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## Queer Synthetic Curriculum for the Chthulucene: Common Worlding Waste Pedagogies

Veronica Pacini-Ketchabaw

Western University, Canada

vpacinik@uwo.ca

Kelly-Ann MacAlpine

Western University, Canada

kmacalp2@uwo.ca

### Abstract

This paper sketches aspects of common worlding waste pedagogies through Donna Haraway’s figure of the Chthulucene. More specifically, it narrates the making and happenings of what we call a queer synthetic curriculum in an early childhood center. Drawing attention to plastic in order to reframe children’s relationship to it, the article engages with three main questions: How might we refashion waste practices from children’s ubiquitous plastic relations? How might we speculate on the kinds of response-able worlds that might be remade through new kinds of interactions between child and plastic bodies? What might the Chthulucene synthetic futures of early education entail? The queer synthetic curriculum also experiments with creative strategies to learn to live with plastic toxicities without necessarily celebrating them; it embraces the mixed affects that plastic affords (its sensorial pleasures and possibilities as well as the guilt embedded in their toxicity); it plays with the provocative idea that we can no longer separate our fleshy human bodies from synthetic polymer bodies; and it treats plastic as chthonic queer matter. We argue that, by staying with the trouble these risky attachments bring, conditions for futures other than those already determined by synthetic, toxic petrocapitalist modernity and coloniality might emerge in early childhood education.

### Keywords

Waste, plastic, common worlds, Chthulucene, early childhood education

### Introduction

This paper sketches aspects of common worlding waste pedagogies by narrating the making and happenings of what we call *a queer synthetic curriculum* in an early childhood center. The narratives describe our experimentations with curricular processes that attend to a kind of relational ethics inspired by Donna Haraway’s (2016) figure of the Chthulucene and the artwork of Haudenosaunee and Scottish artist and storyteller Jay Havens (2016). The queer synthetic curriculum features and draws attention to plastic to reframe children’s relationships to it, and engages with critical questions: How might we refashion waste practices from children’s ubiquitous plastic relations? How might we speculate on the kinds of response-able worlds that might be remade through new kinds of interactions between child and plastic bodies? What might the Chthulucene synthetic futures of early education entail?

As scholars and pedagogists in early childhood education, we find the dominant environmental stewardship education based on surveillance, sanction, and censure (e.g., Buckingham 2013; J. Davis 2014; Kelly and Lukaart 2005; Uyanik et al. 2011) inappropriate for attending to children’s waste futures. Supporting capitalist and neoliberal values, these educational approaches (most notably the well-known 3Rs program: reduce, reuse, recycle) offer little critical analysis of waste itself or children’s relations to it. Instead, we find hope in, and join, projects on plastics such as those undertaken by Angela Molloy Murphy (2020), Louisa Penfold (2019), and Peter Kraftl (2020). These scholars conceptualize plastics as active participants invoking/provoking children to respond in particular ways. Molloy Murphy offers up the idea of border crossing whereby plastic waste makes “space for [otherwise] ways of thinking, living, and ‘flourishing’” (2020, 26). Penfold (2019), in collaboration with artists and designers, engages in artistic inquiries in which children and plastics respond to each other, emphasizing the inseparability of children and their lifeworlds. In the plastic childhoods project, Kraftl also delves into plastics and children’s deep entanglements (Kraftl 2020; Kraftl et al. 2021). It is the kinship of plastics and childhoods that he pays attention to; he writes that children and plastics are “synthesised with and stuck to one another” (Kraftl 2020, 169).

Contributing to this critical childhood scholarship on plastics, in the first part of this article, we conceptualize the queer synthetic curriculum by connecting it to Haraway’s (2016) figure of the Chthulucene and Havens’s (2016) Bargain Hunter/Hunted projects, as well as to feminist science studies literature on plastics. We then draw connections between the queer synthetic curriculum and common worlding waste pedagogies. In the second part of the article, we engage with the specificity of an early childhood education classroom as a site of waste politics through a series of detailed narratives that follow a description of the making of the queer synthetic curriculum project.

Simmering in the Chthulucene and *The Bargain Hunter/Hunted*

The queer synthetic curriculum simmers in Haraway’s Chthulucene figuration. The Chthulucene, she explains in a manifesto, is a term she uses to add texture to the disembodied and sovereign subject positions of the Anthropocene and Capitalocene that name our current geological era. Avoiding teleological and expansionist arguments that foreclose the possibility of ongoingness, the Chthulucene refuses to pit the human and more-than-human against each other. Instead, it invites stories “made up of ongoing multispecies practices of becoming-with…in precarious times” (Haraway 2016, 55). In this way, the Chthulucene demands a collective ethico-political commitment to care for our now that has been, “is now and is yet to come” (16). That is, the Chthulucene is the “thick, fibrous, and lumpy” *now* that inevitably includes synthetic polymers (206).

Jay Havens (2016) teaches us about the nuances of engaging in processes of making in our lumpy present. Havens uses “found and reclaimed elements from commercial consumerist landscapes as raw materials” (2) to interrupt dominant figures of Indigenous Peoples while attending to the complexities of “modern day Indigeneity” (10). In their art and pedagogical practice, Havens creates uneasiness in their audience, “pointing the finger at society rather than individuals to generate discourse which forces audiences to recognize colonial structures which persist and require debate” (11). Their collections *The Bargain Hunter* and *The Bargain Hunted* ([jayhavens.me/artworks](https://www.jayhavens.me/artworks)) use plastic bags “sourced from retail locations on a number of reservations” (2016, 29) to recreate traditional objects (masks, cornhusk dolls, drum) and animals (buck, heron), and engage with, confound, and complicate contemporary consumerist practices. As Havens writes, the aim is not to reuse but “to stir up questions and provoke deeper inspection” of what consumerism is creating so that change can happen (35). Without claiming that our curriculum has the same intentions as Havens’s art practice, we see the queer synthetic curriculum processes as attempts to complexify children’s lifeworlds and create spaces for transformation. We hope that the children create complex relations with the plastic around them.

#### Plastic Futurities and the Queer Synthetic Curriculum

Situated within the Chthulucene, the queer synthetic curriculum makes five important moves. First, it shifts from the upward-looking, detached Anthropos concealed in early childhood education’s waste remediation initiatives that train children to become good environmental stewards by managing the (externalized) plastic “problem.” It dislodges the strong, morally infused ideological statements that remediation initiatives stick to (e.g., equating plastics with evil) and displaces the “out of sight, out of mind” logics of plastics that drive recycling behaviors. The queer synthetic curriculum brings plastics in and enfolds their ubiquity by placing plastic and its relations center stage.

Second, the queer synthetic curriculum embraces feminist cultural studies scholar Heather Davis’s (2015) suggestion that because plastics are not going away, especially now that China has stopped accepting Canada’s waste plastic (*Energy Mix* 2019), we need to learn to live with them in empathetic and collaborative ways. Acknowledging that plastic cannot be extracted from children’s lives in the twenty-first century, the queer synthetic curriculum experiments with creative strategies to learn to live with plastics’ toxicities without necessarily celebrating them, and to find ways to grapple with the horrors they bring “while resisting the policies, governments, and corporations that would like to see our lives foreclosed” (H. Davis 2016, 192).

Third, the queer synthetic curriculum accepts the mixed affects that plastic affords. On the one hand, as Davis aptly writes, plastic brings sensorial pleasures and possibilities “with its smooth surfaces and bright colours,” as well as “the fantasy of ridding ourselves of the dirt of the world, of decay, of malfeasance” (2015, 349). For her, plastic offers a world that literally “removes people from the cycles of life and death, [allowing humans to take safe distance from] the troublesome, leaky, amorphous, and porous demands of our ancestors, our bodies, and the earth” (350). On the other hand, plastic brings guilt as we are reminded of the ecologically toxic times we live in. Many worry about the fact that plastics, as nonbiodegradable, merely transform but do not decompose (Belontz et al. 2019; Corcoran, Moore, and Jazvac 2014; Corcoran, Jazvac, and Ballent 2017). Some researchers remind us that some plastics lead to unpredictable health consequences for humans (Vandenberg et al. 2017; Azoulay et al. 2019), while other scholars emphasize that plastics pollution is colonial and imperial (Liboiron 2018, 2021).

Fourth, the queer synthetic curriculum works with the impossibility of separating plastics out from children’s bodies. It embraces the provocative idea that we can no longer separate our fleshy human bodies from synthetic polymer bodies patented in 1909 (Altman 2015). In other words, these pedagogies join forces with the “mixed and dangerous” powers of the Chthulucene to acknowledge the earth-focused chthonic inseparabilities of children’s synthetic lives.

Finally, the queer synthetic curriculum treats plastic as chthonic queer matter. As Davis (2015, 2018) reminds us, plastic’s queerness lies in the fact that, on one hand, it is a potent petrochemical compound unleashed from the earth, organic and inorganic at the same time. And on the other hand, it “exists outside of the proper logics of decay and transformation, in its own category of creation, where microbes and bacteria have not yet widely evolved to use its incredible energy sources” (H. Davis 2015, 233). We invoke the term *queer* in the synthetic curriculum in two important ways. We want to highlight plastic’s queerness, as Davis explains, and simultaneously break from reproducing the normative curriculum frameworks that are commonplace in early childhood education classrooms (see also Keenan and Lil Miss Hot Mess 2020). As for Natalie Loveless, for us, the invocation of the queer in the synthetic curriculum “undoes…disrupts…challenges the norm…[and] is always on the move” (2019, 61). Its queerness is “an act rather than an essence,” and is “always already unfinished…always in play” (Loveless 2019, 63).

#### Common Worlding Waste Pedagogies

The queer synthetic curriculum is an instance of our experimentation with common worlding waste pedagogies with young children that we began in April 2017 in early childhood centers across what is for now known as Canada, Ecuador, and Australia (see Climate Action Childhood Network 2019). Tapping into the sensorial and affective possibilities of the arts to critically analyze Rs waste practices (reduce, reuse, recycle) in early childhood education, we are developing theoretical and empirical directions by refiguring young children’s relationships with waste in curriculum making ([Living with Plastics](http://livingwithplastics.climateactionchildhood.net/) 2019; MacAlpine 2020).

Succinctly, common worlding pedagogies highlight complex perspectives on human-environmental relations by developing creative and conceptually rich insights into children’s relations with the world and its human and more-than-human inhabitants (Common Worlds Research Collective 2021). Common worlding waste pedagogies, in particular, respond to the unsustainable volume of waste produced today and to the uncertainty about how best to respond to this threat (Girling 2005).

As a response to our waste crisis, common worlding pedagogies attend to important disagreements in the literature. While behavioral scientists seek human solutions to waste problems by focusing on factors that optimize recycling behaviors (Barr and Gilg, 2005; Latif et al. 2012; Largo-Wight, Johnston, and Wight 2013), other scholars call on us to reconceptualize waste and our fraught relationship to it. For instance, Davies (2008, 2012), Gabrys, Hawkins, and Michael (2013), Hawkins (2005), Hird (2012, 2013, 2014a, 2014b), and Moore (2012) note that despite our wish to manage, control, and ultimately distance ourselves from waste (Edensor 2005; Scanlan 2005) through managerial practices, the waste crisis continues to grow. They link the persistence of waste problems to practices that consider waste as static and inert (Gille 2010), proposing instead that waste materials transform, and are transforming, both independently from and interdependently with humans (Hawkins and Potter 2006; Hird 2012; Moore 2012). These scholars also suggest that our lives are inextricably entangled with the materials we produce, use, discard, and then try to manage (Gille 2010).

Inspired by this social sciences and humanities waste literature that highlights the affective and agentic nature of waste materials, our common worlding waste pedagogies draw on retheorizations of matter that emphasize its “manifold mobility” (Davies 2012). Waste materials transform in intra-action with other forms of matter (Barad 2007) through dynamic movements, disorderings, and transformations (Edensor 2005; Gille 2010; Moore 2012). This means that when children work with waste materials, they attend to their movements, impermanence, relationalities, connections with other materials, and so on, instead of focusing only on the materials’ properties and functions.

Common worlding waste pedagogies directly challenge humanism’s insistence that human reason gives us the sole capacity to exercise intentional agency. Increasingly, social science scholars are posing an alternative notion of distributed agency that acknowledges nonhuman entities as co-actors and shapers of the world (Gibson-Graham and Roelvink 2010; Hird 2012; Latour 2004; Plumwood 2002). We contest deeply rooted cultural dichotomies—animate vs. inanimate and active vs. passive, to name two—that would lead us, often unconsciously, to think of ourselves as animate agents who act on passive, inanimate waste materials. Following Myra Hird (2013), our waste pedagogies we ask, What if humans’ role in dealing with waste materials is not as central as we believe? What if waste materials shape children as much as children shape them?

Common worlding waste pedagogies also draw on the understanding that no matter exists outside of relentless relational and intra-active networks (Alaimo 2010; Barad 2007; Gille 2010; Hird 2012). Our lives are inextricably entangled with the materials we call waste. Our focus, then, is not solely on how children think about waste materials or on what children’s or educators’ intentions are in relation to waste materials. Our focus is on paying careful attention to waste materials in interaction with children.

Finally, common worlding waste pedagogies draw directly from Hird’s (2013) waste research and ties all the premises together. Hird’s studies of the microbial underground of landfills show that most of the transformative action on waste materials takes place in what she calls the “inhuman domain” of “geo-bacteria liveliness” (2012, 457, 458), in which humans do not “ultimately manage or determine processes and outcomes” (458). These perspectives directly challenge human-centric thinking about waste as only humans’ making and thus our problem to solve, and they demand a new kind of environmental ethic. In Hird’s terms, we must learn to “consider ourselves as vulnerable to, and with, our environment as latecomers to life’s already long-established flourishing and failing within a volatile landscape” (464). Common worlding waste pedagogies set out to open our perception to entangled human/waste relations so that we might carefully and ethically respond to children’s encounters with the vibrant life of waste.

### Making of a Queer Synthetic Curriculum

Our collective laboring with four educators (Vintimilla and Berger 2019) involved experimenting with and documenting curriculum processes for a period of ten months. The pedagogical intention that we set for ourselves was to keep alive the “thick, fibrous, and lumpy” plastic realities of children’s lifeworlds. Thus, to activate these intentions, we began by reorganizing the sanitized developmental early childhood classroom (composed of a group of ten children, two- and three-year-olds). We moved furniture and took away age-appropriate toys/materials that had been there for at least a decade to make space for plastic bottles and plastic bags that we gathered with the help of children’s families. The classroom became a peculiar space that, within the early childhood center, became known simply as the plastic room. The early childhood center is located in a mid-sized city in southwestern Ontario, Canada, which is known for its conservative leanings. The majority of the children who participated in the project live in the center’s neighborhood, which includes single family homes, townhouse complexes, and a group of high-rise apartment buildings built in the 1960s to 1980s.

We used field notes, photography, and film to document what happens when we bring plastics into sight and into mind (Hird 2012, 2013) in the plastic room. We visited the early childhood center once weekly and carefully studied documents that educators collected daily using the practice of pedagogical documentation. Pedagogical documentation, as Vintimilla and Pacini-Ketchabaw write, “is shaped by a generative and ongoing dynamic between the traces of what we have defined as pedagogically significant within a process, and the different propositions ideated [based on what we find] significant…A set of pedagogical questions, concerns and orientations help discern and give value to what happened at the same time that [educators] propel into cultivating new forms of knowing, acting and living (through questioning, experimenting, fabulating, enacting, inventing trying out, daring, figuring out, stumbling to name a few)” (2021). Pedagogical documentation allowed us to “activate certain ideas/possibilities through material, interpretative and speculative processes of curriculum making” and simultaneously “stitch something different in the curricular fabric of an early childhood centre” (Vintimilla and Pacini-Ketchabaw 2021). We now turn to a series of narratives that peek into the queer synthetic curriculum processes.

#### Encountering Plastic Bottles

*Like every morning, a group of eighteen-month to two-year-old children enter their room after spending time in the gym. However, today the room contains over a hundred plastic bottles suspended from the ceiling, standing on shelves, and gathered in groupings covering most of the classroom’s floor. Plastic welcomes the children into the carefully curated space. Various shapes and sizes of water bottles and pop bottles still hold reminders of their commercial branding. The tell-tale blue-tinged Dasani water bottle now hangs from the ceiling, water replaced by balloons. The soft-sided and easily crushable Nestlé water bottle now holds Playtex baby bottle liners and sits on the floor next to the baby dolls. The day before, children had helped fill each bottle with plastic items: beads, diapers, straws, cutlery, food containers, cut-up disposable cups, dental floss and its containers, hairbrush pieces, shopping bags, Post-It flags, grass-trimmer string, gloves, Saran wrap, bingo chips, mesh bags that once held oranges and onions, dental picks, toothbrushes, zip ties, netting tubes, ice pack holders, credit card pieces, CD scraps, pens, markers, and the list goes on…We collected the majority of these items around the early childhood center and used the bottles to contain them.*

*Bottles fly through the classroom, roll across the floor and tables, invite unanticipated sounds. Children find a delicacy in plastic. Bodies and bottles join forces to move in unison, rhythmically concealing each other. No matter how the children use the bottles, they never break. Resisting children’s movements, the bottles adapt to the pressure that children’s fingers and bodies exert on them, and they even mold to record that pressure on their surface. In fact, plastic’s indeterminacy, unruliness, and ubiquity are intensified in the room. We learn to experiment with plastic’s logics.*

Although it is not always easy to live with a gigantic mound of plastic in a classroom, we quickly adapt to its malleability and durability. Children’s movements connect to plastic’s: rolling across the floor, swinging from one end of the classroom to another, standing upright in rows. The plastics spill into the classroom spaces and routines. Even the daily singing revolves around plastic.

*We sing the classic children’s song “The Wheels on the Bus” and it becomes “The Plastics on the Bus,” with each verse describing how the plastics move and sound as the bus trundles through the town.*

*The plastic on the bus goes crunch, crunch, crunch*

*crunch, crunch, crunch*

*crunch, crunch, crunch*

*The plastic on the bus goes crunch, crunch, crunch, all through the town.*

The educators edit stories to always include the phrasing “children and plastics.” Morning meetings with children and plastics include flipping through the homemade book with images of past and present classroom members, which include children, educators, and plastics. The bead bottle picture nestles amid the children as it has become a close and constant companion to one of the children.

Stories and storytelling stick to plastic.

We collectively forget the fact that these very objects will outlive us all (educators and children alike). This is the twenty-first-century classroom—the queer synthetic classroom of the future—that might invite children to live in a plastic world that keeps plastic in sight and in mind rather than trying to manage and hide it.

A picture containing bottle, indoor, cluttered

Description automatically generated

Figure 1. Plastic in plastic bottles. Authors’ photograph.

A picture containing indoor

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Figure 2. Straws in a bottle. Authors’ photograph.

#### Aesthetic Invitations

The queer synthetic classroom is enchanted with Pinar Yoldas’s (2014, 2015) work “An Ecosystem of Excess,” which inspires us and the educators. Yoldas thinks with three questions: “If life evolved from our current, plastic-debris-filled oceans, what would emerge? What would happen if life started in the ocean now? What if new creatures emerged that could live off of plastics?” Following a conversation with Yoldas, we bring the children images from her provocative collection to think with plastic otherwise and embrace its queerness. As we project the images on a classroom wall, the children notice and respond through their movements and storytelling, adding to the disturbing Ecosystem of Excess stories.

*One of the bottles that suspends from the ceiling swings back and forth as one of the children tries to race it from side to side. In a brief moment when both come to rest, the child looks back and forth between the image projected on the wall and the bottle. As they carry it up close to the wall they utter “same.” The bottle they hold is filled with the netting used to wrap up oranges, while the image projected on the wall is that of a colourful stomach inside a test tube that can digest 16 different types of plastics. Glimpses of present and future plastic worlds blur. Some of the children’s favourite image is a gigantic floating turtle with multicolour shell plates that has been feeding on balloons that end up in the Pacific Ocean. As Yoldas explains, turtles’ curiosity has shifted their shell structure forever. One of the children stands very close to the projected image, casting their shadow over one section while pieces of the turtle project appear on their back (see Figure 4). When revisiting the video taken that morning, we notice the same child trying to look at their back to see if the turtle is still there. “Where turtle?” they ask. Shadow upon shadow offers a haunting image of how children’s and turtles’ curiosity sit with the plastic stories yet to come.*

A picture containing indoor, person, room

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Figure 3. Playing with projections. Authors’ photograph.

#### Gathering Bottles

*It is Thursday and recycling day in the middle-class neighborhood where the early childhood center is located. Walking through the neighborhood and inspecting the blue recycle boxes is a new routine for the synthetic imaginaries we are composing. As soon as the children spot a blue box ahead, they excitedly run towards it to begin the inspection: Which bottle will be most suitable for our collective space? A ketchup bottle, three Coca-Cola bottles, and a small bottle of Tropicana orange juice are the exciting finds from this residence. The children run along the sidewalk to the next house. Five small water bottles and one Canada Dry ginger ale. After searching through four additional blue boxes and unable to fit more bottles into the collection, we return to the early childhood center with our large wagon overfilled.*

Repeating what we have done for the last month, children wash each bottle in soapy water, remove the labels (which they place inside the bottles), and dry them thoroughly. Each bottle is then filled with other plastic items and joins the mound that has been piling up in the classroom.

A picture containing person, outdoor, white goods

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Figure 4. Gathering bottles. Authors’ photograph.

A picture containing person, indoor

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Figure 5. Washing bottles. Authors’ photograph.

#### Queering Play through Plastic

More and more plastic materials make it into the classroom. For a few weeks, we gathered plastic bags. After we had a sizable amount, we invited the children to sit at a table to carefully flatten each bag one by one. It took us more than three weeks to collect a large pile of flattened bags.

With an iron in hand, we spend the next few weeks fusing the plastic bags into fabric. Aware of the dangers of inhaling toxic fumes from the plastic, we set our ironing station right outside the room in the playground. The children watch through the large window and take turns cutting pieces of parchment paper to contain the plastic, cutting the seams and handles off of the plastic bags, sandwiching three plastic bags between the parchment paper, and moving the iron on the parchment paper to melt the plastic, peeking once in a while to ensure we don’t create holes in the fused plastic fabric.

A picture containing person, indoor, wall

Description automatically generated

Figure 6. Playing with plastic clothes. Authors’ photograph.

The children are then ready to design a whole series of garments which they proudly and playfully fashion around the queer synthetic room as they create stories of their own.

The toxic fumes from melting plastic make ironing the plastic bags a safety hazard. Although we are not finished with our work, we become entangled with plastics differently, moving from melting strips to make garments to joining strips into infinity chains—chains that would become the plastic yarn balls we crochet with.

Our close relations with the plastic bags emerge in the rituals of yarn making. Plastic yarn making is a slow process that begins with the careful smoothing of bag upon bag. The flattened bags are then folded into a fan-like pattern. To continue the process, we must cut one end of the bag but save any off-cuts in their own plastic bag carrier. Next, small strips (3–4 cm) are snipped down the width of the bag to create several plastic circles. Each circle is looped into a link knot with another circle to create an infinity chain **∞**. Soon the long chains become wound tightly into plastic yarn balls waiting at the ready.

*Fingers, crochet hooks, and plastic yarn balls engage together in a process of transformation. Balls of plastic yarn and crochet hooks are scattered in various spots across the room or with the educators who are already engaged in crocheting. As the children walk into the classroom, they fall silent as they slowly fan the room and either sit with the educators or amid the unaccompanied hooks and yarn. Three of the children sit on the floor and quietly watch and listen to one of the educators as she talks her way through the process of crocheting*—*loop, hook, now pull it through; loop, hook, now pull, she repeats over and over again as fingers, yarn, and hook attempt to move together. As the educator muddles through the process, one of the three children gently places a palm on top of the educator’s hand and begins to move along with her. Later on, that same child picks up a crochet hook and wraps the yarn around it. Before long, the looping motion stops, and the pulling with and between fingers, yarn, and hook creates a tangled mess. As the child tries to extricate themselves from the yarn, tiny remnants of the plastic bag dislodge and cling to clothes and skin. Even with the most vigorous shaking, the plastic remains stubbornly stuck.*

A picture containing person, indoor

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Figure 7. Crocheted clothing. Authors’ photograph.

#### Bubble Wrapping the Room

*At the beginning of the week the early childhood center received a shipment of ten new cribs. Each crib arrived in a separate box. While the cribs’ arrival was met with mixed reactions given the prospect of having to tear down the old and assemble the new, great excitement surrounded the discovery that each crib came wrapped in large sheets of plastic bubble wrap. The center’s director quickly gathered them up and offered the bubble wrap to the plastic classroom. The same safety procedures that required cribs to be replaced every ten years regardless of condition provided an unlikely addition to the plastic classroom that pushed the boundaries of maintaining safety in the classroom.*

*Apart from yearly government safety inspections, the early childhood center has one educator assigned as the safety steward. Their job is to visit the individual classrooms on a monthly basis to inspect and report back any safety concerns that require attention. The morning the bubble wrap moves into the plastic classroom is the same morning as the monthly in-house safety inspection. The safety steward enters the room with clipboard in hand and walks over to the crowd of children, educators, and mounds of plastic bubble wrap. As she sits down, she wraps one large sheet around her shoulders like a shawl and lays another over her lap. As she begins to go through her safety check list, she fingers the tiny bubbles. The now familiar sound of pop, pop, pop fills the air as tiny pieces break free from the sheet of bubble wrap. With a chuckle, she asks, “Do you have any safety issues? Any choking issues?” After a great deal of laughing, she turns to one of the educators who remains completely submersed under the bubble wrap with one of the children and a book and says, “You know, I never thought I would ever think that plastic could be so warm and cozy.” She sits in this “warm and cozy” pile of bubble wrap while filling out the safety report—passed.*

### Chthonic Pedagogies and Curricula

As these chthonic narratives show, common worlding waste pedagogies, and more specifically the queer synthetic curriculum, are pragmatic yet speculative. They work with the simultaneously destructive and creative powers of plastic. They deny neither the ecological threats plastics pose nor the creative, malleable, and sensorial pleasures they afford. Grappling with the eternal trouble of living with plastic bodies (created to feed our petrochemical addiction (Altman 2015) that are now inseparable from our own bodies and that do not decompose is the impossible task of the queer synthetic curriculum—not educating a new breed of good ethico-political human subjects that are set on “better managing” their guilt towards toxic plastic. In this way, the queer synthetic curriculum, as Loveless points out in relation to art, works “at the micropolitical level of the here and now…with an activist impulse,” offering “speculative frames through which to defamiliarize and reorganize the local” (2019, 101).

There is the risk, we found out, that the queer synthetic curriculum be read as another recycling/reusing neoliberal performance (MacAlpine and Pacini-Ketchabaw 2020). Thus, it is important for us to tarry with our pedagogical intentions. We invite slow, situated pedagogies in which children become immersed in the tensions of plastics, the capitalist petroleum complex, and our waste-precarious times. We support children to notice plastic, not to dismiss the challenging realities they are inheriting. Without guarantees or innocence, we hope that children will be able to learn how plastic endures, to become attuned to their immediate synthetic surroundings, and to respond to the troubled worlds in front of them rather than to ideal worlds of innocence. In other words, pedagogically, we intend to refigure young children’s relationships with plastic. Having said this, for us, it is not about putting all the responsibility of our waste futures onto children or creating guilt in the next generations. Rather, we hope that our actions in early childhood education, to draw on Haraway, cultivate response-ability, which is to say, “the high stakes of training the mind and imagination to go visiting, to venture off the beaten path to meet unexpected, non-natal kin, and to strike up conversations, to pose and respond to interesting questions, to propose together something unanticipated, to take up the unasked-for obligations of having met” (2016, 130).

For us, the chthonic pedagogical and curricular happenings that strike oddly familiar comminglings of human and plastic bodies act in critically affirming worlding ways, inviting children to attune to, practice curiosity towards, and ultimately embrace the earth’s inevitable queer plastic futurities. Situated within the figure of the Chthulucene, our intent is to foster conditions for “recuperation, partial connections and resurgence” (Haraway 2015, 15) that risk attachments with and in the world. We hope that by staying with the trouble these risky attachments bring, conditions for futures other than those already determined by synthetic toxic petrocapitalist modernity and coloniality will emerge in early childhood education. We also hope that these emergences are always situated and responsive to the conditions in which they are created. In other contexts beyond Canada where children live with intensified proximities of non-degrading plastics—for instance, in the so-called zones of colonialist transboundary dumping and trading—common worlding waste pedagogies would activate a different curriculum that may not necessarily involve having plastics in sight and in mind.

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### Author Bios

**Veronica Pacini-Ketchabaw** is a professor of early childhood education at Western University’s Faculty of Education. She is a co-founder of the Common Worlds Research Collective and director of the Climate Action Childhood Network.

**Kelly-Ann MacAlpine** is an assistant professor at Western University, Faculty of Education. She is an active member of the Common Worlds Research Collective and Research Associate in the Climate Action Childhood Network.