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ARTICLE

What World Is Knocking? Responding to a World in Crisis with Polyphonic Storying

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Abstract

The case has been made — many of the approaches humans employ to address environmental collapse are founded on the very (White, Western, colonial, positivist, capitalist, human supremacist) thinking that advanced planetary degradation in the first place. We know how this story ends. If we continue perpetuating narratives of management, mastery and (White) human supremacy through environmental education (EE) and confront environmental issues accordingly, we will only advance Earth's demise. Only by countering narratives of human exceptionalism and acknowledging the entangled and deeply relational nature of our existence can we begin to envision worlds of care for all. Reconceptualising EE as a polyphonic storying of relations with the more-than-human “keeps the way open” for humans to reassess our role in the world.

Keywords: Environmental Education; polyphonic storying; material narrativity; (White) human supremacy

Introduction — Material narrativity is not a metaphor

We are and always have been “storied and storying beings” (Eder, 2010, p. xii). Stories are powerful, transformational, mysterious, and can be theorised as the dark matter — or unseen and unspoken materialities and forces — (Science Gallery, 2022) comprising the connective substance of the pluriverse. Storying, the more-than-human process by which stories are made and remade, serves as a method of witnessing (Blaise et al., 2017; Haraway, 1997; Osgood, 2018; Rose & van Dooren, 2017; Rose, 2015); testifying; breaking silences (Molloy Murphy et al., 2024); pushing back against a “single story” (Adichie, 2009); making connections with “the other” (Phillips & Bunda, 2018; van Dooren, 2014); dreaming together (Quintero, 2021); making kin (Haraway, 2016; Malone & Young, 2023); speculating on living/doing/being otherwise; reaching across time to pass on ancestral, generational, spiritual and social wisdom (Kwaymullina, 2020), and offering care and repair to earthly relations (Molloy Murphy, 2020b, 2021; Puig de la Bellacasa, 2017; Rose, 2017; Tronto, 2013). In addition, Lakota scholar Patrick Eagle Staff (2021) affirmed that stories, such as oral histories, compose the very basis of Indigenous theories of learning in the world.

Children learn alongside stories as lively companions and are adept at storying in multiple modalities (Yelland, 2021) to share their thoughts, dreams, sorrows and worries, as well as their proposals, fabrications and speculative worldings with place (Malone & Crinall, 2023; Molloy Murphy, 2020a). They instinctively know the medicinal, cathartic and magical powers of storying and conjure it regularly for these purposes (Molloy Murphy et al., 2024; 2021; Quintero, 2021). Children respond to questions posed by the world by collaboratively storying with a host of

more-than-human others, composing a “synergy of fantasy and reality for transformative action” (Quintero et al., 2021, p. 24). As Deborah Bird Rose (2017) said, at this critical moment of planetary unravelling, “We are being called into connection to bear witness and to offer care to our earthly relations” (p. G56). Storying, as a living force and one of the great arts of wit(h)nessing (Boscacci, 2018), is perhaps the best medicine to accomplish this. In a disruption of (White) human supremacy with its imposed silences and forced separations, *polyphonic storying* (Molloy Murphy et al., 2024), or storying with a multitude of more-than-human voices, invokes a pluriverse of connectivities, reciprocities, possibilities and speculative visions for living otherwise.

In this article, I consider three environmental inquiries with children, Land and *earth others*, positioning them as actors and co-authors “to which we owe a debt of gratitude, generosity and recognition” (Plumwood, 1999, p.197). Each narrative event depicts communities who responded to more-than-human social, material and ecological matters of concern with/in their local context. Multiple modes of storying and (re)stor(y)ing are highlighted in the three scenarios: 1) the storied matter of a piglet’s life in a basement early childhood classroom, 2) a North American city rendered in plastic discards and 3) a children’s immersive theatre performance with an urgent message. These, and countless other stories known and unknown, were collectively authored with more-than-human “earth others,” specifically *things*, such as a playpen, plastic straws and glow-in-the-dark paint; *material(ities)*, such as wind, ash and smoke; *beings*, such as children, worms and a piglet; *legacies*, primarily of settler-colonial land theft; and *Places*, in this case, a home-based early childhood centre, a public university campus and an inner-city community centre.

Significantly, all three of the sites of the small-scale inquiries occurred on the Unceded, Ancestral, and Agential Lands of the Multnomah, Clackamas, Tumwater, Chinook, Wasco, Cowlitz, Kathlamet, Tualatin Kalapuya and Molalla people of so-called Portland, Oregon, as well as many other tribes who made their homes along the Columbia River in the US Pacific Northwest. In my analysis, I invoke Puig de la Bellacasa’s (2017) conceptualisation of the more-than-human, which refers to “other than humans such as things, objects, other animals, living beings, organisms, physical forces, spiritual entities, and humans” (p.5). Place and Land/Sea/Sky/Waterways are included in my conceptualisation of the more-than-human, though sometimes I will call them out specifically.

Using diffractive analysis as a post-qualitative research approach, I examine these inquiries from formal and informal education spaces in the US Pacific Northwest. In these scenarios, children — through everyday encounters with/in their common worlds — lived, learned and storied in reciprocity with multimatter/multispecies communities of earth others. Barad (2007) defines diffraction as “reading” data without a fixed frame of reference, stating, “Unlike methods of reading one text or set of ideas against another where one set serves as a fixed frame of reference, diffraction involves reading insights through one another in ways that help illuminate differences as they emerge” (Barad, 2007, p. 30). With the acknowledgement of moving parts, diffractive analysis keeps the way open for the known, unknown and unknowable participants of polyphonic story assemblages, who, like the stories themselves, are always on the move (Molloy Murphy, 2020a).

Polyphonic storying

Polyphonic story assemblages are complex and living multimatter/multispecies groupings, or “gatherings” (Molloy Murphy, 2020a), “living, throbbing confederations” (Bennett, 2010, p. 23) that are more than the sum of their parts. However, as they are constantly shifting, we can only speculate as to exactly who these heterogeneous participants are, the nature of their specific actions and contributions and what the rippling effects of their storying may be. As ad hoc collectives, these assemblages cannot be untangled and deconstructed, for if we pull one thread like a string figure to measure its individual effects, “the entire network shifts in response” (Molloy Murphy, 2020a, p. 193).

So, who and what makes up polyphonic storying assemblages? Indigenous wisdoms have established Land/Sea/Sky/Waterways, weather events, and energies as vital agents in storying. Other multimatter/multispecies collaborators might appear on the scene instantaneously, generating unanticipated encounters and narrative turns, then vanish just as suddenly. Sometimes, they emerge s-l-o-w-l-y, with almost imperceptible movements occurring in geologic time. They seemingly were always already there. Others come sharply into focus one moment and blur in the next, and all the while, the story ravel and unravels with multiple, irreducible and layered narrative voices — from the groaning and crackling of splitting ice sheets to the din of human voices and languages, to the keening of Songspirals (Country et al. 2022), to the strange cry of a Spotted Catbird, to the unbounded voice (Mazzei, 2016) of the sea and other participant actors without (human) bodies. Sometimes, their storying sounds like the simultaneous sonic boom of military aircraft, multitudes of mothers wailing in concert with their children, the chanting of protesters and the deep rumbling of the earth itself. Sometimes, storying is silent. In whatever way, the world continues to story itself into being, and we — all of us actors and co-authors — continue to read the word and the world (Freire, 1985; Ingold, 2011) while participating in its endless rewriting.

The Bawaka Collective, a more-than-human Indigenous (Yolŋu) and non-Indigenous research collective that includes Bawaka Country, Australia, discuss the collective creation of songspirals, a way of exploring the connection between Country, culture, people and story (Gay'wu Group of Women, October 31,). They explain that “Bringing the world into existence is a collective, relational, more-than-human endeavor. It is not just humans who sing. Animals, plants, trees, the wind, all the beings of Country sing. They sing for themselves, and they sing to us” (Country et al., 2022, p. 438). This rich and complex Yolŋu practice, of which I can only discuss the “very top layer” (Gay'wu Group of Women, 2019, xxvi), calls upon more-than-human collaborators, including land, to make and (re)make the world. Cajete (2017) highlights the more-than-human nature of Indigenous mythopoetic storying traditions, adding that they often include multiple modalities, such as song, and “sounds, dance, music, games, gesture, symbol, and dream” (Cajete, 2017, p.125) to convey their powerful, multilayered messages. Though these traditions are not meant for non-Indigenous people such as myself to adopt or even fully understand, the respective practices make clear the importance of the collective, multimatter/multispecies and multimodal storying.

Yorta Yorta woman Kathryn Coff (2021) describes the wisdom of Country by saying, “From the Indigenous Relational worldview, because all is animate, knowledge is held in Country and everything that is alive holds all the information about everything else in it. Furthermore, it is revealed when needed” (Coff, p.196). Following Indigenous worldviews such as this and the ones shared by Bawaka Country et al. (2022), Gay'wu Group of Women, (2022), Barad's (2007) and Cajete (2017), Coff (2021) Meeting the Universe Halfway argues that matter and meaning, substance and significance cannot be separated, a finding that propels the concepts of *texts*, *literacies*, and *storying* well beyond that of solely human origin and consequence. In keeping with the thinking of Barad (2007) and other theorisations of the new materialisms (Alaimo, 2000; Bennett, 2010; Braidotti, 2019; Deleuze & Guattari, 2009; Grosz, 2013; Jukes & Reeves, 2023), feminist material ecocritics Iovino and Serpil (2014) argue that material narrativity is not a metaphor, saying, “stories emerge from the intra-action of human creativity and the narrative agency of matter” (Iovino and Serpil, 2014, p.8). They emphasise that storying produced between humans and non-humans, what I am calling polyphonic storying, is, in fact, the “meeting the universe halfway” that Barad speaks of (2014, 2022).

Earth others, humans and material(ities), as vibrant (Bennett, 2010), intelligent matter, are electrified with histories, memories, energies and stories that invite human collaboration by calling us into connection. For example, if I were to say, “The pine trees were whispering in the wind,” the whispering trees could be considered a material metaphor or *matterphor* — something “both thingly and figurative” (Oppermann, 2016, p.98). The trees may not literally whisper the way a human would, but the wind rushing through their branches might produce the effect of a collective whisper or sigh. If the wind were to pick up, the treetops of the tallest pines might arch over slightly, as if bending down to tell a secret.

We can speculate that a powerful affective assemblage such as this could have material consequences for someone paying (care)ful attention to and with place. If that person were to produce a story in any modality, such as a drawing, a piece of music, a theatre experience or even a story fragment, such as a shadow, a melody or a gesture, in response to their encounter, could the trees and wind not be considered to have co-authored that multimodal, and multimatter/multispecies story? And the Indigenous Land/Sea/Sky/Waterways that the trees depend on, their spirits, connectivities and histories? What of the Indigenous custodians of the Land, the Upper Skagit, the Chilliwack, the Nlaka'pamux and the Chelan peoples, whose ecological knowledges, ancestral commitments and kinship make up the very fabric of the Cascade Ranges where our speculative story takes place? Are they not also co-authors?

Polyphonic storying crisscrosses through time and space through the voices of a legion of multimatter/multispecies collaborators, a direct material engagement with the world that “call(s) something into being that did not exist before” (Arendt, 1977, p.51). These story assemblages are living networks with sentient participant-actors who produce ongoing reverberations in the world. *Their material narrativity is not a metaphor.* If we recognise material(ities) such as the trees and the wind as always already participating in storying the world, what are the implications for the growing body of research on storying and (re)stor(y)ing, particularly in Environmental Education (EE)?

I offer the following considerations, meant not to limit but rather to open these concepts up for more ways of engaging with the more-than-human and EE: a) *Everything comprised of matter has a story and participates in storying.* Therefore, b) *how we pay attention and who/what we pay attention to is crucial* (Hamm, 2015, 2021; Kind, 2013; Rose & van Dooren, 2017; Rose, 2017; Rinaldi, 2006; Taylor & Pacini-Ketchabaw, 2015; Tsing, 2015; van Dooren et al., 2016). c) *Some stories are not only unknown but completely unknowable to us.* d) *Stories do not require human witnessing or participation to matter,* and in fact, e) *humans are not the only, nor the most significant narrative subjects.*

The understanding of earth others as narrative subjects is ancient for some, as in Australian Indigenous worldviews (Coff, 2021; Country et al., 2022; Kwaymullina, 2018, 2020; Martin, 2016; Phillips & Bunda, 2018), and a revelation for others. Plumwood (2002) argues that “The recognition of earth others as fellow agents and narrative subjects is crucial for all ethical, collaborative, communicative and mutualistic projects involving them as well as for place sensitivity” (p. 21). She theorises that through narrativity, earth others demand various kinds of responses from us, “especially ethical responses of attention, consideration and concern” (p. 21). With the urgent need for collective and reciprocal approaches to care and repair beyond the human, I argue polyphonic storying as an approach for responding to and participating in the “mutualistic projects” of our time. As such, polyphonic storying can give rise to a reconceptualised understanding of EE as a practice of living in relational care with the world.

Three stories of imagination, hope and resistance

I am a White settler woman and an early childhood lecturer living in Melbourne, Australia, who was previously an early childhood teacher and administrator, a graduate research assistant and Materials Specialist at a University ReMida centre and an early childhood doctoral student, all in the United States. In the following narrative events, I traversed these roles while thinking with common worlds pedagogies, which “seek ways of recuperating settler-damaged worlds in collaboration with First Nations peoples, the more-than-human, and the land itself” (Taylor et al., 2021, p.75). The following research-creation events with children and place (Rousell, 2021) show how speculative storying can engender a shift from the management and mastery mindsets of the Anthropocene (Jukes & Reeves, 2023; Taylor, 2017) to an approach of learning to *become with* an imperfect world (Common Worlds Research Collective, 2020; Haraway, 2008, 2016, 2018; Tronto, 2013).

We are contending with the consequences of, as Plumwood (2014) articulated, “the empire of man over mere things.” Even the concept of the Anthropocene — intended to acknowledge our responsibility in the climate and other environmental crises — has upheld the old familiar story of man as the most significant force on the planet, yet failed to inspire a profound change of course. Polyphonic storytelling with the more-than-human, as theorised in this article, is a way of collectively calling in imagination, hope, and resistance beyond the apocalyptic collapse we are currently rehearsing (Latour et al., 2018). Polyphonic storytelling enables us to conceptualise a profound (re)stor(y)ing of our relations with earth and others while simultaneously generating these new ways of being together. Puig de la Bellacasa (2017) states, “We do not always know in advance what world is knocking, or what will be the consequences” (p. 91). Importantly, the following speculative experiments were not preconceived as formal EE curricula but rather unfolded as such in a storied response to more-than-human social and environmental predicaments “knocking at the door.”

In the first account, *Responding with care to a world in crisis*, an educator responds to a nearby wildfire emergency by agreeing to care for an injured piglet, opening the door to unforeseen multimatter/multispecies consequences and complex ethical dilemmas in the pedagogical contact zone (Common Worlds Research Collective, 2020; Hamm & Boucher, 2018) of a home-based childcare programme. Next, *Plastic City: (Re)stor(y)ing Place with more-than-human collaborators* discusses the implications of a plastic discards exhibit for the fragile utopian settler-colonial imaginary (Nxumalo & Cedillo, 2017) of a North American university community. Lastly, *Friends of the Secret Underground: Communing with stolen Land* considers a collective of children aged 4–16 who learn about the effects of global warming on the underground world and design a multimodal public exhibit in allied partnership with Land and more-than-human actors in response.

The following multimatter/multispecies inquiry explores the relations between children, a teacher, and a runt American Guinea hog in a home-based early childhood setting.

Responding with care to worlds in crisis

After a visit to a nearby farm one spring, my 10-year-old daughter and I hatched a plan to foster a runt piglet from a local farm in our home and arranged with the farmer to do so. We left that day with visions of cuddling and bottle-feeding a piglet, whom we would save from certain death through our kindness and compassion. Since there was a preschool in our home, we would have plenty of help caring for the tiny creature. Of course, there would be Instagram photos.

Before long, we received a call from the farmer who was looking for a family to provide immediate care for a runt piglet. He acquired the animal from a sister farm in central Oregon that evacuated due to rapidly spreading wildfires in the region. Over 50,000 acres had burned that season, destroying trees, plants, animals and crucial winter habitats. Like many of us at the time, the piglet suffered from respiratory issues due to an allergic reaction to wildfire smoke. He was tiny and his eyes were watery and caked shut. The farmer had been looking for a placement for the piglet with no success; even with individual care, his survival was uncertain.

My daughter and I had envisioned our role as care providers as akin to Fern from *Charlotte’s Web*. Fern is the ultimate storybook human hero: her compassion for the creature she would call Wilbur emboldened her to defy her father and save the piglet’s life, after which a beautiful multispecies friendship emerged. Fern’s dedication and care for Wilbur enabled him to peacefully live out his twilight years on the farm surrounded by human and animal companions, providing him with an idyllic storybook “happy ending.”

Although the pull of this fictional narrative was compelling, I recognised that the present moment required a different story, one of care, response-ability (Barad, 2007; Haraway, 2016), and ethically informed action. Anthropogenic wildfires had devastated central Oregon after a year of insufficient rainfall, and every living thing in the region was experiencing cascading consequences. Caring for an injured animal in this situation with an uncertain future held what Puig de la



Figure 1. “Strange Stranger” photo by A. Molloy Murphy, used with permission, Copyright 2024.

Bellacasa (2017) refers to as “vital material implications — for human and nonhuman worlds” (p. 42), though we may never be able to account for precisely what these were.

Though we had been hoping to care for a piglet, Moon, as he came to be known, was more than an object of care and enchantment (Bennett, 2001); he was what Morton (2010) might call a *strange stranger* “whose arrival cannot be predicted or accounted for” (p. 277). Morton’s *strange stranger* is related to Derrida’s (1999) *arrivant*, a being whose being we cannot predict and whose arrival is unexpected. Morton’s *strange stranger*, however, emphasises the strangeness, not only as a quality of arrival but also as a state of being of that which arrives. The *strange stranger* is familiar and strange simultaneously; it seems we know them, yet we do not, and on and on in an endless loop. “Indeed, their familiarity is strange, and their strangeness is familiar” (Morton, 2010, p. 277). This term describes the creature we knew as Moon, who looked like a quintessential storybook piglet yet was also clearly a staunchly sentient being, a *person* acting as themselves (Figure 1).

We fed him warmed goat’s milk from a baby bottle, but rather than allowing himself to be cradled like a human baby, he stood on the ground as if we were nursing from a pig mother. He gained strength quickly, lapping up milk forcefully and splattering it everywhere as he fed. We shifted to feeding him vegetables from a dog food bowl, which he immediately flipped over to toss around and eat from the ground.

Absurdly, the piglet lived in a playpen surrounded by baby blankets and stuffed toys according to the farmer’s instructions until he was too big to stay inside. He thrashed against the crib’s sides with alarming force, which was disturbing to all who heard it, even my small dogs. We carried Moon outside daily to provide him as much exercise as possible (maybe that is what he needed?) but ironically, the smoke and ash that drove him away from his farm in rural Oregon crept into the city, and on the “red” days, it was unsafe for both pigs and humans to spend time outside. On those occasions, Moon wandered the classroom, but I struggled to keep the children from treating him like a stuffed plaything. On clear days when we had picnics outdoors, he charged around the picnic blanket, overturning lunches and gobbling children’s food. During these few months, it became clear that we were just as much a *strange stranger* to Moon as he was to us. Our multispecies lives together held moments of reciprocal warmth, but also chaos and tension.

In the pedagogical contact zone, where children, a piglet, chickens, dogs and a whole confederation of material actors such as smoke, sand and mud “bump up” against one another

on ravaged landscapes, new assemblages are formed that (re)story polyphonic reverberations of these complex relations and their implications. As a piglet storming across a carefully arranged picnic blanket, there were countless bordercrossings that transgressed the settled spaces of preschool life.

Caring for a sickly piglet while being uncertain of his survival was indeed strange. I grappled with dissonance and “ethical friction” (Rautio et al., 2022, p. 9) in the knowledge that as the piglet grew healthier, stronger, and more trusting of us, he was also likely approaching the end of his life. Just as the practical care demanded by a growing pig in a small home classroom began to feel unmanageable, our 3-month foster period ended. Ultimately, the farmer gave me no assurances regarding the piglet’s future. The worn-out storyline of the heroic human coming to the rescue of a wounded world rings hollow in the current era of great planetary suffering. This complex experience with the piglet illustrated, among other things, that animals are not meant to fulfil the redemptive stories of humans — they have their own narrative agency. As a strange stranger, Moon thwarted the old familiar narrative about the heroic rescue of a docile and grateful other. As participants in this (re)stor(y)ing, we enabled something different, perhaps a story about living well together when no guarantees of safety and security are possible (Molloy Murphy, 2020b).

After exploring the shared narrative agency that emerged with/in the throwntogetherness (Massey, 2005) between a piglet, an anthropogenic wildfire event, materials, and young children in multimatter/multispecies childhoods (after Hohti & Tammi, 2019), I go on to consider the shared narrative agency of plastic waste, humans, and the settler-colonial imaginary of the U.S. Pacific Northwest.

Plastic City: (Re)storying Place with more-than-human collaborators

As a doctoral student, I acted as a Graduate Research Assistant at Inventing ReMida Portland (IRPP), a cultural and educational project for sustainability (Domingues, 2019; Iorio et al., 2017; Parnell et al., 2022) housed at Portland State University on the Unceded, Ancestral, and Agential Lands of the Multnomah, Clackamas, Tumwater, Chinook, Wasco, Cowlitz, Kathlamet, Tualatin Kalapuya and Molalla people, as well as many other tribes who made their homes along the Columbia River in the U.S. Pacific Northwest. My responsibility, among other things, was to recruit offcast materials for children and teachers for creative (re)use. In the carefully curated ReMida space, on the 3rd floor of the campus lab school, discarded and junk materials were neatly arranged to reveal their hidden beauty. The plastics, however, had a mind of their own. Barely contained on their appointed shelf, they spilled over and onto the floor, creeping behind the metals shelf, and springing from the storage closet whenever opened. My partner at IRPP once observed that in dozens of workshops and events, I had chosen buttons, fabric, yarn, cardboard, and wire, but never plastics.

In response to this observation, I did some reading and thinking, particularly with Max Liborion (2019), a Red River/Métis plastics researcher who said: “Plastic is our kin, it’s our relation. It’s from ancestors — organic ancestors from a long time ago. And if you neglect your relations to that, then you’re bad kin” (para 10). Inspired by this quote, which I put on the wall of the ReMida centre as an open provocation, I responded to the preponderance of plastic waste amassing in the ReMida centre (and the city, nation, and planet) with a small-scale experiment (Cameron, 2015); an interactive public installation with plastic discards. Children aged 2–5 years from the campus childcare centres, visiting elementary school children, teachers, university students, staff and faculty, and the public, were invited to (re)create their city in the campus centre each week with large quantities of discarded plastics from IRPP and salvaged plastics from a post-consumer warehouse referred to as “the bins.”

The installation was intended as a way to cultivate caring relations to plastic discards as multimatter/multispecies petrochemical kin, vibrant matter (Bennett, 2010) participating with/in



Figure 2. “Plastic River” photo by A. Molloy Murphy, used with permission, Copyright 2024.

a living earth. However, Liborion (2020, January 29) pointed out that kinship is a reciprocal matter, and oftentimes, kin claim us. Perhaps the persistent (re)appearance of plastic discards in public spaces — in alleyways, on beaches, under stadium seating, in street gutters, and virtually *everywhere*, might be understood as plastics’ stubborn way of claiming us as kin and reminding us of our continuing response-ability to them after extraction, production, consumption, and disposal (Molloy Murphy, 2020c).

Also entangled in this research assemblage was Portland’s reputation as a “green” city and the university’s history of holding a national sustainability award for several years running. This proud legacy was made visible on the university website and also — in a move epitomising the performative nature of many sustainability programmes and initiatives — in corrugated plastic signage and paper posters and brochures across campus. The installation, *Plastic City: (Re) Creating Portland with our discards*, was rebuilt each week on a key campus walkway and had a different story to tell (Figure 2). The weekly event became increasingly unruly and eventually sprawled off the carpet and onto the walkway, disrupting the clean and green narratives of both the University and the greater city and region.

I am inspired by Hennessey’s (2022) concept of the *vigNot* (rather than *vignette*), “an alternative, political, possibly disturbing invitation” to think and perceive of a place-event otherwise (Hennessey, 2022, p. 28). Rather than working to depict a pleasing and tidy narrative, *vigNots* are non-romanticised visual or literary depictions of a moment that intentionally illuminate the pedagogical knots and messy contradictions of place encounters. I am drawn to this

approach because after countless years of crafting blog posts, newsletters, and emails that painted a pretty picture that smoothed the edges of our preschool experiences, invoking the vigNot supports staying with the trouble (Haraway, 2018), the messiness, and sometimes the violence, of encounters with children, materials, and earth others on stolen land. I offer a small vigNot from the Plastic City exhibit to zoom in on polyphonic storying with place and materials.

Bubble Tea

Today the youngest children from the campus lab school have come to encounter Plastic City. The invitation to re-create Portland has been accepted to some degree by all the visiting children, but the two-year-olds appear to be unaware of or disinterested in this provocation. The colour posters of local city bridges, rivers, and buildings, lay on the carpet, abandoned. I notice two girls holding tall plastic containers with straws in them stuffed with a string of plastic Mardi Gras beads. They stand close to one another in the middle of the rugs, looking into the distance and sucking on the straws. The children from their class play on the carpet at their feet. I should have known that younger children would put the straws in their mouths. I wonder if I should stop them or if their teachers will, but nobody does. Someone asks what they are drinking, and they respond, "Bubble tea." They stand holding their "cups" with their straws in their mouths for what seems an absurdly long time. I notice that one of the "cups" is a bright orange pill bottle, and suddenly the event has shifted in my mind from interesting to disturbing. Perhaps the girls were engaging in everyday encounters with their city, where people can often be observed standing around with disposable coffee and teacups in their hands in public spaces. In the rapid movement of the plastics-child-city assemblage, it is impossible to determine if they were inspired by the materials, previous encounters, or a passer-by at that moment. For me, the photo provides an unflattering, yet fascinating glimpse into what is made visible and what is outcast in our city. (Molloy Murphy, 2020c)

On this day, the kin and care narratives I worked to usher in faded into the background as contrived, human orchestration. Place, materials, child, and affect colluded to subvert this story, as well as the larger narrative regarding the city and university's championed legacies of stewardship. This polyphonic (re)stor(y)ing made way for multiple competing and partial narratives rhizomatically moving beneath the surface of the sanctioned event and its stated aims, producing encounters I could not control or even fully understand.

Turning now to a child-artist-researcher collective Friends of the Secret Underground (FOSU), I describe how children conspired with place to produce unsettling stories about human exceptionalist orientations and anthropogenic damage to Land and their earthly relations.

Friends of the secret underground: communing with stolen land

FOSU is a child-artist-researcher collective that came together informally to create an exhibit for the Portland Winter Lights Festival on Lands of the Middle Chinookan tribes of the Clackamas and Cascades peoples in Portland, Oregon. Many of the children and youth or their siblings had previously attended my home-based early childhood programme or were neighbours or friends of friends. I made an invitation and word travelled fast. The intention in organising the project was to create an exhibit with children, for children for the Portland Winter Lights Festival. As a post-qualitative researcher, I also wanted to consider how thinking *with*, rather than *about* Place and the more-than-human might trouble conventional settler-colonial ways of thinking and doing (Tuck, McCoy & McKenzie 2014). The exhibit we created, *The Secret Underground: A Glow World Experience*, would provoke the public to revisit their ideas about the often-unseen winter world of the more-than-human in the Pacific Northwest of the United States.

Though images from picture books and pop culture suggest that winter in the northern hemisphere is spent making snow angels and losing mittens in a pristine blanket of snow, the underground world is teeming with a multitude of other stories. In the Pacific NW, the mysterious winter subterranean landscape includes burrowing animals such as squirrels, moles, and rodents; things such as bottle caps, rings, and bones; insects and archaea; bacteria, microbes, algae, and fungi; and legacies, memories, spirits, forces, and processes such as crystallisation, decomposition, and decay (Molloy Murphy et al., 2024; Molloy Murphy, 2023).

In our weekly meetings, the collective spent time at the site in a *deep hanging out* (Geertz, 1998) with each other, the Lands of the Middle Chinookan tribes of the Clackamas and Cascades peoples, and more-than-human forces, beings, materialities, and place stories presented there (Hamm, 2015; Nxumalo, 2016; Tuck et al., 2014). We took a relational approach to learning with place (Hamm et al. 2023; Iorio et al., 2022) by slowing down, noticing, and responding to what we encountered in an intentional disruption of settler-colonial engagements with place (Tuck et al., 2014), where humans are regarded as protagonists, and land and other beings as objects of study separate from the human, or simply as the backdrop for human actions (Jukes, 2023). The concept for the exhibit unfolded during our weekly meetings while collectively drawing, painting, or taking photos and videos with phones and tablets. Our experimental arts practices were about more than a mode of expression; they provided material approaches for a polyphonic (re)stor(y)ing of settler-colonial place logics to imagine different ways of being/knowning/doing with/in the world.

We, the adults facilitating the project, arranged visits from a naturalist who supported our curiosity about the ecology of our local underground world in winter. Using storytelling as her primary pedagogical tool, the naturalist taught us that when nearby Mt. St Helens erupted in 1980, the animals above ground died, but the animals underground survived, warm and insulated under the snow. From this story, we learned that climate change directly impacts the underground world because rising temperatures and a loss of snowpack mean the loss of animal life each winter. She told stories about how local plant and earth characters display kinship and care — for example, the kinship relationship between alder trees and fungi and the repair work that Alder trees do to soil.

The naturalist suggested that for us to practice good kinship with the subterranean world, we might walk lightly on the soil, for the soil that is healthiest and has the most living things in it is the most undisturbed. This claim brings to mind the blasted landscapes that Jobb (2023) thinks and walks with as a common worlding practice in early childhood education. Walking with children and anthropogenically damaged lands — quarries and landfills — can be a practice for thinking through our collective accountabilities to place and the more-than-human. “If experimental pedagogies are the focus of our walking,” Jobb inquires, what future worlds do we want to close off, and “what future worlds are we willing to set in motion?” (p. 21). Informed by the naturalist, our walking and making practices endeavoured to set future worlds of care and repair in motion.

The naturalist’s stories were inspired by informal discussions the children had been having in our weekly gatherings, which in turn influenced future discussions, and combined with small stories and time spent collectively making and doing at the site, ultimately inspired our vision for the exhibit. Some of the older children learned of climate change, extinction and colonisation in school, from peers, parents and social media or some combination of these, and informally communicated their understandings to the others in the collective. There are many ways in which the plight of Alder Commons is entangled with these larger stories, based on the stolen Lands on which the community centre was developed and the specific web of relations produced there. Extinction, dispossession and neglect haunted the Place and its visitors “through bones, bodies, and stories” (Davis & Todd, 2017, p. 769–770), and early in the project, we realised this haunting was the effect we were aiming to achieve with our exhibit. We were fortunate that the organisers of the community centre shared our understanding of collective indebtedness to the Lands’ Indigenous owners and a commitment to make this visible.

Davis and Todd (2017) argue that settler-colonialism severs relations “between humans and the soil, between plants and animals, between minerals and our bones,” (p. 770) and that this severing

is necessary for ongoing projects of colonisation. Our meetings with the naturalist and time spent in collective making disrupted the logics of separation to make way for more caring and responsible engagements with place, such as polyphonic (re)stor(y)ing of our relations through art making. To be clear, this work did not grant us redemption or innocence as settlers — no acts of rescue or stewardship could provide that.

Importantly, when describing the decolonising commitments of the project and the community centre to Lakota man Patrick Eagle Staff he reminded me, “What has been stolen can never be unstolen.” Patrick’s words were a crucial reminder to me that the relational care work of FOSU, though of consequence, could not reverse the damage done. Stolen land will always be stolen, and those severed ties carry irreparable consequences. Still, we conspired with Land that was taken by force and inscribed by nostalgic settler-colonial imaginaries of a European homeland to participate in its own (re)stor(y)ing.

To avoid reinscribing settler-colonial mindsets and practices, it may be productive to interrogate our polyphonic storytelling project by inquiring, after Yusoff (2023), “Whose world is being built? And, Who is unhomed in that building?” (June 13). To borrow additional questions posed by Métis scholar, Zoe Todd (2015), we might also ask: “What other story could be told here? What other language is not being heard? Whose space *is* this, and who is *not* here?” Through multimodal and multimatter/multispecies storytelling, the self-named collective FOSU (re)presented some of the unhomed, unseen, silenced and possibly unloved others (Rose & van Dooren, 2011) from the stolen lands we colluded with. In a rejection of forgetting (Cooper, 2021), we also worked to (re)presence the Middle Chinookan tribes of the Clackamas and Cascades peoples. However, our efforts were always partial, never complete. Though rematriation of Indigenous lands (“land back”) would not unsteal land or unsever ties, it would be a crucial step in reparation were we able to accomplish it.

Centring relationality as our means of engagement meant “undoing extractive relationships to more-than-human beings including land, animals, plants, and more” (Nxumalo et al., 2022, p.98). With this in mind, our photos, sound and video recordings were (re)produced as a/r/tographic renderings (Irwin, 2004) *with* Place and the more-than-human (SWISP Lab et al., 2024) rather than resources extracted *from* them. This entailed on-the-spot reminders about engaging with worms, for example, “less like a scientist and more like an artist.” The exchanges were messy, imperfect and oftentimes playful. We were striving for a way of being, an intentional practice — not following a recipe in an anticolonial cookbook. The final collaborative renderings were compiled into video form by a local artist and projected onto site surfaces of varying transparency for the exhibit, giving the space a sense of vitality and movement.

The digital projections intentionally exaggerated the scale of beings, such as worms, bones, and trash, to create a sense of unease, a feeling of being underground with a legion of unloved others in a fabricated subterranean world. The deliberate hyper-presence of earth others in the exhibit, inspired by Nxumalo’s (2016) *presencing*, countered the sense of erasure imposed by the building, benches and climbing structures in what must have previously been a forested space. While the site appeared to be a gathering place for human communities alone, we were aware of a thriving, more-than-human community that also dwelled there. We speculated that just beneath the land’s surface, there were beings, secrets and stories waiting to be revealed. The immersive audio and visual production served as a multimodal mapping of place relations. In an intentional move from Western mapping systems, with their fixed aerial views that emphasise borders and economic commodities (Knight, 2021), our multimodal place mappings revealed stories of multimatter/multispecies encounters and their affective productions and provided a sense of movement among “a sea of agential relations” (Cajete, 1994, pp. 74–77) (Figure 3).

Plumwood (2002) maintains that our perceptions are reduced by “a colonising conceptual sieve that eliminates certain communicative possibilities and dialogical encounters with the more-than-human world. Such an analysis suggests that our problem lies not in silence but in a certain kind of deafness” (p. 22). FOSU worked to open up these communicative and perceptual possibilities



Figure 3. “Sea of agential relations” photo by A. Molloy Murphy, used with permission, Copyright 2024.

through experimental storytelling with sound. To this end, children produced audio artefacts such as “feet stomping overhead,” “burrowing sounds,” and “loud rustling” — small audio stories that were incorporated into larger creative works for the exhibit. These multilayered, multimodal artifacts included poems, music and questions spoken aloud by children to provoke the effect of a haunting subterranean world. The final audio works were curated for each of the zones in the underground: the mole hole, the mushroom zone, underground radio and the digital zone — a place for people, video, sound and materials to gather and intra-act. The audio works were burned onto labeled CDs and loaded into boom boxes. The children in charge of each zone could play, pause, repeat or stop the CDs as they chose for atmospheric effect.

A few children built homes and habitats and took on the role of a character who might inhabit them, creating a walkabout or immersive-style theatre experience for exhibit goers. There were attractions designed to bewitch, such as enchanting illuminated tree fairies swinging in a tree near the entrance, and a mole who lived in a candlelit mole hole (but was never home). There were also elements designed to disturb: a giant glowing child/beetle who darted across the walking paths and scuttled around the legs of exhibit goers. The child/beetle was envisioned by 10-year-old Levi, who also led the creation of large-scale, glowing cardboard creatures such as a pocket gopher and a worm with fangs. The child-artist collective speculated that a sense of unease might wake people up to dangerous delusions of (White) human supremacy and its contributions to environmental catastrophes like the climate crisis (Bang et al., 2022). Levi had taken seriously the collective’s mission to produce an unsettling experience for exhibit attendees and was openly frustrated when they reacted to the exhibit with amusement or seemed to miss the point. Unfortunately for Levi and the rest of FOSU, delight seems to be a default response to children’s creative productions, with little attention given to the intention. In these moments, child/beetle Levi scurried fervently across the paths to unsettle and (re)story public perceptions by reminding people that “we (humans) are not alone in our common worlds; and secondly that these worlds are not only about us” (Taylor & Giugni, 2012, p. 112).

The animacy of place and the more-than-human that FOSU brought to light in their exhibit is a premise of many Indigenous worldviews — the understanding that trees, rocks, wind, mountains,

animals, plants and climate are vibrant beings imbued with spirit to whom we are accountable (Acharibasam & McVittie, 2023; Hamm et al., 2023; Kimmerer, 2017; Merewether, 2018, 2023). Children's animist beliefs, however, are often viewed as a temporary developmental stage, irrational and dismissable. Merewether (2023) argues for children's "enchanted animisms" as generative and speculative, stating they "create room for responsiveness, attentiveness and caring-with relations in the world" (p. 22). For the children of FOSU, the belief in a lively world and our collective commitment to it engendered an ethico-political response to settler-colonial land relations, (White) human exceptionalism and anthropogenic climate change through our activism as exhibit, *The Secret Underground: A Glow World Experience*.

Haudenosaunee and Anishinaabe scholar Vanessa Watts (2013) describes Indigenous conceptualisations of place/land as "Place-Thought," the understanding that place and thought were never separated. "Place-Thought is based upon the premise that land is alive and thinking and that humans and non-humans derive agency through the extensions of these thoughts" (p. 21). This concept repositions place as more than a mere participant, but the basis by which all other agentic acts are made possible. Through the experience of conspiring with Place and Land, the collective FOSU forged an allyship that extended beyond the initial site and scope of the project and invited exhibit goers to do the same.

The exhibit *The Secret Underground: A Glow World Experience* did not return stolen land, negate harmful wrongdoings or extinguish delusions of (White) human supremacy. It offered no assurances for humans, land or earth others, amid the "uncertain consequences and precarious futures" of our planetary predicament (Molloy Murphy, 2020b, p. 11). However, polyphonic storying of and with place provided a way for the FOSU, following Haraway (2016), to take a stand for some worlds and against others (Molloy Murphy, 2021). Additionally, it enabled the public to encounter and participate in children's speculative, polyphonic storying with Place. "By creating speculative, provocative, and hypothetical scenarios through creative artifacts (e.g., fictional writing, art, videos etc.), possible futures are made real enough for people to engage in meaningful conversations, which allow the exploration and critique of said futures" (Healy et al., 2023, p. 5). The feedback we received from the public was very favourable; it seems that people are ready to think about the unseen beings with whom we share the earth and how we might begin living in a way that does not presume our own sovereignty above all else.

Findings/Gatherings

As illustrated by the preceding narrative events, EE cannot be relegated to a particular curricular category, isolated in a single class period or confined to formal education settings. A diffractive analysis of the three main texts suggests that we might consider (re)configuring EE from its current life as an "add-on" curriculum, separate and distinct from the arts, science, geography, history and social studies, into a living inquiry, a storied response to our planetary predicament. More-than-human social and environmental inquiries are being taken up everywhere by people of all ages in collectivist, creative ways, showing that EE does not pertain solely to children's school programming, the outdoors or the natural world. Riley (2023) observed that EE is "enacted from one's own affective engagement *with* worlds (indoor, outdoor and everything in between)" (p. 104). This article shows that a reconceptualised EE incorporating polyphonic storying and speculative arts-based methods can be enacted to interrogate the presumptions of settler colonialism, speciesism and (White) human supremacy.

I hope educators eager to reconceptualise EE find inspiration in these relational caring-with stories from practice. I find that inquiry-based approaches to learning, such as those adopted by the schools of Reggio Emilia and those invoked in the events chronicled here, are conducive to emergent, participatory, and collective learning with children with/in the world. It is often in the everyday moments with young children that big questions emerge. It is no accident that speculative storying and other arts-based methods of inquiry can be found in each scenario. In my two decades

as an educator of young children, I have found these approaches to be invaluable. Importantly, these multimodal, multimatter/multispecies inquiries were approached by respectfully coming alongside local Indigenous ways of knowing, being and doing (Martin, 2016) and were activated *with*, not *for*, land and the more-than-human (van Dooren & Rose, 2012).

Ultimately, when teachers, children and communities of any age engage in relation with the world with a disposition of curiosity and openness, environmental issues such as resource consumption, extinction and anthropogenic climate fallout will inevitably surface. For example, in elementary or secondary school, what may have begun as a STEM group project investigating Aboriginal cultural burning, an inquiry on neighbourhood bird behaviour or a social studies unit on global migration will generate possibilities for environmental inquiry. With their inherently complex ethics, these living inquiries will be messy, unpredictable and unruly, but also have a vitality that preconceived environmental curricula cannot evoke. Unlike pre-planned or standardised EE programming, the effects of these inquiries will continue to reverberate with “vital material implications — for human and nonhuman worlds” long after the inquiry is complete (Puig de la Bellacasa, 2017, p. 42).

Aboriginal artist and scholar Ambelin Kwaymullina (2020) stated, “How far we have come from the apocalypses and dystopias of settler-colonialism is measured by the degree to which affected relationships have been brought into balance — have been healed” (pp. 20–21). FOSU’s multimodal, polyphonic storying emerged from *being with* land and the more-than-human, in a deep and relational wit(h)nessing where we became knowingly intertwined in the fate of the other. This practice in living well, with humility, with/in a vibrant, agential world is the premise of First Nations land knowledges and orientations (Cajete, 1994, 2017, 2000; Eder, 2010; Kwaymullina, 2018, 2020), and a generative way to reimagine EE in this pivotal time.

Polyphonic storying with an agential world is an inherently participatory approach, recognising the more-than-human creation that is always already happening everywhere. In an age of “the empire of man over mere things,” where the hu(man) towers over people, land, and “open ways of living and being” (Molloy Murphy et al., 2024, p. 1) are silenced at every turn, multimodal, multimatter/multispecies and polyphonic storying with the more-than-human offers critical practices of resistance. In the instances outlined in this article, our doings were framed as a way of *responding to and with* a living world rather than a way of *acting upon* an inert world. Acting on the world, even as an attempt to rescue, reinforces settler-colonial relations rooted in (White) human supremacy and contributes to the great unravelling that we are currently experiencing. Human survival is not guaranteed; perhaps, it ought not be our aim. We can, however, learn to engage well together with earth others in care and reciprocity, and that might be the meaning we create.

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Media

[The Secret Underground: A Glow World Experience](#)
Underground Radio

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Author Biography

Angela Molloy Murphy was an early childhood educator of 25 years when she joined the University of Melbourne as an Early Childhood Lecturer. A continuation of her work with children, Angela's post-qualitative research activates arts-based inquiry and multimodal storytelling with children, place, and the more-than-human. Angela is a scholar-in-residence at SWISP lab, (Speculative Wanderings with Space and Place), a community of interdisciplinary activist practitioners composing reparative futures in the midst of climate collapse. She argues that at this moment of widespread oppression and environmental degradation, we need collective storytelling practices that reinforce our radical relationalities, inspire audacious resistance, and imagine creative possibilities for living and relating otherwise.

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