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Learning With Treescapes in Environmentally Endangered Times

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Learning With Treescapes in Environmentally Endangered Times

Introduction

Samyia Ambreen
Kate Pahl

Contributors

Zoey Ashcroft
Samyia Ambreen
Kate Pahl
Tiffani Marie
Khawla Badwan
Stephanie Jones
Lindsey Lush
Sarah Whitaker
Gill Forrester
Jo Maker
Will Price
Hollie Davison
Heather Gilbert
Gretel Olson
Ingrid Olson
Stephanie Schuurman-Olson
Melanie Riley
Alexandra Délano Alonso
Marco Saavedra
Kostas Magos
Irida Tsevreni
Jayne Osgood
Suzanne Axelsson
Tamsin Cavaliero
Maire Hanniffy
Susan McDonnell
Zuleika Fertullien-Hines
Nadia Anjum
Kate Van Haren

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Introduction

Learning With Treescapes in Environmentally Endangered Times

Samyia Ambreen and Kate Pahl

As we write this in a cool and rainy north of England, the planet is burning. Some of the highest temperatures in Earth's history are being recorded in Death Valley, United States. Italy is hitting temperatures of 118 degrees Fahrenheit (48 degrees Celsius). Rhodes is on fire. I (Kate) remember when I realized the extent of the disaster that is the climate emergency. I was listening to a geologist describing the slow and then very fast loss of a glacier in the High Arctic. We are realizing that our world is slipping away from us.

However, it is vital not to lose hope. We have to live and think in a different way. Our global health rests on developing new ways of knowing and being. Educators are at the forefront of advocating for change. Issue 50 of the Bank Street *Occasional Paper Series*, "Learning With Treescapes in Environmentally Endangered Times," is intended to be hopeful. We collected these articles to contribute to the envisioning of new practices and to an architecture of knowledge to waymark a more sustainable route into the future.

Trees are vital for the present and future health of the planet, its inhabitants, and ecosystems. They store carbon and breathe out oxygen. Their leaves filter dangerous pollutants. Their branches provide shade and a shelter for a myriad of other beings, allowing diverse species to thrive. They provide cooling, control erosion, and filter water. Life on Earth depends upon trees.

Yet trees have no voice in the high-stakes fight for a livable planet. Deforestation continues despite constant human protests and the protests of more-than-human plant and animal species. Here in the United Kingdom, only 13 percent of the country remains forested. Over the past 100 years, the Earth has lost as much forest as it had in the previous 9,000 years of human habitation, with one-third of the Earth's forests now gone (Ritchie & Roser, 2021).

CENTERING TREES

Even as human-driven destruction of mass tracts of trees continues, in this issue we highlight that trees live with us and amongst us. Common worlding is a collective pedagogical approach recognizing that children grow up, live, and learn within more-than-human worlds—within complex and diverse ecological communities, not just in human societies. Our common worlds are the interdependent, life-sustaining ecological communities that we share with all manner of other beings, entities, and forces on Earth (Taylor et al., 2021, p. 74). The common worlds understanding of human/nature intra-actions finds humans and nature to be mutually constituted and transformed by their encounters (Pacini-Ketchabaw, 2013).

Looking at humans and trees as interdependent through common worlding, we pay close attention to the tree, human, and non-human worlds, noticing their movements and intra-actions. Common worlding pedagogies rely on an openness, enabling teachers and learners to be members of the wider ecological community. They require teachers and learners to engage in collaborative intra-actions with the world around them, to avoid teaching about the world as if it were "out there," and to deepen teachers' and learners' understandings of relations with the more-than-human world around them.

Jickling and colleagues' (2018) work on the Crex Collective's six touchstones for Wild Pedagogies is also useful. The six touchstones offer practitioners basic principles to consider nature as an equal contributor in learning about human/nature relations. They include nature as co-teacher; complexity, the unknown and spontaneity; locating the wild; time and practice; socio-cultural change and building alliances and the human community.

The term "wild" is used to challenge western Eurocentric understanding of nature and human relationships. The "wild pedagogies" framework critiques the increasing control over educators and calls for re-wilding the education process itself.

The expansion in human movement across regional and national borders as a result of migration calls for researchers and educators to have diverse and embodied understandings of human relationships with places, landscapes, nature, more-than-human beings, and the wild. A "wild" view of education that recognizes that nature is a co-teacher and draws on indigenous perspectives (e.g., Kimmerer, 2020) is important to disrupt Western understanding of the Anthropocene. This perspective presents global humanity as equally responsible for ecological catastrophes (Rousell & Cutter-Mackenzie-Knowles, 2023).

The separation of humans from non-humans and the turning of Earth into property are connected to colonialism and neoliberalism, as many writers have described (e.g., Deloughrey, 2019). From this critique has come a concerted focus on remembering, and recovering lost roots and memories. As Deloughrey (2019) writes, "Our increasing awareness of climate change is catalyzing new imaginaries" (p. 1). These new imaginaries include concepts of connected entanglements, and a rhizomic and embodied awareness of the planet and its beings. Anna Tsing (2021) has reflected on these connectivities and how they inflect our lives. Placing trees, as beings who speak and can be listened to, on an equal footing in our relational world alters the dynamics of whom we are accountable to and why. This means that we need to determine whose voices matter and how we can recalibrate our worldly relations. The aim is to exemplify how when stories in which non-humans share agency with humans (Jickling, et al., 2018) are told, readers are enabled to challenge western-centric, adult-centric views of human/tree connection and human and modernist assumptions about humans as the elite in multispecies encounters.

The term "treescapes" is helpful to acknowledge the daily trees in our lives, in our streets, parks, and playgrounds, as well as forests and woodlands. In this issue, contributors describe how relationships with trees can become part of our educational landscape. Articles range from early care settings through adult gatherings. Collectively, they challenge perspectives that imagine trees simply as "resources," instead presenting a relational vision of living responsibly and responsively with the trees we depend upon.

We need to respond to the crisis of deforestation globally, as global citizens of the world, and also within our neighborhoods and localities. As educators, we are keenly aware that attentiveness to the ways in which children and young people are positioned within this debate is critically important. While there is a consensus that children will inherit the world that we adults have created, the mechanisms to hear children's voices and construct a useful shift in thinking within curriculum and pedagogies is lacking. The climate crisis is children's abiding challenge. Nxumalo and colleagues (2022) argue that:

we see a disconnect between how quickly human and more-than-human lives are changing as a result of climate change and the lack of accompanying responsive and responsible changes in curriculum and pedagogy in pre-K-12 schooling and in higher education. (p. 97)

It is this challenge that we address here. The articles in this issue explore the myriad ways in which it

is possible to relate to a tree, to learn from treescapes, and to become more attuned to the land and the trees. We hear the voices of children and young people within this space and are attentive to the ways in which young people are living in a world that does not recognize their interests.

We also seek to acknowledge that treescapes are more than natural environments. In their co-existence with humans, treescapes are wrapped into a wider landscape of biodiversity—they host small animals and insects, they reduce carbon, they provide shade. Yusoff (2012) acknowledges the complexities of experiencing biodiversity loss and recognizes the relationship between representation and conservation—trees, by implication, need to be “noticed” to be saved or repaired. Yusoff’s point is that the non-human subject is always subjugated by representation. Trees cannot speak back to most humans in a language that they can understand. Concepts of kinship and alliance, drawing on ways of knowing that connect to the land (e.g., Kimmerer, 2013/2020), can provide a path into a communicative mode of listening to trees. This approach might require an awareness of the roots of the rupture between humans and trees and a commitment to moving away from discourses of extraction, such as seeing forests as timber and for burning—perspectives that only consider trees as useful to humans but do not listen to what they know.

LEARNING WITH TREES

In this issue, we hear stories from children and young people, educators, parents, activists, policymakers, and researchers about their encounters with treescapes. The concept of treescapes provides a wider understanding of trees as not just in forests and woodlands, but in streets, parks, playgrounds, and sports grounds. Contributors to this issue describe trees as offering expansive, embodied, and affectively powerful experiences of learning and connection. Implicit or explicit in all of this work is the urgency to nurture a commitment to protecting and restoring treescapes locally and globally.

Articles in this issue include stories from teachers and their students about learning with trees, and descriptions of how engagements with trees can transform research and ways of thinking, feeling, and being. Across multiple pieces, authors reflect on how connecting with trees facilitates greater connection among humans and between humans and the more-than-human occupants of our planet.

We chose to include artwork, photographs, and video produced by both adults and children because we believe that these are important ways to experience and think about our relationships to trees. Rautio and colleagues (2022) ask, “How could different kinds of knowledge co-exist, potentially generating more just worlds? Crafting common grounds, spaces where different ‘sciences’ could meet, would be an effort toward (multispecies) democracy yet to come” (p. 777). Our decision to use multiple media and the work of children in this issue represents an experiment in that we are presenting different kinds of knowledge in one issue, including the knowledge of the worms (see Zoey Ashcroft’s piece on “Traces of Worms”).

TREES AS FOUNDATIONAL TO LEARNING

As Tiffany Marie illustrates, trees can be foundational to student learning, connecting them with histories, heritages, and contemporary identifications and practices that exceed and counter traditional schooling. Marie brings her Yoruba indigeneity and stories of her family’s kinship with the trees of their Arkansas homes to support her high school students’ reconnection to their landed heritage. Arguing that social critiques cannot be divorced from physical environments, Marie offers practices that can help students to experience more authentically articulated possibilities for their present and future.

For Marie’s students, as for the students of Samyia Ambreen, Khawla Badwan, and Kate Pahl, starting with trees provided a different, more expansive space from which to think and act. As Ambreen, Badwan, and Pahl (this issue) observe:

Children’s stories about their lived experiences and encounters with trees in this case study revealed that children placed their social relations with other humans and the more-than-human world at the center of their lives.

Trees also become co-teachers, enabling children to engage in skill-learning. Children were engrossed in self-directed and experiential learning whilst playing with the mud, woods, sticks, and tree leaves. These two examples require educators to explore, with children, the relationships between children and trees with an attuned attentiveness to the non-human, including worms, mud, sticks, twigs, and the rustling sounds of the trees—this whole approach to trees centers the trees in a different way in educational contexts compared to much conventional educational practice.

Co-learning *with* trees, having a dialogue with them, learning *from* them, is where we can start. Stephanie Jones, Lindsey Lush, and Sarah Whitaker (this issue) describe children “making kin” with trees through their interactions:

[T]hey climbed trees, threw balls and fabric into trees, they ate lunch and snacks beneath the trees, and they sat in a circle of “chairs” made of cut tree trunks. There was a large tree that had fallen across a deep ravine that linked one person’s backyard to another person’s backyard. The more agile children scurried across the tree-trunk bridge without hesitation and others took it slower, sometimes backing up to the safety of the ground when they looked down and realized how far the fall would be if they lost their balance.

The trees in Jones, Lush, and Whitaker’s after-school playground offered creative learning spaces for children and young people. Stephanie Jones describes the feeling of being “at home” with trees and the richness of this experience as one that permeated her life as an educator. This experience led to a relational understanding of trees within her practice. Within this, also lies an understanding by the authors of the dangers of how tree spaces can be used in enactments of radicalized violence. Forging a new relational engagement with treescapes can also offer a way out of dystopian futures and point toward a kinder engagement with the world. The “now-ness” of trees can help us through this process. Central to this is a “being with” and connecting with the forest.

Re-forestation initiatives in the United Kingdom and the United States will lead to new ways of working with youth that engages them in the mode of trees as teachers. In making a space of connection, Gill Forrester, Jo Maker, Will Price, Hollie Davison, and Heather Gilbert describe a Youth Landscapers project in the National Forest in the United Kingdom:

Using the local landscape as their inspiration, the group developed and delivered thought-provoking and creative art projects which included the “Telling of the Bees” and “The Underneath;” working intergenerationally and connecting with local experts, including a beekeeper, a mushroom grower, ecologists, and forestry workers, to draw upon their breadth of knowledge and expertise.

Forrester and colleagues summarize the benefits of engaging children in outdoor learning as part of their engagement with the National Forest Company’s school-based intervention programs in Great Britain. The outdoor learning programs hosted by the National Forest Company provide opportunities for children to engage in outdoor learning on a wide scale. Detailing the kind of learning that happens as part of the programs, Forrester describes how children take part in activities from storytelling, art, and sensory tasks to shelter-building, cooking, and fire-lighting. Through these examples, the authors

offer multiple mechanisms for children and young people to connect with treescapes in a way that suits them. Improved social skills and academic achievement as well as an increased awareness of their newly developed treescape heritage remained prominent in child/tree encounters. Children not only learn practical skills but become decision-makers and leaders, recognizing and valuing the skills of others. For many children, connection with nature is reported as promoting their desire to protect and care for not just local treescapes, but the wider national and global environment for future generations. Both the young people and the educators are also encouraged to envision potential barriers—such as difficulties accessing woodlands or ways of seeing woodlands as dangerous places—as opportunities for re-imagination in order to make a difference in their communities.

TREESCAPE METHODOLOGIES AS POINTS OF CONNECTION

Methodologies, such as sensory ethnography (Pink, 2009), involving visual and sensorial connectedness, produce understandings that include multi-sensory encounters with trees that include smell, touch, sound, and visuals. This special issue highlights visual and sensory methods, in which children, young people, and adults narrate their worlds through drawings, photographs, and videos.

Four pieces feature the work of children engaged with trees. Six-year-old Gretel and 9-year-old Ingrid Olson provide beautiful paintings and commentary on real and imagined treescapes. In another piece, Ingrid and Gretel's mother, Stephanie Schuurman-Olson, goes with the girls into an aspen grove in Alberta, Canada to explore and experience reciprocity and relationality through singing and deep listening to and with their surroundings. Zoey's field drawings outline the wiggly paths of worms through the underground treescapes in her field notes. The traces of the worms were left on the page. Rex and his mother explored together the treescapes in an urban park in Moss Side in Manchester, United Kingdom in a way that was reciprocal and embodied.

These contributions demonstrate a kind of environmental education that is felt and embodied (Rousell & Cutter-Mackenzie-Knowles, 2020). Through such engagement with urban parks and small-scale urban gardening, lost or previously unknown skills and sensibilities come into view. Children explore trees by feeling them, climbing them, listening to them, and lying on the ground looking up through them. They engage with imaginary trees, shaped by transnational grandparents and ancestors, and other people in their lives.

Alexandra Délano Alonso and Macro Saavedra also use painting to explore their connection with treescapes. They say, "What walking among the trees has taught us is that every art is an invitation to the mutuality of life. Through paintings, it means creating an opening of treescapes and orchards for people to become a part of and inhabit." The connectivity of trees, as described by Peter Wohlleben (2021) is much more complex than previously thought. Wohlleben argues that our thriving rests on the trees thriving. A reciprocal relationship to trees can open up new ways of being and learning. Learning with trees can be understood as dialogic (see also Simard, 2022) and more connected than we know. Kimmerer (2013/2020) argues for a radical listening, which involves a connectivity with trees as co-beings. We live within a world in which to become human "acknowledges ourselves as connected with other living beings, including animals, trees, plants and stones who share the planet with us" (Seidler, 2022, p. 36).

Kostas Magos and Irida Tsevreni illustrate that for the adults with whom they work, trees offer connections with homelands far away. For the early childhood education students and refugees, they walked with in the countryside near Thessaly, Greece, the trees encountered brought back memories of trees from earlier times and places, as well as stories about the significance of trees in cultural practices and myths. Ultimately, the authors argue, the trees served as bridges to greater understanding and solidarity amongst participants.

Jayne Osgood, Suzanne Axelsson, Tamsin Cavaliero, Maire Hanniffy, and Susan McDonnell, also engaging with adults, demonstrate the use of “arboreal methodologies” to dismantle anthropocentric perspectives and romanticized views of children in nature. Osgood and colleagues add to the issue the urgency of calling into question “the narrow concern with how nature benefits child well-being, development, and learning.” These authors argue for a more realistic assessment of living in the world—including a forest world recreated by humans and capitalism—but one that offers thoughts about “how children and adults can live, learn, and play together with and in technoscapes and treescapes.”

Ways of knowing, researching, and doing rest on disciplines that themselves are linked to particular modes of thinking. As McKittrick (2021) argues, “Method-making is the generating and gathering of ideas—across-with-outside-with-against normative disciplines—that seek out liberation within our present system of knowledge” (p. 47). We need to tell different stories in order to appreciate and respond to this radically different world (Moss, 2014).

THE “HOW” OF TREES: WAYS OF KNOWING WITH TREES

Articles in this issue show that appreciating trees requires slow moments spread out over longer timescapes, as children and young people come to value and listen to trees (Clark, 2023). This requires an aesthetic dimension, recognizing the beauty of the tree, together with care for the tree as a living being (Olssen, 2023, p. 186). These practices of care and attention to the growth of the tree over decades and centuries can provide us with hope for our future. Zuleika Fertullien-Hines (this issue), for example, describes how observing and talking about trees become part of daily practice in her urban preschool over the course of the school year:

The trees outside of the classrooms were imbued in the daily conversations between the children and the teachers; when the teachers described the wind and pointed to the movement of the branches, when a bird perched itself on the tree and seemed to look inside the window, when a child saw the leaves change colors in the fall. There were ongoing opportunities to naturally speak and point to the tree and find connections with the books that we read throughout the year.

For Nadia Anjum a tree-planting effort organized with teachers, parents, and children at a school in Punjab Province in Pakistan speaks to hope for the present and the future. Pakistan is, according to the Global Climate Risk Index, one of the countries most adversely affected by climate change, suffering severe heat waves, unchecked flooding, and accelerating levels of pollution from policies and practices that exist far beyond Pakistan’s borders. Anjum describes the Plant for Pakistan Project in which her school participated, and how the teachers moved beyond planting to provide an awareness campaign to promote local understanding of the critical importance of creating and sustaining treescapes.

For Kate Van Haren and her fourth grade students, the study of historic and current photos and maps of the Menominee forests raised questions about changes brought to the United States by settler colonial logging. It initiated a study of how the Menominee, the Indigenous inhabitants of the region, have been involved in efforts to protect their ancestral land since their earliest interactions with European settler colonialists. Menominee practices of sustainable forestry became a hopeful model for these 9- and 10-year-olds who understood their futures as imperiled.

Such historical mappings, the studying of contemporary policies and practices, and engaging future imagining makes up the ways in which we as planetary citizens need to respond to the climate crisis. Bringing the past and future into the present alters the scale of the thinking we need to do.

TREESCAPES OF THE FUTURE

The future of trees is the future survival of all life on this planet. While trees thrive without humans, humans cannot thrive without trees. In this issue, we address the urgent necessity to move humans to connect intellectually, physically, emotionally, and affectively to trees in ways that we hope will help to motivate critically needed change. Throughout the pieces in this issue, it is clear that treescapes provide points of connection and invite embodied and relational approaches to learning. Whether or not we connect to trees, human survival is at stake. Through this issue, we want to offer hope, but hope that is entwined with action. This special issue offers us some “hows” of this practice. In each instance, there is a vision of a future that includes a healthier and more revered global and local treescape.

Learning with trees can involve different kinds of knowing with non-human partners. As Weber (2014) says, “We humans see with plants and animals just as poets see with words” (p. 26). These ways of knowing and being might involve what Lenz Taguchi (2000) calls “resistance practices,” which disrupt teachers’ notions of learning (Dahlberg & Moss, 2005, p. 111). Within education, this is a challenge in an age of high-stakes testing and neoliberal politics, but it is necessary if we are to survive as a species. Our special issue is diverse, and provocative, providing a portal into a new way of doing education, with and for the future, with the trees, and with hope.

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ABOUT THE AUTHORS



Samyia Ambreen is a research associate in the Education and Social Sciences Research Institute (ESRI at Manchester Metropolitan University. Her research interests include understanding children’s interactions through a participatory research design, with a focus on ethnicity and cultural diversity. She is also interested in hope, children’s spirituality, and care toward the environment.



Kate Pahl is professor of arts and literacy at Manchester Metropolitan University. Her work is concerned with literacy and language practices in communities. She is the author, with Jennifer Rowsell, of *Living Literacies* (MIT Press 2020. She is currently the Principal Investigator of “Voices of the Future,” a three year project funded by the Natural Environment Research Council (NERC exploring the relationship between children and young people and treescapes.

Traces of Worms

Zoey Ashcroft

The setting was a day spent planting trees outside the school grounds. As Zoey and her classmates planted the trees, they also recorded the activity in their notebooks. The children noticed the worms that were wriggling in the ground. Zoey recorded an activity in which leaves and then worms were lifted from the earth, and the worms then explored the page where they were put. Afterward, the worms were lifted off the page and put back on the ground. The traces of the worms were left on the page.¹

We were left with traces of worms.



Figure 1



Figure 2

¹ All text written by Kate Pahl.



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9

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This work is part of the “Voices of the Future” project. It took place in Blackrod Primary School in Bolton, England, with the support of Samyia Ambreen, Kate Pahl, Steve Pool, Peter Kraftl, Johan Siebers, and the teaching staff of Manchester City of Trees.

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ABOUT THE AUTHORS



Zoey Ashcroft loves nature and spends a lot of time outdoors. Her family has a woodland nearby and she is always on the lookout for what animals she can see, such as squirrels, foxes, deer, and a shrew in the long grass. Zoey's school has taught her a lot about the environment, and she has gone with her parents on clean-ups, collecting rubbish from the woods and recycling what she can. Zoey loved working on the worm piece and she often sees worms and loads of insects in her family's garden, which includes a fruit and vegetable patch with strawberries, tomatoes, lettuce, and rocket along with many trees, bushes, and flowers.

Schools Are Where Trees and Children's Livelihoods Go to Die: A Teacher's Reflection on Revitalizing Land-Based Education

Tiffani Marie

But in indigenous ways of knowing, we say that we know a thing when we know it, not only in our physical senses—with our intellect, but when we engage in our intuitive knowing, of emotional knowledge and spiritual knowledge...traditional knowledge engages us in listening, in [asking] what is the story that being might tell us. Robin Wall Kimmerer (Tippett, 2016)

With palms facing the sun, hands laid gently prostrate against their laps, and eyes closed, my 10th-grade English students and I listened to Muwekma Ohlone's blessings to the land. Then Angus shared his family's ancestral prayer in Pinyin:

Dàjiā hǎo, wǒ jiào yú ān gé sī. Gǎnxiè nín ràng wǒ jīntiān lái dào zhège shénshèng de kōngjiān. Wǒ yāoqǐng wǒ de zǔxiān yǔ wǒmen tóng zài. Zhù dàjiā shēntǐ jiànkāng, shòu hǎo jiàoyù, xīn xiǎng shì chéng.

Lorenzo closed our ceremony with a Nahuatl song offering:

Monana, motata choka, Pampa ta timonamiktia
Monana, motata choka, Pampa ta timonamiktia

.Xikijli axkanaj ma choka, Pampa axkanaj timikita
.Xikijli axkanaj ma choka, Pampa axkanaj timikita

.Tokomalej uan tokompalej, Xikonikajya, se uinojts
.Tokomalej uan tokompalej, Xikonikajya, se uinojts

Angus and Lorenzo shared offerings from their ancestral lineages that both children researched (from parents and trusted community members) and practiced as part of our program's curricular pathway. That year, we were committed to all of our children learning to honor the indigenous practices of the land we resided on (Turtle Island, Ohlone Land), as well as their own ancestral, indigenous practices. We taught our children that they, too, are indigenous to somewhere and therefore Indigenous People, and their well-being could be intimately connected to the cultural medicines of their people.

We gathered under an oak tree. We used ceremony to commence our class sessions. We had abandoned the four walls of the traditional classroom, with its confining, individualistic culture, and sat freely amongst the trees, asking for permission to proceed with the day's lesson. We were not alone; I co-taught and learned with the trees, the ancestors, and the thousands upon thousands of living species who are always with us, who we, that day, humbly acknowledged.

Our learning environment had not always been motivated by these norms. Teaching in a San Francisco Bay Area public charter school, even with all its progressive rhetoric, still centered achievement and college matriculation as the most important pathways toward self-determination for our young people. Even for me, coming to understand the critical importance of our connection to the environment and trees and how that related to the histories of our families and of Western colonialism was a long process. And I, certainly, had not always been a lover of the natural world. As a teenager, I avoided

school camping trips and other engagements with nature. Preserving the freshness of my Nike Airmax sneakers outweighed my perception of anything “getting dirty” had to offer.

I now understand my disdain of the land and its centrality to well-being to be an outcome of my advanced schooling. I had come a long way from my ancestral roots, a descendent of Yoruba people in West Africa kidnapped and brought to Turtle Island, and more recently of educators and land stewards on Caddo, Chickasaw, Osage, Quapaw, and Tunica land, or as we know it, Arkansas. This distance was in part because of my pursuit of higher education. And the more I matriculated, the less grounded I became— disconnected from my ties to land, people, and their magic, and from critical lessons housed in the trees.

THE CRISIS OF THE BLACK INDIGENOUS

The function, the very serious function of racism is distraction. It keeps you from doing your work. It keeps you explaining, over and over again, your reason for being. Somebody says you have no language and you spend twenty years proving that you do. Somebody says your head isn't shaped properly so you have scientists working on the fact that it is. Somebody says you have no art, so you dredge that up. Somebody says you have no kingdoms, so you dredge that up. None of this is necessary. There will always be one more thing.

Toni Morrison
(Manufacturing Intellect, 2019)

In their article, “Decolonizing Place in Early Childhood Studies: Thinking with Indigenous Onto-epistemologies and Black Feminist Geographies,” Nxumalo and Cedillo (2017) lay the groundwork for bringing together the histories of peoples indigenous to Turtle Island and Black histories and knowledges. They write, “In examining possibilities for ethico-political engagements with place and environment in early childhood studies, we begin with the premise that, within the context of North America, environmental vulnerabilities, human exceptionalism, anti-blackness, and settler colonialism are interconnected” (p. 104). They document parallel histories of erasure of cultural knowledges and forced and violent removals from ancestral homes, as well as related epistemologies that highlight the enmeshment of humans and non-humans, including the land, water, and all of nature. While highlighting the strong potential of bringing these together, they simultaneously caution that “working with these place stories, as someone not Indigenous to a particular place, also creates many frictions” (p. 104), including the co-opting of the stories in ways that do not serve Indigenous communities, romanticization, and even erasure.

Keeping these concerns in mind, it is important to distinguish the honoring of the cultural ways of being of people indigenous to Turtle Island from the ways in which indigeneity is often withheld from Black people or considered a function of blackness. To honor the rich and diverse cultural traditions of Indigenous People on Turtle Island, I emphasize teaching methods in my role as an educator that respect their practices and the lands we use for our healing modalities. I engage the Indigenous scholars native to these lands to inform our reverence, to guide how my students and I should engage with the land. I also understand that indigeneity is not unique to Turtle Island, that Indigenous People from various parts of the world convene on Turtle Island for various reasons, often influenced by colonialism, and that while we are not on our indigenous lands, it does not strip us of our indigeneity. It is possible to be indigenous while not being on your indigenous land. Such is the case for me and other Black people living on Turtle Island.

This paper details a return to my indigeneity and the role that treescapes play in my maturation as a

critical educator. I am aware of the hegemony surrounding indigenous identity and who can claim it, that as a Black woman, it is incredibly controversial to identify as indigenous. While there are several instances that question Black people's rights to indigenous status, I believe the Dred Scott Decision makes for an important historical event to situate this dynamic. The 1857 decision upheld slavery in the United States, denying Black people legal citizenship. According to the decision, holding indigenous identity means having a home and an associative language, which were forcibly stripped from Africans living on Turtle Island (Von Blum, 2018). Undergirding this logic is a belief that Black people exist between two identities—property (owned beings) and nothingness—neither being human statuses, let alone providing the rights to indigenous identity (Blum, 2018; Hartman & Wilderson, 2003). Black people then occupy the space of the unthought (as the ground that people walk upon), and peoples native to Turtle Island (who continue to experience genocidal efforts amidst a developing colonial society) are situated as pawns within a larger, more successful, colonial effort to divide and conquer (Hartman & Wilderson, 2003). Despite our (African and Native) medicines and creation stories often overlapping (Booth, 2020), the language and definitions of the United States legal system—the same court that continues to compromise Native self-determination— maintains itself as the sanction for legitimizing indigeneity. These frameworks support gatekeeping of indigenous identity and the further subjugation of Black people (Resendez, 2016).

This paper disavows any mandate that perpetuates the logic and practices of the Dred Scott decision that requires Black people to stand on trial for their existence. I have learned from the trees that this form of witnessing only concretizes one's suffering. Take the case of Witness Trees during the Civil War or any other American war. These trees were forcibly renamed, made into shields and other equipment of war, and because of colonial efforts, we know them solely by the scars they bear. For Black people and trees residing on these lands, our nonhuman status has worked against us to sustain the colonial project. As a result, my journey to remember my indigeneity transcends human status. Trees and treescapes represent a vital rubric for self-determination. Trees do not attempt to convince us of their status or significance. Instead, their mere existence is radical. They provide the world's life source and continue to outgrow coloniality. I aspire toward this form of indigeneity, and my return to treescapes has been vital toward these aims. Beyond a pedagogy of convincing is the pedagogy that exists amongst the trees. Their pedagogies tell stories of cooperation, eco-solidarity, and sustainability.

Finally, I make connections between my own Yoruba heritage, my family's rootedness in Arkansas, and my work as an educator. My goal is to reflect on my experiences with education as both a student in K-12 and higher education and as a classroom teacher of 18 years. I offer a critique of Western schooling, and discuss my own reconnection to the wisdom of my elders and ancestors. Their interrelatedness with trees and the land offers an impetus for a curriculum that supports youth to reconnect with their own indigenous traditions and other ancestral ways of thinking and being.

ARKANSAS ROOTS AND EDUCATION

My southern ancestors—both human and tree—suffered tremendously from the blows of settler colonialism. Both were forced to participate in the enslavement process. My human ancestors were kidnapped from their West African lands, while my tree ancestors were forced to serve as the foundation material of slave ships and the site of lynchings. Eventually, my African ancestors transitioned from worshipping trees to hanging from them. Yet their continued efforts to remain in symbiotic relationship with each other remains a critical component of their self-determination.

In Arkansas, my maternal great-grandmother's grandmother, Mae Willis, escaped slavery as a 10-year-old. She spent the next 82 years of her life in Arkansas, tending to the land. Escaping slavery meant, in some ways, that Mae Willis could return to loving stewardship of the land, rather than to the

exploitation of both herself and the land that she endured in slavery. Her life demonstrated, as bell hooks (2008) states, “When we love the earth, we are able to love ourselves more fully” (p. 34).

My strongest memories—the memories and place I have now returned to as an adult—are set in Arkansas. As a city kid, summer respites in Pine Bluff provided a life-altering juxtaposition between the urban struggle to remain afloat amid the increasingly unrealistic cost of living and a self-sufficient artisan Southern life. I remember fishing with my great uncle, Lewis, at the lake behind the house that he built. Our reward: mild, green, melony flavor notes emanating from our fried fish dinners. Having to catch, clean, and cook our own food encouraged a unique appreciation of the life cycle.

My family and I were humbled by the Southern, no-waste sensibility. Lewis’ wife, my Auntie Ezerene, cared deeply for the tomatoes, peppers, corn, butter beans, squash, cucumbers, turnips, and mustard greens that grew in her garden. In my memory, Arkansas elders sat for hours, feet exposed, immersed in the soil, under the trees. As they told stories, their bodies were locked in a swaying choreography with the trees; and it seems that swaying is a natural response to dissipating energy that is exerted upon us. Both the trees and my human family survived the winds of colonialism. There was freedom in how they chose to sway with the trees rather than to hang and sway from them. Their laughing and singing—a crescendo as long as a southern day—attenuate the impacts of historical and contemporary racial terror.

Both sides of my Arkansas family were educators whose pedagogy, I believe, was greatly informed by their role as land stewards. Their patience, love, attention to detail, reverence, and humility for tending to the land influenced their understanding of educational dynamics around growth, learning, and especially child development. My Auntie Ezerene recently shared, “A quiet classroom ain’t no place of learning.”

IMPACT OF SCHOOLING ON SELF-DETERMINATION

My Arkansas family’s connection to the land, education, and healing are consistent with many of the daily practices of our ancestral kin. One Yoruba proverb states: *Bí a bá ní ká be igi, a ó bee èyàn* (If one attempts to cut a tree, one will cut people) (Owomoyela, 2005, p. 155). Despite my ancestors’ profound love of the earth and practices of sustainability, many of their constructive ways of life were compromised as a result of European conquest. Indigenous peoples were routinely prohibited from access to land, intergenerational dynamics, and the ancestral wisdom and communal legitimacy necessary to maintain the health and wellness that would allow them to heal and sustain themselves (Somé, 1999; Smith, 2012).

For me, as the descendent of Indigenous Yoruba people forcibly removed from our homelands and taken into slavery in America, schooling has carried the complex and painful history of delegitimizing ancestral knowledge, of disregarding the validity of Indigenous knowledges, of naming our land-based practices as uncivilized, savage-like, or even witchcraft (Somé, 1999, Smith, 2012). For Black Americans, as for Native Americans, schooling has subjected us to that which often accompanies domination: spiritual illness, scarcity, economic instability, the illegitimacy of our systems of knowledge and practice, and attempts to destroy our connection to the land. hooks (2008) argues that separation from our lands “and engagement in mind/body splits made it all the more possible for Black people to internalize white supremacist assumptions about black identity” (p. 38). To prevent the self-determination of a people, one must disconnect living beings from their life source.

To this day, success at school for Black children often demands an estranged relationship with the land, disconnection from one’s cultural ways of being, and alignment with the capitalist values that encouraged the enslavement and genocide of their ancestors. Yet shortly after the completion of my

doctoral studies, I sat with teenagers and the trees reclaiming our ties to our indigeneity and our connection to land and to ourselves. My process of reconnecting to land, like most great epiphanies, emerged from suffering—my own, as well as the suffering of the students and communities I served.

THE SHIFT TO WELLNESS

Plainly said: Schools are where trees and children’s livelihoods go to die; both are cut down, gutted, and their desecrated remains used for the maintenance and reproduction of the establishment. Yet for years, against my better judgment, I looked to my students’ ongoing participation, particularly through college matriculation, as the panacea for their social traumas. I understood schooling as a way to respond to the traumas that devastatingly impacted their lives. In doing so, I left understudied and unstated the trauma that is schooling.

I had a critique of schooling—its ties to individualism, harmful social reproduction (Bowles & Gintis, 1971) and the centering of white supremacist ideologies (Ladson-Billings, 1998)—yet I still believed in its reform, especially through educators like myself. I had studied in the nation’s top universities and graduate programs, learned the most cutting-edge, methodological approaches to education, and entered schools with what I named critical, but more likely, neoliberal approaches to educating youth. Utilizing Freirian praxis (1970) to develop sophisticated analysis of the oppressions that were most compromising our students’ lived experiences, we employed Youth Participatory Action Research (YPAR) models (Camarrota, 2017) for our youth to be at the forefront of their own paradigmatic shifts. Seemingly, the young people were inspired, their grades and attendance records gleaming. In fact, for over a decade, 100 percent of my students were accepted to four-year universities.

However, after the fanfare of their college acceptances waned, my teaching team began to track the progress of our students. We noticed patterns of mental illness, hopelessness, and dropouts among our highest-achieving alumni. Sadly, our students told us that they were internalizing these outcomes as a result of their own inadequacies, rather than the inevitability of a people separated from their cultural medicines. Michael Dumas (2014) notes: “Marginalized groups suffer doubly in relation to schooling: First, the drudgery and futility of the school experience itself, and second, through the loss of hope for oneself individually, and for the group, collectively, in terms of improved social recognition and economic stability. Neither stage of suffering is deemed legitimate” (p. 8).

Based on our students’ compelling reflections, it seems “the knowledge, skills, and experiences that they [brought] to the institution [were] rarely valued, except perhaps through tokenistic ‘recognitions’ of cultural diversity that make the institution appear to be welcoming, but otherwise do not threaten the status-quo of their operations” (Andreotti et al., 2015, p. 32). My youth were experiencing what Bettina Love (2019) names as dark suffering. Much like Dumas, she describes an “educational survival complex, in which students are left learning to merely survive, learning how schools mimic the world they live in, thus making schools a training site for a life of exhaustion” (Love, 2019, p. 27). During this time, my educational discourse inadequately pointed to school as both the problem *and* the solution, when intuitively, I was beginning to understand schooling and its culture solely as the former.

That same year, my family’s paternal matriarch, Grandma Nette, transitioned to the ancestral realm and I returned to Arkansas to grieve and celebrate her return to the land. Getting off the plane in Arkansas was one of the first times I had felt a sense of home. While I was there, time crawled, which allowed for intentionality to catch up to me; I had ample opportunity to sit in my Uncle Louis’ backyard. The trees danced with such grace there. They lulled my anxious teacher body. I sat with elders who were not attached to their phones, pending deadlines, or state curricular standards. My daily practices shifted from scurried attempts to survive the school day toward deliberate reconnection to self.

While there, I started my study of Indigenous approaches to education. In particular, I read Malidoma Somé's (2019) *The Healing Wisdom of Africa* and Deborah Miranda's (2012) *Bad Indians*. The texts I read centered three pivotal components of education: love of the land, love of self, and love of one's people. I even began to sit with the trees, and they prodded my ancestral memory. Re-memory informed a drastic shift in my practice. When healer and now ancestor Malidoma Somé returned from his collegiate studies in the US to Burkina Faso, he was not allowed to return to his community because his elders understood the ways in which schooling sickened him and they wanted to protect themselves and the livelihoods of their communities from him. He was sent to a healer, amidst the trees and his ancestors, to heal from the impacts of schooling.

In Arkansas, under the trees in Uncle Louis' backyard, it hit me that my students and I needed a similar ceremony—that in order to engage in the transformative power of education, we needed to heal from schooling.

RECONNECTION TO THE LAND

Elements of nature, if we dare to look for them, have been a fundamental vehicle toward health and wellness in Black literature. In Morrison's (1998) groundbreaking novel *Sula*, Sula and Nel engage nature as a way to cope and attenuate the hazards of returning to the Bottom, an area that had at one time been a Black neighborhood but was later gentrified and dominated by Whites. In the novel, the girls lay in a bed of flowers, essentially generating their own spaces of belonging, their own spaces of quiet, amidst a tumultuous city plagued by oppressive gender norms and the psychosis that accompanies racism. In Hurston's (2006) *Their Eyes Were Watching God*, Janie disrupts Western understandings of time to examine the bees' engagement with the flowers that grow on the pear tree; the cultivation of quiet makes room for the possibility of life, desire, and love for Janie as the novel progresses:

She was stretched on her back beneath the pear tree soaking in the alto chant of the visiting bees, the gold of the sun and the panting breath of the breeze when the inaudible voice of it all came to her. She saw a dust-bearing bee sink into the sanctum of a bloom; the thousand sister-calyxes arch to meet the love embrace and the ecstatic shiver of the tree from root to tiniest branch creaming in every blossom and frothing with delight. (p.15)

In *Purple Hibiscus*, Adichie (2004) engages nature, flowers particularly, as a way to challenge the constructs of time: "But my memories did not start at Nsukka. They started before, when all the hibiscuses in our front yard were a starling red" (p. 16). She also imagines Black life outside of white social control: "Aunty Ifeoma's experiential purple hibiscuses: rare, fragrant with the undertones of freedom...a freedom to be, to do" (p. 16). The use of what Royot (2007) calls ecological writing functions to draw our attention back to nature as a way to make sense of complex social issues, to provide us with more politicized understandings of social phenomena.

Ecological writing helps readers problematize the characters' lived experiences, signifying that our social critiques cannot be far removed from our physical environments (Royot, 2007). In *The Color Purple*, Walker (1982) writes and understands Celie's complex nature as a symbol of and in relationship with flowers. Celie's letters to her sister, Nettie, constantly reference the blooming of the flowers around her. Celie sees the conditions of her environment as symbolic of her well-being, despite her experiences with the social actors who compromise her health, like her abusive partner, Mister. She is absorbed within a space of quiet as she watches the flowers bloom, and from them, she understands that her healing is inevitable. Nettie responds in a letter to Celie with daisies as her medium, offering an understanding of her developing identity and relationship to her social worlds. She explains: "Europeans are white people who live in a place called Europe. That is where the white people down home come

from. She says an African daisy and an English daisy are both flowers, but totally different kinds” (p. 122).

The references to flowers continue throughout the novel. Shug, Celie’s rock and sister-lover, encourages Celie to engage nature as a way to disrupt the blows of male domination: “Whenever you trying to pray, and man plop himself on the other end of it, tell him to git lost, say shut. Conjure up flowers, wind, water, a big rock” (p. 199). From Morrison to Walker, the engagement of nature mediates a type of stillness, which pauses time long enough for them to imagine their humanity outside of the confines of their defined racialized existences. Nature functions to create *something else*, a space that imagines new environments and possibilities for health and vitality.

These passages remind me of my ancestors and their engagement with land. While the vestiges of slavery would devastatingly haunt my great-aunt, Mae Willis (at 92 years old, she died after a long day’s work of sharecropping), her semblance of freedom, like the emerging purple on an African violet, allowed for the development of a more intentional and consenting relationship to land custodianship. She had the opportunity to “move with the ‘slower’ rhythms of deep time—a practice which allows us to live in the present moment with the living Earth all around us—without pretext or filters. As we chase freedom in a world built by slaves, the ways we achieve it are just as important as the reasons why” (simple ant, 2020, p. 91). Aunt Mae’s reception to the slowness of the country, the ebb and flow of seasons, the patience required to grow sweet potatoes, helped atone for a fast-paced, capitalist, and terror-filled plantation life. No longer the days in which “it did not matter if the body was well, only that it appeared well” (hooks, 2008, p. 39). She could now utilize her body, mind, and spirit in concert to protect and sustain (all) life. She knew the land intimately and the land knew her.

As I developed my curriculum to better align with the powerful land-based educational literature I was studying, I realized that my students were ahead of me in this process. In looking more closely at my high school students’ work, I noticed that an emphasis to return to the land was prominent; I just hadn’t had the tools to notice. My curriculum arc consisted of the following elements:

1. **The Development of Memoirs:** Students produce a body of writing that engages a history of colonization as a way to understand and explain their adverse social and health conditions and connect learning to various cultural understandings of health and well-being as a model for social transformation
2. **Health-Centered Youth Participatory Action Research Projects and Presentations:** Students engage socio-historical critiques of society to develop research projects that promote social transformation, specifically change that improves their material conditions.
3. **Normed Cultural Practice:** Activities range from the learning of the students’ indigenous mother languages to travel to their ancestors’ homelands. For example, we hired Nahuatl educators to teach our students with Nahuatl lineages their ancestral languages; we used Zoom to connect with teachers from Ghana and Nigeria to support our Black students to learn Yoruba and Twi. Parents who have maintained their indigenous languages joined us in passing on these medicines to their children. We fundraised and traveled to Aotearoa (among other sacred places) to learn with and from my Maori colleagues and friends about language revitalization and land stewardship; they taught us the art of “mixing medicine,” that the value of learning about one’s indigeneity is not confined to uplifting one’s peoples, but of collective self-determination; it is an honoring of our mutual indigenous lifestyles that, through relationship and reverence, can co-exist and provide mutual aid.

4. **Rites of Passage Ceremonies:** With their intentional acts of social belonging, students are celebrated by their communities for their dedication to learning about their histories and cultures and promoted to new levels of social responsibility.

Themes of disconnection from the land were ever-present/prevalent in their memoirs. A central component of their YPAR projects were issues related to land (gentrification, gang rivalry, environmental racism). As our students reclaimed their mother tongues, many of the songs they learned that had survived colonialism gave reverence to the land. And, at the request of our young people, our Rites of Passage Ceremonies transitioned from our school to outdoor spaces.

It was clear to me and my teaching team that it was time to expand our understanding of learning space and take heed of a greater calling toward land-based education. It was time for my students to remember their sacredness and such a feat could only be accomplished by connection to land. Camangian and Cariaga (2022) argue that “if dispossessed young people do not know how autonomous, resourceful, and abundant their civilizations were prior to their relationship to colonialism, then it becomes difficult for them to imagine something radically different than the material conditions they currently find themselves in” (p. 3). These lessons, of ourselves as autonomous, resourceful, and abundant people were housed within the natural world, amongst the trees, and it was vital that we transitioned with urgency.

HEALING AMONGST THE TREES

The more we engaged in the critical work of education, the less we did school. According to Shujaa (1993), schooling is a process intended to perpetuate and maintain society’s existing power relations and the institutional structures that support those arrangements. We instead prioritized education: the process of transmitting from one generation to the next knowledge of the values, aesthetics, spiritual beliefs, and all things that give a particular cultural orientation its uniqueness (Shujaa, 1993). In my education as an educator, I was beginning to understand that education is not limited to school structures.

“We are always thinking, learning and creating. Schools, at best, compromise our humanity and relationships with creating and learning because they are sites of social death” (Marie & Watson, 2020, p. 22). And the more my students learned about themselves and their cultural ways of being, the more they desired to be in relationship with the land. So we continued to make arrangements for them to engage in land-based education. With the support of their parents and comrades from our school community, we left the four walls of the school more and more often.

On an excursion to Golden Gate Park, my students and I rented bicycles (some brought their skateboards, as well) and we embraced the San Francisco chill brought on by the speed of our vehicle of choice. Isaiah clung near me (since he had not ridden a bike in years) yet embraced the new challenge with more tenacity than his Individualized Education Plan would say he possessed. Jarius traveled back and forth along our caravan to ensure the safety of his peers. And when we all saw a cave ahead of us, we agreed, through a simple nod, that we would scream at the top of our lungs as we accelerated through the dark. We had so much fun that day.

Some time before we needed to return our bikes, we stopped at a grassy oasis to give reverence to a particularly gentle giant amongst several other Coastal Redwoods (*Sequoia sempervirens*). We admired the depth of its stance, which seemed to tickle the surface of the sky. With bikes parked and skateboards close by, I began class. I held math and science class, sharing that visible rings within a tree result from change over time; so one ring generally marks the passage of one year in the life of a tree. I asked the youth to hypothesize the age of the gentle giant. Educated guesses sprang forward as we proceeded to humanities. While examining the tree, I asked what stories the young people believed it possessed.

Based on the guesstimates of the tree's age, the young people spoke about European conquest and changes from Ohlone land to what we know as the San Francisco Bay Area. We then transitioned to art, honoring the complexity of the lineages shaping the architecture of the tree. The interdisciplinary nature of our learning experience amplified a culture of meaning-making and critical literacies, all through the reverence of tree space. Days after our excursion, the young people continued to ask why our school days couldn't be more like what we experienced in Golden Gate Park.

That day marked a nexus of sorts, connecting us to our futures by hinging us to ancestral ways of thinking and being. Eventually, students like Angus, Lorenzo, and Malia would guide our lessons with the land. They took pride in leading ceremony, uttering remembered tongues, lineages, and stories. Outside the gaze of state standards, pressures from college applications, and strict discipline policies, they healed amongst the trees, keeping at bay the ways in which our "bodies house the unhealed dissonance and trauma of our ancestors" (Menakem, 2017, p. 10). The land embraced songs that maybe hadn't been proclaimed there since they were beaten from the mouths of Ohlone people. As all teachers should, I became their student (both the youth and the trees), remembering the interconnectedness of belonging and relationship with the natural world, with no regard to the cleanliness of my shoes. There, we took steps toward healing from many of the normative ills of society, "the pervasive sense of loneliness and isolation from which many modern people suffer; the absence of a supportive community to help individuals weather the storms of life" (Somé, 1999, p. 15).

As educators, it is vital for us to understand these spaces as conduits for healing, innovation, and connection. In this discussion, however, I want to push back against neoliberal understandings of experiential learning by engaging with the natural world. These pedagogical interventions are not vital if they are used as a means for youth to conform better to schooling or as a way for them to become healthier in order to endure the education structures that perpetuate their sicknesses.

Similarly, this work is not a rallying cry for neoliberal understandings of healing the land. As Amber McZeal (2020) states, "our entire concept of manifest destiny is a whole ethos about how the Earth is void and without form and desperately needs us, humans, to come and fix it" (35:21). Rather, these practices are radical in nature, because they support youth to return to ancestral ways of being and knowing; these practices are eventual processes of abolition—to the epistemological, structural, and spiritual energies that compromise their well-being, including schooling. Their ancestors who escape (ongoing, in the present tense) the confines of slavery and genocidal attempts use knowledge of land and intimate relationship with tree space for their own liberation. simple ant (2020) refers to this as fugitive ecologies: "the practices of being connected with the Earth, of moving in tune with the rhythms of the seasons. Fugitive ecologies are the practices of being home—socially, spiritually, and ecologically—in an era which criminalizes these connections in favor of carving up land and life for personal, private consumption" (simple ant, 2020, p. 92).

My time with young people and the land helped me contextualize the ways in which the body and the land have memory. As a result, our stress response systems have enabled us to adapt, survive, and flourish (hooks, 2008). The more we remember healing modalities, the healthier we remain. Therefore, healing must come with "self-determination in relation to the body that is the earth and the body that is our flesh" (hooks, 2008, p. 25). The "individual psyche can be healed only by addressing one's relationships with the visible worlds of nature and community and one's relationship with the invisible forces of the ancestors and Spirit allies" (Somé, 1999, p. 17). If we truly care about youth wellness, critical literacy, and social transformation, we will invest in a return to land-based reverence and education.

Finally, while many of our experiences acknowledged the ways in which we benefit from the land, the

ultimate goal of these pedagogical interventions should be toward a reciprocal relationship with the land, toward the re(m)atriation of land, “that is *all* of the land, and not just symbolically” (Tuck & Yang, 2012, p. 7). As Robin Wall Kimmerer says, “It’s a really liberating idea to think that the earth could love us back, but it also opens the notion of reciprocity that with that love and regard from the earth comes a real deep responsibility” (Tippett, 2016, 43:38). Our time with nature, particularly amongst the trees, have told an important story throughout several generations, and how we’ve treated the earth reflects the love that we have for ourselves. If we disconnect youth from stewardship and reverence of the land, we support pathways of self-hate. Only by helping youth understand that they, too, are extensions of the land, can we build toward a more liberated and sustainable future.

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ABOUT THE AUTHOR



Tiffani Marie hails from a lineage of Arkansas educators. She is also the co-director of the Institute for Regenerative Futures and professor of teacher education and ethnic studies at San Jose State University, where her research focuses on health disparities, the study of anti-Blackness as a social determinant of health, and the embodiment of critical pedagogies as an attenuating agent of toxic stress in Black children. Her broader research interests integrate theoretical frameworks and methods from public health, critical race studies, and education.

Trees and Us: Learning About/From Trees and Treescapes From Primary School Children in the United Kingdom

Samyia Ambreen, Khawla Badwan, and Kate Pahl

THINKING ABOUT TREES AND TREESCAPES WITH CHILDREN IN SCHOOLS

The contemporary literature on environmental education calls for active participation of children and young people in research (Rousell & Cutter-Mackenzie-Knowles, 2020). The goal is to embed science in children's lives rather than to implement didactic environmental learning programs and teach about climate change in the abstract (Trott & Weinberg, 2020) because it is believed that such programs are not useful in helping children understand the environmental crisis. At the same time, challenging adult-designed methods and methodologies, the focus is on emergent modes of inquiry that enable children to take the lead in producing knowledge about their environments. This child-centered approach emphasizes the embodied experiences of children to help them reimagine what science could mean to them in their daily lives (Ojala, 2012).

In our "Voices of the Future" project [NE/V021370/1] funded by the UK Research and Innovation (UKRI) funding council and the Natural Environment Research Council (NERC), we worked with young children in primary schools in the North West of England to investigate the opportunities and benefits that treescapes offer children, as well as the drawbacks of treescapes. We hypothesize that meaningful engagement with treescapes supports education and fosters a sense of belonging and hope among children (Ojala, 2012). Co-production is at the heart of the project; it involves children as co-creators of knowledge (Pahl & Pool, 2021) and offers fresh perspectives and insights into urban and rural treescapes, their importance for human and more-than-human lives, and the role that trees and treescapes can play in mitigating the climate crisis. We are inspired by developments in knowledge about children and childhood that view children as active citizens of society and the educational community (Tisdall, 2012). We view children as both being and becoming, with experiences, views, ideas, and perspectives that are worthy of studying in their own right (Christensen & Prout, 2005).

In this article, we describe our experiences of working with children in two different primary school settings. As part of the research, we were engaged with children in numerous activities to learn from the children themselves about their intra-action and lived experiences with trees, and about how trees in return are becoming sources of learning about the natural world for the children. The activities included thinking about trees, co-designing woodlands, thinking about a hopeful future for the trees, planting trees in the school woodland, and measuring carbon in trees. Here, we focus on the very first activity we did with children in their schools as part of our fieldwork: children's thinking about trees and treescapes. In listening to children and attending to their views about trees, we use Cooper and Kellet's (2017) concept of children having multiple and relational voices. Using examples from two different case studies, we explain how children expressed themselves in multiple voices and multiple communicative modes (Fielding, 2004) to share their thinking about trees and the natural environment, which was closely related to what children do and experience in their nearby surroundings. We focus on children's distinctive narrations about their experiences of being with trees outdoors in school playgrounds, neighborhood parks, backyards, or city streets, as well as in home gardens. We argue that the distinctive ways that children choose to share their perspectives about trees, and the distinctive ways in which children associate themselves with trees, explain reciprocal relations between human

and more-than-human beings. In doing so, in order to exemplify how trees can offer possibilities for experiential and place-based pedagogies in educational settings, we also look at how outdoor places offer children possibilities to think about nature in relational and multimodal ways.

CASE STUDY ONE (MAINSTREAM PRIMARY SCHOOL IN AN URBAN AREA)

We worked with 90 children in a mainstream primary school in Greater Manchester to explore children's engagement with trees and their reimagination of urban treescapes. Children in this school were 7 to 8 years old, from Year 3 Key Stage 2 (second grade in USA). From January 17–19, 2022, we worked with children from each section of Year 3 on a different day. Each session with the three sections of Year 3 lasted for 90 minutes. We received approval from the university ethics committee, as well as permission from the children, their parents, and the school, to conduct this research.

As part of the activity, children were asked to share their thinking about:

1. What trees mean to them
2. How they engage with trees in schools, homes, parks, or any other outdoor place
3. What they think about the future of trees in their city

The activity was conducted as part of routinely scheduled lessons; children sat in groups with their peers in the classroom. Three members of the university-based research team and classroom teachers were also present during these sessions. The purpose of the activity was explained to the children, and they were given flip charts, Sharpies, and voice recorders to express their views in multiple ways. They were asked to draw trees, places, and human and more-than-human elements of their environments on the flip charts; they were also asked to record their conversations using the voice recorders. Children were encouraged to interview one another or to discuss questions as a group, whichever they preferred. The purpose of this flexibility was to support the children's role as co-researchers in deciding about methods of recording their views and conversations during the project (Lang & Shelley, 2021). We did so to endorse Lang and Shelley's (2021) statement that listening to children's voices requires awareness of the communicative space (Lang & Shelley, 2021, p. 428) and of the research context in which multiple voices are used and listened to. Using multiple methods and tools, we attempted to create a space for children's voices to emerge with their full functionality, indicating the distinctive and multiple social and relational worlds around them.

Over the period of three days, children talked about trees and their engagement with trees in multiple ways. We transcribed the children's recordings and looked at drawings that the children had created as part of the listening/thinking about trees activity. When making sense of the children's engagements, we focused on much more than their narratives and conversations in order to understand how children make sense of their own experiences, engage with trees in distinctive ways, and use different modes to communicate their thoughts. We paid attention to the affective, embodied, material, and relational processes occurring during children's intra-actions with trees, with a focus on children's relations with all beings in the world.

Inviting children to showcase, talk about, and draw trees led us to explore different sets of information about children's thinking about natural environments. It also led us to see trees affording children opportunities to engage their senses and bodies and paving paths for children's enriched learning about the forms of the natural environment around them. When we looked at the children's artifacts, we noticed that children talked about and drew images showing their knowledge of nature and depicting their physical, sensual, and intergenerational engagement with trees. They also expressed views about the future of trees in their city, using oral and visual modes of communication (i.e., talking and drawing). We include children's drawings (Figure 1) and excerpts of children's conversations below.

These examples are taken from the work of a group of children and their class teacher during the listening/thinking about trees activity on day 1 of the study (January 17, 2022).

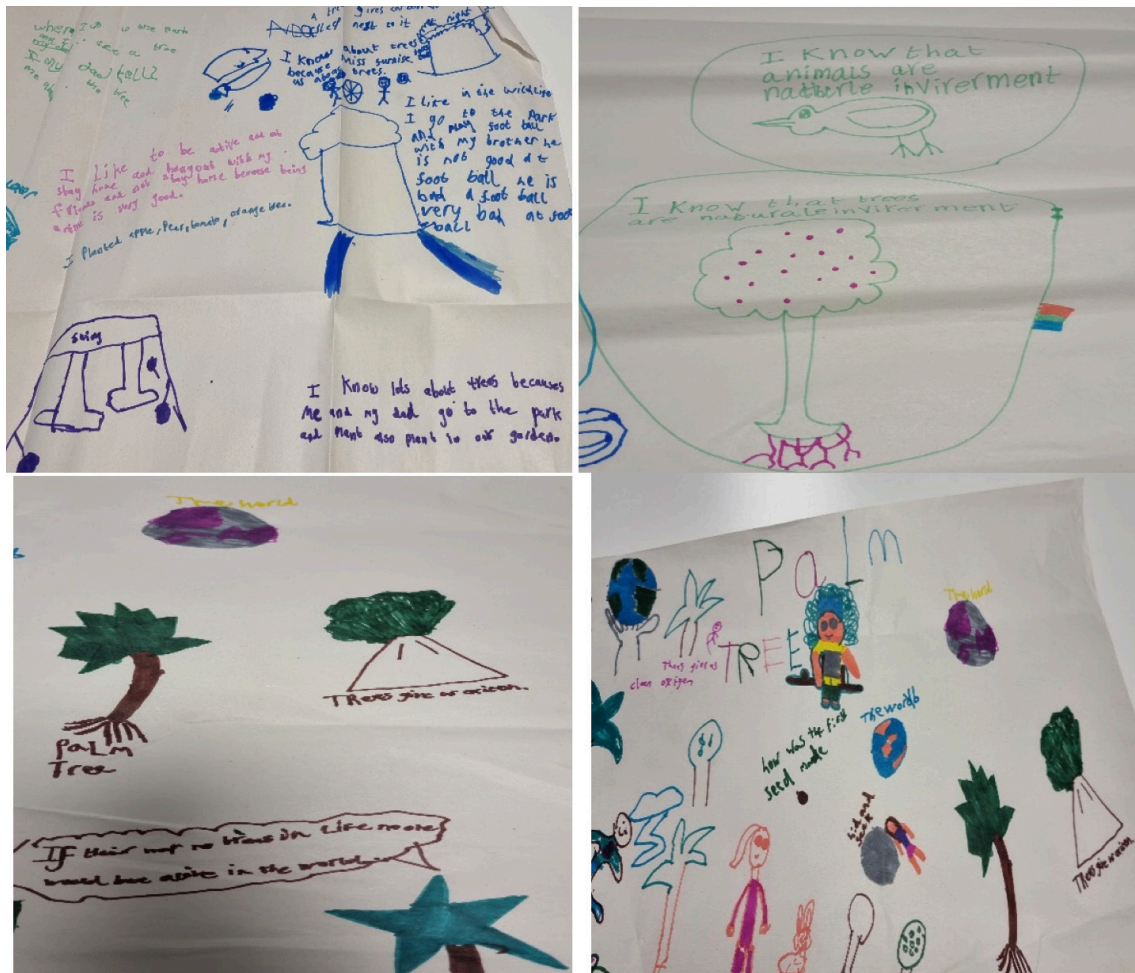


Figure 1. Drawings children made during the listening/thinking about trees activity

The children called themselves the “Palm Tree Group” during the session. In these drawings, children made pictures of themselves, their favorite trees, and birds, animals, and other wildlife that they observed around trees. They also made drawings of themselves engaging their bodies in different activities, including hide-and-seek, swinging, and playing soccer. Children spoke of siblings, parents, and other family members, as well as friends, telling them about trees. Some of the children’s drawings referred to their school-based knowledge about trees. For instance, children mentioned how trees grow and why trees, as producers of oxygen and sources of elements of a healthy environment, are important for the planet.

Children in the Palm Tree Group also interviewed one another and recorded themselves and their peers talking about the natural environment and their views about trees, as in this example from day 1 of the study:

Child (to another child): What do you know about the natural environment?

Child: In the natural environment, that’s where plants and trees grow. They give us oxygen, yeah,

so we can breathe, and we give them carbon dioxide so they can breathe. So, they help us breathe and we help them breathe.

Child (to another child): What do you know about the natural environment?

Child: It has lots of trees and rocks. Anything to do with natural, the place where we live is natural environment. It has a lot of ... Its and it has a lot of things to do with nature.

Child (to another child): What [do] you know about the natural environment?

Child: That it helps us breathe and ... it and and the place where most natural environment is mostly in the countryside.

Child (to another child): What do you like doing outside?

Child: I like playing with rocks and jumping on them and I like to go round the trees.

Child (to another child): What [do] you like to do outside?

Child: I like climbing trees and climbing rocks and I like ... I like running around in the big field and playing hide-and-seek behind bushes.

Child (to another child): What do you like to do outside?

Child: Bird-watching because ... hmm it inspires me ... because ... it helps me learn what types of birds there are....

Child (to another child): Do you think in future, there will be more trees in Manchester or fewer?

Child: I think it will be greener as people understand they need to plant more trees and they need to make a world of difference.

Child (to another child): Do you think in future, Manchester is gonna be greener or less green?

Child: I think it's gonna be less green because (inaudible voice) people won't do it and there gonna be less trees.

Child (to another child): Do you think in future, Manchester will be greener or less green?

Child: Less green as I think it's gonna be (inaudible)

Child: Why?

Child: Because.

Child: Why do you think it's gonna be less green?

Child: Because right, technology right now ... I think it's catching up They gonna put more technology... more (inaudible) over the place, lights everywhere.

The analysis of children's recordings revealed that the natural environment and trees can be different things for different children at various times. In the above example, children mentioned their different experiences with trees in the present. They imagined their interaction with trees in the city in the future. They also shared their thoughts about whether the city would be greener or less green then and about the reasons (more buildings, increased technology, less tree planting) that there would be fewer trees in their city.

Children's stories about their lived experiences and encounters with trees in this case study revealed that children placed their social relations with other humans and the more-than-human world at the center of their lives (Massey, 2012).

CASE STUDY TWO (MAINSTREAM PRIMARY SCHOOL IN A SEMI-RURAL AREA)

With the agreement of the teachers in the second school, a semi-rural school in Bolton (United Kingdom), we spent a full day working with 60 children in three classes of combined sections of Years 3 and 4 (Key stage 2, which is second and third grade in the United States). We followed the normal school schedule. Our day began with an assembly in which our colleagues introduced the activity to the children.

Afterwards, the children were split into three different classes and put in groups of five and six in their normal seating arrangement. We spent 90 minutes in each class to discuss the project and the listening/

thinking about trees activity in detail. We talked about the children’s roles in the study and encouraged them to think of their own research questions around the activity, in addition to these:

1. What do they know about trees?
2. How do they engage with trees in outdoor natural environments?
3. What do they think about the future of trees in their school and in nearby areas?

Children also asked us questions about the study. In each class, we first worked with “dialogic pedagogy” (Alexander, 2018) to involve children in open discussions about trees and their engagement and experiences of being with trees in outdoor natural environments. After we finished the whole-class discussion, we provided children with sharpies and flip charts for drawing their favorite trees. We also asked them to draw things they would like to do with trees. It is worth noting that this stage was conducted while the ethical approval for this research site was still under review which meant that we were not in a position to record data. Instead, what we offer here is a research reflection that summarizes what the children had created through our commentary. This commentary is guided by reflective discussions we had the with children two months later (14th April 2023). These discussions were centered around the children’s drawings of their favorite trees, especially the use of shapes and colors.

Through their drawings, the children expressed different views about their favorite trees and how they engaged with them. The children portrayed trees as sources of oxygen, as helpful for wildlife and as having different parts with different functions. When we asked the children to draw their favorite trees, most children made pictures of willows and talked about their importance (coppicing) for the school’s woodland. Children in this school have access to trees in its woodland, maintained by the forest schoolteacher.

At a later date (one month later) we had the ethical agreement in place and we could document the children’s activities in the woodland. Children from each class went to the forest school (the woodland) once a week. During our visit one afternoon, we were accompanied by the children from one class (Year 3) to note what children do and become while they are with trees and nature in the forest school. We observed that the children learned about nature, trees, wood, and the habitats of chickens and other birds in the nearby plot of land. The children were engaged in different physical and sensual activities such as building dens, playing with mud, and hanging with the bark of trees, as shown in Figure 2.



Figure 2. Children from Years 3 and 4 in the school woodland (photos taken on March 27, 2023)

During these activities, we observed nature and trees as co-teachers (Jickling et al., 2018) that enabled children to learn different skills such as working with logs to build dens, making coppiced and woven hedges, making paths with woodchips, and collecting and preparing wood for fires.

The forest schoolteacher engaged in fostering emergent forms of skill-learning, teaching in ways not based in prescribed and fixed pedagogy. This enabled children to be involved in self-directed learning outdoors in the school woodland. Rules about the actions and activities there were not hard and fast, but negotiated and co-created between the forest schoolteacher and the children. As that occurred, we noticed the school woodland becoming an active place that afforded different forms of learning opportunities for children at different times. When thinking about trees during the listening/thinking about trees activity, children acknowledged their engagement with the outdoor space where there were trees and bushes.

During our research encounters in both settings, we encouraged children to determine whether or not to allow us access to their social and relational worlds (Atkinson, 2019, p. 199). We sat with children at their tables to create an informal space, which was useful in enabling children to actively engage in talking about our research. This also allowed children's natural, divergent, and sometimes messy discussions to occur. While observing children's engagement with trees in the school woodland, we positioned ourselves in the least adult role (Mandell, 1988), presenting ourselves as full, active members of the children's world and encouraging them to tell us about their practices, while we engaged in little or no intervention as adult researchers. Therefore, we found children freely deciding when and when not to take part in the research encounters. Some children guided us about during their forest school activities, while others refused to, either by explicitly saying no or by being intentionally quiet and ignoring our presence.

CONCLUSION

Our experience of working with children in both schools led us to think about different ways we can listen to children (Cooper & Kellett, 2017) about their encounters with natural environments. We found children skillfully communicating their perspectives about trees and sharing their experiences of being with trees in different ways, using distinct modes of communication. Listening to children's voices in multifarious ways was useful in developing a culture of valuing the different forms of knowledge (Lang & Shelley, 2021) shared by children in both research settings. We learned from children about their lived experiences of engaging with trees in different ways at different times in different situations. These experiences included children's engagement with trees in school settings with peers, in nearby parks with friends, or in their back garden with family members.

In both case studies, we see children's intra-action with trees and woodland as an assemblage (Mazzei & Jackson, 2017, p. 1092) of human beings, more-than-human beings, bodies, and words. In the first case study, in narrating their engagement with trees, children talked about being in a big field, hiding behind bushes, and bird-watching. We also noted that trees afforded spaces for children to engage their bodies and senses in activities such as swinging, climbing, and playing games like hide-and-seek. In the second case study, children particularly talked about the more-than-human worlds, such as those of birds and other animals, that they saw in the school woodland. They spoke of their engagement with trees in relation to those worlds. To the children, trees also became much more than producers of oxygen. As noted, the school woodland became a co-teacher that enabled children to learn different skills; it offered opportunities to demonstrate the importance of nature and the wild as a teacher (Jickling et al 2018) that enriched children's learning about the natural environment, and in particular, about the value and connectedness of trees in/with the everyday activities.

Attending to children's distinct social, cultural, and relational contexts, we looked at children's views and engagement with trees in relation to other bodies, people, places, and material (Rautio, 2014). In both research settings, trees were narrated, portrayed, and captured as playmates, providing homes and food to birds and animals. This became more obvious when looking at how children imagined the

future of trees in their cities, including, for example, what the affordances of trees where they live would be. In the first case study, children talked about technology and whether the future of their city would be greener or not. In the second case study, in relation to their experiences of the school woodland, children made drawings of willow trees because more willows would be needed to learn about coppiced wood in the school woodland in the future.

In both case studies, we found that children did not depend on just a single way to communicate their thoughts. Children engaged in oral stories, drawing, and interviews that they conducted themselves, helping us understand their conceptualizations of trees and the natural world as well as their engagement with trees. Children's divergent stories, drawings, and multiple dialogues highlighted the need to create an inclusive culture in the classroom that attended to multimodal and relational voices of the children and valued different forms of knowledge. Children's engagement with trees in the school woodland in the second case study, and how that engagement resulted in different and emergent forms of learning, led us to think about a new pedagogy concerning different ways of acting and being in the world. The school woodland offered novel ways of engaging children in explorative, creative, inventive, collaborative activities with trees, branches, sticks, mud, wood, and leaves. The activities in the school woodland are not predetermined or prescribed; they are carefully selected, yet still allow children's innate curiosity and affinity with the wild to flourish. Our research encounters with children in both cases reflect how educational experiences for children can become a co-created collaboration among children, university staff, and teachers. Thus, it exemplifies the need for a vision of pedagogy that privileges playful and hopeful futures through the influences of co-created joint activities in the present.

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ABOUT THE AUTHORS



Samyia Ambreen is a research associate in the Education and Social Sciences Research Institute (ESRI at Manchester Metropolitan University. Her research interests include understanding children’s interactions through a participatory research design, with a focus on ethnicity and cultural diversity. She is also interested in hope, children’s spirituality, and care toward the environment.



Khawla Badwan is reader in TESOL and applied linguistics at Manchester Metropolitan University. Her interdisciplinary work brings together expertise in intercultural communication, literacy debates, language education, language and climate change education, language and social justice, language and identity, and sociolinguistics of globalization. Her most recent school-based research projects include the “Voices of the Future” project funded by the Natural Environment Research Council and the “Children’s Sociolinguistics” project funded by Manchester Metropolitan University.



Kate Pahl is professor of arts and literacy at Manchester Metropolitan University. Her work is concerned with literacy and language practices in communities. She is the author, with Jennifer Rowsell, of *Living Literacies* (MIT Press 2020. She is currently the Principal Investigator of “Voices of the Future,” a three year project funded by the Natural Environment Research Council (NERC exploring the relationship between children and young people and treescapes.

Making Kin with Trees: Three Educators and Children Entangled with Treescapes

Stephanie Jones, Lindsey Lush, and Sarah Whitaker

Trees might save us.
Suzanne Simard (2021, p. 6)

In her book, *Finding the Mother Tree*, Suzanne Simard entangles memoir, science, history, industry, forests, fungal systems, capitalism, and ecology. She is emphatic that the book is not a book about “saving trees” but rather “a book about how the trees might save us” (2021, p. 6). Simard argues that the wisdom of forests is vital for a thriving ecosystem, and thus vital for the thriving of human beings. She maintains that dominant ways of thinking in the natural sciences have harmed forests, that capitalist interests in forests are more destructive than previously believed, *and* that humans can learn a lot from the communal, networked, resource-sharing practices of the forest.

Simard also writes, beautifully, about her lifelong relational ways of being with specific treescapes, what we think Donna Haraway would call *kin-making* with forests. Simard believes it was in that embodied relational being with trees and listening to forests that she was able to embark on a revolutionary journey that would turn forestry research upside down.

Forests are alive. Trees, shrubs, and fungi communicate with one another. There are Mother Trees.

Mother Trees are hubs of decades and hundreds of years of experience and wisdom that send out warnings about invasive species, communicate the needs of trees and plants struggling to thrive, and share nutrients through fungal systems. They are part of a kinship network, anchored in a particular place, entangled with all other beings in that shared world, including scientists like Suzanne Simard, Anna Lowenhaupt Tsing (2015), and Robin Wall Kimmerer (2003, 2013), and hundreds of millions of humans who are always becoming-with their more-than-human world.

We use the phrase more-than-human to describe all life that thrives beyond the category of human and all of the other things that mesh with and give shape to life (ideas, language, things, systems, and structures). While the “life” of transient beings is always assumed to be “living,” these other things in the world also have vitality, movement, and power.

In this paper, we explore some of our kin-making with trees and offer glimpses into our connected intentions to support children’s kin-making with trees in Athens, Georgia, the small city in the Southeastern region of the United States where we live and work: Stephanie as a professor, Lindsey as a kindergarten teacher, and Sarah as the founding director of Athens Forest Kindergarten. The three of us were called to the trees under very different circumstances. Stephanie can’t remember a time when she wasn’t in relation with trees and forests, so it was important to her 25-year career as an educator and researcher to recognize and encourage children’s relations with trees. Lindsey’s childhood experiences of independence and adventure in the woods behind a friend’s home have been mirrored in her own daughter’s play in wooded backyards, but she has faced challenges incorporating trees into her 18 years of work as an educator. Sarah wanted her children to experience an early childhood education beyond the skills-and-test-driven public school, so she found her way to the Forest Kindergarten philosophy, a journey that has changed her.

What we all knew and know intuitively is that something magical happens when we are with trees—that

who we are, what we feel, and what we do—becomes different in our entanglement with forests.

Our breath. Our thought. Our movements. Our clarity. Our knowing. Our spirit. Our creativity.

This relational way of being in the world fundamentally shifts subjectivity and what seems and becomes possible. We want this connection and belonging to become possible for children and youth, too, to support the conditions for their own unpredictable shifts in subjectivity so they can make their way in this shared world that we call Athens and beyond.

Connecting through the broad idea of trees and treescapes opened up our conversations about place, our own practices of mindfulness and meditation, and our unrelenting belief and commitment to children having access to formal and informal education that is affirming and cultivates their ways of knowing and being with one another and with their other-than-human kin in the world. We know children are beautiful and brilliant, curious and inquisitive, intuitive and compassionate, perceptive and spiritual. We know that being with trees and in forests expands and enhances interior worlds and ways of being that are unpredictable, surprising, delightful, profound.

We don't always know how to articulate what emerges through these entanglements, but we do know that inter/intra-connected writing across different fields or disciplines has been helpful to us. Childhood geographies, feminist studies in the critical posthumanities, Reggio Emilia-inspired pedagogies, and writing about affect/energy/spirit/relationships are all very useful to our thinking and doing with children.

Childhood Geographies, for example, positions children as shaped by and always shaping their physical landscapes. Children (and all of us) are inherently entangled with the *places* we spend time with (Aitken, 2001; Jones et al., 2016; Katz, 2004; Kraftl, 2013; Kraftl et al., 2012; Lanouette & Headrick Taylor, 2022), and this is also apparent in the stories we present in this paper.

Feminist studies in what can be called *critical posthumanities* (Barad, 2007; Braidotti, 2019; Gibson-Graham, 2006; Gilio-Whitaker, 2019; Haraway, 2016; Jones & Thiel, 2019; Jones & Woglom, 2017; Tsing, 2015) are also helpful to us. These scholars show, through intimate storytelling and sophisticated theorizing, how our understandings about the world, society, relationships, well-being, exploitation, inequalities, and justice can benefit from a *posthuman* perspective. This, simply put, is the idea that humans are not central in the world (in fact, we suffer and create suffering when we believe this to be true), but are rather a part of a *more-than-human* entanglement that includes humans but is so much more. Much like childhood geographies, this orientation to understanding human life is that we are always a part of a dynamic intermingling of material objects, other humans, non-human animals and plant life, language, ideas, systems (like capitalism, patriarchy, colonialism), affect (those visceral experiences in our bodies), architecture, roads, infrastructure, media, devices, and more. Posthumanism tells us that we are not “individual” humans, but rather that we are dynamically connected with all people, animals, and other earthly kin all the time. Therefore, when we shine the spotlight on a human—for example, to try to see something or understand something about that human—we are surely going to mess up. Rather, our gaze needs to decenter that human and see the complex entanglement of which they are a part.

Reggio Emilia-inspired, Indigenous, and feminist critical posthuman pedagogies (Cajete, 1994; Lenz Taguchi, 2009; Moss, 2014; Najoli & Epum, n.d.; Rinaldi, 2006; Taylor, 2013; Woglom & Jones, 2016) also inspire us. There have always been people who knew that humans were of the earth and with the earth rather than “over” or “on” the earth and earthly materiality. This orientation changes the way educators co-create places with children, and how they think about children's powerful exchanges and being with the non-human world.

Finally, we truly appreciate the writing that some educators are doing about affect, energy, relationships, and spirit (Berlant, 2011; Dutro, 2019; Jones & Spector, 2017; Jones et al., 2019; Massumi, 2015; Nelson, 2004; Hanh, 2010). How people feel matters, and we can be intentional about bringing a spirit of generosity, collectivism, wholeness, and connectedness into everything we do. Our relational ways of being with ourselves, other humans, material objects, ideas, language, land, and our non-human earthly kin will change us all.

In this paper, we each share a glimpse into our relational ways of being with trees and examples of how we engage children with treescapes and forests in three very different contexts:

1. A working-class and wage-poor neighborhood where most children are Black or first-generation immigrants from Mexico.
2. A kindergarten class within a racially and economically diverse public school that advocates for social justice but falls short of seeing the justice of children being outside with trees.
3. A Forest Kindergarten of racially diverse children from middle-class and upper-middle-class families that meets daily in a county park.

We want to illustrate that kin-making with trees produces connection, belonging, and hope and is, in fact, an essential part of enacting social, political, and ecological justice. We hope our paper will contribute to a heightened awareness of and focus on treescapes as a space for children's and teachers' well-being and help shape a path for the well-being of our more-than-human kin. Note that each of us writes in the first person when it is our story to tell and we use a collective "we" in other parts of the paper.

STEPHANIE: THE RICHES OF TREESCAPES IN WORKING-CLASS AND WAGE-POOR COMMUNITIES

I lived my childhood years in rural Ohio in a trailer park on a street called Goldfinch. Some people might have called the street a "dead end" because the black pavement ended there, but just beyond the pavement were acres and acres of forest. The children called it *the woods*.

We would tell our families we would be "in the woods," and often wondered if a friend we didn't find at home was already in the woods themselves. My brother and I spent many hours every day in the woods, as did our friends. We climbed trees, rode bikes up and down ravines, played tag, built forts, created art with branches and leaves, played in the mud, started small fires, laid down on the ground talking to friends, and wandered farther and farther from established trails to make our own.

People often assume that children in wage-poor families, and perhaps especially children living in trailers or mobile homes, experience deprivation in their lives. Most of the families in our trailer park were white or presumed to be white ("white trash" is a derogatory, classist insult still used about families in trailer parks). Middle-class and upper middle-class white folks' vision is often quite narrow when it comes to what constitutes a "good" childhood and that typically aligns with capitalist images of idealized childhoods filled with material things bought with money (Jones & Vagle, 2013). People may look at a trailer park and wrap the trailer park-living-child in dominant classist discourses that are used to define trailer park living: poverty, crime, apathy, violence, sadness (these associations are dangerous and fueled by capitalism and elitism, but we won't be unpacking them in this paper). But no one ever saw me—or us—wrapped in trees.

Outsiders who looked down upon the trailer park and teachers who rolled their eyes when our school bus

1 *White Trash: The 400-Year Untold History of Class in America* by Nancy Isenberg (2016) is a powerful history of class distinctions among white folks that demonstrates white elitism and the dehumanization of poor white people in the US.

pulled into the parking lot interpreted us through their own starved imagination of life.

I not only played *in the woods*; *I was the woods*. Without the woods, trees, leaves, sunlight streaming through, rain soaking the ground, hills, rocks, creeks, climbing, racing, creating, running, collecting, crouching, falling ... without those, I would be a different person entirely.

I was entangled with the trees and the trees were entangled with me. That made me one of the richest children one might meet.² It is part of who I am, even as a grown woman who has worked as an educator for more than 25 years. That part of me felt very much *at home* in a southern neighborhood where I was founding director of a free, informal, arts-based center for children and youth. This center was called the Playhouse.

EXPLORING NEIGHBORHOOD WOODS AND TREESCAPES WITH WORKING-CLASS AND POOR CHILDREN

Alexandra and I stretched out on the grass to read *Esperanza Rising* (Ryan, 2000) on a sunny spring afternoon outside the no-fee, informal learning center called The Playhouse (see Jones, et al., 2016; Jones & Spector, 2017; Woglom & Jones, 2016). When we got to the part where Esperanza's Papí tells her that you can only hear the earth's heartbeat if you lie silently on the ground and really listen, Alexandra and I put the book down, closed our eyes, and listened as our bodies became one with the earth.

Alexandra noticed that she felt her own heartbeat differently, like it was syncing with the heartbeat of the earth, and I noticed my body didn't feel separate from the ground we were lying on, but like a part of the ground itself.

Esperanza was from Mexico and her Papí was teaching her how to connect with the land of her home in a deeply embodied and spiritual way and teaching her that she can do this wherever she is. Alexandra, also from Mexico, was experiencing oneness with the land.

Alexandra and I opened our eyes at the same time, smiled, and giggled at the trees looking down at us from high in the sky.

Trees provided a safe and cool canopy in the backyard of The Playhouse, a much-appreciated reprieve from the hot Georgia sun. Children's kin-making with trees was apparent if not articulated: They climbed trees, threw balls and fabric into trees, they ate lunch and snacks beneath the trees, and they sat in a circle of "chairs" made of cut tree trunks. A large tree that had fallen across a deep ravine linked one backyard to another backyard. The more agile children scurried across the tree-trunk-bridge without hesitation and others took it slower, sometimes backing up to the safety of the ground when they looked down and realized how far they would fall if they lost their balance.

Trees were ever-present in the lives of the children, and yet none of them had explored the woods that bordered the neighborhood until The Playhouse grown-ups (including me) encouraged small groups of them to begin checking them out.

The Playhouse woods was a place where old things that were no longer wanted were often disposed of: a mattress, an old appliance, a bag of toys. It was a place that was "over there" in a disconnected and even haunted and scary way. When we first began our short treks into the woods the children would shriek and grab onto a friend if they heard a noise, even if it was only a small limb snapping under the weight of a friend walking right next to them.

2 Byrd Baylor's exquisite picture book, *The Table Where Rich People Sit* (1994), illustrated by Peter Parnall, is a story about the wealth inherent in a family's relations with non-human species.



Figure 1. Trees were a constant presence in the children's play

Trees, around their homes and across the neighborhood yards, were barely acknowledged verbally but always linked with their daily lives.

The woods, out there on the outskirts of the neighborhood, where big clusters of trees created a darker, cooler place, were avoided. They were scary. Dumping grounds.

Haunted.

We hoped to cultivate a sense of belonging and connectedness with the woods while also acknowledging and honoring a devastating racist history in the United States that is entangled with the same landscapes. In the famous 1939 song, "Strange Fruit," written by a White Jewish man from New York City, Billie Holiday sings about "Black bodies swinging in the southern breeze; Strange fruit hanging from the poplar trees." Abel Meerapol, the songwriter, was also a teacher and social activist, and he wrote the song in protest against the lynching of Black people in the South (Moore, 2021).

I am a White woman who has experienced my own dread in this violent world, always faced with questions and concerns about my safety when I am alone in the woods, where terrible things could happen to me, because I am a woman. In fact, while the three of us love being with trees, we don't want to romanticize being in the woods. We all face fear and panic at times, fueled by the real and imagined threat of violence because we are women living in a misogynistic world. And while we cannot know the embodied knowing of anti-Black racism, we understand the threat of violence against Black people fueled by a history of racism and terrorizing Black people with trees. The trees have witnessed so much, thus we move into and through the woods with children and grown-ups grounded in these violent knowings and we walk step by step to live in new ways in our bodies, minds, and spirits with trees. Honoring the different fears we all acquire through the generations and our personal lived experiences in this patriarchal, white supremacist, capitalist, colonialist society is important if we are to begin moving differently to create relations that are safer and more just.

Over time and across dozens and hundreds of visits, the children from The Playhouse built relations with the woods on their own terms. Squatting down in a circle, noses pointing toward new sprouts, they would wonder out loud, "What is that? When did it get here? Do you see that?" Sometimes they brought along sketchbooks so they could sit and draw. Other times they ran through the leaves and jumped through low branches. Some children began bringing local field guides to identify leaves and learn the names of trees.

And all of us—*all of us*—found our way to a peaceful, familiar way of being with those woods that were once so distant and disconnected.

Children also spent a lot of time in the woods without the Playhouse grown-ups. They would sit and talk, bring new friends out to see their special place, play games, ride their bikes, and climb trees. They played with the discarded household items and created art inspired by our art-making with them in the woods. We also heard about the children starting small fires. After hearing this, we showed them how to dig out a safe pit that could prevent a fire from spreading, and how to put out a fire completely before leaving it. They practiced with us, surprised that grown-ups would show them such things, but we saw this as part of our ongoing response-ability to the children, the woods, and the neighborhood.



Figure 2. Art-making with leaves

Outsiders might continue to perceive their neighborhood through a deficit lens, but the children in this community were always vibrant, creative, industrious, and inspiring. And now, they had become wrapped in trees beyond their backyards. It was magical every time, and those of us who had the privilege of spending time with them witnessed a palpable change in their individual and collective ways of being with and in the world.

LINDSEY: TWO GENERATIONS OF BLOOMING CREATIVITY AND INDEPENDENCE IN WOODED BACKYARDS

Growing up in upper-middle class suburban areas surrounding a large city in the mid-1990s often meant some form of “wooded” backyard for me. I have memories of my best friend’s house, which backed onto an oak-hickory-poplar forest (while I could not then have named the makeup of the forests around my home, the Forest Service 5-Year Report from 2014 describes this as the common forest in the area). We would often escape beyond the manicured yard into the forest, thrilled by our independence and courage as we ventured deeper and out of sight of the house.

The place among the trees became our storyland. We were pioneers: building our home, foraging for food, and tending the cookstove. We were princesses: escaped from capture, battling dragons and beasts, climbing mountains, and braving rushing rivers. Most of our play centered on an enormous fallen tree and the discovery of a small hatchet in the basement. The tree became the wood for building imaginary fires, the bodies of defeated monsters, the ship, the castle, the mountaintop. Our imaginations had no limits, and our time in the woods made possible the stories we created.

Now as a parent in a more modest home but still within range of the woods, my escape into the trees is less of a rebellion. After all, there are some trees in our fenced backyard. Beyond the fence is a stretch of field cleared by a powerline and bordered by thick woods that run down to a creek crossing and a county park. It is a place of independence and creativity, this time for my young daughter, Amelia.

I came to appreciate her experience with the woods in 2020 when COVID-19 forced the closure of school buildings and sent us into lockdown. I worried about how the isolation would affect Amelia, an only child away from teachers and peers, bored, alone, and stuck in the house. Imagine my surprise when instead of gluing herself to a screen, she walked out the back door and disappeared into the trees.

Every day, she would explore, create, and imagine—all on her own. She built nature sculptures and created imaginary worlds and stories, and took along an audiobook that she would listen to outdoors. She'd return hours later, dirty, tired, hungry, happy, and overflowing with questions and retellings from the day's reading.

Amelia's time among the trees with a book developed her into a reader in a way that school had failed so far to do. Though she was deemed "on grade level" by school testing protocol,³ it wasn't until time and space opened up for her to read alone in the woods⁴ that she discovered, as I had many years before, the joy of story. A joy that stands firm today after returning to school in the traditional setting.

In my 18th year as an elementary public school teacher, I find myself butting up against the confines of scripts, scopes, and sequences oriented to increase test scores and "student achievement." This conflicts with my desire to find space for teaching and learning that is emergent, adventurous, and creative. Once again, I find myself seeking this in the woods.

3 This performance of reading and being a "good" reader is wrapped up in her subjectivities of class, gender, and race that construct perceptions and performances in institutional settings such as schools (Enriquez, 2014; Grumet, 1988; Jones and Woglom, 2017).

4 As Becker (2022) observed of her students' experience in an urban forest school setting following COVID-19 closures and reopenings, the generally accepted concept of children having "lost a year" of learning disregards the experience of learning and living through a time of navigating disruption and change, as well as embracing new interests and priorities. Even without in-school constructs of reading, for Amelia and, Becker argues, many other children, "Learning, as always, was in abundance" (p. 58).



Figure 3. A pathway into the outdoor classroom/nature trail behind the school

BREATHING WITH EMERGENT EARTHEN CURRICULUM

Our school is located just off a well-traveled two-lane road with a small gym, dry cleaner, drug store, gas station, a local breakfast favorite, The Biscuit Basket, and a collection of large, square cement buildings that have popped up in recent years. The school grounds are large enough for a soccer field and playground structure scattered with trees and a walkway around the back to the outdoor classroom/nature trail. A brick path leading up to a small wooden archway and fence mark the entrance, and the back boundary, some 20 yards away, is lined with tenacious bamboo and a chain link fence. Rocks demarcate a one-eighth mile long pathway, and students have bushwhacked other smaller, duck-and-scramble paths through the bamboo that they tend to prefer.

The space is usually referred to as the *outdoor classroom*, but I have never warmed to the term. Outdoor classroom evokes the idea of moving the same old scripts and tasks outside, but I want to explore how this small patch of woods can be an invitation to what Hooven and colleagues (2021) call an *emergent earthen curriculum*, learning that springs forth from shared experiences in the moment and deepens our understanding of the interconnectedness of all beings, human and non-human. While this paper is not the space for critiquing scripted lessons, oversight of curriculum scope and sequence, and the neoliberal mentalities of productivity and achievement that police our teaching and learning, the ubiquitous, invasive nature of the problem means that it touches on all things, including the small patch of woods behind our building.



Figure 4. The outdoor classroom/nature trail

My students and I visit this space daily. We don't carry books, slate boards, markers, or flagged teacher's editions out with us or sing letter chants and consonant, vowel, consonant (CVC) words to the sky instead of the ceiling. We venture out to connect with nature for wildly different reasons.

And this was where I came across my first struggle. Like many public schools, mine is tightly bound in neoliberal and capitalist ideas, such as *time on task* and *instructional minutes*, which dog my every decision and are closely surveilled. My decision to *spend time*⁵ was outside of the minute-to-minute schedule of instructional requirements and could be approved if I were to make it count by translating in-class teaching practices—curriculum, resources, scripts—onto the outdoor benches.

Our time outside, instead, is held sacred and stands alone in its value. But even as I take that stand, I struggle with the fear of discipline and failure. Our daily visits to the trail are done mainly in secret and partially in defiance of what I have been told I am *not* to do. And it brings to the surface that even as I try to create belonging in the classroom, I feel such little belonging in my school and profession in general.

As I spend more time with the students and the nature trail, I am more conscious of using my body in the space. When I find myself checking email, catching up on messages home, even snapping pictures of the kids to send to families, a whispering swish of the trees, a swirl of leaves caught in the wind, or a shimmer of sunlight filtering through the trees grabs my attention and reminds me to put my phone away. It tells me to breathe in and slowly back out, to take a quiet walk with the trees, where I am often joined by a small hand in my hand and someone wanting a chat or quiet time together.

Our relational ways of being with the nature trail always shift, ebbing and flowing and creating

5 “Spending time” is a neoliberal metaphor that conceptualizes time as a commodity that is, or *should* be, used to the highest productivity. It is important to critique this commonplace metaphor that imbeds and normalizes neoliberal ideologies in everyday language in schools (Richardson & St. Pierre, 2000).

emergent possibilities (Becker, 2022; Hooven, et al., 2021), such as the time last winter when the temperature fell below freezing, and the students, led by Tori, discovered a collection of frozen, frosted leaves on the ground. Fascinated by the crystallization of the ice and stiffness of the leaves, they asked to bring it inside to take home. We placed it by the plant window where we collect our outdoor discoveries for sharing and observation.

An hour later, Tori discovered the crystals had disappeared and the leaf sat in a puddle of water. Shouting for her classmates to join her, several students ran to examine the change. Here was an emergent opportunity for water cycles, states of matter, and writing. An entanglement of leaf, ice, puddle, table, hands, and warmth. An in-the-moment curiosity and wondering. A mistake. A new understanding. An emergent earthen curriculum.



Figure 5. Children exploring on the edge of the pond along the nature trail

While I feel equipped to respond in emergent ways to many inside-classroom events, social topics, and emotional learning throughout the day, I often feel out of my element outside with my students. I don't know the names of the plants, struggle even to accurately identify poison ivy, and regularly confuse the dandelion, daffodil, and daisy.

But, like the children, I am thrilled by the outdoors—the wild, even in the heart of our small city. I love the rare interaction with a red-tailed hawk, gathering students to watch as it perches on a branch, or to notice a lizard shimmying up a tree trunk, or to collect frost from the grass on a chilly morning.

As I wade through policies, practices, and forces that further de-professionalize the work I love, I struggle to draw breath. So contained, controlled, and regulated am I as a teacher that I've begun to see our short daily visits to the nature trail not only as a sacred time for the children to connect with trees and all the more-than-human beings in their shared world, but also as my own chance to breathe. Breathing in the gift from the leaves is visualized with such beauty by forest ecologist Suzanne Simard (2021): "Their stomata—the tiny holes that draw in carbon dioxide to join with water to make sugar and pure oxygen—pumped fresh air for me to gulp" (p. 8). Outside the school walls, I breathe in the excitement, curiosities, and unscripted discoveries with my students.

SARAH: INTO THE TREES FOR PLACE-BASED EDUCATION WITHIN A COOPERATIVE, COMMUNITY STRUCTURE

In my early days of parenting, I could see how little the typical preschool environment facilitated awareness of children's bodily selves and inner worlds. The project I would later undertake, opening a new kind of preschool, seemed at first to be only loosely connected with my professional background in education. Like countless parents throughout time, I was motivated by my child's needs.

My child's needs for movement and sensory stimulation were not easily accommodated in the typical US classroom but, as I went looking for alternatives, the forest kindergarten approach I read about brought to mind the full body ease I had felt in my relatively narrow outdoor experiences. Those yearly camping trips, seasonal hiking excursions, bike rides down a favorite shady boulevard, and a childhood spent climbing "my" tree to sneak off with a book, were all brought to mind unexpectedly, as I faced the question of how to teach a child to *be* in their body. The pedagogy of the new American schools I read about, inspired by German and Scandinavian *waldkindergartens*, offered a framework that could make space for children's embodied ways of being.

I went on to gather a founding Board of Directors who agreed to apply a critical lens to what is called a placed-based education, and which shaped so many American forest schools. We placed an emphasis on public land, community connections, and intentional caregiver education to build a multi-faceted organization, Athens Forest Kindergarten.

As a cooperative, parents participate in our community work or daily operations as a part of their child's tuition. We build on parents' good intentions for their children and through their own embodied experience in the treescape, and ask them to assist in our preschool for 40 hours a year. This time with children and the forest creates new possibilities for parents to know one of our core beliefs: the forest is not a place to visit, but a home they had forgotten.

Being thrown into teaching in a setting I had never planned on, I discovered how different the North Georgia forest was from that of my youth in Central Kentucky. That awakening seemed to spiral quickly into deeper and more complex connections. As I had read in my study of forest schools, returning to the same spot in nature every day would never get boring because my capacity for noticing would expand on every visit.

My body learned how the trail felt below my feet, the sounds of different kinds of wind during different kinds of weather, and I marveled with the children about the many stages of decay and growth happening during all seasons of the year.

DEEPENING RELATIONSHIPS WITH TREESCAPES AND CO-REGULATION WITH A CONFIDENT FOREST EDUCATOR

In order to facilitate children's kin-making with/in the forest and beyond, we ask educators and parents to become attuned to their own relationship with the more-than-human world. Young children rely on caregivers for what we call *co-regulation* (Silkenbeumer et al., 2016), and in facilitating children's interactions in and with the forest, a caregiver's response lays the groundwork for the child's future relationship with nature itself. Take, for example, the scenario of a small child lugging around a large branch with dozens of small branches and twigs jutting out at every angle: "Oh, I see you have a big branch there!"

The child doesn't notice the remark and turns, almost tripping a group of students playing nearby so the educator approaches and softly puts her hand on the child's hand: "You are so strong to carry that big branch!"

The child's eyes light up. "Yes! It's my tree! It's new since the storm last night!"

"The branches are big and getting close to the others! Would you like to keep carrying it in a place where others will be safe, or would you like to put it down on the side of our play area and go back to join the game?"

"I want to carry it!"

"Okay, come over here with me to this open area and I'll watch to make sure no one comes over and gets hurt!"

In this scenario, the educator witnessed a child exploring the forest in a free and joyful way but one that might create danger for others. The skilled way they helped the child move to safety without fear or shame is one of thousands of moments of confident co-regulation this child will experience during her year with us.

That feeling of being seen, over and over, builds a secure attachment where she knows she can explore away from the educator as her secure base and return to them as a safe haven. This model of attachment, as taught in the Circle of Security Classroom model (Cooper, Hoffman, & Powell, 2017), is what we draw on throughout the year for professional development and reflection. A child with a secure relationship with their teacher knows them as someone who can "[a]lways be strong, kind, and committed. Whenever possible, follow the child's need. Whenever necessary, take charge" (Marvin et al., 2002).



Figure 6. Children making playscapes and play in the forest

Though these are attachment needs in any setting, the capacity of an adult who is confident and at home with the local treescape, combined with the complexity of the forest environment itself, intra-act and make apparent the Reggio Emilia concept of environment as the "third teacher" (Malaguzzi, 1987).

MAKING SENSE OF KIN-MAKING WITH FORESTS AND ALL CHILDREN IN THE CITY

Although all humans may be born with a natural attunement to nature, for many of us it is stunted by the demands of modern life, and perhaps most tragically, this happens very early in life in institutionalized school settings. We aim to build the capacity of people in our small Southern city to make kin with the forest through community. This emerges in unexpected, magical ways within the community of children and families most intimately involved with the forest every day, but it also reaches outwards and through the broader community of Athens.

One example is my advocacy for the local public schools—where the children Stephanie worked with in their neighborhood attend school and where Lindsey works as a teacher—to extend and value play and outside time for all children. The children helped me prepare for a talk I gave at the local school board when I asked them what they wanted to share about recess and outside time for children “with the adults in charge of these decisions.”

As we sat in the forest with which we were so familiar, so connected with—indeed, our kin—their excitement bubbled up. They said they like playing in the mud and rolling around, playing in puddles, whistling, looking for sticks, and seeing all there is to see. The children told me some of the things they believe they learn from being outside. Like discovering how slippery things get when you climb, learning about boundaries (they gestured to the trees at the edge of the meadow that mark their play area), figuring out how to balance, how to be careful, and how leaves change colors and fall.



Figure 7. A child playing with tree limbs, branches, and trees to create, explore, and have fun

By questioning the established order of school when we developed the program, we have made way for a generation of students to be at home in their community with treescapes and at home with the very act of questioning the established order itself.

MIGHT TREES SAVE US?

If I am kin with the human and more-than-human beings of the Monterey Bay area, then I have accountabilities and obligations and pleasures that are different than if I cared about another place. Nobody can be kin to everything, but our kin networks can be full of attachment sites. I feel like the need for the care across generations is urgent, and it cannot be just a humanist affair.

(Donna Haraway, in an interview with Steve Paulson, 2019)

Trees might not save us in a dramatic end-of-fairytale kind of way, but we believe that being in relation with particular, local treescapes, nature trails, woods, and forests makes everything different. Being full-bodied and present in an entanglement of children, the wind, a flicker of sunlight, a bubbling stream, a discarded nightstand, chipmunks scurrying, a birdsong—is, well, *magical*. That particular

entanglement in a particular place, as Haraway argues, creates “accountabilities and obligations and pleasures” that are different from another set of kin networks and attachment sites.

This is one option a feminist critical post humanist shift can offer us: a way out of the apocalyptic trajectory that a human-centered, patriarchal, white supremacist, capitalist, colonialist project provides. *Being with treescapes* (and all the more-than-human kin that are a part of a treescape) changes our bodies and ways of being in the world that just *feels better*: connected, grounded, at home, at peace, whole. With so many forces in the world telling humans that they don’t measure up, or they need to always do more and be more in order to have value, and that they ought to be competing to acquire higher status and more material goods, being with treescapes is not only helpful for humans’ well-being, but necessary for a future that is conducive to desirable conditions for human survival.

In her work on fostering ecological identities in children, Ann Pelo (2014) writes of the importance of engaging a sensual experience in our bodies, hearts, and minds in a specific place. She calls for a “conscious knowledge of place” to “underscore that intuited, sensual, experiential knowledge” that comes with living someplace (p. 43). We know this as making kin and cultivating networks of attachment sites. We want to be clear, though, that this is not about doing something today *because tomorrow depends on it*. Rather, our embodied presence today with our human and more-than-human kin is what allows us to breathe, to feel peace, to find clarity, to be in relation that feels good *now*. It gives us life as humans, as educators, and we see the vibrant life filling the children we spend time with.

Today is what matters. Trees help us know that.

To live well with each other in a thick present means environmental, multi-species, multiracial, multi-kinned reproductive and environmental justice. We can’t control whether this all works in the end—or even for tomorrow. Our job is to live in a thick time of caring for and with each other—much like Haraway’s making kin in this place, in this time. That’s neither optimistic nor pessimistic, but it involves cultivating the capacity to keep a kind of love, pleasure, accountability, and response-ability with each other in this place.

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ABOUT THE AUTHORS



Stephanie Jones is a Josiah Meigs Distinguished Professor at the University of Georgia, where she teaches a wide range of classes in the College of Education and in women's studies, including courses on social class and capitalism, feminist theories and pedagogies, literacy pedagogies, teacher education, qualitative writing, inquiry and justice-oriented education, bodies and sexuality in K-16 education, and more. She frequently writes newspaper editorials for public audiences responding to current events that impact children, families, teachers, and K-12 education, and she writes regularly about nature, meditation, and healing on her personal substack. Stephanie loves to wander and wonder along trails in public parks where she lives and visits, and she is grateful to have many tree friends.



Lindsey Lush is an elementary school teacher and doctoral student in Educational Theory and Practice at the University of Georgia. In her research and practice, Lindsey explores feminisms, posthumanisms, play, emergent learning, social studies, and literacy. She serves on the board of directors for Athens Forest Kindergarten, an educational nonprofit dedicated to promoting nature, play, and reflective caregiving in early childhood. She loves learning every day in community with wonderful educators like Sarah and Stephanie.



Sarah Whitaker has devoted her career to promoting reflective and holistic practices in education. She is the founder and director emerita of the nonprofit Athens Forest Kindergarten and has also worked as a part-time professor teaching undergraduate and graduate classes. In her work as a consultant, Sarah offers professional development to help educators incorporate reflective and holistic ways of being into their teaching practice at all levels from early childhood through higher education. Sarah has a doctoral degree in Educational Psychology and is a Circle of Security classroom coach, a teacher of mindful movement, and is passionate about building community.

Connecting Children and Young People with Trees

Gill Forrester, Jo Maker, Will Price, Hollie Davison, and Heather Gilbert

INTRODUCTION

The importance of spending time in nature has never been better understood than it is today (Barragan-Jason et al., 2023). Connecting to nature has a huge variety of benefits, but the ways of creating this connection are even more numerous and diverse. From providing outdoor adventure centers to teaching reading outside under a tree, there are many ways that families, schools, and other groups seek to engage children and young people with nature. But in a world where technology is becoming increasingly accessible and attractive to children and young people, and almost limitless information is available at the touch of a screen, how do we connect them with what’s happening on their doorstep? And what can we do to encourage them to step outside?

The National Forest has decades of experience helping children and young people engage and build connections with and value the stories and significance of their local treescapes. We use “treescapes” here in its broadest sense: any landscape, habitat, or natural area where there are trees. This could be a vast, dense woodland or a small group of trees within school grounds, as each of these varied spaces can be used to promote a connection with nature.

The following success stories range from engagement with treescapes in traditional education settings to the establishment of extracurricular youth groups and the use of art as a connector. Just as in traditional education, no one alternative method will suit all, and so the success of the National Forest’s work lies in the flexibility and diversity of its approaches.

THE NATIONAL FOREST

If you don’t live in or near England’s National Forest, you probably have never heard of it. In the grand scheme of things, it doesn’t cover a huge area, but despite its modest size, the National Forest is one of the boldest environmentally led regeneration initiatives in the United Kingdom. Over three decades ago, this 200-square-mile stretch of the Midlands in the heart of the UK (Figure 1) was postindustrial land. The impact of heavy industry, familiar to many of us across the world, left a landscape horribly scarred, black from coal and clay mining, and devoid of trees. It was hardly a children’s playground.



Figure 1. Map showing the location of the National Forest (dark green) within mainland Great Britain (light green)

Unsurprisingly, the closure in the 1980s of the coal and clay pits, which had supported thousands of jobs locally, resulted in high unemployment and almost as importantly, a heartfelt sense of loss: of heritage, community, and what was once a rich green landscape. In fact, the area that was to become the National Forest was at that time one of the least wooded parts of the country. The future of the area and its communities looked bleak, with many leaving to find work and greener surroundings for their families. That was until the idea of creating a National Forest was born — an idea that would transform the area from black to green. It wouldn't be a 200-square-mile, wall-to-wall plot of coniferous trees, but a forest in the old sense of the word: a distinctly wooded landscape that would provide a setting within which people lived, worked, and learned. It was a great idea, but who was going to make it happen?

In 1995, the UK's Department for Environment, Food and Rural Affairs (Defra) decided to set up an organization aptly named the National Forest Company (NFC). It was tasked with leading the creation and subsequent development of the National Forest, keeping communities at its core. Encouragingly, the UK Countryside Commission recognized early on that the National Forest had the potential to be one of the biggest and most exciting open-air classrooms in the country (Countryside Commission, 1994) and could provide an opportunity to showcase how environmental issues interacted with each other, from the local to the national and global. Incredibly, since then over nine million trees have been planted, and it is these trees that have been the catalyst for change. To ensure that the National Forest both survived and thrived, children, young people, and environmental education were put at the heart of how the Forest was envisioned from the outset, with the aim of fostering a sense of local pride, awareness, appreciation, and ownership (Figure 2). The commitment was not only to embed the concept of a forest into the culture of the next generation, but also to connect children and young people to what would be very different surroundings from those of their predecessors. So how was this going to be achieved?



Figure 2. Lightboxes showing the industrial heritage of the National Forest
(Photo credit: Andrew Allcock/National Forest Company)

Early work was focused on environmental activities, such as tree planting, giving talks in schools, and developing natural areas on school grounds, and, by 2015, around 500,000 young people, both within and beyond the National Forest boundaries, had engaged in such activities (Rowntree Jones et al., 2022). It became clear that widespread and long-term engagement with the Forest would initially need to come through the one resource almost all children and young people have access to: their schools.

THE NATIONAL FOREST TEAM

Since the inception of the NFC, countless individuals have been integral to the growth of outdoor learning across the region. The programs described here were pioneered and driven by a whole range of inspiring educators, from NFC-employed project managers to practitioners in schools. We, as authors, represent some of the current team working to build on previous efforts and help bring the benefits of outdoor learning to an even wider audience. However, we are keen on acknowledging and recognizing the hard work, dedication, and inspiration of all those involved across the years, without whom these amazing outcomes would not have been possible.

CREATING A FOREST FOR LEARNING: SCHOOL-BASED INTERVENTIONS

In the early years following the National Forest's creation, curriculum delivery within schools was mostly indoors and classroom based. Nationally, despite growing evidence of the wider holistic benefits of outdoor learning (Mart & Waite, 2021), local schools did not appear to be utilizing their school grounds or staff resources for it with any regularity, if at all.

Sadly, this remained the case within National Forest schools as recently as 2016, when less than 20 percent of primary schools were providing regular outdoor learning sessions. Given that outdoor learning was defined as "learning in a treescape setting at least once a month," it was clear that schools were facing barriers that were preventing them from connecting not only with local woodlands within walking distance, but also with trees within their immediate school grounds (National Forest Company, 2018, p. 6). When we, the team at the National Forest Company, asked schools what was hindering them from providing regular and sustainable outdoor learning, they consistently highlighted the same barriers. These were:

- The lack of specialist expertise and confidence of teachers within schools
- The perceived risk of arranging sessions outside of the classroom and the time required for them
- The absence of facilities of suitable outdoor learning spaces within the school grounds
- The cost of transport to take children off site

It was clear that to open up outdoor learning opportunities for as many children and young people as possible, we would need to help schools overcome these barriers. Inevitably this was going to involve finding the funding to support those efforts, which proved to be one of our greatest challenges! To our great delight, a turning point came (after searching for a long time) when five years' worth of funding was secured from the Audemars Piguet Foundation, a corporate foundation whose mission aligned precisely with ours (Audemars Piguet, n.d.). Our joint vision was to engage the next generation in understanding, caring for, and enjoying their new woodlands and woodland culture. By engaging with schools, we wanted to give every child and young person the opportunity to increase their understanding of the forest growing around them, to use their forest as a learning environment, and to have an enhanced overall learning experience. Securing funding for a project we named "Creating a Forest for Learning" (CF4L) meant that we could employ a dedicated Outdoor Learning Officer, which was a pivotal step toward achieving this vision. The Outdoor Learning Officer's aim was to highlight the benefits of outdoor learning with primary and secondary schools across the National Forest, encouraging and supporting them to become Forest Schools. The Forest School initiative was central to our approach and key to the project's ultimate success. As explained on the Forest School website, Forest School is:

... a child-centered inspirational learning process that offers opportunities for holistic growth through regular sessions. It is a long-term program that supports play, exploration and supported risk taking. It develops confidence and self-esteem through learner inspired, hands-on experiences in a natural setting.

[It] has a developmental ethos shared by thousands of trained practitioners around the world, who are constantly developing their learning styles and skills to support new and imaginative learners. Its roots reach back to the open-air culture, *friluftsliv*, or free air life, seen as a way of life in Scandinavia where Forest School began. (Forest School Association, n.d.).

Having deliberately adopted an approach that was introduced in the UK in 1993 and is recognized worldwide, we faced the challenge, beyond encouraging engagement, of empowering schools to make outdoor learning sustainable. Crucially, however, the National Forest team did not want to become outdoor learning providers parachuting into schools to conduct one-off occasional sessions. Instead, we wanted schools and teachers to be able to take the Forest School initiative forward on their own. The perception was that for the Forest Schools to succeed, specialist expertise was required, and the concerns that transport costs, preparation time, and the lack of teacher confidence and suitable outdoor learning spaces within school grounds, which were considered barriers to that success, could all be addressed. It was just a matter of how that could be managed. With the Audemars Piguet Foundation funding, we were able to offer schools within the National Forest access to Level Three Forest Schools Practitioner training for teachers. The road to sustainability in our view was to encourage each school to train two staff members who would support each other in delivering outdoor learning, initially within their school grounds. Once qualified, staff would be able to cascade train others (e.g., teaching assistants and parents) who could work alongside them, putting into practice what they learned. One teaching assistant commented:

The skills I learned from the Forest School training were very different from my teacher training and have given me so much more confidence to be able to deliver a wide range of activities outside of the classroom. I discovered that you can have great fun learning outside!

This approach certainly helped reduce the perception that arranging out-of-classroom sessions took a long time and involved risk; it also removed immediate concerns about the cost of transport. The long-term aim was for us to embed outdoor learning within the ethos of the schools so that the practice gradually progressed from occurring on school grounds to taking place in the treescape nearest to the schools within walking distance.

Training uptake was high, and schools were progressing well, until the COVID-19 pandemic struck. The long-term impact of the pandemic has been severalfold, but immediately noticeable was the loss of teaching staff post-lockdown and subsequent recruitment difficulties. The pressure this then placed on the remaining staff, whether they'd had Forest School training or not, meant that outdoor learning was no longer seen as a priority due to limited staff capacity. Frustratingly for some schools, despite their awareness of the tremendous benefits outdoor learning can offer children—particularly those still struggling with the impact of COVID-19—this will remain an issue until there are improvements in the schools' ability to recruit staff.

That said, with the focus firmly on young people's mental health and well-being, schools where staff and parent confidence, experience, and capacity have grown are determinedly forging ahead once more. To support the provision of outdoor learning, along with partially funded accredited training for staff, we were able to start schools along the road to addressing the lack of facilities and outdoor learning spaces within their school grounds. This was achieved through the offer of small grants that enabled schools to work toward the creation or management of existing treescapes within their grounds and/or to purchase resources to support delivery of outdoor learning, from the creation of a temporary outdoor classroom using a canvas tarp strung between trees to the purchase of waterproof clothing, tools, art easels, cameras, and tree identification charts (Figure 3).



Figure 3. The purchase of waterproof clothing has made pond dipping both accessible and inclusive for all (Photo credit: National Forest Company/Darren Cresswell)

Children have taken part in activities from storytelling, creating art, and engaging in sensory tasks to den-building (Figure 4), cooking, and fire-lighting, which have given them new practical skills and also enabled them to become decision-makers and leaders capable of recognizing and valuing the skills of others. Activities were tailored to the needs of each group to enable more young people to take part in them. These activities included:

- Scavenger hunts
- Using natural dyes
- Den-building (mini- and full-size)
- Making stick people
- Tree identification
- Orienteering
- Making natural musical instruments
- Making mud faces
- Making bows and arrows
- Creating nature art
- Using tools (including knives and Kelly Kettles)
- Climbing trees
- Hunting insects
- Fire-lighting and cooking on open fires
- Pond dipping
- Leaf rubbing
- Making dream catchers
- Making natural Christmas decorations



Figure 4. Building confidence through learning den-building skills (Photo credit: National Forest Company/Darren Cresswell)

One Forest School practitioner shared:

I have noticed that children react in different ways outside the classroom. Children that struggle with written work can surprise you by excelling at group tasks involving construction and decision making! I now allow children to learn and develop in their own way and, as a result, I have seen improvements in self-esteem and self-confidence, which has had a positive impact on attendance, behavior, and achievement in the classroom.

Financial support, together with advice and guidance, provided all schools within the National Forest with the supportive network they required to move toward delivery of a sustainable outdoor learning program. Despite the difficulties schools faced due to the pandemic, staff losses, and budget cuts, the CF4L project resulted in greater equity for young people to access treescapes across the Forest, regardless of background or school (Figure 5). We feel that the results of capacity-building within schools over a five-year period speak for themselves, as over two-thirds of primary schools in the National Forest (Figure 6) now provide regular outdoor learning as part of their curriculum offerings!



*Figure 5. Learners sharing experiences at a Champion School visit
(Photo credit: National Forest Company/Darren Cresswell)*

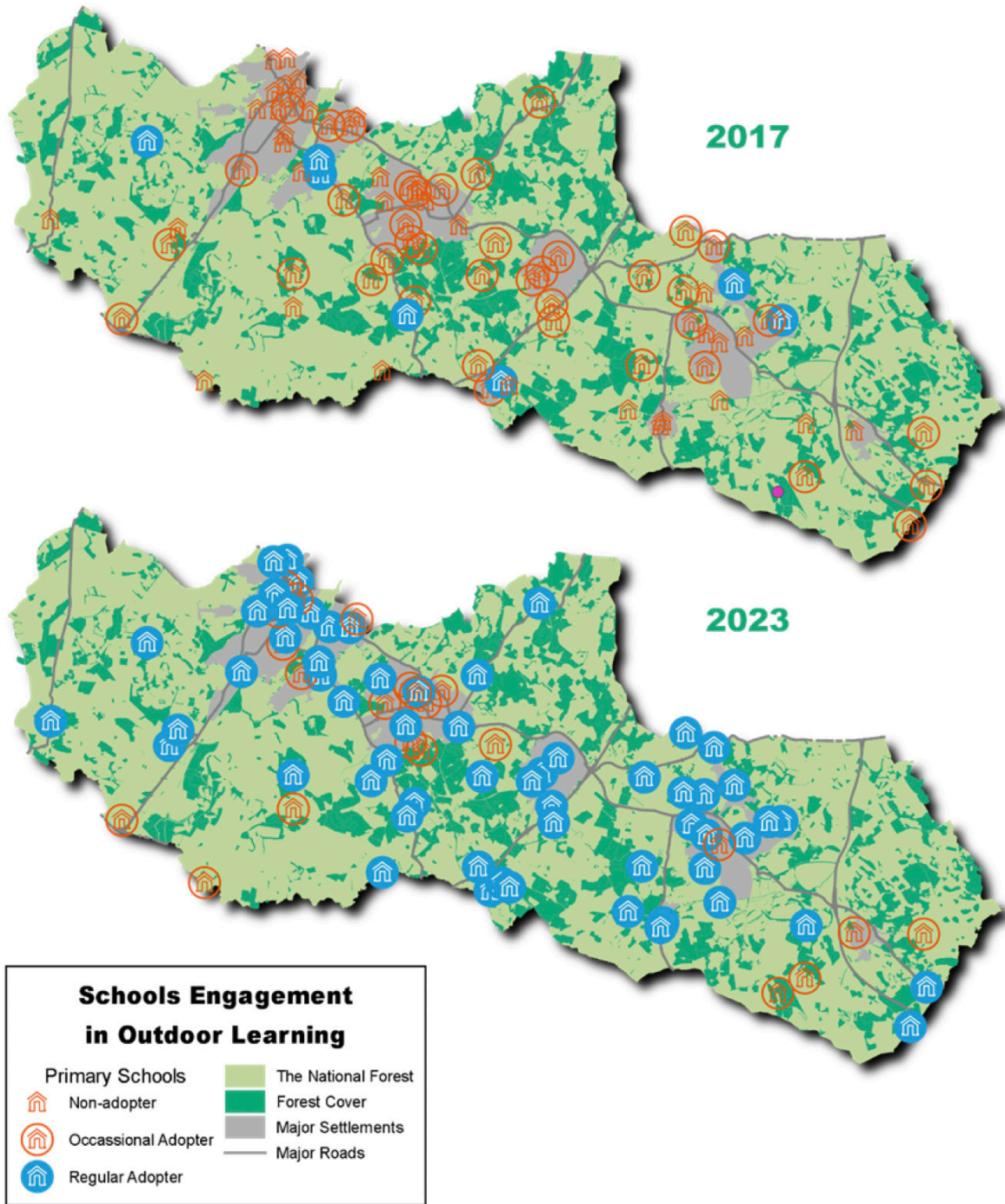


Figure 6. Distribution of primary schools across the National Forest showing their level of outdoor learning engagement in 2017 (above) and 2023 (below). Non-adopters are schools that have no provision of outdoor learning. Occasional adopters are schools that undertake outdoor learning only occasionally. Regular adopters are schools that take part in outdoor learning at least once a month.

One teacher, commenting on the value of regular sessions, said:

The children really look forward to our weekly outdoor learning sessions now. It took a few weeks for them to adapt to being in an unfamiliar environment, but now they really appreciate the area they live in. Some children have started exploring the woods near them at the weekends with their families and have even recreated some of our tasks.

It was also clear early on that when schools had the support of senior leadership, outdoor learning became embedded in the whole school ethos. This not only highlighted the importance of buy-in from senior staff, but also presented an opportunity to establish several exemplary Champion Schools. Their role was to share best practices and offer support and encouragement to other schools embarking on an outdoor learning program. Referring to Champion School visits, one staff member witnessing the impact of outdoor learning stated that:

The children have been able to engage with the natural world in a way that they normally just don't—the outdoor learning has brought them out of their shells ... these visits have enabled children to experience outdoor learning in a way that is currently unavailable to them (Figure 7).

When children who took part were asked for feedback, their comments also showed the positive impact Forest Schools could have on them: “I love Forest School because of all the fun we have playing with nature and making new friends,” said one. “[Forest School is] better than the beach,” said another.



Figure 7. The joy of gathering natural resources for nature art
(Photo credit: National Forest Company/Darren Cresswell)

CREATING A FOREST FOR LEARNING IN ACTION

The CF4L program was transformative for schools in different ways. Many progressed from only occasional extracurricular use of their grounds to offering regular outdoor sessions and demonstrating best practices in outdoor learning. Heather Primary School was one of these schools. Prior to engagement with the CF4L project, Heather Primary made very little use of their grounds for outdoor learning. Their classes for 3- to 7-year-olds had small outdoor areas, but there was limited equipment available to make use of those spaces. While the school did have an established gardening area, it was only used by a small, dedicated group of children in the after-school gardening club. The school had

engaged parent volunteers to start clearing another area of their grounds that they hoped could be used by all age groups for Forest School during the school day, but again, the school didn't have the infrastructure or resources to make the most of the area the volunteers had created.

In 2017, the Heather Primary School was successful in getting a grant through the CF4L program that allowed them to build steps up a slope and a pathway to access the Forest School area they had created, as well as to purchase teaching equipment such as den-building kits, campfire grills, safety gloves, and logs for seating. The head teacher explained that not only was she keen to expand the schools outdoor learning offering, but also that “our children are keen—and it is lovely to see those children who struggle academically outside working hard.”

By 2019, their woodland Forest School area was being used weekly by their youngest classes and frequently by the older age groups, as well. The staff delivered a range of activities but said that den-building and finding “fairy bracelets” were some of the students’ favorites! As the staff team’s confidence started to grow, they wanted to further enhance the outdoor learning experience for the children and applied for a second round of grant funding. This time, they purchased storage materials for their equipment, more equipment for cooking and den-building activities, and even a night vision camera to observe wildlife in their outdoor learning area. This increase in resources led to the introduction of collaborative sessions with the on-site preschool, bringing outdoor learning to children as early as possible in their learning journey.

FIVE-POINT PLAN FOR OUTDOOR LEARNING

A key approach to supporting the development of outdoor learning in schools is to embed outdoor learning activities within School Improvement Plans, providing long-term commitment to delivery. It was clear to us that the CF4L project was having a positive impact in schools, but we were not confident that all primary schools were ready to embed outdoor learning within their ethos and curriculum delivery.

The barriers to outdoor learning varied across the participating schools; in some cases, barriers were ingrained within an individual school’s culture. Those schools needed more support in order to build their confidence in the benefits and longer-term impact of outdoor learning; staff training had gone some way toward this. The activities with children slowly provided the impact evidence the schools needed to fully engage in and commit to outdoor learning. The inclusion of outdoor learning activities within School Improvement Plans demonstrated the senior leadership’s commitment to them, preventing the cessation of those activities if staff or parents who were passionate and Forest School-trained left.

To encourage and support schools to embrace the CF4L approach, we decided to develop a Forest for Learning Five-Point Plan (National Forest Company, 2018) and share it with schools. The goal was for each school to have:

- A year-round monthly program of outdoor learning sessions
- At least one Forest School-trained teacher or teaching assistant
- An outdoor wooded learning space within the school grounds or within walking distance of the school
- Outdoor learning included as a key part of the School Improvement Plan
- Access to a supported network of outdoor learning professionals and the provision of high-quality off-site outdoor learning

The Forest for Learning Five-Point Plan set out our aspirations for outdoor learning within the National

Forest, but it was equally intended as a template that could be replicated easily beyond the National Forest boundary and across the country. We believed our plan was a cost effective and uncomplicated approach to connecting (or reconnecting) young people with nature, but it was much more than this. It was also a tool for driving positive change for outdoor learning, the environment, and well-being.

BEYOND THE FOREST BOUNDARIES—FOREST FOXES

The National Forest is bordered by several large urban areas, where people might live less than a 30-minute drive from woodland but have never visited it. The distance may be short, but visiting treescapes within the Forest was often beyond the reach of disadvantaged communities within those urban areas. Initially our focus was on local schools within the boundary of the National Forest, but successful engagement with young people living in disadvantaged communities just beyond those boundaries would clearly benefit those involved and increase the reach of the Forest’s treescapes. But where to start?

An opportunity for the Forest School Association to partner with Leicester City in the Community (the community foundation of the English Premier League football club in Leicester City) presented itself in 2019, and the Forest Foxes project was set up. This project was one of five national pilots funded in part through the Children and Nature Programme (Natural England, 2022) and designed to increase opportunities for children to connect with nature and to improve their health, well-being, and engagement with education. In turn, it gave us the perfect opportunity to open up first-time access for young people from urban landscapes to connect with more rural treescapes. Following a model similar to the CF4L project and working closely with both organizations, we were able to support the introduction of 29 inner-city schools to outdoor learning. Our approach combined teacher training, in-school interventions focusing on nature connectedness and, most importantly for us, a funded program of visits to treescapes within the National Forest. This enabled young people who typically had no experience of environments beyond concrete and blacktop to engage with pupils from within the Forest who viewed outdoor learning as normal (Figure 6).

Having transport costs covered removed a significant barrier to accessing Forest treescapes and meant that teachers could not only see best practices demonstrated in those treescape settings but also could witness the immediate impact outdoor learning could have on their pupils. One inner-city teacher from Leicester commented, “Many of these students struggle in class, but when they are out here, they are enthusiastic, taking part in everything.”

This was by no means a unique comment. Providing access to the Forest had enabled the children and young people from inner-city schools to connect with a completely new treescape environment and, more importantly, it had enabled them to connect with nature in a totally different way than they had through the experiences open to them within urban school and community settings. For many, it was transformational and the start of a journey of awe and wonder (Figure 8).

One child from a school in Leicester wrote:

I enjoyed watching the fires and creating games with nature. I learnt that you do not need equipment to play outside, you can create it. I recommend Forest Foxes to my sister because she loves being outdoors.

Another wrote:

[I] learnt how to light a fire up, and how to make a tent. I also found new species of animals that I did not know of. I would definitely recommend this activity for other people because Forest Foxes make survival skills really fun and educational.



Figure 8. The satisfaction of achieving something different (Photo credit: National Forest Company/Darren Cresswell)

As with the CF4L project, a key element of the Forest Foxes project, alongside Forest visits, was the provision of Level 3 Forest School training for teachers. Unfortunately, just as the Forest Foxes project was launched, the COVID-19 pandemic struck. That didn't stop us. Partners were able to deliver a combination of online learning sessions and (when permitted) practical outdoor skill training in person. This meant that teachers could continue their training, developing their knowledge and experience so they were ready to deliver outdoor learning sessions once pupils returned to school. The group practical skills days delivered within treescape settings stood out as particularly successful, once again demonstrating how important it was to train teachers in appropriate spaces. One trainee felt that a skills day had "given me the confidence to talk to pupils and staff that I've never met before," illustrating the wider benefits and connections that can be made within a treescape setting (Figure 9).



Figure 9. Staff engaging learners with nature following training facilitated by the National Forest Company (Photo credit: National Forest Company/Darren Cresswell)

Ultimately, the success of Forest Foxes was the result of partnership collaboration, using Leicester City in the Communities knowledge of the city schools, the shared experience of nature connectedness approaches contributed by the Forest Schools Association, and the National Forest Company's skills in building treescapes. Forest Foxes achieved our aim of extending outdoor learning beyond the Forest boundaries, raising awareness of treescapes, nature, and their associated benefits to more children and young people and ultimately, their communities. Increasing the reach of treescapes to a more diverse audience beyond the Forest has made urban settings part of the National Forest's story, helping young people to value, engage, and build connections with the stories and significance of their local treescapes and enhancing their connection with nature going forward.

FOREST FOXES IN ACTION

Many of the schools engaged through the Forest Foxes program are what can be called "grey" schools—schools with no green space on site. In these schools, any outdoor spaces that are available to the students are usually covered in blacktop or concrete and are not a particularly inspiring environment for students to explore. In one such school, children and young people have some access to a small area with a wooden gazebo, wooden planters, and a small plot for planting vegetables, but otherwise, they have very little opportunity to engage with the natural world. However, involvement with the Forest Foxes program in partnership with Leicester City in the Community gave some of the students' new opportunities for such engagement.

Ten children, considered to be those who would benefit most from having time outside the classroom to express themselves in a safe outdoor environment, were chosen by the school to participate. Some of these children stated that they did not enjoy attending school, so the school staff felt that engaging them in a new way of learning might develop their interest in coming to school.

The children took part in sessions such as fire-lighting and den-building, pushing them outside of their comfort zone; they developed their capabilities and learned new skills. One child, "J," stood out as having gained the most from taking part in the project. She stated clearly at the start that she did not like attending school but loved being outside "digging, skipping, and making dens." She had, however, never built a fire, touched a bug, or had a go at natural crafts; the potential for her to learn from Forest School sessions was incredible. J engaged with all of the outdoor learning sessions very well, taking part in activities as a member of a team and showing her leadership skills, frequently helping others participate. Her confidence grew by leaps and bounds throughout the six-week program. She eventually supported other teams in activities that she found easy and had experience with. She developed a sense of pride in the activities she completed: "I lit the fire and felt proud of myself," she said, after successfully lighting a fire to make hot chocolate.

On completion of the project, J told the team that she thought Forest School was fun and that she had learned a lot about the environment, with fire-lighting being her particular favorite activity. Her experience at Forest School allowed her to build better relationships with other classmates, which she was able to take back to the classroom, helping her enjoy her school experience better.

HOW DO WE CONTINUE TO ENGAGE YOUNG PEOPLE AFTER PRIMARY SCHOOL?

Throughout delivery of the CF4L project, it was apparent that most primary schools were keen, and able, to adopt the Forest Schools approach. They were quick to take up training opportunities and apply for small grants to plant trees within their grounds, manage existing treescapes for accessibility and education, and purchase equipment to facilitate outdoor learning. Secondary schools, however, were facing barriers that made engaging with outdoor learning more difficult. This was disheartening, as research had shown that children's connection with nature (referred to as nature connectedness)

decreased significantly once they left primary school, just at a point in their education and development when connecting with treescapes could support children through a period of rapid change and make a positive difference to their well-being (Richardson et al., 2019).

Many secondary schools had extensive grounds, some with existing (relatively unmanaged) treescapes and others with unused areas ideal for treescape development, so space wasn't the issue. However, unlike young people attending primary schools, who had one teacher throughout the day, secondary students had different teachers for different subjects, and age cohorts did not function as a class. In addition, subject timetables frequently made it difficult to organize accessible outdoor learning sessions. So, we were presented with a problem: How could we engage our secondary schools with the Forest?

We started by consulting with the schools to find out what might work for them. What we found was that secondary schools were interested in using outdoor learning as a way of transitioning pupils from primary to secondary schools or for providing nature-based interventions for more challenging and targeted pupil groups, in particular students with special educational needs and disabilities (SEND). When we followed this information up with desktop research, we discovered that, as of late 2022, UK government statistics showed that just under 1.5 million pupils in England had special educational needs (UK Government, 2022a). Startlingly, this figure had increased by 77,000 from 2021, confirming that the diagnosis of SEND in young people was rapidly rising. In addition, the rate of SEND students who also encountered mental health issues was alarmingly high: a recent study highlighted that 78 percent of children with autism had at least one mental health issue (Kerns et al., 2020).

Our research also reinforced what we had learned from our primary schools: Outdoor learning was seen as an all-inclusive educational tool (Güdelhöfer, 2016) that could potentially increase student self-esteem and participatory motivation, increase self-perception, and lower anxiety levels. Addressing the academic difficulties of SEND students through nature-based programs improves their academic achievement, empathy, self-esteem, and creativity (Stavrianos & Pratt-Adams, 2022). In addition, it was clear that for these students, treescapes could provide spaces of safety and calm, as well as opportunities for effective alternative educational delivery. This message was reinforced by the teachers we consulted, who felt that treescapes could play a key role in relieving anxieties, including those linked to issues such as climate change, by providing students with hope for a greener future. By focusing on SEND students, we also felt we could support secondary schools in providing opportunities for hands-on experience that could help prepare those students for adulthood and improve their employment prospects when they were ready to enter the world of work (Wilson, 1994). In the United Kingdom, this aligns with the 2016 UK government white paper "Educational Excellence Everywhere," in which the Department for Education (DfE) outlined the need for every child to have experiences that equip them with "the knowledge, skills, values, character traits and experiences that will help them to navigate a rapidly changing world with confidence" (UK Government, 2016, p.88).

As a charity, the National Forest Company and our team strive to link to and, where possible, address both local and national priorities. The 2022 DfE policy paper on sustainability and climate change states that it is critical that young people and adults have the skills that will allow them to build careers and participate in what is clearly hoped will be a global Green Industrial Revolution (UK Government, 2022b). By 2024, we hope to secure further funding to support secondary schools in delivering forestry-related qualifications, targeting SEND students where appropriate. Our goal is twofold: to inspire and develop a generation of future foresters who are passionate, willing, and qualified to take stewardship over the treescapes within their own community; and, at the same time, to support a demographic that would benefit significantly from engaging with treescapes but who can struggle to find employment (Figure 10).



Figure 10. Inspiring future foresters through engaging with treescapes
(Photo credit: National Forest Company/Darren Cresswell)

CONNECTING THROUGH ART: YOUTH LANDSCAPERS

Through our various approaches, we soon realized that although engaging young people with treescapes through formal education settings was key, offering the opportunity to engage with woodlands beyond and outside of those settings was also vital. When we talked to young people, it was evident that they wanted opportunities to engage with treescapes on their own time and in nontraditional settings. They wanted options that could not always be explored within formal school settings.

The Youth Landscapers Collective (YLC), based in the heart of the National Forest, is a unique example of how youth-led, place-based art projects that advocate for the environment can engage young people with nature and treescapes. The YLC was formed in 2016, supported by Black to Green, a project funded by the Heritage Lottery that celebrated the transformation of the heart of the Forest from the site of coal and clay industries to a sustainable green landscape. The focus of the YLC was, and still is, to engage young people in an exploration of the past, current, and future ecologies of their local area through interdisciplinary projects. Collaboration and co-production, supported and guided by experienced and talented local artists Jo Wheeler and Rebecca Lee and the NFC, are central to the YLC's approach. This approach has resulted in young people working together, learning both with and from each other, while also being informed by the practice of professional artists, specialists, and enthusiasts who join their projects as guest collaborators.

Using the local landscape as their inspiration, the intergenerational group developed and delivered thought-provoking and creative art projects, including “Telling of the Bees” and “The Underneath.” The group connected with local experts, including a beekeeper, a mushroom grower, ecologists, and forestry workers, to draw upon their breadth of knowledge and expertise. In “The Underneath,” the YLC explored the hidden networks that connect the forest beneath our feet. Featuring a wooden structure inspired by the gills of mushrooms, the artwork opened up at nightfall to reveal an animation of mycelium and roots, providing a portal into the unseen world below (Figure 11). These projects illustrate how the use of new creative technologies to investigate the natural world can connect young people with subject matter they may not otherwise engage with by harnessing their interests.

Throughout this paper, we have talked a lot about the benefits of treescapes and outdoor learning for young people, but it is equally important to celebrate all that our young people have achieved, and share

that learning together, whether through mainstream or extracurricular activities. In this example, the members of the YLC were given the opportunity to present the results of their annual arts projects at the National Forest Timber festival, a three-day event held in the heart of the Forest that promotes celebration, debate, and reflection about our relationship with trees and forests. This opportunity meant that YLC participants could share their projects, not only with a national audience, but also with an international one. For the past two years, the group has proudly presented ambitious audiovisual installations, to be experienced after dark, interpreting complex natural systems taking place in the treescapes around them.

We found that when they joined the group, many young people were not used to spending time in treescapes. However, using creative physical and digital methods gave them a route into nature and treescapes that they were comfortable with and that provided them with new skills, experiences, and connections. This has been particularly impactful for young people who find traditional education settings more challenging. One parent told us:

[My son] has an Asperger’s diagnosis and doesn’t make friends easily... There are not a lot of opportunities in the area and whilst he was involved in scouts, he was ignored and not doing very much. ... [He] initially got involved with ... Youth Landscapers Collective (YLC) ... because he wanted to make a film. He is ... at an age where he was getting interested in film and technology so YLC came along at the right time. YLC played to his strengths. ... YLC has given him a focus—all of his money now goes on kit that he carries around. He is not messing around and is very proud of the work he has done. At the Timber Festival he was like a different kid. He hopes to use the YLC work to get onto a University Course.... It has been lovely to see him being completely accepted, listened to and looked up to. It has been amazing to see. In previous years it has been really hard to watch him struggle, but now he has YLC.

It is these individual experiences that truly show the transformational impact that connecting young people with their local treescapes can have.



Figure 11. “The Underneath”: Installation created by the Youth Landscapers Collective for Timber Festival 2022 (Image Credit: David Severn/Youth Landscapers Collective)

CONCLUSION

The importance of people connecting with nature and treescapes has become increasingly apparent in the last few decades, with a growing body of evidence highlighting the benefits of this for our physical and mental well-being (Barragan-Jason et al., 2023). It has also become increasingly clear how important it is to start creating connections with nature in the early years (Price et al., 2022) to help children and young people value, engage, and build connections with the stories and significance of their local treescapes.

The National Forest's Five-Point Plan set out a strategy to encourage every primary school in the Forest to engage in outdoor learning and to regularly access a wooded learning space on their school grounds or within walking distance. Communicating this message to partners, funders, schools, and parents, whether urban or rural, has resulted in this goal steadily becoming a reality. This simple and cost-effective approach has meant that it could easily provide a template for other schools, inspiring positive change for learning, the environment, and well-being by reconnecting young people with nature.

The CF4L project provided a model that successfully increased National Forest schools' engagement with treescapes through capacity building, funding teacher development, and making capital improvements to school grounds for outdoor learning. Building a support network for schools; increasing knowledge, skills, and confidence in teachers; and facilitating the creation of and access to treescapes has dramatically increased the commitment of the schools to long-term provision of outdoor learning. Schools can incorporate outdoor learning into their School Improvement Plans and link treescape activities across multiple curriculum areas, resulting in ongoing nature-based learning throughout the year. These results further illustrate the importance of adopting a simple approach, where activities are relatively uncomplicated and low cost but have a significant and long-term impact. With increased confidence, schools have done what we strived to encourage from the outset: They have started to utilize and explore other local and more diverse treescapes across the National Forest.

Creating the Forest for Learning and Forest Foxes programs has shown that it is frequently children and young people from disadvantaged backgrounds or with disabilities and special educational needs who benefit most from connecting with treescapes. These individuals can have difficulties within mainstream school classroom settings or with the transition from primary to secondary school. The provision of alternative outdoor learning programs that connect these children and young people to nature can be transformative. The scope for developing new outdoor, vocational, and accredited programs linked to treescapes, especially for secondary schools, is evident: They provide opportunities to increase student confidence and well-being alongside creating Forest stewards for the future.

Finally, the Forest Foxes project demonstrates the importance of collaborative partnerships and the value of working beyond invisible boundaries to connect inner-city schools with local urban and rural treescapes previously unknown to them. In contrast the YLC, as a unique program within the Forest, illustrates how young people can engage with and value treescapes outside of mainstream education settings in different ways and on their own terms, collaborating using creative and innovative methods of interpreting treescapes.

By offering multiple mechanisms for connecting with treescapes, we can all provide opportunities for children and young people to make those connections in a way that is most meaningful to them. The benefits for children and young people include improved social skills and academic achievement as well as increased awareness of their heritage. For many, connection with nature leads to an increased sense of ownership and the desire to protect and care for not just their local treescapes, but also for the wider national and global environment for future generations. There will be barriers to engagement along the way, but with some determination and imagination, we can all succeed and make a difference to our communities that we can be proud of.

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ABOUT THE AUTHORS



Gill Forrester began her career as a Countryside Ranger on the North West coast of England. Passionate about the environment and education, she subsequently worked as a primary school teacher and then Environmental Education Advisor within disadvantaged communities. Holding an MA in International Tourism, Gill is committed to working with communities to raise awareness of heritage, the environment, and sustainability. Now the community and wellbeing manager for the National Forest Company, Gill focusses on connecting communities to the forest around them.



Jo Maker has over 20 years of experience working in the arts, developing place-based cultural projects that respond to landscape, heritage, and ecology. As the arts & creativity manager for the National Forest Company, Jo develops strategic projects across 200 square miles of the Midlands that reflect upon and reimagine our relationship to nature, climate, and time.



Hollie Davidson is a project officer at the National Forest Company, focusing on supporting community projects to bring more people out into nature to support their wellbeing, enhance their appreciation for the natural world, and better understand the importance of the environment around them.



Heather Gilbert is the research and evidence manager for the National Forest Company. After completing her PhD at the University of Nottingham, United Kingdom, Heather undertook several years of fieldwork studying biodiversity trends around the world. Much of this work involved engaging students of all ages with biodiversity research and the conservation issues it informs. Heather now works with the National Forest teams to support a diverse range of programs encompassing environmental, societal, and economic research into building a sustainable future with trees at the heart.

Painting Our Treescapes: A Visual

Gretel Olson and Ingrid Olson

These two short pieces were created by Gretel and Ingrid (ages 6 and 9) after going for a wintry walk in Camrose, a city in central Alberta, Canada. Inspired by an afternoon spent in their urban treescape, this article represents their experience in-and-of these real and/or imagined spaces. Included are photographs taken on the walk, paintings that the children did after returning home, and narratives that the children told to one of their parents. The words, artwork, and photo selections are entirely those of the children, although their parents provided technical support.

MY IMAGINARY FOREST BY GRETTEL (AGE 6)

Today I walked with my family around the lake in the city where we live. Sometimes in the summer we walk around the lake to get ice cream, but today the ice cream store was closed because it's the middle of the winter. Too cold for ice cream! When I was younger, my parents would carry me on our walks, but now that I am six-and-a-half, I can walk the whole way around the lake by myself.



Figure 1



Figure 2

I painted this picture (Figure 3) after we went for our walk today. This is a painting of an imaginary forest. It's the first snow of the year, so that's why there's no snow on the ground. There's snow falling from the sky. The leaves are still on the trees because in my imaginary forest it's not quite winter yet. It kind of looks like some of the snow is falling sideways. My mom thinks the snow in the sky looks like stars. I said that couldn't be because the sky isn't really dark. What if it was never night in the imaginary forest?



Figure 3

The trees in the forest must be about 20 years old because they are really tall and really thick. Probably some owls live in them. But I guess that would be a problem, because if it was never nighttime, then those owls would sleep all the time!

I really like my painting. I'm going to hang it on my bedroom wall so that I can always remember my imaginary forest.



Figure 4



Figure 5

OUR BIG, KNOTTY TREE BY INGRID (AGE 9)

Do you see that big, knotty tree? Second from the right. In real life, that tree is in my yard. I moved into this house with the tree when I was 7 and I have lived here for two years. Now I am 9. This tree is way older than me – it's over 100 years old. In the painting it's in a forest. I spend a lot of time in that tree, especially in the summertime. When I'm up there, I hear a lot of different kinds of music. Sometimes it's with my headphones and iPod, and sometimes it's music made by the birds and insects. Sometimes, I hear people talking as they walk by. I listen to their conversations without them even knowing that I'm there. Today when I climbed the tree, because it's the middle of winter, it was more difficult than in the summertime. It was tricky because the bumps I usually use to climb up were covered in snow.



Figure 6



Figure 7



Figure 8

I know I share that tree with a lot of living things. I'm not quite sure what made all those marks, but can you try to guess? Sometimes in the summer when I have a snack up there, the wasps come and try to share it with me. Yikes! I wish they'd leave my food to me!

I like to go on walks where there are trees, even if I can't climb them. I live in the middle of a city, but there are still lots of trees to enjoy. Today I went on a walk and saw a lot of beautiful trees, but none of them inspired me like my own tree. That's why I painted the big, knotty tree.



Figure 9

I spent a lot of time on the painting, and I tried to make it realistic. Do you think my painting looks like the real thing? I hope every kid, everywhere, can find a special tree to share. And I hope my tree will be around for at least another hundred years for a lot more kids to enjoy.



Figure 10

ABOUT THE AUTHORS



Gretel Olson (she/her) lives in Camrose, Alberta (Canada). She likes reading, playing LEGOs with her sister, going for walks around the lake to get ice cream, and making funny faces. Her favorite food is spaghetti. Gretel is 7 years old and is in grade 2.



Ingrid Olson (she/her) lives in Camrose, Alberta (Canada). She loves to read, especially in her tree, and her favorite authors are Jim Benton, Raina Telgemeier, and Dan Gutman. She loves to play LEGOs, ride her bike, and bounce on her pogo stick. Her record is ~450 bounces. Ingrid is 9 years old and is in grade 4.

Singing in Dark Times: Improvisational Singing with Children Amidst Ecological Crisis

Stephanie Schuurman-Olson



THE GRASS IS LISTENING

The late June sun offers diffused light through aspen leaves above, leaving a speckled pattern on my bike helmet that rests in the long grass. The low hum of traffic nearby is occasionally interrupted by a pedestrian crossing alert signal, loudly buzzing dragonflies, or my four-year-old, Gretel. I sit on a paint-stained picnic blanket, my elbows resting on my knees, engaging as many of my senses as possible as I absorb the moment.

“Mom, Mom, Mom!” Gretel pulls on my jeans. “It’s crawling on me!” The tiniest of tiny lady bugs races up her vertical index finger and perches momentarily on her pink nail polish before spreading its wings to catch a ride on the breeze. My seven-year-old, Ingrid, who has been wandering nearby, approaches.

“I heard the strangest thing!” Ingrid says as she flops down beside me on the picnic blanket. “Have you ever noticed the way that the grass sings when it thinks you’re not listening?” She asks us to hold our bodies as still as possible. “Don’t make eye contact with it or it’ll know you’re listening!” We hesitate to do so much as breathe as the three of us look in myriad directions, straining our ears to hear the song of the grass.

“It just told me that I’m supposed to sing with it!” says Gretel through a hot and breathy whisper in my ear that makes me squirm away. Encouraged by my smile and by her own reflection in my polarized sunglasses, Gretel begins vocalizing in gentle hums, shushes, and eventually nonsensical vocables. Ingrid, now laying face up beside me and fixated on the billowing clouds above us, follows Gretel’s lead. Ingrid offers her hums and shushes in canon with Gretel, initiating a kind of musical

conversation. Their voices get louder, the melodic contour more dramatic, and their tempo accelerates until they both erupt in giggles, rolling on the blanket and gasping for air.

“We sounded just like the grass, Mom. I think they like our song.” Ingrid sighs a deep breath, rises to her feet, and wanders off to inspect a dandelion that has grown as high as her knees.
(Schuurman-Olson, 2023, p. 34)

THE ASPEN GROVE/SINGING IN DARK TIMES

In the summer months of 2021, my children (then ages 4 and 7) and I engaged in a series of “singings” in a green space in our small city in rural central Alberta, Canada. What started out as a casual family practice—animated by the desire to spend both more time together and more time outside—quickly became a sort of ritual and the beginning of much larger observations, reflections, and questions. The three of us would ride our bikes a few short blocks to a hidden city park sandwiched between two narrow roads and out of sight from any main thoroughfare, spread a picnic blanket in the long grass, and lay on our backs.

Following the *deep listening* practices of composer and sound theorist Oliveros (2005) and considering the posthuman assertion “What I hear is thinking, too” (Murphy & Smith, 2001), we would first enter this space as aural recipients. I would begin by asking my children some guided listening questions (inspired by Loveless, 2017)—some thoughtful, some silly. *What is the loudest sound you hear? What is the quietest? What do you think is making that buzzing sound? What is the sound that is the furthest away from you? Listen for sounds along the ground. What is your least favorite sound that you hear? What is your favorite?* My children would chime in with their own questions and comments to guide our listening. Sometimes as simple as “Mom, what was that?” and sometimes as reflective as “That crow really sounds like she misses someone.”

We heard, intricately woven together and often indistinguishable from each other, the sounds of the city, the sounds of the park, and the sounds of our own bodies. Voices of all kinds singing together as part of a unique, constantly shifting sonic ecology. As we returned to the aspen grove three days within one week, my reflections and observations began to point to some specific questions about our experience. These moments of listening had been so reflective and grounding and had affected the way we heard our spaces even when we were outside of the aspen grove. Considering my love of singing, I wondered if adding our own voices singing together in collaboration *with* the voices that we heard (the human, nonhuman, more-than-human) might generate further understandings, questions, and relationality.

I wondered:

- What ways of knowing emerge when children sing in-and-with their environments?
- Does engaging in music-making with “natural instruments” (i.e., the voice and more-than-human sounds) change children’s perceptions of their places/spaces?
- How do children’s relationships to their environments change after engaging in improvisational singing in-and-with their environments?
- How can this developing relationality between child and environment contribute to the immediate concerns of addressing climate change and related injustices?

Our listening practice continued through the week. As we lay on our blanket amid the dandelions (that stood nearly as high as my 4-year-old’s knees), we took time and space to observe our surroundings. We always grounded ourselves within the space by first listening. Eager to explore how my children might use or reject the use of singing in this practice, I asked them a new series of questions. *Can you sing what*

you see? Can you sing what you hear? What is singing to you? Can you sing with it? Each time, we would lie in the grass for upwards of 40 minutes, singing in-and-with our surroundings.

What became of these singings was intimate, almost sacred. This intimate, emergent research practice challenged us as research-creators to consider reciprocity and relationality within the artistic process itself. At times we would stop and chat—sometimes to reflect on the singing that had just happened and sometimes to talk about our observations of the goings-on around us (and sometimes to ask for another squirt of bug spray).

Though our singing began as a narration of sorts, in which our improvised lyrics described or imitated our surroundings, there were moments when I felt fully immersed in creation and conversation through song, both with my children and with the other voices around us. My children’s candid commentary through the process both excited and challenged me. To listen wholly—to both the children and the sonic ecologies (of which, of course, we are already always a part)—demanded a certain slowing down, a patience, and a reflexivity that I was not in the habit of exercising. To investigate my wonderings, I found it necessary to articulate my own foundational understandings about this practice.

I understand that:

- All agents within our ecologies (or treescapes) can sing, and that singers can be human, nonhuman, and more-than-human.
- Children are *already* capable musicians (rather than musicians-in-training), observers, and collaborators, and their autonomous and agentic voices are not only valid but necessary as we address issues of climate emergency.
- *Voice* is not something that can be given, but is something that every human, inhuman, and more-than-human possesses.
- Affecting change within a time of ecological crisis needs to be addressed relationally.
- Inhuman and more-than-human voices need to be a part of the ongoing conversation about climate change and ecological justice.

By the end of the summer, our week in the aspen grove had turned into “Singing in Dark Times.” In its final-for-now version, it exists as a 10-minute video that includes audio recordings from one day of our week in the park: our singing voices, conversation, and the sonic ecology in which we were present. Audio clips that are used within the video are all taken from one day. This was done to immerse the listener in as complete an experience as possible. Rather than hearing a “highlight reel” from across the different days, it is important that the listener sits with the awkward moments, the perceived silences, the slowing-down. The video footage is a time lapse of the sky above us (filmed on one day)—the view that we had while lying on the picnic blanket in the middle of the grove. The choice to not include more varied video is intentional, made in order to challenge a positivist ocularcentrism—so the listener’s ears are opened to the sonorities of the space, and the listener doesn’t make assumptions about what is heard based on what is seen. Our singings (by which I also mean to include listening) in the aspen grove (contextualized within our current ecological crises) concern issues of human impact, multispecies communication, greater conceptualizations of what constitutes “music,” and how “hope,” through shared song, becomes a verb. Hope, through singing, becomes an action point for me, my children, and all our relations.

CHILDREN AND HOPE IN THE ANTHROPOCENE

In the Anthropocene—the current geological epoch defined by human impact on our planet (Crutzen & Stoermer, 2007, as cited in Loveless, 2019)—the responsibility of addressing the climate crisis lies heavily on the individual, who stands at the junction of failing government policy and corporate

inaction. While governments and NGOs set goals to decrease greenhouse gas emissions to net-zero amounts, invest in carbon-alternative energies, and create policies to limit the rise of the global temperature to 1.5°C (Government of Canada, n.d.; United Nations, 2015; The White House, n.d.), critics are quick to point out that these policies and actions, while desperately needed and long overdue, are not aggressive enough to reverse the effects of human impact on the planet (Shukla et al., 2022). Governments and media are equally quick to point out the everyday actions that individuals can take to mitigate the climate crisis—small-scale actions such as recycling, reducing levels of consumerism, and shopping locally. Individuals demand that government and industry be the ones to act on a far more impactful scale by addressing issues such as regulating industrial environmental impact, industrial and residential development, and population growth. As individuals and governments criticize each other (and themselves) for not taking aggressive enough action, humanity continues to hurtle at an alarming speed toward what will likely be the sixth mass extinction event (Cowie et al., 2022). From within this tension, those concerned with issues related to these crises are asking “what’s the point?” and struggling with climate anxiety, apathy, and despair (Nairn, 2019).

In 2021, researchers surveyed over 10,000 young adults ages 16–25 from 10 different countries about the intensity of their climate-related anxiety and found that “more than 50% [of respondents] reported [feeling] sad, anxious, angry, powerless, helpless, and guilty,” and more than “45% of respondents said their feelings about climate change negatively affected their daily life and functioning” (Hickman et al., 2021, p. 863). Many youths cited “dissatisfaction with government responses” to the climate crisis and believe their governments have “failed” in responding effectively to climate issues (Hickman et al., 2021, p. 864). Adults, suspended in the tension between failed government response and individual responsibility, often turn to children as a source for generating hope for the future (Guardian, 2019). While adults demand hope from children, who are of a “diminished status in society,” and “inferior compared to adults” (Janzen, 2022, p. 2), it is children (not the hope-demanding adults) who will be most impacted by the current ecological crisis. Children, while always excluded from policy making (even though they share the same anxieties, fears, and frustrations as adults) (Hickman et al., 2021), are still expected to be a beacon of hope for adults as we race toward unattainable government benchmarks and an almost certain extinction event. Historically, children have been understood as “passive participants” in an adult world, in which adults have a “clear vision of how children’s participation should look” (Ergler, 2017, p. 5). Adults place an unethical imbalance on children that demands children carry hope in times of despair, yet adults bar children from climate-emergency-related decision-making that affects them more than anyone else.

ACTIONABLE HOPE FROM DESPAIR

There is a growing body of literature that considers despair as a site of generative action, rather than simply positioning it in opposition to hope (Huber, 2023; Solnit, 2016; Stonehouse & Throop, 2023). Nairn (2019) speaks of the power in collectivizing hope and despair: it is when there is a collective imbalance of the two that apathy emerges. Where there is a surplus of hope, there is no immediacy for action. When there is a surplus of despair, there is no urgency to act since there is “no point” (Huber, 2023). “In guarding against certain pitfalls of false hope,” Huber (2023) writes, “... despair can help us to hope (and ultimately act) well” (p. 81). He reconceptualizes hope, not as only the opposite of despair, but also as the action that arises from despair. From within “a hopeful politics, one based upon a vision of generalized global prosperity and sustainability, [we can] best [address] the problems of climate change” (Huber 2023, p. 81).

It is here, at the intersections of hope and despair, adulthood and childhood, government (in)action and individual responsibility, and active participant and passive participant that the foundations of my own work begin to take shape. When I position myself—as a White, cisgender female, (invisibly) disabled,

hetero-presenting, first-generation settler—at the intersection of these issues, I am met with a different kind of confrontation that renders me at times immobilized (perhaps with apathy, perhaps by feeling overwhelmed). I benefit from immense privilege as I occupy my body, space, and time. These privileges allow me to engage in climate activism and advocacy work largely without fear for my own personal well-being. Yet, when I consider my vocational skills, I have many times felt unequipped to participate in meaningful activism. I am a musician-educator. My singing voice is my main instrument. I work with young children (preschool–grade 6) and undergraduate university students. I have regularly asked myself how my set of skills can be put to effective use within climate activism work. Concerned parents, educators, policy makers, and activists are asking themselves the same questions as we all consider the skills we possess and how these skills can best be employed to help humans adapt, mitigate, and respond to the immediacy of the climate crisis. I ask myself what role singing and young children have in addressing climate-related issues.

THEORIZING SINGING IN THE DARK TIMES

In the above, I outline a research-creation event, “Singing in Dark Times,” that I engaged in together with my own two children as we explored our own individual responses as we (continue to) wrestle through the aforementioned tensions. This project is situated within research-creation (both as methodology and theoretical framework), borrows from feminist materialisms and posthumanism, and engages artistic undertakings which are process-driven rather than intended to create an artistic product. As a concerned climate activist, parent, educator, and musician, I humbly add my voice—alongside and informed by those of my children and the more-than-human voices around me—to the conversation that considers how engaging in artistic, emergent, and nonrepresentational practices inform the way that we carry on through the Anthropocene epoch.

RESEARCH-CREATION AS A HOPEFUL METHODOLOGY

Research-creation, as defined by the Social Sciences and Humanities Research Council (n.d.) is “an approach to research that combines creative and academic research practices and supports the development of knowledge and innovation through artistic expression” (n.p.). It is a research methodology that embraces the practice of doing art *as both* research and analysis. It is “non-linear, emergent, and immersive” (Groten, 2023, p. 7), and asks questions that emerge from the “middle” (Stewart, 2007) rather than from a fully conceptualized beginning or a well-articulated end. Research-creation attempts to unsettle, wrestle, and sit in-and-with the discomfort of questions-that-are-not-yet and is concerned with wondering what ways-of-knowing-emerge-when. It is my hope that the research-creation event described in this paper can serve as a model for others, encouraging readers to bring a similar process into family and classroom practice. I call on the reader/teacher to examine their own teaching and learning contexts to consider the potential this kind of project holds for them and how it allows them to explore and build these stories-that-matter between child, environment, voice, and actionable hope. I invite the listener and viewer of “Singing in Dark Times” to enter our curated sonic ecology and witness for themselves the relationality and knowings that emerge both for me and my children within the moments represented in the video and in the moment of the listener viewing from within their own sonic ecology within the space and time that they watch and listen to our experience.

EMERGENT BEGINNINGS AND FUTURE PROVOCATIONS

As my children and I lay there in the tall grasses, day after day, I wondered how this ongoing practice of singing with all our relations would affect my children’s perceptions of both their own voices and their environments and the voices within. What songs and stories were my children hearing and participating in through this process? How does this practice contribute to a reciprocal narrative of this place? As

Haraway (2016) tells us, “It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with... (Haraway, 2016, as cited in Springgay, 2021, p. 212). What matterings did my children and I contribute to in our singings? What implications could this process have for developing relationality between human, inhuman, and more-than-human singers, and how could this relation-building play a role for us and our children—who will deal with the immediacy of climate change in a more urgent way than we will—within the greater context of the global climate crisis? As Loveless (2019) states, “to do research—of any kind—is not simply to ask questions, it is to tell stories-that-matter” (p. 54).

Through the course of a week, both children showed a deeper interest and understanding of the sonic ecologies around them (and that they are always-already a part of)—not just in the park, but in the moments of “everyday,” such as in the grocery store and driving in the car on the highway. Their sense of hearing, of listening, had been heightened. The reciprocal nature of this research-creation event was of great significance to me. Not only were my children and I listening to—and then in turn more aware of—the sounds around us in other spaces, but we also became freer with our voices. Our speaking voices in our home were gentler, softer. My children could be heard from other rooms in the house imitating sounds like the forced air in the furnace, our cat’s meows, the doorbell chime. There was a freedom, or perhaps even a permission, to experiment and engage with listening-and-singing that had previously not been present. By the end of our week of listening-and-singing-in-place, we were moving more slowly. We were more connected to our sonic ecologies. We noticed when things changed within them (the construction must have stopped for the weekend/the highway sounds busy today, it must be rush hour/the fridge’s buzz has shifted slightly and is humming a bit lower than usual/I’ve heard that house wren make six different types of calls just in the last few minutes!). We were more “in tune” with our spaces, our own singing potentialities, and our human, nonhuman, and more-than-human collaborators.

I ask you, the reader, to consider for yourself what adding your own singing voice—in a shared or private practice, in a classroom or family space—might reveal about your own sonic ecologies and how you are also always a part of them. Through singing, there is actionable hope. Through actionable hope, there is understanding. Through understanding, there is a potential for moving forward within the Anthropocene alongside all our relations.

In the dark times, will there also be singing?

Yes, there will be singing. About the dark times.

—Bertolt Brecht, “Motto”

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ABOUT THE AUTHOR



Stephanie Schuurman-Olson (she/her) is currently completing her PhD at the University of Alberta under the supervision of Dr. David Lewkowich, where her research involves ecoliterate music pedagogies, collaborative post-qualitative research methods, and singing with young children. Stephanie is a K-6, early childhood, and undergraduate music teacher. She lives with her two children, partner, two cats, many houseplants, and other living things (to be sure) in a 112-year-old house that is filled with all kinds of singing. Stephanie is a recipient of the prestigious 2023 Izaak Walton Killam Memorial Scholarship and is supported by the Killam Trusts.

Treescapes Discussion with Rex

Melanie Riley

In this video, composed of still images and video footage, 2-year-old Rex leads his mother on a playful exploration through a leafy area of Alexandra Park, located in the Stockport borough of Greater Manchester in England. The park has a wide range of amenities including a reservoir, wooded area, skate park, and play park, and offers a safe and calm but exciting space for visitors.

Rex enjoys being among the trees. He imagines owls in the treetops and stops to admire the tree's bark, describing it as bumpy. Rex enjoys splashing in puddles, playing peekaboo behind a tree, and running to find shelter from the rain under a small tree. In a conversation, Rex explains that he loves the park because he loves trees—and two big trees, in particular. His adventure moves to the wooded area, where he imagines characters from one of his favorite storybooks, *The Gruffalo* (by Julia Donaldson and illustrated by Alex Scheffler, 1999). Rex is responsive throughout his exciting adventure, engaging with the trees and wildlife that live in the park.



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ABOUT THE AUTHORS



Melanie Riley is a visiting research fellow at Manchester Metropolitan University with a background as a primary school teacher. Her interests include LGBTQ+ young people, LGBTQ+ parenting, relationships and sex education, and LGBTQ+ inclusion in primary schools. More recently, she has been awarded a 1+3 White Rose PhD scholarship through which she plans to work with LGBTQ+ primary school teachers to develop solutions to teaching gender identity.



Rex thrives outdoors. He is happiest and calmest when in nature and looking for wildlife, especially birds. Rex's favorite thing to do is splash in big giant puddles and build sandcastles at the beach at his grandad's house.

Treescapes

Alexandra Délano Alonso and Marco Saavedra

“Around me the trees stir in their leaves and call out, ‘Stay awhile.’”

Mary Oliver (*When I Am Among the Trees*)

We’ve each been looking to the trees for a long time. One of us painting, the other writing, with, by the trees. In the middle of the city and its noise, finding the branches. Standing, inquiring, returning. Why the trees, how we belong to each other, are questions worth asking again and again.

These paintings and poems are part of ongoing conversations, of many layers, of many trees, of what we lose and find under their canopies, in blooms, in dirt, and seasons.

What walking among the trees has taught us is that every art is an invitation to the mutuality of life. Through paintings, it means creating an opening of treescapes and orchards for people to become a part of and inhabit. And every exchange of poetry is a welcoming to community, listening, growth.



Figure 1. Sabzalizan (2019) emphasizes the need to understand that Indigenous communities represent more than tragic stories of the past

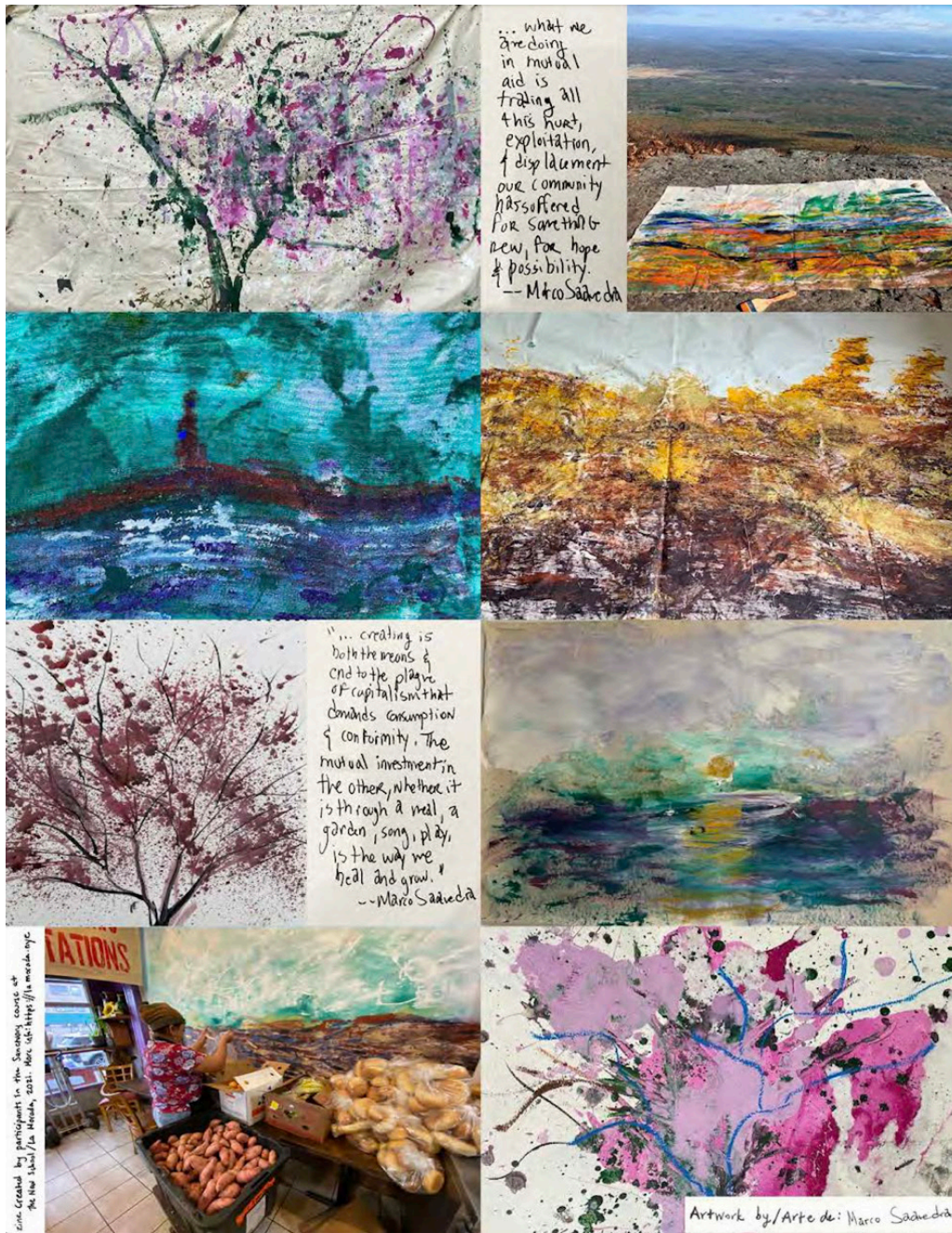


Figure 2. La Morada Mutual Aid Kitchen zine created with participants in the “Sanctuary and Accompaniment” course at the New School, fall 2021 (Nikkei Davis, Alexandra Délano Alonso, Katie Giovale, Lolo Kaase, Noor Lima Boudakian, and Anne McNevin). Artwork by Marco. For more information about La Morada, visit lamorada.nyc and archivesincommon.com/mutual-aid/

Every March, the miracle of spring in Lenapehoking appears with the dwarf iris as the last frost thaws away. Shaken from 4:30 PM winter sunsets, I (Marco) begin traveling with a pad and pastels to document spring awakening. And like “a king returning from his wars” (Tennyson, “Idylls of the King”), magnolias burst next in full white and pink flesh. These are increasingly becoming affected by climate change, as a late freeze might burn their buds, eliminating the possibility of full bloom. My muses are behind the Metropolitan Museum of Art, where I take my unstretched, unprimed canvases and acrylics.

“I don’t care if you’re dead! [Spring] is here, and she wants to resurrect somebody.” (Rumi)



Figure 3. Cherry tree in magnolia by Marco

Not caring about tax season, sakura (cherry blossoms) storm in. My preference are the weeping cherries at Branch Brook Park in

Newark, New Jersey. Like a pilgrim, I take my 45-pound hiking pack with me from the Metro-North Fleetwood Station, transferring to two subway lines at midtown. I then take NJ Transit to Newark Penn Station and the Newark Light Rail to the largest cherry tree collection in the United States. The hours amidst this majestic show have brought me the company of a coyote, snow, geese, children, and poets.

Crabapples, my favorite trees, follow. I enjoy the allées found at Daffodil Hill, Bronxville, Riverside, and Central and Shoe Lace Parks. What I love most about this tree is the fresh green leaf that first appears, followed by the rose and cream blossom giving it a Christmas-like contrast. And more than the spotted bark of cherries, the crabapple bark is scarred and contorted: delicacy and roughness all in one being.

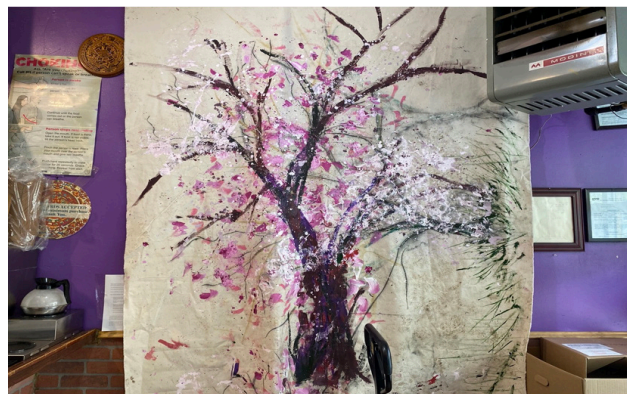


Figure 4. Revisited cherry tree at La Morada by Marco.
“RISEN! With healing in her wings” (Malachi 4:2)

I try to recycle as much material as possible, and work on paper, cardboard, wood, and canvas. I also paint over my unfinished fall work to create depth and unite my natural calendar. If the Hudson River School saw Kaaterskill Falls as a natural cathedral, then this tree allée intends to be the natural cloisters buttressing our garden.



Figure 5. Golden trail by Marco



Figure 6. Cherry trees and art supplies by Marco

During the first weeks of the COVID-19 lockdown in New York, all I (Ale) could do was take photographs of the trees in my neighborhood, with a sense that there were absolutely no words to capture what I was feeling, and the only response was this openness in nature, this quietude, and this space that I needed to keep. At first, I thought it would be a few days or weeks of marking the quarantine, and then suddenly it was months of daily photographs of trees with no description, just a date, speaking for themselves, witnessing. And slowly the words came, in fragments; then the poems.



Figure 7. Photograph of a tree in Queens, New York, by Ale in *Brotos*



Figure 8. Photograph of a tree in Queens, New York, by Ale in *Brotos*

Even though I live in an area of Queens where there are few parks, and I wasn't going too far from home during my walks because we were in lockdown, I started walking differently around my neighborhood and observing the trees more closely, even the ones I know so well. And although these are urban trees, standing alongside cables, scaffoldings, roofs, signs, and cityscapes that are ever present, it was calming and revealing to keep looking up, to look at the sky through the branches and feel this opening when we were so constrained, confined, and here was life continuing, the trees bursting into flowers and leaves. We didn't know, we still don't know what's next. They knew what was next. And I keep returning to them, for breath, for ground, for voice.



Figure 9. Queen Kwanzan by Marco, haiku by Ale

there, where weeds burn
where magnolias once fell
the two rocks you lay



Figure 10. Adirondack Mountains by Marco, haiku by Ale

and what if they grew
if held at the mountain's edge
the broken branches

under this canopy, stay



Figure 11. Collage of trees in postcards by Marco, poem fragment by Ale



and carry leaves only

Figure 12. Painting over leaves by Ale and Marco, poem by Ale



Figure 13. allée postcards: art by Marco, poems by Ale



Figure 14. coo'o postcards: art by Marco, poems by Ale



Figure 15. Cherry tree by Marco, poem by Ale in *Brotos*

how we become
part
of
each other

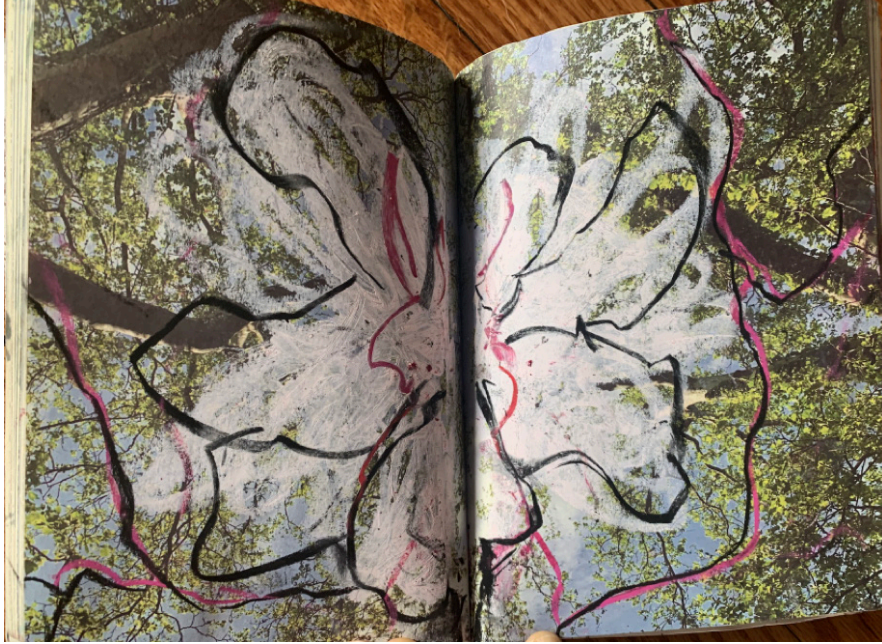


Figure 16. Magnolia by Marco over photograph by Ale in *Brotos*;
poem by Ale in *Brotos*

what can't be contained

ABOUT THE AUTHORS



Alexandra Délano Alonso is associate professor of global studies at The New School. Her research focuses on Mexico-US migration, memory politics, and transnational practices of resistance and solidarity at the intersection of art, activism, and community organizing. Her publications include *Mexico and its Diaspora in the United States* (2011), *From Here and There* (2018), and the co-edited volume *Borders and the Politics of Mourning* (2016). She is also author of the poetry collection *Brotos* (2021) and is co-director of the short film *Fragmentos* (2021). Her current projects include a book of haikus (towards & away) and the co-edited volume *Las luchas por la memoria contra las violencias en México*.



Marco Saavedra is a Mixteca painter. He works at his family’s mutual aid kitchen and Michelin-listed restaurant, La Morada, in occupied Lenape Territory (The Bronx, NY). Saavedra has co-authored *Shadows then Light* (2012) and *Eclipse of Dreams* (2017). As a member of the National Immigrant Youth Alliance, Saavedra infiltrated the Broward Transitional Center in 2012 to secure the release of dozens of immigrant detainees. This campaign was featured in the Sundance award winning docu-thriller *The Infiltrators* (2019). In 2021, Saavedra received political asylum. His latest art show “coo’o” invites you to walk together, to paint, to write, and to breathe.

The Refugee Trees: Treescapes as Intercultural Bridges

Kostas Magos and Irida Tsevreni

INTRODUCTION

Forests, groves, and parks, as well as any area with trees, can be a suitable setting for helping develop students' environmental knowledge and awareness. Even a single tree as a subject of thoughtful observation can give children opportunities for discussion around many issues, such as those of environmental protection, endangered species, human beings' relationship with nature, and many more. There have been studies of innovative, experiential educational methods focusing on the interaction of children and young people with treescapes. These methods include different approaches, tools, and pedagogical techniques, such as nature journaling, mindfulness and contemplative techniques (Flowers et al., 2014; Tsevreni, 2021), art-based environmental education techniques (Hunter-Doniger, 2021), and ethnographic walks (Cele, 2019).

Trees can contribute to students' intercultural awareness, as well as to their environmental awareness. Intercultural awareness concerns both specific skills, as well as attitudes and behaviors of students and teachers who demonstrate in the classroom that they can engage positively with cultural diversity in practice (Timoššuk et al., 2022). In every culture, trees and plants have a particularly important place, and there are many myths, stories, and traditions associated with them. In that context, trees can provide many pedagogical opportunities for approaching and reflecting on different cultures. In addition, the great variety of trees that exist in the world and the diversity of trunks, leaves, and fruits and of colors and sizes are a constant stimulus for approaching the beauty that is created by diversity and the richness that emerges through the synthesis of differences.

Motivating children and also adults to observe the variety of trees and plants in the world around them and to appreciate the beauty created by the variety, as well as the harmonious coexistence of differences, also stimulates reflection about human diversity and the richness of multiculturalism. This process can be one of the many ways that can support intercultural awareness, which is the first step in developing respect, acceptance, and the desire to understand and interact with otherness. Besides, as Ramsey (2004) underlines, the relationship between intercultural and environmental awareness is particularly close. She makes reference to the environmental problems linked to the causes of immigration and refugeeism and the need for both children and adults to be aware of those connections.

According to many researchers (Levin, 2003; Nieto, 2004), the development of children's intercultural awareness needs to start as early as possible. Kindergarten, where children can have many opportunities to observe, think, and develop positive attitudes toward otherness, is the right environment for that development (Ferris, 2005). The school garden is often the place that gives children their first opportunities to observe the similarities and differences that exist in the natural environment. Schools with some trees in their yard are the most fortunate in that regard, as these trees can provide various occasions for the development of environmental awareness and intercultural dialogue.

The development of intercultural awareness needs to be continued systematically at all school levels in order to cultivate intercultural competence and empathy, two qualities that are necessary for contemporary citizens and especially teachers (Magos & Simopoulos, 2009; Pigozzi, 2006; Timoššuk et al., 2022).

In order for teachers to develop their students' intercultural competence, they first need to have it themselves. They need to systematically demonstrate in their daily practice that their views and behaviors have all the elements that characterize intercultural competence (Magos & Simopoulos, 2009). Accordingly, teacher education must provide opportunities, including facilitating interactions with people whose ethnic, social, and cultural backgrounds are different from the teacher education students', to develop that competence. Such interactions can occur in many different environmental contexts, both urban and natural, including in treescapes.

Here we describe an educational activity aimed at the development of intercultural communication and awareness between teacher education students and refugees of similar ages. The activity was an all-day hike in a forest near Volos, located in central Greece, where both the students and the young refugees live.¹

WALKING IN A TREESCAPE

The activity was organized and carried out as part of "Planning, Organization and Evaluation of Intercultural Activities," a course given by the Department of Early Childhood Education of the University of Thessaly, located in Volos. The purpose of the course is to develop the intercultural competence and empathy of prospective early childhood teachers through their participation in different community events. Ten teacher education students and 10 refugees, all 20 of whom were between 18 and 20 years old, participated in the activity. The refugees, from Pakistan (6), Syria (2), Bangladesh (1), and Iran (1), were from a refugee accommodation center² in Volos. All the students were female³ and all the refugees were male.⁴

The hike in the forest, including stops for discussion and reflection, was planned to take about eight hours. The students and refugees were accompanied by two researchers who recorded the content of the narratives and discussions using field notes.⁵ English was the main language of communication between the participants, along with a combination of Greek and English, since about half of the refugees spoke little Greek. There was also an interpreter⁶ of Pakistani origin, with knowledge of Urdu, Punjabi, Arabic, English, and Greek to translate where necessary.

During the hike, a series of activities directly related to trees was planned, such as observing the trees along the route and comparing them with those of the participants' places of origin; telling stories and experiences related to trees; and describing myths and traditions associated with trees. Along the way, there were planned stops for discussion and reflection. There were also several short unplanned stops when participants who felt the need to share thoughts, feelings, or memories evoked by particular places along the trail had opportunities for that. The important themes that emerged and were discussed during the hike can be grouped into several categories.

1 Mount Pelion, a mountain with many forests and particularly rich fauna and flora, is very near Volos.

2 The refugees are unaccompanied young asylum seekers who are waiting for the approval of refugee status. They are hosted in an accommodation center operated by the Greek NGO Arsis.

3 The overwhelming majority of students of the departments of early childhood education in Greece are female.

4 This accommodation center is only for young unaccompanied male asylum seekers. There are accommodation centers for female asylum seekers in other cities in Greece.

5 It was decided from the beginning not to make audio recordings of the narratives and discussions as that could inhibit the free and spontaneous expression of the participants' opinions and feelings. Despite the fact that the excerpts from the participants' narratives presented here come from field notes rather than from an audio recording, every effort was made to render them as accurately as possible. The participants' have granted permission for their narratives to be published.

6 The interpreter was an employee of the NGO hosting the refugees and volunteered to participate in the action. We thank him very much for his help.

TREES AS HOMELAND

Almost from the start of the hike, both the young refugees and the teacher education students made connections between the natural environment around them and corresponding environments from their places of origin, which gave the participants the opportunity to talk with the rest of the group about those connections (Figure 1). The following are some representative excerpts from those narratives:

I was born in Gujarat.⁷ It is a region of Pakistan that also has a large forest there. The trees are very tall and old; they can be a hundred years old. It also has a large river that starts high in the mountains. When there are monsoons, the river fills with water and overflows. Sometimes the water reaches our villages and we have floods. I would love to see my village again, even if it is flooded. (A., a refugee from Pakistan)

We have a large forest of oak trees, very close to the village where I was born. It used to have many trees, but many have been cut down. When the wind passes through the trees, the sound is like a cry. Do trees cry? (M., a teacher education student from Greece)

There were many forests in Syria. Most are on the border with Lebanon. The trees were big, we called them cedars.⁸ Their fruits had a beautiful smell. When we burned them in the winter in the fireplace, the house smelled good. The war destroyed all the forests in Syria. Most of the cedars are now dead. I want to remember the trees before the war, green and alive. (S., a refugee from Syria)

I was born on a small Greek island, there are no forests because there is no water. We collect rainwater in tanks. In our garden we have a few trees, among them a lemon tree. It was my favorite tree. Sometimes I dream about it. (P., a teacher education student from Greece)

Those narratives created great interest among all the participants to get to know each other's places of origin better. The group searched for those places on the map using the internet on their mobile phones. They viewed images from their different countries and places of origin, discovering similarities and differences, and commented on what they saw. Also, with the support of the researchers who accompanied them, they discussed issues related to the natural environment in their countries of origin, the dominant tree species there, and the consequences of climate change on the growth of trees and forests.



Figure 1. The path through the trees brought to mind many images from the participants' homelands

7 Gujarat is an area in northeastern Pakistan in the Punjab province. It is a particularly densely populated and poor area. Some of the Gujarati population has emigrated to other countries.

8 These are the cedars of Lebanon (*Cedrus libani*). They are trees of particular historical and environmental value and are threatened with extinction.

TREES AS CHILDHOOD

The contact with the trees along the trail, their scent, and how it felt to touch them brought back strong memories of trees related to their childhood for many of the participants. Describing what they remembered was particularly moving for everyone and appeared to elicit great empathy for the narrators (Figure 2). Among those narratives were these:

We had a pomegranate in our garden. It made big, beautiful, red pomegranates. When I was little, I hung a rope and made a swing. I had also given her a name. I called her Anar. When I started to go to school in the morning, I would say good morning to her. The last time I said good morning to her was when I left home to come to Europe. I haven't seen her since then. (S., a refugee from Iran)

When I was little, my mom would send me to cut lemons from the lemon tree we had in our yard. I felt sorry for the lemons, because I said they are the children of the lemon tree and it is a shame to take them away. So, I always took less lemons to my mom than she needed for the food and my mom sent me back again and again. (P., a teacher education student from Greece)

When I was little in our village, we had many birds in cages. This is common in villages in Pakistan. Every day we took the cages out to a tall tree we had in the village square and listened to the birds chirping. The tree came alive from the chirping of the birds. The tree was talking. It was the bird tree. (V., a refugee from Pakistan)

Almost all the participants, regardless of their place of origin, have retained images and memories of trees from their childhood. This highlights the importance of the influence of trees, and also of the natural world in general, in the lives of children. Several of the participants spoke of a particular favorite tree with which they had developed a special relationship when they were children.



Figure 2. Discussing the trees of our childhood

TREES AS REFUGEES

During the hike, when one of the refugees in the group encountered a tree⁹ that is particularly common in Pakistan, but that also has become very common Greece in recent years. He commented, “these trees are like us, they are refugee trees” (Figure 3).



Figure 3. The “refugee tree” (Photo credit: Joseph DiTomaso/Cal-IPC)

The narrator considered the trees of heaven to be “refugee trees” not only because there are so many of them but also because they “take root easily wherever they are; if they find a little soil, they also acquire a homeland.” This statement prompted most of the refugees in the group to talk about their own desire to have a homeland, highlighting the contrast between the instability due to frequent movement that characterizes the refugee experience and the stability of rooted trees. A.’s words echoed those of many of the other refugees. Hugging the trunk of a tree, he said:

One day I want to be like a tree in the forest. To have roots in one place, to not have to move anymore. To stay in one place, to find a job, to have stable friends.

K., one of the teacher education students, asked A. how easy it is to put down roots in a new place, especially one that is so different from his place of origin. Then other members of the student group what they thought it would have been like for them if Greece had been their place of origin. A very interesting dialogue followed regarding both the advantages and the disadvantages of Greece as a place for refugees to settle. The discussion ended with a comparison of trees and refugees:

We are not trees. We don’t just want the soil to live on. We want other things, we want work. We need to make money to send to those who are left behind and expect a lot from us. (S., a refugee from Pakistan)

⁹ This is the tree of heaven (*Ailanthus altissima*), originally from China, which has spread to many different countries on six continents. Because it propagates rapidly and easily, it is considered undesirable, which could be viewed as another characteristic it shares with the refugee identity.

TREES AS CULTURAL BRIDGES

The forest in which the group hiked is considered the homeland of a hero of Greek mythology, the centaur Chiron.¹⁰ Hearing about Chiron from the teacher education students prompted the young refugees to talk about corresponding heroes in the mythologies of their own countries. Thus, one of the refugees, P., spoke about the tiger man, a heroic figure from his own place of origin, Bangladesh. Like Chiron, the tiger man protects his village and the forests that exist around it.

In my village we have a day where we leave gifts for the tiger man. It's like saying thank you for protecting the village and asking him to keep doing it. When we are young children, we are told about him so that we don't stray from our homes and get lost in the forest. The forest is large and has a jungle of wild animals that have attacked the villagers several times.

Members of the group discovered that fairies and elves were also common elements in the folklore of their countries of origin (Figure 4). The following are some representative excerpts from those narratives:

Outside the village there is a place in the forest that we call "enchanted" because it was supposed that in the old days a fairy lived there, and as he approached it stole his voice and he could not speak. Fairies exist in Pakistan, near the sources of rivers. They say that when they get angry, sometimes they open the spring and then the river has a lot of water and the place floods, while other times they close the spring and everything dries up. (A., a refugee from Pakistan)

In Syria and in all Arab countries we have many stories of fairies and jinn. When I was little these stories were my favorites. (S., a refugee from Syria)

In my place, in the woods, there is an old well, and the elders say that there lives a fairy that can transform herself. Sometimes she is like a beautiful woman, other times she is like a snake or a turtle. But when you see her you shouldn't talk because she can bewitch you and turn you into a tree or an animal. (R., a teacher education student from Greece)



Figure 4. This fountain, which we encountered on our hike, prompted a discussion about fairies in the participants' traditions

10 Chiron, according to Greek mythology, was the son of the god Saturn and the nymph Philyra. He was the teacher of many heroes, most importantly Achilles, the main hero of Homer's *Iliad*. He was considered a sage and a teacher, and also a protector of the forest. He had the head, trunk, and arms of a man, and the body and legs of a horse.

DISCUSSION AND CONCLUSIONS

Walking through the forest and having contact with the trees there evoked reflections, images, and feelings connected to the participants' places of origin, childhoods, and elements of their cultural heritage, as well as to the refugee experience. For both the teacher education students and the refugees, contact with trees seemed to create a nostalgia for their place of origin. Sometimes this nostalgia was expressed directly. For example, A., a refugee from Pakistan, said, "I want to see my village again." In other cases, it was expressed indirectly; P., a teacher education student who moved from her place of origin to study at the University of Thessaly, said: "The lemon tree [in the yard of her father's house] was my favorite tree. Sometimes I dream of her."

According to Liu et al. (2015), nostalgia is one of the typical and intense feelings immigrants have; it is also a way of keeping alive the immigrants' relationship with their places of origin. In addition, according to research by Rishbeth and Finney (2006), nostalgia is a common feeling among refugees when they are in green spaces in an urban environment, such as parks in a city. Trees and plants evoke strong images of refugees' countries of origin, accompanied by corresponding thoughts and feelings of nostalgia. In this context, the natural environment of the city can play a positive role in the more rapid integration of refugees into the host country.

In the case of a young refugee of Syrian origin who participated in the forest hike, the feeling of nostalgia is linked to intense feelings of sadness that come from the psychological traumas that the experience of war apparently created. As he stresses, retrieving positive images from before the war is an indirect means of overcoming those painful feelings. "I want to remember the trees before the war, green and alive," he said.

The same nostalgia for the refugees' place of origin can be seen through the images of childhood evoked by the trees around them during the hike. In agreement with Barthes' view (1987) that there is no homeland but childhood, it seems that for the majority of the participants, trees played an important role during their childhood. As most of them were born in villages or small towns, trees were a part of their daily life. Trees were associated with play ("I had hung a rope and made a swing"), with preparing food ("[my mother] sent me to cut lemons [for the dish she was making]") or with having fun ("Every day we took the cages out of a tall tree which we had in the village square and we could hear the birds chirping"). Perhaps because the young refugees were forced to leave their country when they were very young, the childhood images that they recalled during the hike are among the few positive memories they have. The refugee experience was repeatedly revisited by the young refugees during the journey, giving them the opportunity to share their thoughts and comments with the rest of the group.

The place where the teacher education students and the young refugees were together played an important role. The forest, with the variety of stimuli it provided—the richness of the trees, plants, sounds, and scents there—helped the participants to relax, to get in touch with both themselves and others, to interact, and to express their feelings. At the same time, the entire activity was also a cognitive process for the participants, since a great deal of information and knowledge related to general issues of environmental and intercultural awareness was exchanged during the hike.

This cognitive process had all the characteristics of experiential learning (Kolb, 1984), where knowledge is acquired through intense experiential and emotional encounters. Accordingly, it has the potential to deeply affect the participants and lead to cognitive and emotional transformations (Mezirow, 2000),¹¹

11 Mezirow talks about transformative learning, that is, learning that can bring about changes in existing mental perspectives and habits. The hike in the forest and the interactions the teacher education students had with the refugees seems to have contributed to the development of transformative learning, which in turn led to the development of the students' intercultural awareness and empathy. Accordingly, those interactions helped the students reflect on the possible stereotypical views that they may have had of the refugees.

including transformations of the stereotypical perceptions that the teacher education students and the refugees may have had of one another. The experiences developed and the feelings shared during the journey were particularly intense and able to influence the previous mental habits of the participants, eliciting empathy. The presence of the trees throughout the hike acted as a catalyst and cultural mediator, providing stimuli and systematically evoking the participants' reflections.

This reflection was particularly important for the teacher education students who, as future teachers, need to have empathy and intercultural competence. The acquisition of these specific skills is a major goal of contemporary education (UNESCO, 2006). Acquiring them needs to start in the preschool years (Derman-Sparks & Ramsey, 2006). Therefore, the training of preschool teachers needs to include theoretical and experiential approaches that lead to the acquisition of intercultural awareness. The main purpose of the forest hike was to build that awareness among the participating prospective preschool teachers.

It is obvious that the acquisition of intercultural competence cannot happen just by participation in a single intercultural awareness activity; it requires systematic education, both theoretical and practical. An activity designed to promote intercultural interaction, like the forest hike, can be the beginning of changing previously held stereotypical perceptions and attitudes toward otherness and of developing intercultural communication and awareness.

Such a process highlights an image from the end of the hike, where all the refugees and prospective early childhood teachers had come together as a group (Figure 5). Everyone had learned each other's names and some details about their lives. The participants exchanged promises to organize another day-long trip along a different path among the centuries-old trees of the forest—a hike that, in addition to its environmental value, could represent a path of intercultural exchange, solidarity, and empathy.



Figure 5. Heading home

Stand still.
The trees ahead and the bushes beside you
Are not lost.
Wherever you are is called Here,
And you must treat it as a powerful stranger,
Must ask permission to know it and be known.
The forest breathes. Listen. It answers,
I have made this place around you,
If you leave it you may come back again, saying Here.

—David Wagoner, “Lost”

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ABOUT THE AUTHORS



Kostas Magos is Associate Professor at the University of Thessaly in Greece. His scientific interests focus on the theory and praxis of critical intercultural education, refugee education, and activism in education.



Irida Tsevreni is an assistant professor in environmental education at the Department of Early Childhood Education of the University of Thessaly. She has designed and implemented numerous environmental education programs for all ages. Her research interests include environmental education, critical pedagogy of place, children's participation, place-based education, holistic education, contemplative learning, human-nature relationship, plant-human relationships, ecophenomenology, and mindfulness in pedagogical praxis.

Arboreal Methodologies: Getting Lost to Explore the Potential of the Non-innocence of Nature

Jayne Osgood, Suzanne Axelsson, Tamsin Cavaliero, Maire Hanniffy, and Susan McDonnell

It began with an email invitation that wended its way through cyberspace
(0.3g CO₂e)
Then a Zoom meeting to virtually connect and plan a workshop
(0.6kg CO₂e)
Another few emails back and forth
(1kg CO₂e)
Another Zoom meeting to work out the logistics
(0.6kg CO₂e)
Culminating in public transport to the airport
(2.8kg CO₂e)
A flight to North-West Ireland from London
(145.2kg CO₂e)
Public transport from the airport to the hotel
(2.8kg CO₂e)
It takes six mature trees to offset 160kg CO₂e...

Taking arboreal methodologies to North-West Ireland was not without costs, implications, or guilt.

Arboreal methodologies (Osgood, 2022; Osgood & Odegard, 2022; Osgood & Axelsson, 2023) have emerged from childhood studies that make materiality, affect, temporality, and human connection to the more- and other-than-human central to inquiries. Unlike prevailing approaches in childhood studies concerned with making the child central to research (Osgood, 2023, in press), posthumanist approaches seek to pursue a different logic (Osgood et al., 2022) that understands the child as active in producing and being produced by the world around them. This draws into sharp focus our entangled place within the world, the limits of human exceptionalism (to know and fix the world), and crucially to our response-abilities to attune to the complexities of life on a damaged planet (Haraway, 2016; Tsing, 2015). Feminist posthumanist approaches in childhood studies are important for thinking (again) about “sustainability” and the “environment” because they shift the focus away from “nature” being in the service of the human to the complex inseparability of natureculture (Haraway, 2008), and the demands it makes of us to sit with the discomfort of knowing that we are always implicated and infected. It is impossible to take refuge in nature to escape the terrifying realities of culture—they are always inextricably interwoven—if only we create the time to notice, to attune to the world’s differential becoming.

Arboreal methodologies invite immersive, affective bodily engagements with natureculture as opportunities to experience the world differently and to take the non-innocence of nature more seriously. This is especially pressing for childhoods of the Anthropocene, the current geopolitical epoch characterized by human-induced destruction of planet earth as evidenced through the increased presence of extreme emergencies from forest fires, floods, and life-threatening plagues. Posthumanism underlines the desperate need to pursue another logic in childhood pedagogy and research—one that refuses biophilia, that is, the notion that human beings have an innate sense of connection to nature, that nature is wholesome and pure—and one that offers a sanctuary for authentic childhoods to find expression, or be rediscovered in adulthood.



Figure 1. Fleeting trees from the Airbus

FOREST SCHOOLING: POSSIBILITIES FOR ARBOREAL PEDAGOGIES

There is a long history of valuing the outdoors as a place where children can play and develop, which can be detected in the works of Froebel, Macmillan, Isaacs, and others; there is extensive research that argues that being in the outdoors is invaluable to child development and well-being (Kellert, 2005; Lester & Maudsley, 2006; Taylor & Kuo, 2006). It is claimed that children with few pressures, free to develop in the nature-rich environments of the forest schools, were less stressed, more confident (especially in taking calculated risks), had better communication skills, were more creative, showed better emotional well-being, suffered less ill health, and had better concentration on entering formal education (Knight, 2011). Outside, children can be active and learn through movement and all their senses and, consequently, stress levels, are lower (Louv, 2008).

Other observed benefits are the reduced likelihood of viruses and germs being shared in the outdoors, and the reduced prospect of childhood obesity due to increased physical activity (Charlton & House, 2012). Exponents of forest schools claim that it is an altogether healthier environment, and helps children appreciate a world they ultimately care for, which is a vital antidote to “nature deficit syndrome” (Louv, 2008) that children who spend too much time indoors suffer, because they are out of touch with the natural world and the rhythms of nature.

The emphasis within forest schooling seems squarely *on what nature can do for humans*; the forest is understood as resource, context, provider. Viewing it in this way amounts to human exceptionalism that (unwittingly) reinscribes both extractivism and consumerism. But the forest and forest schools are never distinct and separate from the wider world. Undertaking a project of diffractively mapping the non-innocence of matter (see Osgood 2019, 2022; Osgood & Mohandas, 2021), such as the waterproof puddle-suit or the plastic welly boot needed to attend forest school, would reveal a complex and altogether disturbing and unsettling counternarrative to the conflation of childhood with nature.

Forest schools are intermeshed and entangled with capitalism, consumerism, and anthropocentrism. Romanticized accounts of childhood and its relationship to the purity of nature are fictions. Woodland is frequently carved up by highly polluted trunk roads and railway tracks. Cars are used to ferry children to forest schools; lunches are wrapped in materials that will take years to degrade; dog faeces in plastic bags are narrowly avoided by small feet—these are realities of spending time in woodland. Much woodland is heavily managed and under constant threat of further regulation and containment—what Tsing and colleagues (2017) identify as the Plantationocene.

Nature cannot be thought of as a separate space, territory, or time; rather, it is intricately and non-innocently bound up with capitalism and human-induced destruction. Yet, the “natural” setting of the forest for early childhood pedagogy is typically presented as providing a context that is distinct and divorced from mainstream (classroom-based) alternatives. It is interesting to note that predominant ideas about child development and human exceptionalism still find expression in forest school pedagogies despite this proclaimed separateness.

As Vladimirova (2021, p. 60) stresses: “forest (nature) is not only a place for an aesthetic experience, learning, playing, or calming down but also a thinking metaorganism that is encounterable ... and is co-caring with us for becoming together.” We must take seriously how “becoming together” takes shape. The narrow concern with how nature benefits child well-being, development, and learning is precisely what needs to be called to account. What does this anthropocentric logic miss? What else might be encountered by bringing the work of feminist science scholars (such as Haraway, 2008, 2016; Tsing, 2015) and Indigenous scholars concerned with place-based approaches (Kimmerer, 2013; McCoy et al., 2020; Nxumalo & Pacini-Ketchabaw, 2022; Tuck & MacKenzie, 2015) to the pedagogical and research approaches taken in forest settings? How might relationalities, legacies, histories, and the vital materialism of the forest inform and shape engagements as processes of worldly-becoming rather than human developmental progress?

ARBOREAL METHODOLOGIES IN A POLYTUNNEL

These questions and the broader counternarratives about the non-innocence of the forest found expression in a polytunnel in a forest school in North-West Ireland. It was a part of the *Head, Hands, Heart Project* intended to generate interest in environmental issues and sustainability among interdisciplinary colleagues connected to Atlantic Technological University (ATU), Sligo, Ireland. Susan, Tamsin, and Maire facilitated the *Head, Hands Heart Project*, while Jayne and Suzanne were invited to deliver an arboreal methodologies workshop that would introduce participants to post-humanist research practices as part of the project. Unfortunately, Suzanne was unable to attend due to a viral infection but recorded her contribution, which was shared, whilst Jayne delivered the day-long workshop in person. The workshop was attended by 12 adult participants including cross-faculty members from ATU and a range of external partners which included an artist, a dancer, playworkers, and early years teachers.

Ordinarily, the Woodland School provides a space for children and families to engage with the forest and with nature through learning and playing outdoors. There is no pretence of “purity” or separation from the contemporary world. It is immediately apparent that this bucolic pocket of woodland is enmeshed in and criss-crossed by the materials and technologies of the 21st century.



Figure 2. An “inside classroom” at the Forest School



Figure 3. Learning materials in the polytunnel

Less ordinarily, a sizable group of adults assemble on a cold December morning, on too-small furniture in a polyethylene tunnel that serves as the school’s indoor space when needed. We adults sit among an assortment of toys, some plastic, and an electric kettle that provides welcome hot drinks. Venturing outside, we are protected by warm clothing and footwear produced from natural and synthetic fibres (*Made in China* more often than not). Close by, we hear passing cars on the road. The faint odor of aviation fuel is vaguely detectable as planes come into land not too far away.

The large television screen, brought in for screening the presentations and film as part of the workshop, is a jarring presence in the polytunnel. Its 1.4-metre plastic-metal-electronic bulk imposes itself, rupturing any remaining illusion of “escape to nature.” As Jayne speaks of resisting natureculture binaries—and of the entanglements of all humans, including children, in the discomforts of late capitalism—it is impossible to ignore the screen, which evokes continuing debates and concerns surrounding children’s screentime (Sakr, 2019).



Figure 4. An outbuilding at the Woodland School



Figure 5. “Screentime” in the polytunnel

Jayne’s carefully curated presentation (to the diverse audience comprising artists, outdoor adventurers, early childhood educators, parents, ecologists, and social scientists) meanders and gets lost. The polytunnel as makeshift classroom, alongside the absurdity of the giant TV, and the intimacy of the group huddled around on too small furniture, alters the atmosphere. As a consequence, the presentation is taken down another path, which necessitates dispensing with some of the theoretical concepts and skipping some of the beautiful images and powerful quotes. Instead, she speaks directly and engagingly with the audience. Her essential points are clearly made, and participants ask for copies of the published paper (Osgood & Axelsson, 2023) for further reading. The screen allows us to connect with Suzanne through her film, *Getting Lost, Gaining Wisdom* (Figure 6).



Figure 6. QR code to *Getting Lost, Gaining Wisdom*

But in many ways the intrusive TV screen becomes eclipsed in the moment by the affective intensities within the polytunnel that are agitated by the space, place, and complex relationalities between the human, non-human, and more-than-human, in the moment. After years of pandemic-induced Zoom presentations, sentient exchange—in the otherworldly context of an inside/outside polytunnel—felt fresh and vital.

The materiality of the large screen in the Woodland School provokes important discussions about how children and adults can live, learn, and play together with and in technoscapes and treescapes. The figure of the child remains tangled in hopes of redemption from planetary crisis through an unproblematic relationship with the more-than-human, *and* in fears of corruption through interactions with digital technologies. Acknowledging shared experiences of navigating life in the ruins of capitalism (Tsing et al., 2017) provides vital possibilities for thinking differently about relationalities with other humans and non-humans.

At the end of the morning, the workshop participants take a lunch break. We venture into the heart of the woodland to share a cauldron of homemade soup and sit around an open fire. The founder of the Woodland School shares stories, wisdom, and practices passed down from elders and we learn about the importance of re/connecting with nature, of “re-wilding.”



Figure 7. Boundaries to the forest



Figure 8. Learning about re-wilding

As the last remains of soup are eaten, the invitation to “Get Lost in the Forest” is taken up. The final slide on the PowerPoint from the morning session advised workshop participants that “getting lost” is a form of “childing” (Kennedy & Kohan, 2008) where “child” shifts from noun to verb and getting lost becomes an invitation “to child.” Childing insists upon a willingness to attune to surroundings, the environment, the sedimented layers of history associated with the place, and the atmospheric forces circulating in the space and to embrace a willingness to be surprised (Figure 9).

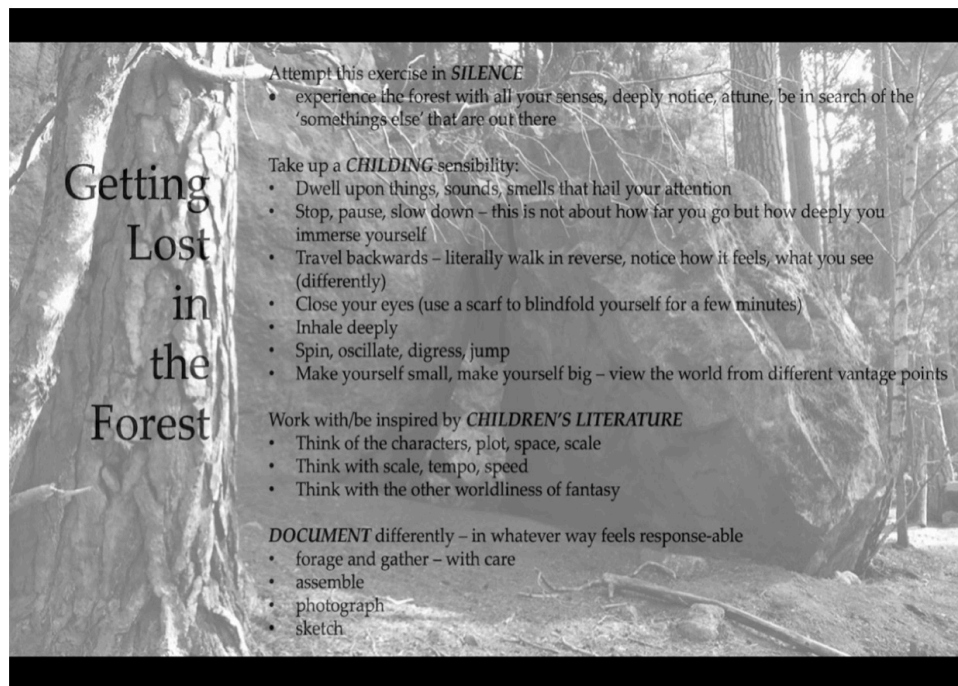


Figure 9. An invitation to get lost

GETTING LOST, DIFFERENTLY

Tamsin: Having been invited to get lost, I imagine striding off into the distance, but my getting lost is minute—I take a few steps and am struck by a tiny flower growing out of a rock face. I find myself wondering at the 2.3-million-year-old rock sedimentation, once submerged by sea but now reshaped by persistent exposure to NO₂ and children’s small, dense chisels as they engage in forest school re-wilding. I take a closer look and attempt to draw. As I draw, focusing in, the world becomes smaller and more detailed. I notice a tiny white bug on the stem of the flower; a spider web caught between the leaves. Attempting to capture the outline of the leaves, I notice hairs on the leaves.

Flecks of ash from the fire float in the air—the average woodfire produces approximately 1.82 kg of CO₂. But for now, carbon-ash floats through the air with the lightness of snowflakes. Birdsong is audible, interspersed with voices from the other workshop participants. It’s interrupted by revving engines—the sound of school pick-up traffic congesting—accompanied by a not-so-far-away pneumatic drill and the occasional cracking of sticks as people move around in their quests to get lost. Paper plates and wooden spoons amass in a neat (but guilty) pile just to the edge, disrupting the apparent purity of this mini-world.



Figure 10. Diffractively getting lost in scale

After the day, I was left with a heavy feeling from getting lost among trees. Jayne had spoken about a funeral procession she had been involved with as a form of activism against 182 unnecessarily felled trees on a nature reserve in London. This stayed with me. The funeral provoked anxieties about leaves still on trees—in December! Summer drought and a false autumn altered the regular behavior of plant life, and trees heavy with foliage in the depths of winter stand as a vital reminder of what it is to live life on a damaged planet (Tsing, 2015). I became haunted by a passage from my current reading:

Arboreal-time is cyclical, recurrent, perennial; the past and the future breathe within this moment, and the present does not necessarily flow in one direction; instead, it draws circles within circles, like the rings you find when you cut us down. (Shafak, 2021, p.15)

Getting lost in that moment, in that mini-landscape, offered capacities to slow down, to notice, to attune to long-forgotten and not-yet-told stories. The affective forces of getting lost in a miniature world agitated curiosity for the history of this woodland, attention to intergenerational storytelling, and the terrors of the Anthropocene (toxins, rock erosion, pollution, and the limitations of time's progress narrative). The discomfort of attuning to that which would routinely be overlooked (a leaf, spider web, cracking sticks, leaf hairs, fire ash) continues to resurface and demands that "sustainability" and "environmental education" must be troubled for the underpinning human-centric logic. Sustainability rests upon a logic that "man" can "fix" "nature" and "preserve" it—but for whom? For what? From whom? From what? To quote Vladimarova (2021), "we need to expand the idea of care away from aiming to save the planet and more toward learning how to respond to its call to live in all its human and more-than-human intricate complexity. This reformulation shifts the position of humans from being saviours to being response-able" (Haraway, 2016).

GETTING LOST: IN SEARCH OF SOMETHING ELSE

I (Susan) received the invitation to get lost in the woods with curiosity. "Childing" created possibilities to engage differently, playfully, with the forest; attending to scale facilitated the discovery of "something else." Yet, attuning to naturecultures in a forest school (intended for children, but occupied by adults) also opened possibilities to take seriously the non-innocence of nature and what that might mean for our conceptualizations and practices of environmental education in the name of sustainability.

Getting lost is a curious but generative practice. Children are not supposed to get lost. In the Global North, their lives tend to be bounded, endlessly surveilled, and protected from the dangers "out there" in the unknown spaces of cities, woods, and screentime. Physically or psychically "lost" children are considered an indictment of poor parental care, or proof of their vulnerability, or of the evils of the external world. In fairy tales, children's own transgressions (*Red Riding Hood*), or the neglect of their parents (*Hansel and Gretel*) leave them lost and vulnerable to animal and human predators in the woods. They are dark tales in their unsanitized forms, but generally children's resourcefulness, with the help of human and non-human forces, bring them through their trials to safety.

As a city child, I ventured well beyond the adult-designated boundaries of safety to visit my favorite (dead) tree at the edge of Epping Forest (I named it the "Lightning Tree"). The smell and texture of that tree resurfaced—hauntologies evoked from a time that has since become buried, with childing capacities deadened. Today, in the Sligo Woodland School, children learn about boundaries in the treescape by adhering to the limits marked by orange nylon string on the trees. They don't physically get lost, but they can experience moments of conditional independence outside the adult gaze. This is the space of play, the imaginative space that children are *allowed* to be lost in. Without romanticizing childhood or insisting on a "natural" capacity for play that is unattainable for adults, it may be that children's cultural positioning as playful "other" and related attunement to the "philosophy of 'as if'" (Braidotti, 2006, p. 27) produces generative potentials for "multiple possible stories of becoming-other" (Aitken, Lund & Kjørholt, 2007, p. 13) with adults, trees, screens, television shows, raincoats, microbes, mushrooms, and literature. Perhaps this is what the invitation to get lost as a form of childing makes possible for adults who have deadened capacities to attune to the complexities of the Anthropocene as it manifests through the everyday, taken-for-granted matter and stuff around and within us. Playing seriously as world-making practice (Haraway, 2008) is one modality for research and pedagogy through which both nature and capitalist technologies can be experienced simultaneously. Serious play is a way to stay with the trouble (Haraway 2016), to consider shifting ontologies, to explore ways to flourish in the capitalist ruins of a damaged planet (Tsing et al., 2017).

I took the suggestion to get lost then as an imaginative rupture, a moment of serious play, "as if" lost,

while not lost. The lostness was fleeting, the riskiness of the forest minimized. First, as a rocky cleft invited me to clamber up to begin childing, a miniature landscape hailed my attention.



Figure 11. Scales and hierarchies at play

Thinking of the provocations in Suzanne’s film, and of a passage from Jansson’s *The Summer Book*, I considered the interrelated scales and the hierarchies at play in the forest: microbe, mushroom, Moomin, child, tree.

Between the arm of her sweater, her hat and the white reeds, she could see a triangle of sky, sea and sand—quite a small triangle. There was a blade of grass in the sand beside her, and between its sawtoothed leaves it held a piece of seabird down She saw the conical depression in the sand at the foot of the blade of grass and the wisp of seaweed that had twined around the stem. Right next to it lay a piece of bark. If you looked at it for a long time, it grew and became a very ancient mountain. The upper side had craters and excavations that looked like whirlpools. The scrap of bark was beautiful and dramatic. It rested above its shadow on a single point of contact, and the grains of sand were coarse, clean, almost grey in the morning light, and the sky was completely clear, as was the sea.

Sophia came back, running.

“I found a floor grate!” she hollered. “It’s big; it’s from a ship! It’s as long as a boat!”

“You don’t say!” her grandmother said.

It was important for her not to stand up too quickly, so she had time to watch the blade of grass just as the down left its hold and was borne away in a light morning breeze. It was carried out of her field of vision, and when she got on her feet the landscape had grown smaller.

“I saw a feather,” she said. “A piece of scolder¹ down.”

“What scolder?” Sophia said, for she had forgotten the bird that died of love.

(Jansson, 1972/2003, pp. 36-37)

1 A scolder is a long-tailed duck

Zooming in and out between various scales in the forest presents imaginative possibilities for reconsidering relationalities, kinship, and becoming-with the treescape and earthscape. What is valued and why? What are the reciprocities and interdependencies?

I experimented with spinning quickly, arms outstretched. I fell flat on my back, dizzy, looking up at the treetops as they whirled above.



Figure 12. Haptic body-forest encounters

As I waited for the world to stop spinning, I heard birds above and lay still to watch them, hundreds of years above. This engagement provoked another kind of encounter between body and forest—dizzy like Sophia’s grandmother. I looked, listened, sensed anew—encountering the forest haptically, in and among the dirt, leaves, bird droppings, fungi, lichen, and microbes. The dizziness evoked Schuller’s (2018) account of the “microbial self.” She draws attention to the pervasiveness of microbes by dwelling upon Lyme disease, a microbial “infection” that causes dizziness among a host of other unpleasant and debilitating conditions. Challenging commonly held wisdom that viruses must be thought of as invading/attacking the human body, she argues that human-microbial relations must be thought of sympoietically². As Schuller (2018, p. 53) states, “we live our lives fully imbricated with our environments, including microbial life-forms, which not only are interdependent with us but, more fundamentally, do not pre-exist as separate entities.”

What then becomes of the self when the body and its sensations are understood to be forged through ongoing, co-constituting relationships with microbial life? Trillions of beneficial micro-organisms are dwelling throughout our bodies—we are in processes of endlessly becoming-with, never separate, contained, autopoietic³ bounded human subjects. Sensations and emotions arise from microbial entanglements. Schuller (2018) contests that these relations condition the subject in sympoiesis; it is the process of becoming-with that produces sensation, and the individuated subject (as well as hierarchies of mind and body) must be understood to be a fiction.

The dizziness then was not mine alone, but as it slowly abated, looking down, towards the earth and the forest floor, I dug my hands into the decomposing leaves and pungent humus. Semi-decayed sycamore “helicopters” were unearthed, remnants of the trees’ out-of-season seed dispersal activities.

2 becoming-with
3 self-creating



Figure 13. Forest temporalities

Sitting on the ground, sifting through the living and the dead, fingernails dirty, was a sensory encounter, slowing time, making human-non-human relationalities felt as layered ecologies of worlding shaped by co-emergence and mutual risk. Touch was a visceral reminder of the inaudible, slow processes of the forest, and the urgency in which engaging with those temporalities shift bodyminds to places where we can question human exceptionalism and speciesism. Returning to Schuller (2018, p. 61), fingernails dirty with mud remind us that “we are witnessing the rise of the ‘microbial self,’ or a notion of personhood in which the subject and its self-constituting sensations and affective states emerge within a network of interspecies interdependence.”

The concept of a “microbial self” suggests that these sensations and affective charges—the hauntologies awakened, the dizziness and the disorientation—do not pertain to the bounded human-subject but rather emerge from the friction of symbiotic relations. Getting lost then takes on a different complexion that involves encountering the world again. The possibilities available in surrendering to disorientation, dizziness, getting lost in down-on-the-ground moments can take our engagements with “nature” to places that assist in shifting the emphasis in forest schooling from a place to learn *about* nature and how we humans might preserve and protect it, to understanding ourselves as endlessly co-constituted and intermeshed—recognizing that *we are* natureculture—or as Haraway (1998) proposed, we are cyborgs.

AN ABSENT-PRESENCE: LOSING THE CHANCE TO GET LOST IN THE FOREST

As organizers of the *Head, Hands, Heart Project*, we wanted to act in ways that reflected the ethos of a project concerned with sustainability and cultivate an environmentally conscious approach to our work. Providing an eco-friendlier means of transport to the woodlands involved funding a return bus from the university for attendees. Our intentions were “virtuous”—reducing carbon emissions by reducing the number of cars journeying to the “wholesome space” of the woodland. Despite our intentions, numerous attendees chose to drive, something I (Marie) was not aware of in advance. The bus dispatched just five of us at the woodlands. Wrapped in many layers to thwart the damp cold of the North-West of Ireland, we quickly became immersed with “natural” objects in the polytunnel (beeswax, seashells, leaves, and rosehip), yet the encounter with the bus and the nearly full carpark provoked the messy contradictions and tensions within this seemingly “natural” space.

Haraway (2016) urges that we take seriously sympoiesis, or making-with, rather than autopoiesis, or self-making. Accepting that human exceptionalism and intentionality can come undone at any moment involves learning to stay with the trouble of living and dying together on a damaged earth. The

endless natureculture entanglements that we were caught up in (bus, carbon footprint, mobile phone use, facilitation of an event, “use” of the forest school, “natural materials,” plastic toys, nylon-string boundaries) served as reminders of the limitations of human exceptionalism and intentionality.

Yet, we were approximately 90 minutes behind schedule as we entered the *Getting Lost* and *Becoming Together* segments of the day. I had to leave for the bus, which was not lost, but in fact very punctual—it had arrived for the return journey to campus.

My head, hands, and heart were alive as I stood along the roadside waiting for the bus.



Figure 14. Waiting for the bus, lost in administration

My head was conflicted. I felt a responsibility to the (four) attendees who had traveled with me on the bus to ensure they returned to the university by 2:00 PM, yet I was also aware of the methodological opportunities that childing might present to experience “nature” differently.

My hands were focused on the task—a 4G connection via data roaming, emitting radiofrequency radiation (the harms to human, non-human, and more-than-human still not fully known according to the World Health Organization, 2014)—to alert the bus company to collect the five of us.

My heart wished that I was childing; spinning, getting lost and dirty, disorientated, dizzy, and troubled by processes of sympoiesis. As the stress intensified—I inhaled and exhaled deeply. Big lungfuls of air: 21 percent oxygen, 78 percent nitrogen, argon, carbon dioxide, and methane and a host of other toxins (Mazzone, 2008). These potentially toxic lungfuls nevertheless prevented me from becoming lost in the administration of the project—the calming capacities of deep breathing, which underlines the porosity of bodily boundaries as I literally become what I breathe, and that in turn the trees become-with my breath.

The overriding thought I have days and weeks after our trip to the woodlands is that my obligations towards the *Head, Hands, Heart Project*, the attendees, and their work commitments took precedence over getting lost and becoming “child” in the woods. My absent-presence underlines the capacities of the complex forces of capitalism, and life in the Anthropocene, to alter the complexion of being lost. But our presence—via radio frequencies, an outbreath, footprints, molecules, microbes, a video recording, giant TV, an inbreath—linger on, haunting and reshaping all that we have touched. As Haraway (2008) asks, who and what do we touch? A simple enough question, but when approached from a feminist

posthumanist orientation, the reverberations and lasting, ongoing, intermeshment with all that we touch, and are touched by, can never be fully known.

Our shared experience of “childing” makes visible the complexities of human relationalities to “nature.” It is not our intention to offer prescriptions on how the ideas and embodied encounters should be taken up in practice with children, but the following propositions might create conditions of possibility to engage deeply with what else getting lost in natureculture might agitate:

- Create space and unbounded time for children to explore and dwell amid the dirt to ask the unasked-for questions.
- Create opportunities to deepen and extend children’s discoveries of becoming-with by following unexpected lines of inquiry (with/through art, science, local/colonial histories, folklore, fantasy, children’s literature).
- Be brave enough to encounter uncertainty and question environmental education and human exceptionalism. Explore other ways to think of ourselves as human.*
- Value the possibilities that getting lost, attuning, and slowing down create for paying close attention; resist the temptation to rush or find immediate explanations.
- Dwell together upon where else sensing and not-knowing might take your inquiries.

[**You Are Stardust* by Elin Kelsey & Soyeon Kim is a great book to assist in this.]

CONCLUSION

This paper has gone some way to make visible both the complexities and the promise of getting lost through arboreal methodologies. The invitation to get lost in the forest through the lens of feminist posthumanism illustrates the potential for embodied encounters to agitate hauntings, reawaken bodily registers, and grapple with questions that surface from unanticipated, sometimes unasked-for relationalities. There were notable absent-presences throughout the workshop; for example Suzanne was unable to be physically present in the polytunnel on that cold December morning due to a viral infection, but a pre-recording was shared via the giant TV screen and a paper copy of a relevant publication (Osgood & Axelsson, 2023) was distributed. Also notable by their absent-presence were child bodies—yet, practices of childing and residues and atmospheric forces of once present children worked in profound ways to shape the tempos and scales that came to characterize the day. It was the willingness to take up childing to explore what arboreal methodologies might make possible that matters of concern with the non-innocence of nature became available. Collectively, we were reminded of the messy contradictions and tensions of contemporary education and how the machinic nature of academia can unravel ideas and practices about ‘sustainability,’ ‘preservation,’ and ‘environmental education.’ Arboreal methodologies hold the potential to encounter ‘the forest,’ ‘nature,’ and ‘child’ in more complex and confederate ways that underline the value of slowing down and sitting with discomfort; of breaking down unhelpful child/adult nature/culture binaries.

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ABOUT THE AUTHORS



Dr. Jayne Osgood, PhD is professor of childhood studies at the Centre for Education Research & Scholarship, Middlesex University, United Kingdom and also holds a Professor II post at Hogskolen i Innlandet, Norway. Her feminist approach to research is framed by critical posthumanism and an enduring commitment to address inequities of all kinds. She has published extensively in the post-paradigms with over 100 publications in the form of papers, chapters, and books. Jayne also has various editorial roles, including the journals *Reconceptualizing Educational Research Methodology* and *Gender & Education*; two book series for Bloomsbury (*Feminist Thought in Childhood Research*; & *Postdevelopmental Approaches to Childhood*); and a further series for Springer (*Key Thinkers in Education*).



Suzanne Axelsson works as a pedagogical consultant using experience, inspiration, and research in listening, philosophy with children, and Indigenous knowledge to create democratic learning and play spaces in early childhood education. She works on the EY program at the Department of Child and Youth Studies, Stockholm University, as well as in preschools with children and educators. Suzanne has a Master's in Early Childhood Education and has travelled globally to hold workshops, presentations, and visit EY settings. She writes about play, listening, neurodiversity, and sustainability on her blog.



Dr. Tamsin Cavaliero is a lecturer in the Department of Social Sciences at ATU Sligo. Her research interests include creative methodologies, educational inclusion, group work, sustainability, and Traveller and Roma communities. Prior to taking up her lecturing post, she worked in practice in a variety of posts with Traveller Youth in both formal and informal educational settings and was involved in arts-based projects with Travellers. Tamsin is a trained graphic facilitator regularly involved in graphic facilitation work, which focuses on family support, youth participation, inclusive research practices, social prescribing, and counseling.



Dr. Máire Hanniffy is a sociology and group work lecturer on a number of programs, including the BEd in Early Education and Care, the BA in Sociology and Politics, and the MA in Social Work at ATU Sligo. Her research interests include group work, childhood, social and ecological justice, and teaching and learning. Most recently, Máire was part of the project team for the “Head, Hands, Heart Embedding Climate Concerns in the Social Sciences” project. This project aimed to promote transdisciplinary learning in relation to socio-ecological crises, with a focus on building approaches for social and ecological justice and resilient and flourishing communities.



Dr. Susan McDonnell is a sociologist and lecturer at Atlantic Technological University. She teaches across a range of undergraduate and postgraduate programs and is currently chair of BA (hons) Sociology & Politics. Susan's teaching spans the interconnected fields of childhood/youth, inequality, race, and technology, as well as collaborative arts that engage students directly with community participants. Her research concerns Irish childhoods, race, and belonging in the context of contemporary discourses on migration, utilizing art-based methods. Susan's research interests include children's rights and agency, migration and race in children's lives, children's cultures, and visual and narrative research methods.

Trees in Our City

How a Tree and a Small Patch of Dirt Inspired a Classroom

Zuleika Fertullien-Hines

PERSONAL REFLECTION

I can vividly recall my early years as a missionary's daughter seeing my father plant trees whenever we arrived at a new community and settled into our home. It was always a familiar scene: My mother would go on to create a garden with her common staples of tomatoes, cilantro, beans, and okra while my father would hoe the land for the tuberous plants and trees that would be sown. In my later years, we would visit the homes that we had lived in and look for the trees that we had planted. I remember my excitement seeing how much the trees had grown, which I measured by whether I could wrap my arms around the trunk or reach the branches with my fingertips as I once did as a child. Trees played a leading role in my imaginary games as a child; their long branches became canopies for my playhouse, their strong limbs beckoned me to climb them as overlook posts for any approaching adults, and, at times, the trunks served as a backrest where I could sit for hours engrossed in a book. Other times, the trees provided a delicious assortment of snacks; fruits, such as mangoes, oranges, and guavas, were abundant during my early years living on the Caribbean islands. Once we moved to the United States, pears, apples, peaches, and other tree fruits became my snacks of choice. I cannot recall a time when trees did not play a part in my games when I was a child. So, years later, when I began the journey of building a school, I could not imagine a school without trees.

BUILDING A SCHOOL IN THE LANDSCAPE OF AN URBAN SETTING

In 2002, I had the opportunity to design and build my own preschool, Beyond Basic Learning, in Hoboken, New Jersey. The location faced the Hudson River and New York City with an unobstructed view of the Empire State Building. In my school design, I wanted to create classrooms where children could draw learning opportunities from their surroundings and connect to the trees and plants around them. I had found the perfect location; it was at the base of a residential building and encompassed half of the block. The length of the building provided many windows whose spans were four feet wide and 12 to 18 feet high. The space was a blank canvas, as the school would become the first resident to occupy the commercial space. This provided me with a unique opportunity to design the space where the windows would become the portal through which children could readily observe the changes that nature brought to all things growing and living on the trees and surrounding plants. The built location was 3,742 square feet and accommodated four classrooms, a common area, an office, and the front desk. It was a private school that would serve the families of Hoboken for children from two months to five years of age.

To connect young children with the outdoors, it was important to engage their curiosity by providing opportunities in the classroom to approach the window and look outside. Remembering how trees influenced my own childhood, it was important for me that the trees around our school were seen as an integral part of each classroom and were integrated into the daily routines and activities of the classroom.

In his book *Caring Spaces, Learning Places: Children's Environments that Work*, Greenman (2005) wrote about the importance of intentionally designing a school environment that centers nature and provides

children with opportunities to freely explore native flora and fauna up close. According to Cole, Cole, and Lightfoot (2005), the cognitive development of a child correlates with the depth and richness of their experience in any given domain. Over time, these experiences extend a child's ability to develop critical thinking skills and support children's growth from novice to expert in that domain. The root of those things we invite children to study should encompass, from the onset, that which is within the scope of ordinary life experiences (Dewey, 1938/1997, p. 73). In a workshop I attended with Greenman, "Child Care Design," at the Harvard Graduate School of Design, he emphasized that a focus on native plants in a school setting can influence both the children's and the teacher's ways of engaging with nature.

The trees surrounding the perimeter of our school and visible to the classrooms were part of the daily conversations between the children and the teachers—when the teachers described the wind and pointed to the movement of the branches, when a bird perched itself on a tree and seemed to look inside the window, when a child noticed the leaves change colors in the fall. These conversations became opportunities to naturally speak with the children about the trees and to connect our observations to the books that we read throughout the year. When children entered the school as infants, teachers would point to a tree, talking about its various attributes, singing songs, and reading books about trees. When the children reached the preschool-age classroom, the teacher would scaffold the children's awareness of trees to the fauna and flora that benefited from the presence of trees in their habitat. They engaged in activities, such as adding worms to the ground around trees' roots or planting herbs and vegetables that benefited from the tree canopy or observing the various birds that perched on the branches. As the children moved through the program, they gained a greater sense of the importance of trees in our ecosystem.

Teachers also developed a greater understanding of trees through training and research. In one of the trainings, we went to the Brooklyn Botanical Garden where they have one of the oldest children's gardens. Through my studies at NYU, I became aware of an educators' workshop in Hog Island, Maine, where we spent a week learning and formulating classroom activities that engaged children in the natural landscape. I had a strong conviction that for children to love trees and develop a deep connection with them as adults, we had to begin to foster that relationship in the children's early years and continue to nourish it throughout their school experience.

THE TREE

Hornbeam and maple trees were planted along the perimeter of our school, with evergreen shrubs forming a living fence between the classroom windows and the pedestrian sidewalk. The tree outside our kindergarten entrance door was a hornbeam that had been planted in a small patch of dirt that was shaped as a right scalene triangle. The patch was bordered by the cement path that led to the kindergarten classroom and continued alongside the classroom windows to the edge of the building. At the opposite side, the pedestrian walkway led to the end of the street as it turned toward the main entrance of the school. The patch of dirt where the tree was planted was no more than 190 square feet.



Figure 1. Kindergarten tree

If the tree had had a say in where it would like to be planted, it might not have selected a place where it was surrounded by concrete. It may not have wanted its roots risking the chance that they could inadvertently touch the gray waters of the Hudson River that swelled beneath the piles that supported

the tree's small patch of dirt, which kept its trunk steady by its roots. Truly, the tree might have selected a more secure and safe place to call home. But it was placed there by design to soften the edges of an urbanized space and to show that it could coexist with the multimillion-dollar mid-rise buildings and the plethora of coffee shops and restaurants that accompanied this development. The hornbeam tree was suited to the landscape. It had the ability to endure drought and occasionally withstand wet conditions. Its unusual bark of vertical light gray and dark lines was smooth and beautiful. When the architect completed the design of the school, the tree became an extension of our classroom.

After several years of developing the lower grades, we opened our kindergarten classroom with a focus on webbing the natural environment into our lesson plan. After studying Dewey (1938/1997), I found a certain kinship with the way he defined experiences as not existing in a vacuum, solely internally, but also a function of the way a teacher guides the learner, who is then able to transpose those experiences into other areas for further inquiry. Formulating a web for which subsequent experiences can find roots from prior learnings deepens the meaning of those experiences and the quality of education for the learner. The tree, along with the small patch of dirt that sustained it, was at the center of our learning ecosystem. The tree's extended canopy and the small patch of dirt provided endless opportunities for children to learn about the tree's interdependence with the soil and its organisms as well as the host of fauna and flora that depended on its existence. The small patch of dirt exposed the children and teacher to endless opportunities to extend their learning experiences.

OUR CURRICULUM

I spent whole afternoons in the dirt, making my patch of ground flawless. I even cleared the worms away, before I found out that all the tunnels they make give air, and probably other molecules I don't know about yet, to the plants.

—Jane Hamilton, *The Book of Ruth*

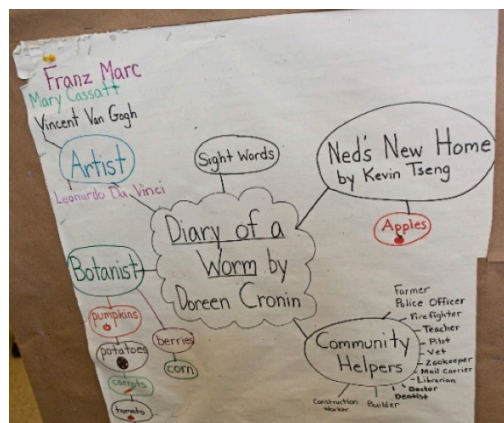


Figure 2. A web provides a road map that extends from the center forming the main theme and the bubbles representing connections where other areas of study can connect to the main theme

At Beyond Basic Learning, our lesson plans were derived from a core children's book that would become the main focus for the school year. Then other books were included to scaffold the children's experiences and bring forth other perspectives that aligned with their theme and with children's interests that emerged during classroom conversations. In working with the lead teacher, the goal was to develop a lesson plan that included entry points for providing opportunities to learn about plants in a way that would provoke the children's curiosity. Creating a web could guide teachers and children to various ways to learn from the core book and find connections to it in their everyday routines. I

encouraged my kindergarten teachers to go outdoors with the children and explore the tree outside their window and in their courtyard. By using a web as a guide, children were able to explore various types of seeds and their fruits. The children were given roles, such as the botanist, who cared for the classroom seeds and tree, and the meteorologist, who made predictions about how windy the day would be based on observing the tree and its branches. At other times, the teacher would place materials, such as drawing paper and journals, along the window's ledge to give children the opportunity to draw what they observed.

Training was a big part of our program. As a director, I knew that to inspire the teachers to have a connection with nature and trees, it was important to provide opportunities to learn different ways that children could be engaged. The Brooklyn Botanic Garden (BBG), situated in the middle of an urban community, had a wonderful training program for educators, held on the garden's grounds. The BBG Children's Garden was started in 1914 by Dr. Charles Stuart Gager with the vision that to engage the community, the garden needed to provide educational programs. Dr. Gager reached out to Ellen Eddy Shaw to implement an educational program. Her connection to school gardens continues to influence the trainings at BBG with their own children's garden that continues to thrive today over 100 years later (bbg.org/article/a_lasting_harvest). When the teachers arrived at BBG for their training, they had the opportunity to walk the garden and notice trees that were not familiar to them. I deployed an ice breaker where they would roam the garden and find a tree that they found a connection with, which they shared with others at the start of the training. The training was held inside an arboretum that was full of plants that were gathered for the teachers to explore through touch, smell, and taste. The trainers demonstrated the process of incorporating a worm bin in their class as a way to engage the children and also provide healthy support to the trees. After the training, the teachers were able to share how they could adapt their experiences to classroom opportunities for children to be exposed to the trees and plants around them.

THE INFLUENCE OF TREES IN THE KINDERGARTEN CLASSROOM

The patch of dirt that the kindergarten could reach directly from the classroom and observe from indoors was the only accessible area that included a tree and the space to plant around it. The tree canopy provided shade but did not block the view of the dirt patch and the pedestrian walkway. The children could independently approach the window and note changes in the tree. Because it was alongside the short path to the entry of their classroom, children could show the tree to their parents and share updates about it. On the weekend, children who lived in the neighborhood would pass by on their bikes or scooters and point to their classroom and the tree that they were caring for. The tree was seen as an extension of the learning taking place inside the classroom. We wanted the tree and the patch of dirt to become an active center for the children, so in the fall, we asked our landlord to allow us to enclose the patch of dirt around the tree to prevent dogs from defecating at the tree's base. After we received approval to move the shrubs surrounding the tree to another part of the complex, we were able to have the area around the tree cleaned up and to have topsoil added to the dirt patch for the planting that would take place in the spring.

The kindergarten teacher had the opportunity to attend our summer retreat at the BBG, where one of the activities the trainers introduced was working with worm bins. The trainers explained the benefit worms had for the soil and the trees and how a classroom could learn about plants and trees through the care of worms. After *Diary of the Worm* (2003) by Doreen Cronin was selected as the class's core book for the year, a worm bin was added to the material list for the classroom. In preparation for the worms' arrival from an online company, we obtained plastic bins that were layered on the bottom with strips of newspaper. Another book, *An Earthworm's Life* (2001) by John Himmelman, helped illustrate the worms' habitat and the different foods worms eat to support their work in the soil. As a result, the children

brought scraps of vegetables and lettuce in from home and added them to the worm bin. The children took turns using the spray bottle to keep the worms' habitat moist.

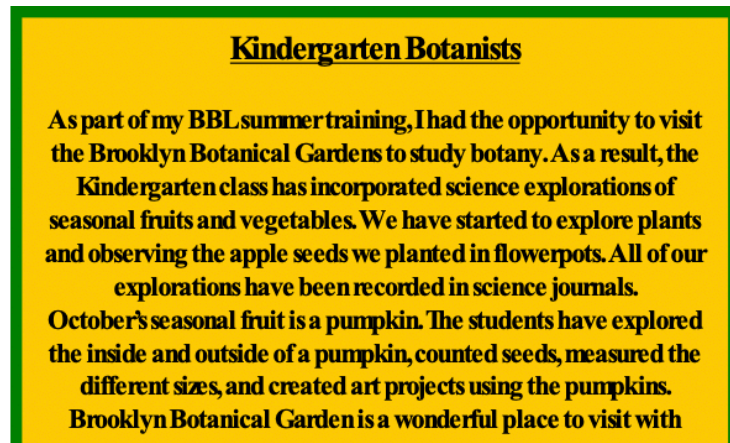


Figure 3. Excerpt from the kindergarten teacher's October newsletter to parents

At first, the children were squeamish and hesitant in gently picking the worms up and holding them in their outstretched palms, but after a while, even the shyest child would participate in the worms' care. Soon worms became objects of fascination for the children. One morning as I went into school, I met a mother and child walking toward the front door. It was the morning after a few days of rainfall had left puddles along the path to the school. The child noticed a worm squirming on the edge of the sidewalk close to the dirt's edge. She immediately picked up the worm and placed it in the palm of her hand, saying "Mom, look!" Her mother, elegantly dressed, exclaimed, "Wow! Yes, I see it's a worm," and looked at me with a smile.

The children began to explore the trees around them when they went on walks in the community and during their outside play. During one of their walks in the courtyard, the teacher gave the children spray bottles. The children knew that worms were good for the tree and that worms need moist soil to thrive, so they sprayed water around the roots of the tree. That also allowed the children to explore the roots of the trees and to look for worms more easily.



Figure 4. Looking at the roots of the tree in the courtyard

The children took turns cleaning the worm bin and taking it home on weekends. The teacher asked the families and children to write or draw in the child's journal about their experience of having the worms in their home. We were all excited to see how the children had adapted to the worm bin in their classroom and at home.



Figure 5. Worm bin in the classroom



Figure 6. A child holding a worm

As summer turned to fall, the children became aware of the changes taking place with their classroom tree. During their walks, they observed the different patterns of leaves around their community and noticed the leaves changing. Each child collected an assortment of leaves and twigs and shared them with their classmates during circle time. At other times, the children looked at leaves under a magnifying glass. Later, they would take their collection of leaves and create a collage.



Figure 7. Close observation



Figure 8. A leaf collage

Studying seeds also played a part in the children's understanding of where trees came from. Children were given opportunities to explore various types of seeds that were related to the season, including seeds from pumpkins of different sizes.



Figure 9. Using pumpkins as inspiration for their art



Figure 10. Drawing the top of a carrot plant

The children went apple-picking and looked for the tiny seeds inside the apple core. They compared the pumpkin seeds and apple seeds, planted the seeds in various containers, and added pumpkin and apple scraps to the worm bin.



Figure 11. Apple-picking trip

The teacher placed pumpkins of different sizes on a table during open center time, encouraging children to draw their observations in their journals. Books that focused on seeds and their transformation into plants, such as *From Seed to Plant* (2003) by Gail Gibbons, were added to supplement *Diary of a Worm* (2003) in order to foster an awareness of the connections between seeds and plants and to deepen children's understanding of plants. Children became so excited about planting seeds that every time they discovered a fruit-bearing seed in their lunch bags, they would ask to plant it to see if it would sprout into a tree. They also became excited about working on their journal, emulating the main character in *From Seed to Plant*.

Reading Literature (Story Time)	I Want To Be A Police Officer by Dan Liebman -refer back to the web from this morning	I Want To Be a Vet by Dan Liebman -refer back to the web from this morning	From Seed to Plant by Gail Gibbons	From Seed to Plant by Gail Gibbons	How Big Is Your Pumpkin? by
Afternoon Centers	Math: Number 1, <i>one</i> . Draw 1 things that is red. Web for Red. Sand/Water: Measuring Cups, spoons, etc. Science: Read, Apples and Pumpkins . Create web. How are they the same/ different? Blocks: Free play	Math: Draw 2, <i>two</i> things that are red. Sand/Water: Measuring Cups, spoons, etc Science: Count Pumpkin Seeds. What can we do with our seeds? Record/draw in Science Journals. Blocks: Free Play	Math: Draw 3, <i>three</i> things that are red. Sand/Water: Measuring Cups, spoons, etc Science: Each student will put together a flowerpot. Add pumpkin seeds & worm from compost bin. Blocks: Free Play	Math: Draw 4, <i>four</i> things that are red. Sand/Water: Measuring Cups, spoons, etc Science: Record observation/ predictions of flowerpot in journals. Blocks: Free Play Community Walk-Kings-Buy ingredients- Pumpkin Pie	Cooking: Pumpkin Pie. Sand/Water: Measuring Cups, spoons, etc Science Measure the width of your pumpkin using unifix cubes. Graph it. Blocks: Free Play Community Walk.

Figure 12. Excerpts from an October lesson plan exploring the relationship between seeds and plants

If there were fruits with seeds in the class’s snack, the teacher would plant the seeds to see if they would sprout. At the beginning of our school year, a child brought an avocado with the pit in it for snack. The children were excited to see such a big seed and decided to plant it in a small container to see if it would grow roots. Eventually, the roots sprouted. They continued to grow so much that later the children had to transplant the avocado tree into a large pot, where it kept growing and adding branches and leaves. Throughout the school year, the children began to measure the avocado tree’s growth, using strings and ribbons and other nontraditional measurement tools. Imagine our surprise to see the avocado tree growing so fast with the help of compost from the children’s food scraps and worms that were added to the soil in the pot. Soon, caring for the avocado tree became one of the classroom jobs.



Figure 13. The tree grown from the avocado pit



Figure 14. Measuring with a string

During the winter, the hornbeam tree lost all its leaves, but the children noticed that from time to time, birds would perch on the branches and then fly away. The children asked questions about the birds and became curious about the food that the birds ate. They learned that different birds enjoyed eating different types of seeds. Because they saw that the tree did not have any fruit or seeds, the children wanted to find a way to help feed the birds. I recalled combining peanut butter with bird seeds to put out for birds, and I shared the idea with the kindergarten teacher to incorporate into the lesson plan. To make a bird feeder, we collected recyclable toilet paper rolls and used various nut seeds and oil to make the nut butter to mix with the bird seeds that we bought at the pet store.

The children took turns rolling their paper tubes in the nut butter and then in the bird seeds. Once all the children had made their bird feeder, we used pipe cleaners to hang the feeders onto the tree. Children also took clipboards on a community walk to see if there were birds perched on other tree branches. Every time they saw a bird perched on a tree, they would make a mark on their paper. We discussed the importance of trees to birds and how trees were also homes for many other animals.



Figure 15. Looking for birds on trees



Figure 16. Adding bird seeds to a bird feeder

After we hung the bird feeders on the tree, children noticed a flurry of birds coming to the feeders. They made comments, such as “The bird ate from my bird feeder,” or “Why isn’t the bird taking from mine?” During the day, they would walk independently to the window and see that the tree provided a place for the birds to perch on to eat.



Figure 17. Seeds planted in the classroom



Figure 18. Clearing weeds around the tree

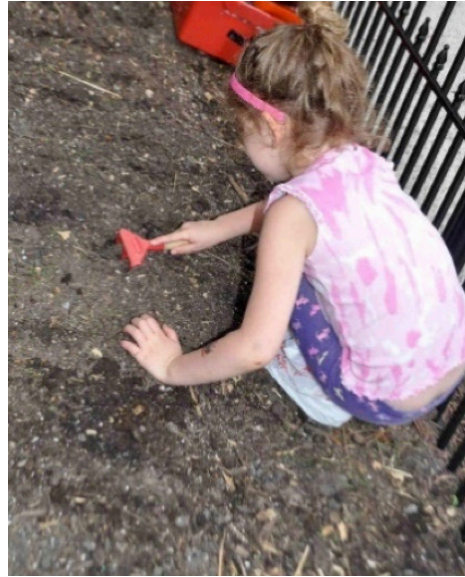


Figure 19. Spreading soil for planting

Over the year, the children's artwork changed. Trees were now often included in the children's drawings of their pets or their families.

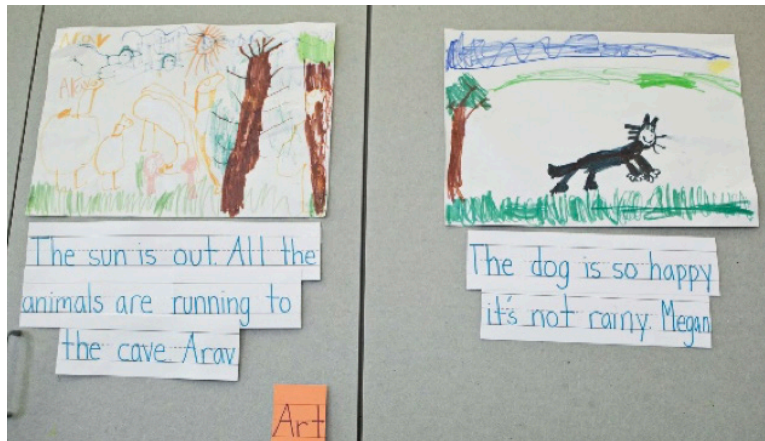


Figure 20. Trees in the children's artwork

As Strife (2010) stated, the educator's challenge is to provide opportunities for children to explore, analyze, and interpret human actions in real-life situations. Reading *Diary of a Worm* (2003) gave the children opportunities to explore parallels between the information in the book and their own experiences. The worms in the book ate scraps of vegetables and dug a home in the dirt under the roots of a tree; the worms in the classroom bin were sustained by similar scraps and were placed in the dirt patch around the hornbeam tree. The children learned that seeds had multiple purposes. They were found in apples and avocados, and, in the form of nuts, they were food for the children. Birds ate seeds, too. And seeds were able to grow into trees that produced more seeds in their fruits; new trees, like the avocado tree and the apple trees children experienced during the school year, could grow from those seeds.

PLANTING UNDER THE TREE CANOPY

As the weather began to warm up and the snow melted, plans were made to place the worms in the soil around our tree. We also added our compost and additional soil around the roots of the tree to support its growth during the spring. Except for the avocado tree, which we learned was a tropical plant and needed to remain indoors to thrive, the plants we had been nurturing in the classroom over the winter were planted around the hornbeam tree. I purchased additional topsoil, and parents contributed vegetable seeds and gardening tools for the children to make a garden.

The educator by the very nature of his work is obliged to see his present work in terms of what it accomplishes, or fails to accomplish, for a future whose objects are linked with those of the present. (Dewey, 1938/1997, p. x)

Studying the various seed packets that were brought to the school, with the teacher's help, the children learned that some vegetables did not like direct sun. After noting that some areas under the tree canopy were open to direct sunlight, while other areas were shady, the children prepared the soil and planted their seeds according to whether the plant grew better in the shade or in the sun. It wasn't long before the children began to notice the green shoots of the seeds they had planted.



Figure 21. Labeling our plants



Figure 22. Inspecting the tomatoes

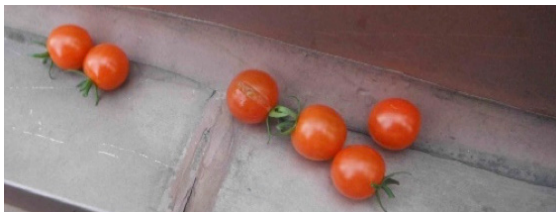


Figure 23. Cherry tomatoes from our garden



Figure 24. Eggplant from our garden

THE ROLE OF THE TREE IN SUBSEQUENT YEARS

Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts.

—Rachel Carson, *Sense of Wonder*

Each subsequent kindergarten class continued to explore the garden through the lens of a core book, including Doreen Cronin's *Diary of a Spider* (2005), whose character was introduced by the worm in *Diary of a Worm* (2003), and *Diary of a Fly* (2008). As part of its study of trees, one of the kindergarten classes took trips to the New Jersey Meadowlands, where the children were able to continue to explore

trees native to the New York/New Jersey area. Through opportunities to take children out of the classroom into natural environments, we hoped to help deepen children's connection to trees and nature. According to Chaillé and Britain (1997), the study that integrates various experiences that are interconnected across media, places, activities, and time deepens the child's ability to notice those connections.



Figure 25. Trees in the New Jersey Meadowlands

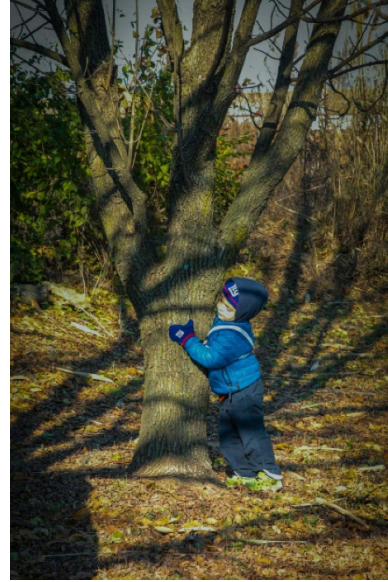


Figure 26. Finding "our trees"



Figure 27. Seeing if we could embrace the trees with our arms

Over time, having trees in the classroom or going outside to engage with trees became embedded in our school program. Different classrooms adopted different ways of integrating trees into their routines. One classroom tree was inside the 2-year-olds' classroom on a platform by the window; children would often pretend it was part of their house. Another classroom hung bird feeders on their trees and counted how many birds the feeders attracted. Other classrooms would go outside to have a picnic under the canopies of trees in the park or the courtyard. All these experiences deepened the children's connection with trees and their role in the care of trees.



Figure 28. Playing with blocks around a classroom tree

We wanted children to see trees as an extension of themselves, not just something to be studied in a vacuum following the seasons or explored only through a book. Embedding an ecological tree curriculum in children’s schooling so that they see what trees provide to humans and our Earth will help shape children’s attitudes toward nature (Nikolaeva, 2008). Unless they have firsthand experiences with basic natural elements, such as soil, sun, water, air, vegetation, and animals, it is impossible for children to gain a deep intuitive understanding of their environment and take an active role in interacting with and safeguarding it (Moore & Wong, 1997). A study of trees can support the development of children’s inquiry into the particular aspects of the fauna and flora native to the area where the children live. According to Nikolaeva (2008), “an attitude cannot come into being solely on the basis of knowledge: it must be linked to personal meaning and purpose, and understanding, a consciousness of the objective nature of what is going on.” The tree and the small patch of dirt outside our kindergarten classroom provided the setting for children to observe and explore firsthand how trees are so important to the fauna around them but how it also provides shelter and food to humans.

When teachers provide age-appropriate books about trees, children are able to develop stronger connections to trees as they observe them up close and take a role in their care. This enables children to develop a greater understanding of the natural world and a deeper connection to it that can stay with them as they grow (Nikolaeva, 2008). But for this to succeed, the leadership of the school must provide training that helps the teachers—not all of whom may have been exposed to the world of trees—develop skills that can support the integration of the study of trees in their classroom. If we want the next generation of children to become stewards of trees, we must start forging their connection to trees from the very beginning and find opportunities for trees to thrive in our classrooms by integrating trees in our daily routines and activities. As leaders, we must plant the seed of intent in our mission statement and let it take root through training and coaching.

Kindergarten Children,

Each of you is like a seed planted at BBL-I. We used the best composting ingredients to help you grow; we put five cups of positive disposition, five cups of curiosity to help you discover, five cups of music and art appreciation, a tablespoon of sharing with others, and a tablespoon of good manners that will guide your path.

For these ingredients mixed with a few worms in your daily lives will grow a strong tree that can stand firm when the wind blows.

—Ms. Zuleika, Letter from the First Kindergarten Album, Class of 2012

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ABOUT THE AUTHOR



Zuleika Fertullien-Hines, MBA, MEd, MS, had the unique opportunity to design and build three early childhood programs. Her passion for children and nature garnered her a Master's in Educational Leadership from Bank Street Graduate School and a third Master's in Environmental Conservation Education from New York University. She is a business strategist consultant helping schools reach their financial potential while retaining high standards. She is currently writing *The Lonely Apple Tree*, her first children's book.

Planting Trees in Drought Fields: A Story of Tree Planting With Children in an Elementary School in Pakistan

Nadia Anjum

This article describes my experiences getting children involved in tree-planting activities in a school setting. The tree planting was carried out in a public girls' elementary school situated in the village of Mohra Mari, Tehsil Gujar Khan, District Rawalpindi, Pakistan. The school is a part of the Union Council Kauntrilla in Punjab Province. The school's tree-planting activities were organized by school staff and by students, along with their parents, who also participated in the campaign. Considering the important role that trees can play in protecting societies and local communities, tree-planting activities are a useful curriculum resource for young children, providing them with hands-on learning experiences.

PAKISTAN AS A LANDSCAPE

Trees are crucial for people and for communities in Pakistan. My country is among the top 10 countries in the world to be affected by global warming. According to the Global Climate Risk Index published by Germanwatch, Pakistan ranked eighth of the 10 countries most affected by climate change from 2000 to 2019 (Germanwatch, 2021). The melting of glaciers and the eruption of glacial lakes pose a great risk of flooding. Yet, on the other hand, Pakistan also faces acute deforestation caused by drought. The major cities of Pakistan, including Lahore, Karachi, and Islamabad, are experiencing severe heat waves and excessive levels of pollutants. To tackle this, the government of Pakistan has introduced the Ten Billion Tree Tsunami, also called Plant for Pakistan, a five-year (2018-2023) tree-planting plan (Shah, 2018). Part of the National Forest Policy, it supports forestry and afforestation (i.e., planting trees where there were none before) throughout the country. Punjab as a province has developed its own policy, the Punjab Forest Policy (2019), to implement the national planting program. This policy aims to maintain, expand, and maximize forest sources in a systematic, environmentally sustainable, ecologically solid, economically feasible, and socially equitable way.

All departments working within the Government of Pakistan's educational authority have implemented tree-planting programs in schools. Public and private schools working under the jurisdiction of the Punjab School Education Department have also implemented the tree-planting drive.

TREE PLANTING IN MY SCHOOL

The school I work in was established in 1987 on the primary level and upgraded to the middle level in 2009. It is a girls' school with 176 students. There are 11 teachers: one head teacher, four elementary teachers, and six primary teachers. All teachers have qualified teacher training through a bachelor's or master's degree. There are 10 grades, starting with early childhood education (ECE) and going up to eighth grade (elementary education). The school is a solid concrete building with five classrooms. It has its own toiletry facilities for children and for teachers. The whole school area is approximately three kanals with 16,335 square feet.

Tree plantation in schools is carried out each year under the directions of the School Education Department. However, in 2022 tree plantation had unique importance because the 75th (Diamond Jubilee) Anniversary of Pakistan's Independence was celebrated by planting 10 billion trees.

The staff of my school decided to convert this tree-planting drive into an awareness campaign and fun activity. It began on August 1, 2022, focusing both on the students and their parents. We displayed banners and charts inside and outside the school to raise awareness about tree planting among students, their families, and the community.



Figure 1. Children from first and fifth grades display charts and a banner as a part of the tree-planting awareness campaign

The tree-planting campaign aimed to:

1. Celebrate the 75th Independence Day of Pakistan
2. Help make the local environment pollution-free
3. Promote an environment-friendly attitude among teachers, children, and their parents
4. Create a sense of responsibility about the environment on the part of students

Independence Day is August 14th. We made all our planting arrangements a few days before. The campaign was self-funded, and every student and teacher brought their own plants for the activity. We chose to plant shrubs and trees such as Bougainvillea and Tangy Mango that would do well in the dry soil on the school grounds.

On the day, our students and teachers were all present to take part in tree planting. We started at 9:00 AM and divided everyone into groups in order to plant 200 trees.



Figure 2. A first-grade child wearing a tree hat plants a pink Bougainvillea



Figure 3. Children from fifth grade plant trees on school grounds



Figure 4. A fifth-grade child plants a tangy mango tree



Figure 5. A child from first grade holds a tree she is about to plant

This planting mission greatly increased students' awareness about trees and shrubs. We noticed that students not only took the planting seriously and acted responsibly during the process. They also learned a lot, because they had to select suitable tree species, plant them in the ground, and think

about how to take care of them so they would thrive. The tree-planting activity was also useful for teaching lessons about the structure of a tree, different tree species, the importance of trees in the environment, and environmental pollution. It also supported curriculum-based learning. For example, students gained information about science and the environment. They learned how to plant trees, as well as how to take care of them. They learned about the parts of plants, the processes of photosynthesis and respiration, and the role of plants in our surroundings. In addition, they learned how plants are beneficial to the planet and central to making it pollution-free.

The students also participated in active learning (Dewey, 1938). They learned about the importance of teamwork. The tree-planting awareness campaign was turned into a fun activity, and the students were very excited to have a change in their school routine. They were energetic and eager to take part in tree-planting activities. The teachers and students were dressed in green, representing trees and the green in the Pakistani flag (green is a national color in Pakistan).



Figure 6. Children wear green to celebrate tree-planting day and Independence Day

Students participated in the activities enthusiastically and helped each other. They also took an oath to look after the planted saplings, to plant more shrubs and trees, and to encourage others to do the same.



Figure 7. Students at the end of the tree-planting ceremony

Bringing nature to the elementary school students, who face remarkable pressure because of external standardized assessment, was a welcome relief. Now the barren landscape is surrounded by greenery, singing birds, and blooming plants. As a teacher, I noticed that we did not need to train the young students to like shrubs and trees. The students consider the new greenery around them to be dancing and singing. They even want to hug their trees and bushes—which is delightful to see.

The tree planting with my students reminded me of my childhood, when I always enjoyed the company of trees and nature. My town is in a semi-rural area where I was privileged to be with trees and nature most of the day. In fact, my school was surrounded by green fields used for agriculture. A friend had a huge vegetable garden that provided vegetables and fruits for the local community. I often visited this garden. This is why taking part in the tree-planting activity with the children and describing it filled me with the same joy I feel when I'm outdoors with trees in the vast green fields. Now when I look at the school grounds, it eases my soul to look at the birds, bugs, and the natural world.

Planting trees on the school grounds does not come without its challenges. For example, at first, it was difficult to communicate with parents to convince them of the importance of tree planting. Initially, most of the parents did not agree that their children should clear bushes from the school grounds to make it suitable for tree planting. To them, their children were coming to the school to learn, not to work outside clearing the school grounds. After negotiating with them, and explaining that their children would be learning by doing (Dewey, 1938) and how they would benefit from outdoor learning, the parents agreed.

Once we started doing the activity, we realized how much students were learning from their outdoor experiences. For instance, students learned why they could not simply put a tree or shrub on the ground to let it grow by itself. They also learned the importance of the type of soil we had. Drought soil was one of the major challenges of our tree-planting activity. The school ground is hard because we do not have enough rain in the area. The soil in the area is not so fertile that we could plant any type of plant. Keeping in view the characteristics of the soil, we selected those plants that would grow without needing fertile soil and lots of water.

We used this experience as a learning opportunity for the students to explain how tree planting in different areas may look different. For example, tree planting in their home gardens, which are usually well-maintained, may feel easier than on the school ground because of the poor soil in the school ground. This means the students need to do a lot of work to take care of the trees they have planted.

Another challenge was to create awareness among the community in a rural area. We held a meeting with the close network, including parents and other notables from the village, to raise their awareness about the school campaign. We also displayed banners outside and inside the school. We distributed brochures to students and their parents. To further develop students' awareness within the school, we performed a drawing competition on the theme of "tree plantation." We also did not have any funding for the project. To overcome the financial challenge, we gathered donations from the school staff, parents, and from the local community.

Students remain active stakeholders in planning for tree planting at the school. They are eager to continue tree planting, not just at the school but in the local community as well. Some of them wished to be the tree guardian or custodian, volunteering to take care of the trees they and their peers had planted. They suggested that each student in the school should be given opportunities to adopt a tree. The students also offered to make use of their pocket money to put toward tree planting in the future.

Based on what students shared about the activity, I am determined to start a Green Team, an environment-friendly initiative, at the school. The primary goals of the Green Team will be to:

1. Plant trees outside and inside the school with the assistance of other students and parents
2. Protect existing treescapes by adopting a tree

As a teacher, I noticed that if you engage students in making plans for tree planting, it gives them opportunities to learn new skills, including teamwork, organization, and communication. Because of the tree-planting activities, students in my school consider themselves to be caretakers of the trees at the school and outside in the neighborhood. The tree-planting activity was a hugely successful activity and an opportunity for school students to learn about the natural environment through the principle of Do and Learn.

PLANTING FOR A GREENER FUTURE

One of the most serious problems in today's world is the devaluation of trees. To make our world greener and better, it is urgent that we engage students in tree planting for a green future. By doing this, we create possibilities for students to learn how and why trees are vital in our lives and for the life of our planet. In addition to developing new knowledge and learning, these activities also enable students to see themselves as responsible citizens. The success of the tree-planting activity as a part of Pakistan's 75th Independence Day celebrations in my school proved that in the future such activities should be expanded to involve more schools. The lesson learned through this tree-planting campaign should convince policymakers to empower schools to organize such events in schools at the larger district level.

The students who have participated in the tree-planting activities pledged to plant more trees in the school ground, in the front yard, backyard, and in other areas of the school. They also are willing to plant trees around their own houses. As a teacher, I feel proud that my students are making a strong contribution to taking care of the environment by planting trees and looking after the trees they have planted.

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ABOUT THE AUTHOR



Nadia Anjum has completed her MSC in Pakistan Studies and an MA in Education from Allama Iqbal Open University in Islamabad, Pakistan. She joined the teaching profession 11 years ago and now works as a Primary School Teacher (PST) in Government Girls Elementary School Mohra Mari Markaz Kauntrilla, Tehsil Gujar Khan, District Rawalpindi, Pakistan. She teaches English, Science, Pakistan, and social studies to children in her school.

Looking Down, Up, Forwards, and Backwards: Telling the Story of the Menominee Sustainable Forest

Kate Van Haren

USING IMAGES TO BEGIN THE STORY

“That’s a lot of green!” “Why is that all a darker green than the rest of the area?” “Is that all woods?”
“There must be a lot of big trees!” “Were there ever any trees cut down there?”



Figure 1. Satellite Image of Menominee Reservation, July 27, 1999
(University of Wisconsin-Madison Space Science and Engineering Center, 1999)

I had just given this photo to my fourth-grade students as part of our study of Wisconsin communities. Although I had not shared any background information with my students yet, I had provided them with a satellite image of the Menominee Reservation located in the northwest corner of the state of Wisconsin. Taken over twenty years before the beginning of this lesson, the photo remained one of the best aerial representations of the forest and its surrounding land. This land had not changed much between the time when the satellite flew over the forest and when I talked about it with my students, thanks to the efforts of the Menominee people who live in and around that large patch of dark green.

Continuing with the long stream of questions, one student asked, “Is this what Wisconsin used to look like?” In fact, the photo offers a limited sense of how intensely forested Wisconsin, along with most of North America’s Eastern, Midwestern, and Great Lakes regions were before the beginning of settler colonial logging in the 1600s. According to reporter Frank Vaisvilas (2020), “The Menominee Forest on the Menominee reservation is often touted by experts as the largest single tract of virgin, native timberland in the Great Lakes region.”

This conversation launched a student inquiry unit into the long, complicated history of the state of Wisconsin’s relationship with its once bountiful forests and lush treescapes. The Menominee Indian Tribe, the Indigenous inhabitants of a region that includes Wisconsin and parts of Michigan and Illinois,

have been involved in efforts to protect their ancestral land since their earliest interactions with European settler colonialists. This story, which continues today, provides a compelling counternarrative to the dismal story of the destruction of forests and the efforts of Indigenous and non-Indigenous peoples working to survive and thrive within them. That striking patch of a modern dark green, healthy forest amidst vast deforestation in modern times offers students an opening into the history of people who viewed trees as an essential component of community survival as they contended with those who saw the forest as an object for harvesting and profit.

I am not a member of the Menominee nation. I am a white, cisgender female educator. The majority of fourth graders in the exchange mentioned above were also white. One student in the class identified as Anishinaabe, a different Indigenous group in Wisconsin. The conversation about this photo took place as part of the state-wide fourth-grade state history curriculum. Although neither myself nor my students were Menominee, I considered it essential that my students understood that the Menominee were among the original inhabitants of the land that would become Wisconsin and that Menominee continue to live in Wisconsin and to work for the health of their lands and forests. Students also need to understand that many of their European ancestors bought into and perpetuated the destructive principals of settler colonialism including, as Seawright (2014) describes, how European philosophies often idealized land domination and the overuse of resources. This belief system has led to the genocide of many Indigenous people and the destruction of cultures of sustainable land practices.

Indigenous scholars and educators have written extensively about how to challenge the destructive ways settler colonialism is perpetuated in K-12 education. Sabzalian's (2019) *Critical Orientations of Indigenous Studies Curriculum* provides "a necessary step toward engendering land-based solidarities and inclusive conceptions of citizenship and justice that account for the well-being of land and all it sustains" (p. 334). Although all elements are important in a full curriculum plan, this particular lesson focused on Sabzalian's first three elements of the framework; place, perspectives, and presence. The student discussions around the satellite image; the following lesson encouraged students to begin to challenge the colonial mindset by considering how over hundreds of years the Menominee continue to maintain and sustain their community and their treescape, despite ongoing efforts by the settler community to destroy both.

The destruction caused by the settlers became evident to my students when I showed them a second photo.



Figure 2. Wisconsin Cutover District (Lee, 1937)

Students' comments about this photo were very different from their reactions to the satellite image. They included: "Where are the trees?" "Why is it so dark?" "That doesn't look fun! That looking really hard." "Why is he pulling up all the stumps?" "Well, that is just depressing!"

The black and white photo (Figure 2) was taken in 1937. It is of an area called the Cutover District and is visible as the deforested, light-green areas on the satellite photo (Image 1). Although the stumps have been removed and the area is no longer farmed with horses, it helps students visualize the contrast between a healthy, thriving forest and the starkness of a landscape where the trees have been clearcut.

I revealed to students that, although the photos were taken almost one hundred years apart, they were both from Northern Wisconsin in an area that European settlers nicknamed the Wisconsin Pinery. The Pinery is a term used to describe the vast acres of white pine (*Pinus strobus*) and old-growth forests that used to cover the northern part of the upper Midwest. Scott Knickelbine states, "It was said that a squirrel could jump from tree to tree all the way from Northern Michigan to Minnesota without touching the ground" (Knickelbine, 2012, p. 16). Father Peter Premin, a priest from the town of Peshtigo in the 1870s, described how there were "trees, trees everywhere!" in his journal (cited in Knickelbine, 2012, p. 12).

The satellite image of the Menominee Forest helped students imagine what the Pinery might have looked like. Thanks to the continuing efforts of the Menominee people, it is fair to say that if Father Premin had seen the 1999 photo, he would still have commented appreciatively on the number of trees.

Although no images exist of what this once awe-inspiring treescape looked like, many primary and secondary source texts are available, written by people who have dedicated their careers to protecting the legacy and the trees of the Menominee Forest and to exploring the complicated history of the logging industry in Wisconsin. The resources are accessible to upper elementary students as tools to learn about the Menominee Forest.¹

PERPETUATING A COMMON NARRATIVE

As I worked to present the history of the Menominee forest and the work of the Menominee tribe to protect it, I found that most available textbooks were of little help. They typically presented the story of Wisconsin's logging industry.

This striking treescape served as the setting for tales of gruff, but enterprising lumberjacks. The stories of exploration, fortunes being made, and the uncertainty of one's survival feel like tales out of adventure novels. The diaries of Wisconsin lumberjacks describe the hardship, camaraderie, and adventure that was part of their daily lives.

John Nelligan is one of many examples. John made his way up the ranks of the jobs available in the lumber camps and amassed a small fortune over the course of his career. John Zimm (2015) has used Nelligan's journal to write a children's nonfiction book about him. One of the most exciting, but dangerous jobs was floating the white pines down the rivers from the woods to the sawmills. Lumberjacks rode on the logs and used long spiked poles to prevent the logs from becoming jammed. Getting over waterfalls was the most difficult part. Zimm took the following passage from Nelligan's journal:

There we began cleaning up the timbers that were stranded around the head of the falls. Paddy kept working and closer and closer to the danger spot, where a tremendous volume of water thundered over the edge and took an abrupt plunge 40 feet to the riverbed below.

1 There are no books written specifically for fourth-grade audiences, but the primary and secondary sources used in this article are appropriate for use in upper primary grades. These sources were chosen to show how to create a text set for student use.

The inevitable finally happened. Paddy made a misstep and was thrown into the terrific current and carried over the falls before anyone could raise a hand to help him. We were quite dumbfounded and stood paralyzed for a time. When we regained our wits, we realized that it was useless to have any hopes. No man, we were sure, could live after going over the falls and being battered about in the seething caldron below.

About an hour later, Paddy appeared on the scene again. We stared at him in awe, for it was like welcoming a person back from the dead,

“I’m alright boys,” he said in a voice that sounded a bit shaky. “But I lost my hat.”
(Zimm, 2015, p. 62)

The stories of John and Paddy have happy endings, but many did not. Countless men died in accidents both in the woods and on the water. Like so many boom-and-bust businesses reliant on a finite supply of natural resources and cheap labor, very few of the labors doing the actual work were able to get rich.

The once great forests of Wisconsin, forests that had taken thousands of years to grow, were destroyed in a matter of decades. Not only were forests demolished and the livelihood of loggers destroyed, the lack of any sort of understanding of fire prevention led to one of the most devastating forest fires in American history. On October 8, 1871, over 1,800 acres of forest were burned in what was called the Peshtigo Fire. Between 1,200 and 2,500 people died, although it’s unlikely an exact count will ever be known. The fire was the result of multiple factors, including natural events like drought and extremely warm fall temperatures, but the brush and debris left in the woods by the lumberjacks were major contributors. This tragedy is not as well known in American history because it was eclipsed by another fire that occurred on the same day, the Great Chicago Fire (Knickelbine, 2012).

Events like the Peshtigo Fire and dismissal of any concern that the lumber might be a finite resource led to the devastation that is evident in the second picture. Once the trees were gone, the lumber industry came to an end. Many of the workers left Wisconsin to find lumbering elsewhere. Some tried to switch to farming on the land, now devoid of trees, alongside recent immigrants. These immigrants were tricked into thinking they were buying prime farmland by the lumber companies looking to make a quick profit. The former lumberjacks and new immigrants soon discovered that the land was riddled with giant stumps and contained degraded soil, making it mostly useless as farmland. The soil in the Northwoods of Wisconsin could sustain the growth of trees but did not contain enough nutrients to grow the amount of cash crops needed for farmers to make a living. This barren land became known as the Cutover District (Zimm, 2015). The second picture represents this period in Wisconsin history.

The story of how the Pinery became the Cutover District is not a happy one. However, the textbooks available to my students would have us believe that this was not the fault of the Europeans using the land. The history provided is one of progress and individuals achieving success.

As it turns out, not everyone thought the Wisconsin pinery would last forever. In the late 1800s, in the heyday of the Wisconsin lumber industry, scientist Increase Lapham was warning about the effects of destroying the Pinery. In a wide-ranging report published in 1875, Lapham describes his hypothesis that “land with all its trees cut down dries out more quickly because the ground is not protected by the sun. Soil washes away more quickly in heavy rain. Trees help clean the air and make winters less cold by blocking the wind” (Zimm, 2015, p. 27). Understanding that even at the time, the destruction of woodlands was not an innocent, ignorant decision is part of what my students had to contend with, along with the fact that Lapham’s report was ignored. The impacts on the Wisconsin treescape are still seen throughout Wisconsin today.

The Wisconsin history textbook used by many students does briefly mention the Menominee tribe's sustainable forestry efforts. It also dedicates some space to describing the effects of the Cutover District, but the actual words of those who experienced the events are not included in the text (Malone et al., 2016). During my first attempts to teach this lesson, I had students read the text before introducing the primary sources material. As I became familiar with the materials, I found it more meaningful to rely on the primary sources and let students use them to piece together the timeline and narrative, as historians would do.

THE MENOMINEE NATION

What is typically glossed over in the stories of Wisconsin logging is that the Menominee Nation has always been in Wisconsin, and they have always worked to preserve the Wisconsin Pinery. Patty Loew is a journalist, historian, and member of the Bad River Band of Lake Superior Ojibwe. Her young adult and children's books on the Indigenous cultures of Wisconsin are an invaluable resource for educating youth about Wisconsin Indigenous tribes and tribal sovereignty. In her 2013 book, *Indian Nations of Wisconsin: Histories of Endurance and Renewal*, she offers the following description of the Menominee.

The Menominee call themselves Omeaqnomenewak, an Algonquian word meaning People of the Rice, invoking a resource that became a feature of their identity and shaped their understanding of the seasons and landscape around them. Menominee identity is also rooted in the white pines and towering sugar maples of the western Great Lakes. The forest sustained the tribe before Europeans arrived on the continent and to this day the forest continues to provide cultural and economic sustenance to the Menominee. (Loew, 2013, p.18)

A present-day Menominee descendent says, "We are the forest" (Loew, 2013, p. 22). The Menominee are people of the forest, but they are often left out of the common narrative. The history of the destruction of Wisconsin's forests, neglecting the stories of the Menominee people, often left my students with a sense of helplessness and resignation. Even as I understood that centering the history of the Menominee was central to doing justice to Wisconsin history, I wondered whether engaging with the history and efforts of the Menominee and their relationship with the Wisconsin Pinery could be a source of hope and guidance for my students.

David O'Connor, a member of the Bad River Band of Lake Superior Ojibwe and American Indian Studies Consultant with the Wisconsin Department of Public Instruction, and Paul Rykken, a Wisconsin history teacher, state, "If we begin with the premise that conventional versions of history frequently neglect the stories of traditionally marginalized communities or, at best, offer superficial narratives of those communities, then our challenge is to change our conversations with the past among ourselves and with our students." They ask, "How do we reframe our pedagogy to incorporate multiple narratives within our classrooms, so our future alumni reflect on what they learn in their education?" (O'Connor & Rykken, 2021).

I used O'Connor and Rykken's framing questions to help my students rethink how the complex story to the Wisconsin pinery is taught—focusing on the Menominee. The satellite image served as the opening exploration. Rather than a nostalgic story of the inevitable decline of Wisconsin's pioneer spirit and "natural resources," students were asked to explore a more detailed description of what happened in the forest. Given the opportunity to function as historians, examining primary sources to learn about the past, students began to ask questions about why this large forest existed in the middle of clearly heavily harvested areas. This question led to the Menominee, and their past and current relationship with the forest.

Frank Vaisvilas, part of the Yaqui, the Indigenous people of Mexico, covers Native American affairs throughout the United States. In a photo essay, “Our Spiritual Home: Wisconsin’s Pristine Forest: A Model for Sustainable, Living Logging,” presents a telling of the story of the people who live and work under the trees. He explains that “the Menominee Forest is much healthier than others in the region, as it was spared from the exploitative waves of heavy logging in which millions of acres of forests in the Northwoods in Wisconsin had been clear-cut for timber in the late 1800’s and early 1900’s” (Vaisvilas, 2020). Studying the Menominee and this history gave students the opportunity to reflect on the fact that clear-cutting was not inevitable. For thousands of years, the Menominee engaged in forestry practices that allowed the forest ecosystem that allowed inhabitants in the area to thrive. It provided opportunities to explore why in so many other places clear-cutting reigned as the dominant practice. The students and I slowly read through Vaisvilas’ photo essay. I stopped at various points to make sure students were understanding the goals of the Menominee’s sustainable forest practices.

A healthy forest does not have to mean a forest free from interactions with humans. The Menominee have been harvesting trees and using the resources for thousands of years. Although the images in the second photo show how through the use of heavy equipment loggers can harvest a lot of trees very quickly, Menominee loggers have a different mentality than lumberjacks like John Nelligan. John Dixon, a modern-day Menominee working in the forest, describes how his livelihood and his ability to take care of his family is tied up with the livelihood and the ability of the Menominee Forest to sustain its trees. He says that the forest “is the most important thing to me other than my family” (Vaisvilas, 2020). University of Wisconsin–Stevens Point reporter Doris Karambu Onesmus notes that the Menominee philosophy of sustainable forestry is built on three major principles:

- The forest must be sustainable for future generations.
- The forest must be cared for properly to provide for the needs of the people.
- All the pieces of the forest must be kept, maintaining the diversity.

(Karambu Onesmus, 2008, citing a 1998 report on the sustainability plan for the Menominee forest)

Presenting the story of the small tract of land that is the Menominee Forest allows students to think about logging in ways that are more critical and ultimately more hopeful and empowered. Part of this lesson is to understand that the success of the Menominee Forest was not and is not inevitable. Past and present members of the Menominee nation suffered hardship and worked hard to preserve the forest that exists today. There are important lessons to be learned from this story. If students think of the health of the forest as an ongoing concern grounded in a history of conflict and care, they can focus more on the hows and whys related to the survival of the Menominee people as a nation and to their valuable treescape, despite the hardships created by the outside threats from European settlement and the incorporation of the land that became Wisconsin in the modern nation.

Sabzalizan (2019) emphasizes the need to understand that Indigenous communities represent more than tragic stories of the past. By showcasing the modern efforts of the Menominee to sustain their forest, students see that Indigenous peoples are thriving and contributing members of contemporary society. My students can center the modern-day members of the Menominee nation as active participants and leaders in the sustainability movement. These leaders are using generations of knowledge learned through their ancestors. Why do they care about the forest, and how do they do it, are common questions. In order to answer these questions, students were asked to explore the rich and complex history of the Menominee people.

MENOMINEE ACTIVISTS BUILD ON THE EFFORTS OF THEIR ANCESTORS.

Menominee origin stories place their ancestors in the land that would become Wisconsin from the beginning of history. They have a long record of different groups moving in and out of their territory. On many occasions, the Menominee shared the land with other Indigenous groups and settlers in their efforts to protect the forest. They began losing their land in the early 1800s. Other Indigenous groups found themselves pushed onto Menominee land after being removed from their ancestral homelands in the eastern United States. The US government forced the Menominee into signing various treaties that kept taking away bigger and bigger chunks of land. According to the Menominee, “At the start of the Treaty Era in the early 1800s, the Menominee occupied a land base estimated at 10 million acres; however, through a series of seven treaties entered into with the United States Government during the 1800s, the Tribe witnessed its land base erode to little more than 235,000 acres today” (The Menominee Indian Tribe of Wisconsin, n.d.).

The biggest threat came in 1848. The Menominee were required to move out of Wisconsin to a reservation in Minnesota called Crow Wing. Oshkosh, the Menominee leader, and other members traveled to see the new land. When he returned, he said, “The poorest region in Wisconsin was better than Crow Wing.” Next, Oshkosh traveled to Washington DC, where he was able to get President Millard Fillmore to temporarily block the removal order. The Menominee filed petitions, formed alliances, and delayed any further laws for removal. “The tribe’s persistence paid off. In the Treaty of 1854, the Menominee were allowed to keep 276,00 densely forested acres along the Wolf and Oconto Rivers” (Loew, 2013, pp. 26-27).

In 1887, Congress passed the Dawes Act. This law gave the government the right to break apart communally owned reservation land and give ownership to individual family units. For the Nations that tried to farm their land, the government gave individual ownership to the Native people who were currently trying to work the land (Dawes Act (1887/2021)). It was much more difficult to parcel out an entire forest like the Menominee forest to individuals. When discriminatory and racist practices caused members of other tribes to default on their land and sell to white settlers, the Menominee were able to retain communal sovereignty over the land containing the forest.

Scientists, historians, and foresters are still questioning the reasons why the Menominee reservation forest was mostly spared from the Peshtigo Fire, although it is reasonable to believe that Menominee forestry practices protected them from the devastating effects of leftover slash from logging (Meunier, 2022). No one knows how many tribal members were killed in the fire, but approximately 1,500 deaths were recorded. There are accounts of the Native Americans warning the white settlers about the approaching fire. Settler Abram Place was married to an Ojibwe woman named Elizabeth. Elizabeth’s relatives warned him of the risk of fire and told him to plow the land around his farm. Their home was one of the only places not destroyed during the fire (Knickelbine, 2012). Despite repeated attempts to take away their land, the Menominee still offered aid to the survivors of the fire. The state of Wisconsin officially recognized their efforts in 2018 (Vinehout, 2018). And although they were successful in maintaining sovereignty over the use of at least some of the forest on the reservation, the Menominee still had to deal with the encroachment of the US government on their land. They were never free of US government oversight and meddling. Ada Deer describes the events on the reservation:

In 1908, the US Congress enacted a piece of legislation called the La Follete Act. The act provided funding for the construction of the mill so the Menominees could reap greater rewards from their forests. Previously whites had processed logs from the Menominee forests (and often illegally cut them as well). The legislation was an admission that there was little future in farming and represented an effort to employ Menominee men in a different occupation.

The law mandated sustainable yield logging rather than clear-cutting. BIA (Bureau of Indian Affairs) agents [non-Indigenous government agents with oversight on reservations] did not share the perspective of Congress and continued clear-cutting. Under BIA management, the mill discriminated against Indians and reserved managerial positions for whites, but it still it was the main employer of Indian men on the reservation. (Deer, 2019, p. 7)

The Bureau of Indian Affairs is a government agency charged with protecting and ensuring the well-being of the Indigenous nations in the United States. Historically most workers at the BIA have been white government workers with no affiliation to the nations they are working with. Deer notes that the agents charged with oversight of the Menominee Nation lacked an appreciation for Menominee tradition and an understanding of the La Follette Act. This lack of understanding often prevented the Menominee from engaging in sustainable forest practices on their sovereign land.

In 1934, the Menominee sued the US government for mismanagement of their forest. The Menominee were awarded \$8.5 million dollars in damages. Although this money was not nearly enough to support the struggling community or make up for the lost income from selling lumber, it did make them one of the wealthier Native communities in Wisconsin. It also singled them out for termination as a recognized Indigenous group during the 1950s (Loew, 2013).

In 1954, the Termination Act was passed. The federal government refused to recognize the Menominee as a people. This meant that the reservation, including the Menominee forest, was no longer under the control of the Menominee Nation. Protests and civic action followed immediately. The tribe lobbied and received approval from the Wisconsin governor to establish their own county, which gave them more control over their land. However, unfair laws and financial deals caused suffering and hardship. In response, the Menominee organized the group, Determination of Rights and Unity for Menominee Shareholders (DRUMS). One of DRUMS' most memorable protests was to walk over 150 miles from the town of Keshena to the Wisconsin capital in Madison to protest termination and land sales. The sale of Menominee land was eventually halted by the courts, but not before 2,000 Menominee homes were sold out from under them. It took until 1972 for the Menominee to regain federal recognition (Loew, 2013).

Ada Deer, one of the leaders of DRUMS, became the first woman to head the US Bureau of Indian Affairs. In her memoir, she states, “no description of the Menominee Reservation can do it justice. More than a century of sustainable forestry has produced a green canopy high above the landscape largely free of underbrush and now, unmarred by the stubble of clear-cutting” (Deer, 2019, p. 3). How were Deer and DRUMS ultimately able to protect the reservation and its forest? Loew notes that “The decision to focus on sustainable logging instead of farming allowed the Menominee to escape the fate of other Wisconsin tribes whose lands were divided and privatized under various allotment acts” (Loew, 2013, p. 28).

By sharing the story of the Menominee's historic and continuing efforts, my students learned that natural entities are crucial in community survival and that community civic engagement allowed the Menominee to protect at least some of their land. The fact that the Menominee still have sovereignty over a small section of their original homeland is a rarity in United States history. History books and primary sources are full of accounts of Indigenous nations losing their ancestral homelands. Providing students with this story of the events that occurred under the canopy of trees is likely to inspire and engage them, but it is important for them to understand that it does not have a fairy-tale, happy ending. Menominee County, home of the Menominee reservation, is the poorest county in Wisconsin. The Menominee people are still dealing with the continuing effects of settler colonialism today. The Menominee Forest alone cannot support the Menominee people economically in a modern economy (Vaisvilas, 2020).

CONTINUING THE WORK

O'Connor and Rykken (2021) state:

In presenting history as a series of valid and often competing narratives, we provide depth and rigor to the practice of history. One way to do that is to challenge dominant voices with counter-narratives through the appropriate use of primary sources. Images, documents, eyewitness accounts, and artifacts ignite the imagination, and bring the past to life, and give students agency in the process of learning about history. It is time to creatively engage in finding appropriate access points within the story of U.S. history to broaden our lens.

By sharing the work of Wisconsin activists, historians, leaders, writers, and educators, I have tried to show how the history of one small, but mighty forest can lead to important lessons for learners.

This lesson focused specifically on the Menominee, but serves as a model for effective ways to learn about other Indigenous nations. The state of Wisconsin is home to ten other federally recognized tribes and one tribe still working for federal recognition. All these nations are actively advocating for their sovereignty and ability to protect their land. By beginning lessons with an example of environmental advocacy, students see Indigenous peoples as contemporary members and teachers within their own communities. Although it is important for students to learn about the complex and complicated European and Indigenous histories, it's more important for students to celebrate Indigenous peoples' resilience, and their ability to survive and thrive. This lesson begins to help students value the efforts of the Menominee and use the same lens to view other Indigenous nations.

This lesson addresses some of Sabzalian's (2019) critical orientations, but it is not enough for educators to teach the history and move on to other topics. I realize that I have only scratched the surface of teaching the Menominee story and their efforts to sustain their sovereignty, their well-being, and the Menominee forest. To fully engage my students in the necessary work of countering the master colonist narrative, I need to involve Menominee members themselves. Sabzalian notes that "cultivating meaningful partnerships with local Indigenous peoples, organizations, or nations is not only a policy imperative, but a foundational relational practice if public schools are to harness the power of citizenship education to uphold and support tribal sovereignty" (Sabzalian, 2019, p. 33). In collaboration with tribal members, my hope is to explore ways that my students can support the continuing efforts of the Menominee people to sustain their forest. The students can also learn new ideas and develop their own insights about how to be stewards of the treescapes and other natural spaces that sustain the communities to which they belong.²

² The author would like to send her sincere appreciation to Dr. Gail Boldt for her editing and framing suggestions to make this article more useful to an international audience.

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ABOUT THE AUTHOR



Kate Van Haren is a fourth- and fifth-grade social studies and literacy teacher at Pittsville Elementary School in Wisconsin. She is also a doctoral candidate at Penn State University. Her research interests focus on exposing young learners to themes of anti-oppression and civic engagement. In addition to teaching children, she helps create a professional development that challenges educators to question their own social studies education backgrounds and create a curriculum based on critical literacy and counternarratives.

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Kristin Freda, Director of Library Services,
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