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Narrative

Creating learning alliances for flourishing food environmental futures

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Abstract

This article emerged from a community-based symposium held in a public library, aimed at synthesizing reflections on the connections between climate actions, food security, and (im)migration. The authors, representing diverse positionalities and professional backgrounds explore the generative entanglements offered through food justice discourses and land-based pedagogies. Through channelling personal and professional experiences and disciplinary expertise, we sought to open up intersectional imaginaries of food and environmental justice, while actively seeking spaces for learning alliances. Emergent themes include challenging the settled imagination of integration in a community and on the land, finding ways of healing and placemaking through attending to the soil, plants, and other more-than-human beings that support collective well-being, and affirming the emancipatory potential of art-based learning entangled with land-based pedagogies. In foregrounding these voices, the article contributes to the ongoing efforts to support pluralistic forms of knowing and being, through exploring trajectories of

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transformative educational experiences centering food/environmental justice.

Keywords: Food justice; immigration; Indigenous knowledge; learning alliances; placemaking

Résumé

Cet article découle d'un symposium communautaire, organisé dans une bibliothèque publique, qui visait à synthétiser les réflexions sur les liens entre actions climatiques, sécurité alimentaire et (im)migration. Les auteurs, ayant des situations et des parcours professionnels divers, explorent les liens génératifs offerts par les discours sur la justice alimentaire et les pédagogies de la terre. En canalisant nos expériences personnelles et professionnelles et notre expertise disciplinaire, nous avons cherché à ouvrir des imaginaires intersectionnels de la justice alimentaire et environnementale, tout en cherchant activement des espaces pour créer des alliances d'apprentissage. Les thèmes émergents comprennent la remise en question de l'imaginaire établi en matière d'intégration dans une communauté et sur la terre, la recherche de moyens de guérison et de création de lieux en prenant soin du sol, des plantes et des autres êtres plus qu'humains qui soutiennent le bien-être collectif, et l'affirmation du potentiel émancipateur de l'apprentissage basé sur l'art allié à des pédagogies de la terre. En faisant entendre ces voix, l'article contribue aux efforts en cours pour soutenir des formes plurielles de savoir et d'être, en explorant les expériences éducatives transformatrices centrées sur la justice alimentaire/environnementale.

Introduction

What would futures built on the wisdom of the past look like? How can we co-create shared visions for socio-environmental justice through land-based engagements? The need to engage with such concerns in grounded ways brought the authors together to explore interconnections and collaborations based on common commitments to collective wellbeing. In this paper, we curate eight experiential narratives by the co-authors, each speaking to their involvement in, and visions of, multispecies flourishing through food/environmental justice initiatives. Our approach is based on the premise that the food/environmental justice movement needs to acknowledge the colonial history of lands and work in solidarity with Indigenous people's self-determination of their own culturally-suitable ecological systems and revitalization of Indigenous food systems (Settee & Shukla, 2020). In this article, we also highlight the tensions and dilemmas faced by the authors as they navigate their journeys and call for actions at the levels of policy, public discourses, education, and community.

The authors are loosely connected through a project called Soil Camp (Takeuchi et al., 2021; see https://soilcamp.ca/), which is a network of educators, community workers, researchers, youth, and families aiming to explore land-based learning in collaboration with Land of Dreams (LoD), a thirty-acre urban-agricultural space in southeast Calgary (https://ccisab.ca/land-of-dreams/). LoD encourages immigrant families to grow edible plants based on their past knowledge of farming in their home countries while

nourishing the local soil; this organization also fosters cross-cultural connections, particularly through guidance from Indigenous communities who have faced historical displacement because of colonial violence. A symposium presentation occurred as part of a conference hosted by The Immigrant Education Society (TIES) in 2024, with a theme of "Pathways to inclusion: Community-based research in immigration and settlement." To us, a transdisciplinary perspective aims to accomplish the emergence of new epistemological and ontological realities by embracing historically silenced voices. including our attunement to the voices of the land (Takeuchi & Marin, 2022; Takeuchi et al., 2024). Our approach resonates with what Staffa et al. (2022) term "caring knowledge production" in transdisciplinary scholarship through paying attention to marginalised knowledge forms, especially beyond the boundaries of academia. We therefore brought together diverse expertise into a public-facing, community-based symposium.

Developing a fertile ground for such engagements requires knowledge dialogues in the form of "learning alliances" (Douthwaite et al., 2009). Learning alliances seek to disrupt hierarchical and exclusionary forms of knowledge transfer and instead encourage creative approaches emerging from diverse networks of collaboration. This paper highlights intentional space-making among the group of authors as a way to foster dialogues grounded in the community (for unique positionalities and histories grounding our work, please see our biographies provided under Appendix 1).

Context and background

In recent years, the World Health Organization (WHO) has advocated the concept of "One Health" as an integrated, unifying approach to recognize the interdependencies governing the health of people, animals, and ecosystems (Atlas, 2012). This realization is, however, not a novel discovery. For millenia, Indigenous communities around the world have honoured the fundamental interconnections between soil, plant, and human health, until these connections were disregarded or broken under technocentric, colonial projects of settlement and development through global inequalities, accumulated privileges, and ecological devastation (Arora & Stirling, 2023). Currently, the globalized industrial food system forms the crux of many issues spanning health, poverty, climate change, biocultural diversity, and development (Juri, 2023). Within food systems, supposed advancements in agricultural yields have come at steep ecological, social, and cultural costs, alongside impoverished notions of "balanced diet" as opposed to wholesome nutrition. As a result of the yield-focussed monocultures of industrial agriculture practices, over seventy-five per cent of our food is obtained from just twelve plants and five animal species (Montenegro de Wit, 2016). In terms of collateral damage, nearly ninety per cent of edible crop varieties have disappeared from cultivation, with disastrous impacts on soil, water, and energy consumption (Shiva, 2016). Corporate interests and technology-driven institutional arrangements have promoted monocultural production and standardized consumption under the guise of food security. However, ironically, the policies and incentives used to ramp up the production of select grains and cereals have adversely affected the cultivation of mixed crops, oilseeds, and fruits as well as the rearing of livestock, which would usually comprise a farming system (Kumar, 2023).

The resulting skewed nutritional basket is evident in the rise of diseases such as malnutrition, vitamin deficiencies, obesity, diabetes, and other ailments, despite the supposed abundance of food. The compromised resilience of food systems combined with environmental degradation and disruption of labour dependent on the availability of local natural resources have given rise to unprecedented numbers of forced displacements and migrations (Bhatta et al., 2015). Reinforcing the inseparability of social and environmental justice, numerous studies show correlations between adverse environmental change and an escalation of civil wars and violent conflicts (e.g., Brzoska & Fröhlich, 2016). With increasing precariousness of local livelihoods, rural and marginalised populations find themselves making risky migrations to urban spaces or foreign nations in hopes of securing a better future. Globally, it is estimated that 117.3 million people were forcibly displaced due to persecution, conflict, violence, and human rights violations by the end of 2023 (UNHCR, 2024). Canada has historically led efforts for refugee resettlement, as seen by the influx of over one million refugee status immigrants since 1980 (UNHCR, n.d.). Yet the picture of "resettlement" is not a straightforward, unidirectional assimilative process. Rather, the migrant journey is complex and full of micro-level negotiations, as seen in migrant farmworker resistance (Cohen & Hjalmarson, 2020).

During the COVID-19 pandemic, community gardens and urban farms served as one of the few places where people could safely gather, socialize, and increase their capability to grow food—yet access to spaces for food sovereignty and cultivation of plants and trees is not equally distributed (González-Marín & Garrido-Cumbrera, 2024). In urban areas with high percentages of immigrants and refugees of colour, there are a limited number of community gardens and urban farms (Milbourne, 2012). Community gardens/farming are also known to foster a sense of community wellbeing (Dutta & Chandrasekharan, 2018; Hale et al., 2011; Tracey et al., 2020), and therefore accessibility to such spaces matters for social health. This inequity also constrains fostering land-based reciprocal relationships with the soil, which are intimately connected to our collective climate actions (Takeuchi et al., 2021).

Fully accounting for this complexity of migration and resettlement in the context of

sustainable and just food systems forms a crucial component in addressing socio-ecological crises and their ramifications that we face today. In their present forms, food ecologies are a powerful manifestation of exploitative interconnections under the dominant regime of capitalist techno-scientific practices. However, authentic engagement with food-growing practices also offers ways of reimagining relationships with the land and its inhabitants.

Diversity and intimacy as intentional trajectories for learning together

The authors built on pre-existing and emerging friendships and professional collaborations to create an inviting atmosphere for intentional sharing based on mutual trust (Jackson et al., 2020). In preparing for the symposium, we held two community dinners and participated in a community event centering Indigenous ways of knowing. These gatherings were not merely social occasions but were intentionally designed to serve as welcoming spaces to nurture interpersonal and epistemic connections. Sharing meals

together provided an informal yet structured way to engage in conversations that might not have emerged in more traditional academic or professional settings. The authors later reflected that this intentional process of coming together played an important part in creating a circle of trust and an intimate, respectful presence focussed on listening to each other and forming a sense of community among people whose professional and personal identities are diverse. This methodological approach underscored the significance of emotional and relational engagement in collective learning.

The symposium generated a space for Liana Wolf Leg to pose deeply reflective and consequential questions that became an invitation for each speaker to think about their role and vision during the symposium. She asked,

> *Close your eyes.*
> *When you think of "home/homeland," what do you picture? Where is your home? Where do you come from? Where are your roots?*
> *Think of how it smells, how it feels. Think of your own community.*
> *Can you smell or feel the dirt? Can you see what plants are growing?*
> *What plant would you plant bring, as you "settle" in Canada?*
>
> *While you are picturing that, I have to mention that this is my home. This is Treaty seven territory. Our home is not lush. It is not green; it is not viny. It does not have big trees. It has a desert type feel. It has poky things.*
>
> *Now, how do you imagine your plants fitting in? How would you let the plant grow in ways THIS HOME (that Liana, her ancestors, her communities, her children and native More-Than-Humans call home) can coexist with your plants?*
> *How do we ensure that my past is honoured, and your home is recognised? How do we work towards a future and make sure that we are both okay?*
>
> *In what ways we can honour the past while building a respectful future?*

The reflections shared by each author in response to Liana's questions, as rooted in their personal and professional engagements, are detailed below. Specifically, each author drew on their histories, experiences, and motivations to articulate a specific way to engage with Liana's inquiry.

Food justice is more than food access

Chantal's work is focussed on environmental education and food security initiatives that connect people to place. While community building, she has witnessed that people's experience of home is related to their connection with people, in place, and that a sense of belonging can be nurtured when knowledge and stories are shared. Through her work, she has keenly observed how the ways we perceive, interact, and engage with food can change the ways we connect to place and the people who call this land home. Through the TIES GROW projects in which Chantal was involved (see https://www.immigrant-education.ca/see-the-

research/growing-with-newcomers), seniors and newcomers learned more about this land and their home here in Canada through the practice of growing their own food, by attending skill building workshops, and by participating in a community of learning focussed on this local region.

Through informal conversations, they identified barriers to feelings of home, one being inadequate access to culturally-appropriate foods. Food access was identified as an important factor in creating a connection to a new home and homeland. But food access was not always consistent, and budgets were strained by inflation, resulting in dietary compromises. These insightful moments built an understanding of the deeper impacts food insecurity has on low-income, racialized, and marginalized people. Food is both sustenance and essential to survival, but cultural foods are representative of personal identity, historical memories, family relationships, religious practices, and community connection. The provision of culturally-appropriate food is a provision of dignified food access.

Reflecting on Liana's question, Chantal wonders if universal dignified food access could be a catalyst for a wider systems change. Can food be a catalyst to belonging, and true belonging the catalyst of transformative food systems change? If people who experience food insecurity were no longer victims of ineffective, siloed systems, would they feel deeper belonging, greater agency in their communities, and become agents of change? Chantal firmly believes that food connects people to the land, nurtures feelings of home, and feeds a sense of belonging. She sees the practice of inclusion as a way people can find a sense of community support that invites them to set down roots and grow into a deeper connection of belonging to this land.

Fermentation as a practice and a philosophy

Syma Habib's work is motivated by the idea of gesturing decolonial futures, a constellation of practices and ideas popularized by Vanessa de Oliveira Andreotti (2021) in her book *Hospicing modernity*. De Oliveira (2021) explains that we exist in a system that is currently dying, and what we are seeing is the consequence of a dying system that came to the land, colonized it, and continues to extract resources violently from the Global South. The work of healing entails divesting from systems of oppression and extraction and allowing older practices to die in a good way so that newer systems can emerge. Syma was especially drawn to de Oliverira's (2021) call regarding "composting" and "fermenting" ourselves with humility, joy, generosity, and compassion as she observed the nearly universal practice of fermentation among different cultures. Be it kimchi, wine, cheese, beer, kvass, or pickle, food has been preserved and cultured in diverse ways. These observations and ideas prompted Syma to start a Cultures Club. The space has played a critical role in understanding the processes that can support a transformative relationship with food and food systems. Fermentation has taught Syma that moving away from extractive relationships will entail forming new ones with other species, especially the microbial world. The flavour and nutritive value of fermented foods are a direct result of the time taken by bacteria to work on the food. Being aware of these processes shows the violence we do to our bodies and, by extension, the land when we value faster, bigger, or more efficient mechanisms.

Racialized (lack of) access to green spaces

As a white teacher, Sonder Edworthy is acutely aware of the damage and destruction done by their white settler ancestors, as well as the ways in which violence continues against Indigenous peoples, communities, and ways of life. Yet the sense of responsibility does not diminish the love for the place. As someone born in Calgary, the thought of home conjures up visions of poplar trees, saskatoon berries, prairie crocus and grasses, magpies, coyotes, gophers—a sense of gratitude pervades the relationship they have with the beings and the lands they share. Yet in their many years of teaching, Sonder feels that the relationship is not a given, because access to natural places is not equal across schools in Calgary. While teaching at a school in Calgary North East, Sonder observed that a barren field was the only outdoor space available to the children, who made full use of it through play. However, rich sensory experiences of a more diverse, natural landscape were missing. In contrast, students at schools in Calgary South West are able to visit the mountain parks, go camping and hiking with their families frequently, and also spend time in nearby Fish Creek park, one of the largest natural urban parks. They have access to natural areas and are able to connect with the land both outside of school and in their school yard.

Opportunities to connect with nature are shown to improve mental health and wellbeing among children and youth (McCormick, 2017). Statistics from studies in the US and UK show inequitable access to natural spaces for low-income neighbourhoods, and it is well documented that more immigrant and refugee families live in low-income neighbourhoods due to socioeconomic barriers and other factors (Sun et al., 2022). This means that immigrant and refugee children and youth are less likely to access the benefits of interacting with natural spaces. Ironically, immigrant and refugee children and youth are at greater risk of having experienced trauma and are more vulnerable to discrimination and negative mental health outcomes. Sonder thus feels that sustained and open access to natural spaces and associated activities form a crucial dimension of environmental and social justice as well. Forging more intentional connections with the land can develop a sense of belonging. These connections should be equally accessible for everyone.

Creating spaces for "decolonial love and learning"

As a researcher of how people learn, Miwa's response to Liana's question recognizes the need to first learn more from, and listen more to, the wisdom and teachings of Indigenous Peoples who have been stewarding the land for millennia. Dr. Linda Tuhiwai Smith (2021) said: "The word itself, "research" is probably one of the dirtiest words in the Indigenous world's vocabulary. The word research stirs up silence, it conjures up bad memories, and it raises a smile that is knowing and distrustful" (p. 1). When undertaking research, Miwa keeps asking herself how we can acknowledge and reorient colonial history using research toward decolonial, liberating, and generative "re-search" efforts. This is an ongoing commitment as, each day, Miwa reflects on how to be a better human and bring the learning into her researcher identity. A central question driving her work asks, "What kinds of portrayal can we depict if we dismantle colonial imaginaries of STEM

education and instead center decolonial love—love that resists the nature-culture or nature-society divide, love to know our responsibilities and enact them in ways that give back, love that does not neglect historical oppression and violence yet carries us through?"(Takeuchi & Marin, 2022, p.1)

As a project, Soil Camp centers humility through being aware of the exploitative power of knowledge. The activities try to embrace researcher identities of co-learners and learning from the land, from the soil, and from peoples who have been residing on this land since time immemorial (Steeves, 2021). To this effort, facilitators and researchers walk together on the land with children who used to be intimately connected to the land prior to migration. Children's interactions through photos and videos illustrate them talking to and learning with flowers, butterflies, bees, birds, prairie dogs, earthworms, soil, fellow humans, and mushrooms. At the core of Miwa's work in Soil Camp, she sees the necessity of fundamentally unsettling Eurocentric and anthropocentric ways of knowing and being that promote overconsumption, egoism, and human superiority (de Oliveira, 2021; Kimmerer, 2013; Takeuchi et al., 2024). Learning with children who were forced to be the target of militarism, she emphasizes the necessity of shifting colonial ways of knowing and being toward more humble, less controlling, and more healing-centered ways of knowing and being. Reflecting on the history of research being used as a tool of colonization, Miwa hopes to continue to commit to creating a space where their ongoing re-search can contribute to our maturity as humans, to our collective learning from more-than-humans, and to our learning from community wisdom and knowledge that have historically been obscured in knowledge-production systems such as academia.

Making space for pluralistic voices through unsettling colonial knowledge

Sophia's maternal and paternal grandparents came to Turtle Island from Lebanon in hopes of greater possibilities for their future children. In her dreams, Sophia can visualise the red soils of her homeland in Lebanon, surrounded by towering pine nut trees and olive, fig, and grape orchards. The image of these sacred lands is tinted with pain due to the current settler-colonial-driven destruction of ecosystems occurring in both Lebanon and Palestine. The land stewarded by her ancestors for generations is now under threat, with threads of solidarity. Sophia feels fortunate to see her family make a home on the lands stewarded for generations by the Blackfoot people, bestowing upon it love for the soil and everything it allows them to grow.

At Soil Camp, Sophia observes how narratives of linguistic perfection and monolingual hegemony are challenged through free-flowing multi-lingual interactions. There is languaging across languages—Kurdish, Arabic, English, Blackfoot—voices that sound and feel like her home, not just for the sharing of languages in her heart, but waves of speaking across the boundaries of languages that are not bound by dominant English linguistic norms (Thraya et al., 2023). Sophia recognizes the significance of these interactions, because it was something she missed both as a student while growing up and later as a teacher in formal educational settings.

Sophia sees language as far from sociopolitically neutral, and she believes that to ignore the history and coloniality associated with language would be a disservice to collective possibilities for learning and reconnection. The linguistic design work she leads

alongside the collective at Soil Camp is not focussed on English language learning—but rather seeks to fundamentally unsettle the ways we see language, not only in terms of possibilities for learning but also toward reconnection and rebuilding relation with land and more-than-humans and as a community growing together toward eco-social justice.

Encouraging creative expressions of evolving relationships

When Anita visualized Liana's evocative inquiry of what "home" is, the processes of creation and art making immediately came to mind. Conceptualizing, imagining, and constructing ideas of what home is, for both humans and more-than-humans, through the lens of soil pedagogy grounded Anita's approach as an educator. She facilitated an investigative, mindful, and deeply reflective process of creating soil pigments which immersed the participants at Soil Camp in the world of soil, propelling curiosity and comprehension of why soil is essential for plant life, food security, regeneration, and biodiversity. As an effective study of environmental art, soil painting blends social practice with critical ecological awareness through multimodality to elevate contemporary challenges plaguing our earth. This distinctive exercise of mural making depicted the emancipatory power of the arts through a resonant sense of belonging to the community, further establishing a foundation to expand ideas of earth-centered healing through semiotic expression, democratized learning, embodied communication, and affirmation of identity.

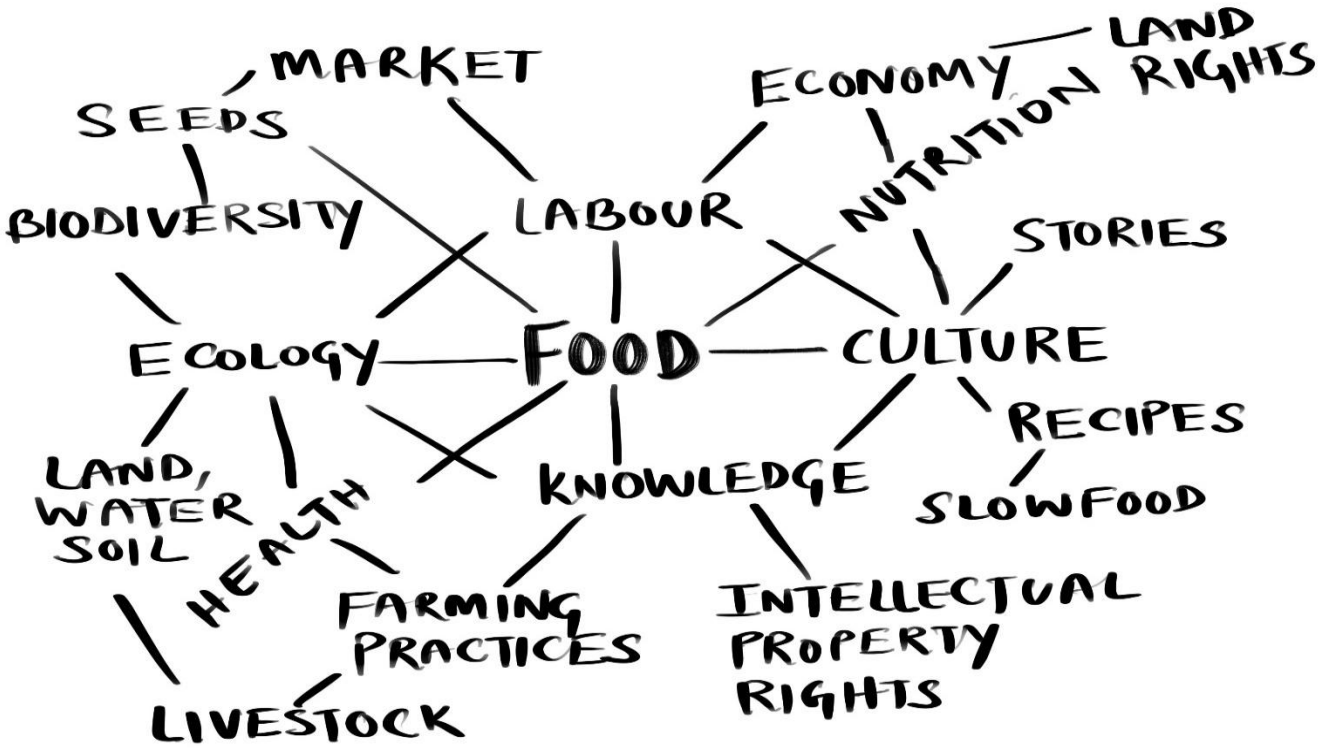
Diversifying public knowledge through libraries

Anika's experience and involvement in Soil Camp since Summer 2020 generated compelling conversations around generational wisdoms and cultural practices, beliefs, and attitudes around food as they gathered and shared ideas and stories as a community over food, from growing food to sharing cooked meals at the Land of Dreams together. As a library educator, she realised how public libraries play a big role in bridging gaps in information by sharing a wealth of resources related to a plethora of often complex topics that were discussed at Soil Camp. These thoughts led her to curate resources for a wide variety of audiences that can be easily accessed at the Calgary Public library and reflect them on the Soil Camp website. In particular, she found children's literature to be powerful in bridging these gaps by inspiring, educating, and engaging readers of all ages in a deeper understanding of the lived experiences of different people, families, and communities. At Soil Camp, listening to stories during read aloud sessions and seeing children exploring the books on their own opened the door to insightful dialogue and inquiry. Anika found that there are many ways the books inspired deeper thinking and transformative learning in the children that led to questions, discussions, and making connections that encouraged them to be active participants in their learning journey.

Amplifying learning alliances focussed on food and social justice

The need to renegotiate our relationship with the natural world has been made evident in a multitude of ways. The impacts of an extractive relationship built on notions of narrow parameters of efficiency, control, and one-sided profit have been crumbling for many years now (Date et al., 2021), with the pandemic only bringing social and ecological fault lines into sharp relief. Dismantling the oppressive systems that continue to exist due to exploitation of labour, associated displacement, and plundering of habitats is not a matter of technological advances unless there is a fundamental shift in the collective values driving ideas of flourishing. What does it mean to live well? Etymologically, "ecology" means "knowledge of the home." In that sense, Liana's question about treating the land and its inhabitants respectfully is really a question about being ecologically responsible. As a process and an artifact, food coalesces the various aspects of nature and culture that people experience in multiple forms every day. As depicted in Figure 1, food narratives are connected with various domains such as ecology, culture, economy, and knowledge; these manifest in biodiversity, farming practices, nutrition, land rights, and intellectual property, illustrating the complex relationships that shape food systems. Even its absence speaks volumes in terms of inequitable access and food apartheid (Sbicca, 2012). An emphasis on thinking along the possibilities of sustainable food systems entails acknowledging the diverse creatures and relationships that constitute them, including nutritional security, environmental stability, and socio-cultural wellbeing.

Figure 1: Food existing in a web of ever-growing relationships. Image by Deborah Dutta.



The collaboration sought by the authors points to the significance of developing learning alliances to engage with the myriad dimensions of food and social justice through inviting academic and community-grounded perspectives. Through situating their lived experiences and visions for equitable wellbeing, the authors actively exchanged ideas and shared approaches to characterize what sustainable relationships with the land meant to them. Sharing of food brought forth their connections and differences, while orienting them to the gratitude toward given food and to the urgency to address food injustices. As a methodology of building a learning alliance, these intentional ways of being together resisted the limitations imposed by purely academic discussions that tend to be a gatekeeping mechanism, while abstracting knowledge and neglecting its relational significance. A live sketch of the symposium presentation by artist and researcher Shima Dadkhahfard is an example of the creative collaborations that become possible beyond academic communications. As shown in Figure 2, she interpreted the concept of food justice by linking climate action to the four elements—earth, air, water, and fire. Based on the talks, she highlighted community-based research, Indigenous knowledge, and the interconnectedness of land, food systems, and inclusion in environmental stewardship. Yunkaporta (2019) argues that sustainable processes and values can only emerge through deep relationships between people and the land. Calling it "kinship-mind" (Yunkaporta, 2019, p.148), he explains that Indigenous worldviews hold relationships on par with knowledge transmission. He writes, "in our world nothing can be known to even exist unless it is in relation to other things. Critically, things that are connected are less important than the forces of connection between them....When knowledge is patterned within these forces of connection, it is sustainable over deep time" (Yunkaporta, 2019, p.149). Forging equitable, sustainable practices and knowledge entailed iterative rounds of reflection, attention, and sharing in ways that continue to enrich their respective lives.

Figure 2: A live sketch of the symposium presentation by artist and researcher Shima Dadkhahfard (@aaaart_gallery)

Chantal and Sonder connected spatial topographies with environmental injustice. For Chantal, her careful observations of senior immigrant experiences revealed to her that the barriers to food access were clearly barriers to food justice. Upon reflection on these meaningful interactions, Chantal concluded that food justice is not just about universal food access or those who participate in food systems, but also seeks to liberate people through cultures of equitable inclusion_ cultures that invite, include, interconnect, and inspire movement. Creating diverse pathways of participation is crucial to understand that, without food access equity, personal dignity is compromised, a place cannot be fully experienced, and home cannot be fully felt. Sonder's approach recognizes the long-term impacts of inequitable access to natural spaces, and acknowledges that the design of schools must account for exposure to green areas for mental and physical wellbeing. They see access as a critical first step towards building a sense of belonging and care for the natural world, which otherwise remains a distant abstraction for a majority of children who would ironically benefit the most from immersion in such spaces.

Both Syma and Miwa's efforts are directed at developing sensibilities that can challenge anthropocentric views and embrace relational reciprocity. Syma's work is an invitation to think about how practices like fermentation can help us attend to more collaborative, multi-species work while disengaging from unsustainable systems of exploitative

transactions. As explorations of the human microbiome are pushing us to rethink conventional understandings of human biology and cognition, more humble interactions with the environment around us could help us get rid of notions of human exceptionalism and instead recognise the fundamentally enmeshed realities of our existence alongside microbes (Hey & Ketchum, 2018). Miwa leads Soil Camp with a continuous effort to push the re-search process of learning, listening to the voice of the soil, and nurturing relationships with the soil (Swallow et al., 2023). Together with collaborators, the project critically questions Eurocentric ways of knowing and being that have long assumed the dichotomy of human and nonhumans as well as human superiority over nonhumans (Simpson, 2017; TallBear, 2017). The relationships between humans and nonhumans or indeed more-than-humans are tangled and interconnected, and the superiority of humans cannot be assumed.

Sophia, Anita, and Anika reflected on their own diasporic experiences to create thoughtful educational engagements with the land. Drawing on her own educational experience, Sophia was able to design practices at Soil Camp to deliberately challenge the hierarchy of monolingual expressions and encourage children's multilingual identities and intergenerational knowledge systems embedded in different languages. Through a focus on promoting children-led activities and spontaneous opportunities for (re)connection, the design made space for listening to the evolving relationships and sense of belonging these children developed with each other, plants, and other creatures in the soil and on the land (Thraya et al., 2023). As an arts educator and social entrepreneur, Anita drew on her own experiences of thinking about home to use soil from different sites in Calgary as a medium of expression and inquiry. As children explored the properties of soil and used it to draw freely, their engagement transcended the seemingly neat categorization of soil types and instead pushed toward more personal questions about their relationship with soil (Chowdhury et al., 2023). Anika drew on conversations with immigrant families to better understand the generational wisdom and knowledge around food and farming. Her interactions helped her appreciate the diversity of stories, narratives, and memories held dear by members of the community, and how these could be reflected in inclusive exposure to picture books in different languages. As a library educator, Anika understands the power of representation and strives to expand library collections to include diverse histories and empowering stories.

With a focus on food justice dialogues, the perspectives presented provide visions for possible collaborations while also acknowledging the social structures that enable or constrain emancipatory forms of inquiry. Together, these ideas and initiatives do not present finished thoughts or polished arguments. Instead, they offer an invitation to seek (re)connections and develop inclusive avenues for learning that embrace the interdependence of human-nature wellbeing.

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Deborah Dutta (she/her) is a Postdoctoral Fellow at the Werklund School of Education, University of Calgary, where she works with academics and community partners to design and study land-based learning opportunities related to soil health, biodiversity, and sustainable farming. She is an interdisciplinary academic with a keen interest in exploring community-based practices, politics of socio-technical systems, and motivations underlying ecological actions. Her interest in "ecologizing" education stems from her personal experiences growing up in severely polluted Indian cities and subsequently witnessing adverse plights of farmers and farmed lands in rural areas. Her research involves understanding the interconnections between ecology, embodied knowledge, and collective actions as critical pedagogical spaces to develop learning trajectories that centre social and environmental justice.

Miwa Aoki Takeuchi (she/they) is an Associate Professor in the Learning Sciences at the Werklund School of Education, University of Calgary. Her design-research partnerships, including Soil Camp, aim at moving the interconnection between human and nonhuman bodies toward more liberating, just, and healing relationships. Miwa's work has been guided by intergenerational community wisdoms and the voices of young learners who live across multiple national and linguistic borders and have experienced forced displacement. Toward fostering transdisciplinary experiences, she keenly observes and listens to embodied and emplaced experiences that have been historically subjugated or hidden. More about Miwa can be found at https://miwatakeuchi.com/.

Anita Chowdhury (she/her) is a Master of Arts student in Educational Research at the Werklund School of Education, University of Calgary, specializing in Learning Sciences. She also manages a local branch of a national poverty alleviation charity in Calgary known as Mamas for Mamas. She explores the transformative interdisciplinary relations between arts integration, social justice, and ecological resiliency to expand advocacy for vulnerable populations by challenging colonial notions of accessibility and learning to promote community wellbeing.

Chantal Eves (she/her) is a Community Project Coordinator who specializes in food access program design and development. In collaboration with community members, partners and leaders, Chantal uses resilient systems design thinking (see https://systemicdesignlabs.ethz.ch/our-research/) to formulate informal educational pathways of learning about the inherent interconnections in food systems, social justice, and regional environments. Her inclusive projects strengthen relations, mobilize knowledge, and connect people to place through food access education.

Sonder Edworthy (they/them) is an educator in the Calgary Board of Education, grounded in equity and anti-racism practices, using self-reflective practice and principles of holistic life-long learning to support diverse learners. Teaching junior high humanities and art, Sonder engages with Indigenous Knowledge Keepers and community participatory research in the fields of arts and sustainability education.

Syma Habib (she/her) works with the Climate Adaptation Team at the City of Calgary as their Food Resilience Specialist. After spending her twenties in the world of food security, poverty reduction, and trauma, she is deepening her understanding of what it means to be whole and live with a radical sense of interconnectedness. She has developed food forests with equity-denied youth and people with disabilities, co-created a community food space in Calgary where people can grow, cook, share, and advocate for more just food systems, and redeveloped a national health promotion program that focuses on food and movement to reduce the effects of chronic illness.

Anika Haroon (she/her) is a Library Experience Facilitator at Calgary Public Library who is passionate about creating equitable and inclusive community learning spaces. She aims to incorporate new ideas and information into her professional practice by adopting service models that empower communities through skill-building, education, and knowledge-sharing programs. She believes public libraries play a vital role in providing information about food justice and supporting local food initiatives by promoting literacy and programming to raise awareness about food insecurity and access.

Sophia Thraya (she/her) is a PhD student in Educational Research specializing in Learning Sciences at the Werklund School of Education, University of Calgary. Her research and educational practice challenge colonial monolingual norms, working alongside racialized multilingual children who have experienced forced displacement. In her involvement in the Soil Camp project, Sophia has explored languaging practices that transcend disciplinary silos, geographic borders, and language divides, co-creating learning spaces where children's linguistic and intergenerational knowledges are centered and held lovingly and relationally. Her collaborative work reimagines learning as a relational, eco-social justice endeavour.

Liana Wolf Leg (she/her), also known as Kataisinobakii (Pine Marten Woman), is a Blackfoot Knowledge Keeper from the Siksika Nation reserve in Southern Alberta. She helps Soil Campers deepen their understandings of land-based knowing and teaching. Through her teaching and sharing, she facilitates Soil Campers' learning about the importance of respecting traditional roles of Indigenous Peoples, including their traditional food knowledges. Liana brings her experiences as an Education Assistant in public

school systems and her previous experiences as a manager of Indigenous Engagement and Youth Outreach to this work. As a mother, she is an advocate for disability justices and inclusive education.

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