# Holes, Gaps, and Openings: Crafting Collective Climate Pedagogies with/in Complex Common Worlds

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Holes, the concept that holds together this special issue of the *Journal of Childhood Studies*, may seem a strange choice as a metaphor for a collective project like this, yet holes poke through each article we share in "Responding to Ecological Challenges with/in Contemporary Childhoods." In this editorial we ask what centering holes, gaps, and openings might make possible for reinvigorating the relations of the interdisciplinary colloquium on climate pedagogies that sparked, and shares its name with, this special issue. Held in February 2020, the colloquium took place on the lands of the Anishinaabek, Haudenosaunee, Lūnaapéewak, and Attawandaron peoples, at Western University. This special issue picks up strands of thinking shared at the event and asks: How might we, more than two years later—two viral, extraordinary years—reenter the colloquium's openings and explore its gaps and holes?

We see holes as endemic to climate realities: We dig literal holes, large and small, into the ground while the profound erasures and egotism of anthropocentrism pretend not to notice the holes increasingly needled into the Euro-Western fallacy of its impenetrable skeleton. Concurrently, we see holes as a practice of hope—a mark worth tending to and ready to be cared for as a way of immersing ourselves into the mess and vitality of our contemporary worlds. As we worked on this special issue, we met many holes: COVID-shaped holes in our timelines, holes in our memories, and increasingly urgent holes in our own scholarship as we imagined how we might respond well to our ever changing common worlds. Before visiting with each article and its hole-making, we propose three manifestations of holes that poke through the articles: holes as fragile reading practices, puncturing holes in the human, and thinking holes with climate pedagogies. We invite readers to experiment with these holes.

Within neoliberal logics of individualized perfection, romanticized holistic approaches to education, and ontologically indestructible relations with knowledge, a hole might seem almost an apology, akin to a marker of unavoidable imperfection or a highlighting of something too slippery to be contained by the margins of an article. These manifestations of holes certainly hold energy in this special issue, as authors name their positionality and the limits of perceptibility that accompany their situated relations, where not everything is knowable to everyone. But holes also matter otherwise throughout this gathering of articles. Holes, as Isabelle Stengers (2005) proposes, are about "giving to the situation the power to make us think" (p. 185). In early childhood education and beyond, the drive for certainty and solutions during the climate conditions of the Anthropocene (Drew & MacAlpine, 2020; Hodgins et al., 2022; Nelson & Hodgins, 2020; Taylor et al., 2021) urge us to read toward innovation, explanation, and stopgaps. This is reading animated by the panic felt by the all-knowing, powerful human amid ongoing settler colonialism (Nxumalo, 2019) who feels a neoliberal responsibility to become a better steward of the world (Taylor, 2017). A steward reads in the name of acquiring the knowledge necessary to rescue the earth from the holes we have carved in land, atmosphere, and more-than-human species. Instead we want to advance holes in our reading practices as we engage this special issue-not seeking holes through critical analysis in the name of negating scholarship that does not echo what we are familiar with, but taking holes as an invitation to notice how and why it is we tune to the fissures, the slowness, the beautiful frailty of our writing and theorizing amid the complex common worlds we share with children and our more-than-human kin.

Thinking beyond the arrogant human of humanism (Taylor, 2020), the one who patches holes in the sidewalks they've paved across the soil as they dig holes to mine and consume the earth, we know that holes draw us into particular relations: relations that attune to the work of living in a world ripe with holes both inherited and created,

both life-giving and stripped of vitality in the name of progress. In weaving together the pieces shared in this special issue, we want to see holes as an active common worlding project (Taylor & Pacini-Ketchabaw, 2018) and a political ethic oriented toward living well together. To think holes here is to puncture the image of the human who, depending on the context, both drills holes in geographical relations (Nxumalo, 2017) or is overly apologetic—almost performatively atoning—for the holes in their own work and lively relations (one iteration of a practice Tuck and Yang [2012] name as "settler moves to innocence" [p. 1]). Paying attention to holes becomes one practice in the careful work of imagining life beyond the human. Here, we echo a question laid out by a sister symposium: "What might the figure of the Anthropocene provoke within twenty-first-century childhood studies and education?" (Kraftl et al., 2020, p. 335). We respond with a tentative gesture toward holes, asking what holes do to the Anthropocene and amid the Anthropocene. Extraction, commodification, and harm are made through holes oriented toward capitalist destruction and human exceptionalism, but in the same gesture, noninnocent holes also serve as tunnels and arteries in worlds built of reciprocity, vulnerability, and relationality. Holes, then, are a high-stakes, shifty, situated project, one against solutions but toward recognizing that we are implicated in complex networks of holes and hole-making, where holes are not imbued with morality, but it is how we respond with the holes that animate our lives and our conceptions of the human that matters.

Finally, as we move to spending time with holes with each of the articles, we want to get to know holes with pedagogy. Pedagogy, which we think alongside Cristina Vintimilla and Veronica Pacini-Ketchabaw (2020), is about figuring out how to live well together, where "life-making is not a process created through consensus or through applying an already decided definition of life" (p. 638). With Vintimilla and Pacini-Ketchabaw, we "propose that [life-making] happens in the midst of struggles, interruptions, and even failures" (p. 638). How might we think holes as life-making? How might getting to know holes as collapse or strife that stretches beyond our own individual experience and instead orients toward becoming implicated shift how we might learn to respond with climate pedagogies—especially given the suspension-ridden holes of a global viral pandemic (Phelan & Hansen, 2021)? We want to take up Rooney, Blaise, and Royd's (2021) question: "What can the practice of 'muddying' or being in a 'muddle' offer as a pedagogical approach in early years environmental education?" (p. 111). We want to ask how holes implicate us in muddles that deepen our pedagogical thinking and acting. We can fall down holes, trip over holes, lower ourselves into clefts, punch holes in walls, fill the void of our empty gas tanks, and gouge out earth ripe with metals needed to keep our bodies and worlds in motion. How then does thinking with holes become a proposition of pedagogy and not just a lived reality? We propose, as do the articles that follow, that attending to holes as a practice and a process doused in the thick of life might be a tentative method toward thinking pedagogically with climate realities. As Deborah Bird Rose (2017) wrote,

We are called to live within faith that there are patterns beyond our known patterns and that, in the midst of all that we do not know, we also gain knowledge. We are called to acknowledge that in the midst of all we cannot choose, we also make choices. And we are called into recognition: of the shimmer of life's pulses and the great patterns within which the power of life expresses itself. We are therefore called into gratitude for the fact that in the midst of terrible destruction, life finds ways to flourish, and that the shimmer of life does indeed include us. (p. G61)

Holes, here, are about life-making: How do we do the intensely, acutely difficult work of figuring out how to live well together with holes and hole-making as a commitment to creating and nurturing otherwise—responsive, mutual, answerable—relations and climate pedagogies within our common worlds? We turn now to thinking with each of the articles in this special issue, taking as a common theme how holes orient us differently to our messy, lively worlds.

## Hole-making and tending within this special issue

Opening our special issue by working in the holes of settler epistemologies, Virginia Caputo experiments with interdisciplinarity and expansive thinking as a settler response-ability in her article "Entangle, Entangled, Entanglements: Reimagining a Child and Youth Engagement Model Using a Common Worlds Approach." Caputo brings children's rights and common worlds into dialogue, with the intention to drop these two approaches together into the hole we call early childhood studies and to listen to the echoing incommensurabilities and overlapping commonalities that bounce back. Engaging in diffractive listening, Caputo pays attention to synchronicities and clashes and the possibilities for "how a rights-respecting approach can be productively reconfigured in envisaging a dynamic climate pedagogy" (p. 8). Thinking specifically with a youth engagement model called Shaking the Movers, Caputo tangles concepts of the "postchild" (Aitken, 2018), more-than-human agency (Pacini-Ketchabaw & Taylor, 2019), and ethics of interdependency and alliance in human rights (Khoja-Moolji, 2017) to amplify the asymmetrical power relations and settler logics inherent in human-rights-based discourses. This responsive entangling of recomposes Euro-Western definitions of what the human is made of and aims to reconfigure the Shaking the Movers model by inviting a generative and expansive reconsideration of children's entanglements in more-than-human worlds. Listening and then responding to the messy and entangled echoes that resound from dropping children's rights and common worlds approaches into a dialogical hole, Caputo widens and deepens the contours of child rights and restorative justice approaches in the Shaking the Movers model.

In "Keepers of the Night Stories," the second article in this special issue, Janna Goebel writes of child-Earth stories, wondering who the keepers of such stories are. Anchored in an ethic of becoming-with the world, Goebel shares stories generated in a school in southeastern Brazil where, through care-full walking conversations, she came to know and participate in children's already existing stories of more-than-human relationships. In thinking Goebel's article with our provocation of holes, we might ask how we story holes: How do our natureculture stories (Blaise & Rooney, 2019) not just embody holes, but how do we story with holes, and why might such a proposition be relevant to thinking climate pedagogies in the 21st century? Goebel writes of how stories are continually in motion and asks readers to practice speculative diffraction in reading -a strategy against reading too readily for coherence, as the figure of the anthropocentric human asks us to enact. Reading holes alongside the practice of storying Goebel performs, we might start to see the stories we tell with holes as ways of not simply examining or better understanding a hole-be this a literal hole in the ground or a more conceptual hole in the literature-but as an ethical commitment toward storytelling and storylistening. Storying holes makes perceptible the modes of getting to know the lively politics of a hole through moving slowly, linking to systemic analyses and worlds, and having the patience to avoid reiterating an already existing, all-too-easy humanist narrative of how and why a hole has come to be. How do we story holes? Why? In a sense, Goebel is storytelling against teleology—a practice very relevant to storying the holes of climate change against chronicles of solutiongenic human exceptionalism. In the wake of certitude, Goebel tells stories of entanglement where readers are asked not to read nonuniversality as a hole in the scaling up or universalized applicability of her research, but to instead make stories with holes that matter, to "story-with the vignettes to speculate about what might come into focus if we were to decenter the humans from the story and instead foreground the damage that humans collectively cause" (p. 30).

In the third piece in this collection, Bridget Stirling labours with concepts of temporal care and ethical relationality to unsettle settler time in relation to constructions of childhood in "Childhood, Futurity, and Settler Time." Situating this work as a decolonial project, Stirling offers critique as a way to rupture settler constructions of time and childhood. The article looks for the gaps in settler constructions of time and childhood, settler than steer clear of these potholes, she pauses to offer them as a *third space*—not in the guise of

decolonization, but as a space to resist the dominance of settler childhood and allow multiple ways of knowing time and the temporalities of childhoods to take up space. Here, we experience holes as temporal gaps that are "shaped like other childhoods than those of white, settler children" (p. #) and engendered by the persistent image of the settler child living through settler linear time. These temporal gaps, like potholes in the road, collect water, trash and debris; they crack and widen, get patched up and crack again as the ground shifts and settles. Stirling spends time in the temporal gaps, while also staying implicated in her own critique by resisting a settler move to innocence and taking care to avoid appropriating Indigenous knowledges as a recuperative solution to tentatively patch the holes in settler epistemologies and the damage of colonialism. Taking seriously this responsibility to think otherwise, Stirling grapples with what it might mean "to live with and beyond the damage through a third way of establishing relationships of care that allow for the copresence of all our multiplicities in more-than-human worlds" (p. 43).

"Watch Out for Their Home!': Disrupting Extractive Forest Pedagogies in Early Childhood Education" revisits a moment from practice in which Nancy van Groll, Heather Fraser, and a group of children meet a decaying log. In this fourth article, holes show up in many places. Most obviously and literally are the holes in the log, from which tiny insects emerge after human disruption. But here we want to take up the metaphorical holes that inhabit place. Van Groll and Fraser think through the child / decaying log narrative with Haraway's (2016) proposition to stay with the trouble. This proposition is often taken up as a thin gesture to gloss over the troubles of our times or make them less threatening. The authors defy this trend by returning to trouble as one might return to a scab: They pick at the trouble and refuse to let it heal. This is a commitment to pick and pick again at "romantic, extractive, and redemptive discourses" (p.48) that perpetuate settler colonial narratives and flourish in much of early childhood education's engagement with climate relations. This wound they pick open again and again challenges humancentric conceptualizations of child-forest assemblages and offers possibilities for creating responsive, imperfect pedagogical practices. The metaphor of picking a scab helps us as readers to notice the vulnerability associated with refusing the selfcontained human subject and offers opportunities to rethink human relations with the climate crisis and the world through collective, nonredemptive entanglements. It asks the unsettling question, what if we, as humans, can't fix this? What if this humanist wound we have chosen to keep picking at has been opened too many times to heal?

In the fifth contribution to this collection of articles, Will Parnell, Julianne Cullen, and Michelle Angela Domingues write of a layered process of engaging teacher educators, early childhood educators, and local artists with a documentary about albatrosses dying from having swallowed great quantities of plastic waste. In tending to bundles of plastics, birds, and humans, Parnell and his colleagues detail the immense affective complexities of presencing the sharp violences of climate change across early childhood education contexts-and the hard work of insisting on bringing such a documentary to a vein of research-practice that often rests in colonial narratives of childhood innocence. Holes become quite literal as we see the holes wrought by decay, as bird bodies die and rot around the enduring plastics that once lived in their stomachs. Staying with these holes made by bird deaths, by the liveliness of rot-making microbes and the stubbornness with which plastics resist decay, we are haunted by holes in this story of birds and plastics: holes linger behind plastics. We think of the holes brought by petroleum extraction, mined deep into the prairie soil and threaded across landscapes of grass. Holes made by gas transported across the continent in massive pipelines both dug into and laid over the ground. The pipeline too is a hole, one made of progress and capitalism and filled with expensive sludge that motivates wars and suffocates marine life. Holes that haunt the experience Parnell et al. describe are more local, too-holes made of hydro or geothermal heat that warms the rooms at academic conferences and Inventing Remida Portland, the sites of this work. These holes are less overt than the holes in

dead birds and the gap left in delicate ecosystems by the annihilation of these creatures, but this proposition toward tracing the holes that haunt our climate pedagogies is ripe for thinking in the company of Parnell et al.'s article because, as the authors offer, "this research offers a re-turning in ways of relational living with our lands, rocks, waters, Earth and with humans, birds, and nonhuman kin" (p. 70). A re-turning, we suggest, deepened by thinking of the holes that haunt our own work.

In "Dis/orientating the Early Childhood Sensorium: A Palate Making Menu for Public Pedagogy," Alex Berry, Jo Pollitt, Narda Nelson, B. Denise Hodgins, and Vanessa Wintoneak write of the work of curating and sharing an interactive exhibit that invites visitors into the complexities of thinking climate pedagogies as alterpolitics in the making. A key connection that Berry and her colleagues make is between palatability and public pedagogy, where publics and pedagogies are made in the politics of what is deemed palatable in education-and how. In dialogue with our curiosity about holes, we might infiltrate this trinity of palatability, pedagogy, and publics with holes, wondering about which holes are made perceptible within which pedagogical commitments. That is, we cannot attune to all holes at all times, nor can we make and unmake all holes perceptible at all times. Invoking the early childhood sensorium as a question whereby we might ask how we do perceptibility-what becomes perceptible with which sensorial entanglements?-Berry et al. highlight perceptibility as an embodied and political activity. Might we too think of making holes perceptible as embodied work? How do we attune to holes and to which holes can we not attune? Berry et al. take up similar questions by sharing a speculative menu that details the curatorial work of the exhibit, arguing that climate pedagogies might take up practices of insatiability and aftertaste to unsettle grandiose narratives of human exceptionalism and consumption. This is a making-perceptible that traffics in traces, in muck, in hunger, in necessary irresolution. We might extend such a practice to thinking holes: How do we notice the holes Berry et al. center as carefully curated provocations toward thinking pedagogically with insatiability and aftertaste? Which holes are made perceptible in enlivening climate pedagogies and which become irrelevant, erased, or escape the scope of our curatorial practices? As Berry et al. provoke, "How does a connoisseur come to savour what they are already eating yet may be able to ignore?" (p. 86)

Finally, as the closing move of this special issue, in "Speculative Child Figures at the End of the (White) World," Emily Ashton interlaces theoretical dispositions from childhood studies, anthropology, feminist science, Black feminism and anthropology to create uneasy reconceptualizations of the world's end. Thinking with the zombie child Melanie from the speculative novel and film \[Imedian here Girl With All the Gifts, Ashton offers] questions about the end of the world that puncture a universalized understanding that the world ending would be "bad" for everyone. Centering race as a consideration in end-of-the-world discourses, the article acknowledges that climate crisis disproportionately affects racialized bodies and moves beyond existing identity politics to imagine the end of the world as the end of the "human exceptional world of whiteness" (p. 96). Ashton moves through defined holes, lacing together theory, fiction, and current events to challenge the reader to think carefully about who the human is and how taken-for-granted conceptualizations of the human slip through the cracks when thinking about relations with the world through singular perspectives. Pulling together these particular genres and theoretical perspectives might gesture toward the possibility of a comprehensive theoretical understanding that could propel toward "the solution" of the ails of our world: racism, climate crisis, a virus. Instead, Ashton refuses to collapse them into one identifiable big bad and is unapologetically against the logics of redemptive status-quo engagements with our troubled world. This refusal produces tensions in between the holes and incommensurabilities that pull toward ethical responsiveness and difficult questions about who the human is and who is made killable.

### **Reading holes**

We have presenced a provocation of thinking with holes amid climate pedagogies as a practice for drawing common threads through the articles to follow in this collection of articles concerned with responding to ecological challenges with/in contemporary childhoods. Moving into thinking with each article, we invite readers to grapple with these questions surrounding holes: Which holes do our climate pedagogies dialogue, resence, puncture, and make perceptible? Why? How do particular holes haunt or scab our thinking, embodying fissures in settler epistemologies that matter toward thinking climate pedagogies? What do we make of holes when thinking climate pedagogies? Or, put differently, as you spend time with the articles in this collection, how might holes serve as a generative ethic, politic, and practice of listening in the name of crafting collective climate pedagogies together with children within complex common worlds?

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