

studies on jelly fish and sponge using new genetic technologies,

suggests that it is actually the ability of an organism to adapt to specific

ecological conditions that is the more significant. In addition, as was

highlighted above, affective responses humans have towards non-

human entities, whether animated or not, have a bearing on their capacity to act in positive or relatable ways. In the case of snails or slugs there is a real possibility that a human, taking myself as a case in point, may feel unconnected on both counts, even if it runs contrary to wider philosophical and ethical views that they may hold. However, in the snail-slug event, there was a willingness to connect to the slug by empathising with its situation and trying to understand its mode of being, with a particular focus on its antenna, its principle sensory function, used to facilitate its movement and orientation.

Haraway (2008, p.25) urges species to "meet", in order that relations may become attuned to difference. With each meeting, relations are in effect "remade" (Haraway, 2008, p.25) in rhizomatic modes of knowing, rather than remaining unchanged within fixed, striated versions of knowledge (Delueze and Guattari, 2013).

Interlude
Dogs and Spiders
Child 1/ adult/ child 2

How do you scare dogs?
Um, what do you think, what is the answer to that, Hu Wi?

Um, you frighten them with a mask and you speak loud

Like oooh, warf, warf, warf

Something like that?

Yea, you talk to that, dog will scare away.

And you get a cookie to scare dogs

No, you don't get a cookie

But a cookie is really good to scare dogs

Um, what does a cookie do, then?

Once a dog said go away to my brother, but the dog was tiny. Oh my

God, there's a harmless spider!

Oh, we wanted to see a spider. A harmless spider? Where is it? Oh, it's
on your trouser leg, oh no it's not, it's fallen off! Now it's on my arm, it's
gone down

Ah, there's a spider

Ah, ah

*It's hiding (*on the ground*)*

[*Extracted from a video clip of a forest episode on 22nd May 2017*]

Landscape <> Place

The notion of 'place' is somewhat confused and needs some consideration. It is most commonly thought of as somewhere within a defined location, such as one finds on a map. Important in this interpretation is that it has the quality of 'fixity' (Dirlik, 2001), something that is built on firm foundations. 'Nature' and 'the natural landscape' are often referred to in this way, despite the huge transformations that have occurred in geological terms across the millennia and continue to occur right up to the 'here and now' (Massey, 2006). Place can also be viewed through the lens of history, in terms of being socially connected to specific landscapes, such as in Donald Murray's (2018) account of growing up as a boy in the harsh and uncompromising environment of the Isle of Lewis in the Scottish peatlands. This perspective of place is about trajectories that cut across time within a particular material landscape. For a less tangible sense of place, there is Tuan's (1977, p.141) reference to place as encapsulated in the elusive "glow" that comes from "moments of true awareness and exchange" that occur in intimate encounters with people. This sentiment for place comes about through a pause in movement and is "woven

together out of on-going stories....within the wider topographies of space"

(Massey, 2006, p131).

The issue with these aspects of place mentioned is that they centre the human perspective and therefore do not consider the "livingness of the world" (Whatmore, 2006, p.602). Whatmore (2006) argues that in place of focusing on a world 'out there', with our pre-occupations about 'nature' or 'environment' and the making of landscapes, we need to redistribute the human to an "'in here'" human being. We do this by seeing landscape in terms of its co-fabrication of human and more-than-human bodies with geo-physical worlds (Whatmore, 2006), accepting humans' continuously mutually affecting relations within 'common worlds' (Pacini-Ketchabaw, et al., 2016b). This "throwntogetherness" (Massey, 2005, p.140) of place is far from a prevailing stable image of place, which can only be disrupted by external forces. It sees place as incoherent, governed less by imagined timelessness, and more by spatio-temporal events and "a coming together of the previously unrelated" (Massey, 2005, p.141). It requires that we think with invention about how we "respond to our temporary meeting-up with these particular rocks and stones and trees" and reminds us that it will always require a negotiation within and

between human and more-than-human worlds in order to get along together (Massey, 2005, p.141, 142).

Thinking about place through indeterminacy and potentiality also involves a shift away from meaning towards affect (Whatmore, 2006), understood here to denote the way living beings are moved and affected by each other. This type of affect is an integral part of relating and connecting to place and the effects of this can linger for a significant period of time (MacLure, 2013). While we have seen how this manifests itself within the human, Bird Rose (2017, G60), in her account of intimate encounters between flying foxes and eucalypts trees in Australia, highlights how this is also a part of more-than-human relations. The beauty of the moment when the eucalypts branches call out to the foxes "Yes! More! More buds, more flowers, more colour, more scent....!" evokes a phenomenon she names "shimmer", taken from the Aboriginal notion of following life's ecological pulses. Affect can also take the form of a multiple communicating "ecology of selves", as explained by Kohn (2013, p.81) in his anthropological study of the Amazonian Forest and its multispecies inhabitants. Through an intricate description of the event that is the moment when leaf-cutter ants take off from their nests to mate with other colonies, he reveals the level of deep connectivity that lies behind this

and other related phenomena. In his description, Kohn (2013, p.80) talks about why the ants choose precisely that time, one "sedimented over evolutionary time", to set off on their perilous mission, as well as about the subtle signs that are picked up by members of the Runa people, also predators of these species of ants on account of the generous fat reserves that the ants carry with them, that suggest to them that the happening is imminent. In addition to the weather having a critical bearing on what is the right moment for this dramatic event, there are also spiritual influences, in the shape of dreams, that for Kohn (2013, p.216) go 'beyond the human', in the sense that they bring the "future realm....into the world of the present". In this sense, landscapes can be said to be haunted by past ways of life (Gan et al., 2017). The account not only explains the extent of these interconnected relationships, it also shows how much can be gained from practising a 'slow science', defined as "opening up to thinking collectively with humans and more-than-humans, to attending to 'others' preoccupations, to their knowledge...." (Stengers, in Pacini-Ketchabaw, et al., 2016b, p.164). For us to live well through the "stories so far" (Massey, 2005, p.142) into the stories to come we need to be "response-able in the thick present, so as to leave more quiet country to those who come after" (Haraway, 2016, p.282).

Jickling and the Crex Crex Collective (2018), contributors of 'Wild Pedagogies', set out 'touchstones' that aim to offer some thoughts for educators who want to include the multiplicities of more-than-human activities within their overall pedagogical approach. The first of these touchstones is "Nature as Co-Teacher" (Jickling and the Crex Crex Collective, 2018, p. 79), which considers "the many denizens that co-constitute places" in their active capacity to 'teach'. Seeing them as "fellow pedagogues" (Jickling and the Crex Crex Collective, 2018, p. 80), they question the reasoning behind why individual human teachers should be the focal point of teaching and learning and urge that more-than-human voices be re-centred. In order for this to work, they argue, it is important that human teachers open themselves up to knowings and understandings that places can provide. This would include taking the time and trouble to notice how their co-teachers, a collective of more-than-human agencies, interact with the students and then take steps to enable those potentialities arising out of these interactions or intra-actions, to be met. In this way, human teachers and students can learn to recognize and engage with the messages coming from beyond-the-human pedagogical subjectivities.

Interlude
Camouflage

The eyes can be deceived by flowers

bright upon the surface. They bloom

for – say – a season, conceal the toughness of the limbs

digging deep below. Each plume's

a small deception, as men find out when they exhume

and unearth heat from damp and cold

for heather knots as tight and hard as briar,

each flare of purple like a rose

spilling out from thorns

disguising the resilience

of how its grip clings to soil and stone

through the bushwack of each storm.

    —Taken from 'The Dark Stuff'
      Donald Murray, 2018

Encounter:
The drawing-together-of-the-here-and-now

Trips to the forest start with the getting ready. First the rucksack: the smell of old milk, the biscuit crumbs from previous trips getting caught in the seams, the mud stained note-books and well-thumbed mushroom guide, and the remnants of crumples leaves, twigs and squashed pinecones, all coalescing to announce the fact it is forest day. Next, the forest garments, helping small limbs into waterproof trousers, some needing gentle coaxing to get to the stage where bodies are clipped in on seats and ready to go. The rhythm of the wheels on asphalt and the hum of the engine as cranes and muddy water from the river are left behind to give way to overhanging branches looming close as each curve is negotiated up the steeply sloping gradient. Flickers of bright sunlight enter and scatter across the outward looking faces through the panes of the bus, prompting enlivened responses. Stories old and new and yet to be told fill the air, interspersed with untold thoughts and the occasional excitable screech. As the woodland approaches, Deleuze's (2006, p.2)

observation that "becomings belong to geography, they are orientations, directions, entries, exits" is a fitting point of departure for the forest visit to come.

Greetings of "*hello forest*" reverberate through the mini bus as the expectant bodies assemble to descend to terra firma with a jump. Next to the car park there is evidence of disrupting forest activity afoot: "*A dumper truck and a digger, they're all coming back, he's getting all the bricks and he's going to put them into there, then he's going to build the bike path, remember Hugo?*" one of the party remarks. It is true that what started as a few hardhats surveying the "old ways" (Macfarlane, 2012) of the forest landscape, marked by the bumps of half concealed tracks and ancient pits and badger sets, have been transforming towards a "new cartography" (Invinson and Renold, 2016, p.180), as space occupied by previous forest trajectories, begins to be inhabited with the promise of future (his)tories, with all the uncertainties and potentialities that brings.

Size 8-10 (children's size) wellie boots follow one after another into the woods, already pausing at the first large puddle. Rain brings opportunity, and not just for the snails and the slugs, the worms and the fungi. It produces "*water-mud*" in copious quantities, which is soon displaced by a wave of forest-running-jumps onto the surrounding surfaces. It's fluidity blends with discursive histories, as a child notes, "*I bashed the water down, it's like shorter, like the beach*". It also affects in other ways: "*I want to go home, I don't like the forest, it's too dirty!*" comes another response.

The puddle activity is a run of the mill occurrence, in the sense that it is placed in the 'here and now'. The repeated rhythmic actions of enlivened bodies running into the puddle and jumping up and down in it, so that water enters the tops of boots to soak socks and the bottoms of trousers, is what Manning (2013, p.53) calls a "topological activity". As the layers of repetition build in intensity, the discrete events transform into a flow of movement that acts as a folding in space-time (Manning, 2013, p.53). In the process, the children experience an intimate

entanglement with the forest landscape, as their motion, breath, and energy fuse with its own liveliness.

 The exciting feature of the woods is their potential for producing dynamic and surprising events. This time it is an encounter with feathers, lots of them, spread out amongst the dry leaves to the side of the path. The sight is shocking, to the extent that it suggests something bad has happened to a bird, but without there being signs of a carcase. The view expressed that "*this might be a dead bird*!", is not in itself a truth but becomes a possibility. It is garnered through the child's memory of a story book called 'The Dead Bird', which, in its agentic state, then begins to pose questions that, while unanswerable, agitate understanding. Questions about how the feathers come to be there and, if they came from a bird, then how it died and where its body is? Also, thoughts to what will become of the feathers and whether they will decompose into the soil.

In order to establish place as an event, Low and Barnet (cited in Massey, 2005, p141) propose "thinking conjecturally" across different temporal frames before arriving at what is in front of you, thereby

avoiding the pitfall of assuming place is defined by "a notion of uniform time". This situation demands 'conjunctural' thinking because the feathers do not exist just in the moment but in the past and future, too. While these musings are of interest to the children, so is the capacity of the feathers to actively hold their attention through their material being. In the company of variously formed sticks, they carry out an investigation of the site, poking at the mass of feathers, leaves and moss, upon which many of them have become attached. During the process of holding-prodding-turningover, it is then the turn of the sticks to insist, as their gun or wand-like qualities suggest an unexpected explanation for the death of the bird, if that is what it was; namely, that one or more of them were implicated in acting to alternately shoot down the bird from the sky or magic a "fire ball" on the bird. Far from being inert, the sticks, as with the book, hold distributed agency through their 'thing power' within an agentic assemblage (Jackson and Mazzei, 2016). Being satisfied with this additional insight, closure is achieved, and the group moves on.

This episode illustrates how it is in these slithers of space, occurring in-between the main events, that productivity and possibility exist (Jickling, B. & The Crex Crex Collective, 2018).

Interlude
Grounding

TO

Muddy wet socks   Bumps from slippery rocks

    Splattered faces jumping in puddles

               Leaves, pinecones, and sundry objects

               In the bottom or pockets of backpacks

Collections of found treasures

               The breath that is exchanged with plants

The tingling sensations shared by conker pods and

Chestnut pods, nettles and brambles

       The conversations between birds and children

     The sensitive intra-actions between children and slugs and bugs

      The delicate life-enhancing attributes of leaves and flowers

The smell of the rain   The awkwardness of the cold

The invention of the sticks   The splashiness of the muddy puddles

The crowing of the crows

                              The brilliance of the diffracted light

        The lines of the mushrooms

                        The whirring of the wind

The greyness of the sky

                  The liveliness of the earth

                  The forest's dance

THANK-YOU

Afterwords

"Nothing is set at the beginning of the work...with mistakes an integral part of the work. And that continues until the end where....a kind of revelation intervenes"

—Delueze, 2007, p.48

Talk of being at the end of a piece of research cannot properly express the nature of post-qualitative inquiry, since the research is always unfinished, always remains a draft, and waiting to move on. However, there is a process, perhaps beginning in the middle and pausing for thought at some stage later in the middle, at the point at which the thoughts and the living-through have been distilled, that one can agree to have gained a deeper understanding along the way. This sees the writing, which is both the product of that process and a "body without organs....continually dismantling the organism, causing asignifying particles to pass or circulate" (Deleuze and Gattari, 2013, p.2), as something that metamorphosizes and converges with other multiplicities into new forms of knowing. The process of "plugging one text into another" (Jackson, A. Y., & Mazzei, L. A., 2012, p.1) through a manner of diffraction (Barad, 2012) has not been without its challenges, as it has been difficult to

grasp many of the concepts and theories contained within them. In the case of

Deleuze and Gattari, for example, many of their concepts interact and overlap

with each other. As St Pierre (2017, p. 1087) explains, the minor language that

Deleuze and Gattari use runs against the major language we're comfortable

with, making us feel "like foreigners in our own language. They make language

stutter and stammer. They make thought stutter. We're not used to this kind

of writing, this kind of thought, and their work often seems too hard to read."

This being the case, I can only consider that I have moved a few steps along

the continuum, but even those few steps have been enough to produce

something of "the new" (St Pierre, 2016, p. 34).

Reading, writing, and thinking as method of inquiry is a characteristic of

'post qualitative inquiry' (St. Pierre, 2018), which involves working within a

methodological and theoretical flux. In this study I have shown how, by

resisting "the idea of methodology itself" (St. Pierre, 2016, p34), or, to put in

another way, deciding not to apply the tools of conventional empirical

research methodology, I have sought to open myself up to difference and

indeterminacy. Through doing so, I have been able to engage with alternative

research practices and modes of working that have allowed me to re-think

what it means to learn and to be in the world. In particular, the notion that an

infinite number of subjectivities can be shared between a multitude of human and more-than-human entities has transformed my perspectives on children's learning. Decentring the taken-for-granted human voice and re-centring more-than-human voices, so that we can see animate and inanimate beings as self-directing, vibrant participants, has significant implications for how we can approach early years pedagogy, both in a forest landscape or otherwise. First and foremost, it confirms how important it is for teachers to pay close attention to the way children respond to relations with "vibrant materialities" (Bennett, 2010). It should also encourage adults working with young children to find and make room for the in-between spaces in which these lively activities can happen, recognizing the potential they provide for learning. To do so, we may need to jettison the familiar pose of the objective observer of 'child-led' practice in order to truly become part of the learning experience. We can do this through emplacing ourselves in the 'common world', with the children, to mix "on the surface with everything else" (St Pierre, 2017, p. 1087).

Appreciating the power of sensory immersion in an experience (Pink, 2009) enables that "fine description" (Gan E. et al., 2017, G2) which comes from being attuned. Practising what Hunt (2010) describes as 'active waiting', that is, creating a balance between moving forward and fully developing ideas, I have

tried to transfer my awareness 'in the field' to my writing, by giving myself time to distil ideas and immerse myself in ways of thinking that opens up potentialities. I am also lucky to have had this time. It has been a privilege.

I am conscious of the risks that accompany approaching this dissertation in the way that I have done, in that it falls outside some of the institutional expectations that go with producing research. For example, 'open-ended research' such as this is not appropriate for producing pre-conceived data (Blaisdell, in Heads & Jopling, 2019, p.87), or indeed data of any kind, and the lack of formal findings may diminish its impact for some. Allowing the unknown breathing space (O'Donnell, 2014) and prioritizing ethics and matters of care over attempting to 'master' means there is also a risk that the dissertation may appear to lack a sense of purpose and definition, even though there can be no clear pathways to guide us along that continuum. As Deleuze (2006, p.62) claims : "One only discovers worlds through a long, broken flight".

However, it is clear that attitudes within the world of academic research have shifted quite significantly in recent years and are now open towards embracing approaches that aim to reflect changing views of ontology. The dissertation is an attempt at revealing something in a state of becoming, that

is constantly changing and will continue to change around a specific locale.

This does not mean that it cannot be opened up for more generative work,

only that it cannot stand as anything stable that can be used as 'evidence',

since it is in its very nature fluid and intangible. However, I would like it to be

taken as an invitation to see it as an 'event' that is available for others to

permeate and alter as they see fit.

∞

Words: 17,288

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