



## Complexities in Developing Socioecological Care: A Case Study of Engagement in a Critical Place-Based Science Camp

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**Abstract:** This study explores the complexities of developing and enacting socioecological care in the context of a critical place-based science camp with middle school youth. I draw on Indigenous, feminist, and multispecies understandings of care as an embodied, dynamic, ethical practice of understanding and assuming responsibility within more-than-human entanglements. A case study of one youth's experiences and sensemaking, through analysis of video records, interviews, and student artifacts, revealed the complexities of disciplinary engagement, touch, and assuming responsibility in relation to socioecological care. I conclude by reflecting on the inherent tensions and messiness involved in care and the importance of explicitly grappling with this messiness with youth.

### Introduction

We are surrounded by socioecological precarity. As development encroaches on vital ecosystems and technologies evolve to exploit new frontiers, human and more-than-human communities continue to be burdened with the costs of Western society's obsession with progress. Furthermore, the emphases and motives behind mainstream science education—economic prosperity and militarism—perpetuate human-centric logics that beget webs of destruction (Morales-Doyle et al., 2019; Vossoughi & Vakil, 2018; Weinstein, 2017). However, there is a burgeoning call to more critically consider for whom and for what we design learning environments (Philip et al., 2018). A growing cadre of scholars argue that learning ought to recognize the entanglement of human and more-than-human communities and cultivate collective well-being (Vossoughi et al., 2023; Garcia & Mirra, 2023).

Critical place-based learning has emerged as one approach to engage youth in grappling with pressing socioecological issues and nurturing ways of “living well” in entangled worlds (Gruenewald, 2003). However, while critical place-based learning has been shown to support youth's sense of agency and ability to systemically critique environmental injustices and dominant human-nature relations (Davis & Schaeffer, 2019; Dimick, 2016), questions remain about the kinds of roles and relationships youth form with humans and more than humans (MTH) in place-based learning environments. If we aim to cultivate collective well-being, it is crucial to understand the ways youth enact and make sense of their own and others' (human and MTH) places within entangled webs. Care offers a lens for attending to youth's understandings and enactments of roles and relations. Studying care necessitates attending to the tensions inherent in care—as van Dooren (2014) writes, “caring is a complex and compromised practice” as “care for some individuals and species translates into suffering and death for others” (p. 292). To this end, this study asks: *In a critical place-based science camp intentionally designed to nurture socioecological care, what tensions emerge in youth's development and enactment of care? Why do they arise? And how do youth grapple with them?*

### Framework

#### Socioecological care and attentiveness

I draw on Indigenous, feminist, and multispecies literature to theorize socioecological care as rooted in a relational ontology that recognizes the entangled nature of the world. In contrast to dyadic and human-centric notions of care where one human cares for another human or non-human being (Noddings, 2013), socioecological care necessarily flows multidirectionally between intertwined human and more-than-human entities. This understanding of care contests notions of human supremacy, emphasizing that both humans and MTH are active agents within socioecological systems (Bang & Marin, 2015). And given the entanglement of human and MTH entities, instead of starting with attending to another's needs (Noddings, 2013; Fisher & Tronto, 1990), socioecological care begins with recognizing interdependence and mutual vulnerabilities (Haraway, 2016; Puig de la Bellacasa, 2017). Then, rather than care being directed toward a particular recipient, socioecological care involves assuming responsibility for one's role within larger webs (Haraway, 2016; Puig de la Bellacasa, 2017). As a continual embodied, affective, epistemological practice, socioecological care develops as one oscillates between (a) recognizing interdependence and feeling gratitude for other beings, and (b) reciprocating through one's unique gifts and actions within the larger entangled web (Cajete, 2000; Kimmerer, 2013). Thus socioecological care is both a way of thinking and a material doing (Haraway, 2016; Puig de la Bellacasa, 2017).

This conceptualization of socioecological care resonates with van Dooren et al.'s (2016) *arts of attentiveness*, which is both a practice of noticing—"getting to know another in their intimate particularity," and a practice of responding—"learning how one might respond to another...to cultivate worlds of mutual flourishing" (p. 17). Attentiveness involves unceasing curiosity about the lifeworlds of other beings, which can surface entanglements in which we are implicated. These entanglements illuminate how our responses to others and attempts to assume responsibility will always be fraught. As van Dooren et al. (2016) note, an ethics of care "requires ongoing questioning, an effort to cultivate new modes of attentiveness... that might help us to live well inside relationships that can rarely be settled to everyone's satisfaction and never once and for all" (p. 16). Borrowing Haraway's (2016) language, the practice of socioecological care is thus a commitment to "stay with the trouble."

## Methods

### Study context and data collection

This study is part of the larger Teens Re-Storying the Creek with STEM (T-ReCS) project, in which we designed and facilitated a two-week critical place-based science camp around socioecological issues in the local Willow Creek watershed (all place and participant names are pseudonyms). Willow Creek is a 28-mile creek with headwaters in the historically rural outskirts of a southeastern city, which empties into a major waterway adjacent to the city's downtown area. The Willow Creek watershed has undergone and continues to experience rapid development and is socioeconomically, culturally, and racially diverse. One of the many entwined human and MTH histories of Willow Creek, which we emphasized in the camp, involves the listing and proposed delisting of the endemic Newtown Crayfish (pseudonym) from the endangered species list.

**Figure 1**  
CIIA Framework for Critical Place-Based Learning



We recruited 29 youth from two middle schools within the watershed for the camp. About half of the youth were rising 6th or 7th graders from a nature-based charter school and the other half were rising 8th graders from a public middle school. Throughout the two weeks of camp, youth investigated and engaged in speculative thinking and digital storytelling (podcasting, zine-making, and augmented reality) around the thriving of the Willow Creek watershed. We designed the camp with a pedagogical framework that involved connecting, investigating, interrogating, imagining, and acting (Carlone et al., 2024; Figure 1). We took field notes, recorded video, collected student artifacts, and conducted mid- and post-camp interviews focused on youths' digital stories, science identities, understandings of environmental justice, sense of connection to Willow Creek, and hope for the Willow Creek socioecological system.

## Analysis

I began my analysis by reviewing youth's digital stories and the ways youth storied their experiences in interviews. For this study, I focused on Amira, one of the rising 8th graders, as a case (Walton, 1992; Yin, 2009) due to care-related tensions evident in her digital stories and interviews. For example, her stories and interviews revealed inconsistencies in her concern and care for MTH—e.g. in one story she represented MTH as agentic and centered



their concerns, in another she overlooked them; she expressed affection for the Newton Crayfish but strident dislike of other macroinvertebrates.

Based on noticings in field notes and insights Amira shared in interviews, I selected and analyzed video recordings to explore in-the-moment complexities of care. For example, in one interview, Amira recalled how holding a crayfish caused her to “like ‘em” so I analyzed video of the creek play activity during which this occurred. Through interaction analysis (Jordan & Henderson, 1995), I attended to the multidimensional nature of care—to talk, affect, and embodied actions. Collaborative video analysis helped me to expand and affirm my interpretations of the ways various resources—physical tools, talk, other beings—mediated care. I identified themes around tensions in care iteratively as I watched video and inductively coded Amira’s interview transcripts and artifacts for different human-nature relations and ways of caring for the creek. While the data I present here focus on Amira, analysis of a broader data set from the camp has illustrated that other campers experienced similar tensions. At the same time, in future work I plan to explore how campers’ unique school cultures, sociocultural backgrounds, and issues of race and power contribute to differences in their relations with nature.

## Positionality

I have always felt an affinity to and interest in nature, however I spent much of my life viewing nature through the lens of human-nature binaries that predominate Western cultures in the United States. For example, growing up, I cherished opportunities to get out into “wild” spaces, but did not always recognize how I was always already in relation with nature in the urban spaces I occupied. Environmental coursework in college furthered binary ways of thinking about human-nature relations, stressing humans’ roles as saviors of a helpless, objectified nature, rather than emphasizing the agency and entwinement of all beings. Just in the past handful of years, exposure to Indigenous and feminist understandings of entwined naturalcultural, more-than-human worlds have expanded my thinking (e.g. Cajete, 2000; Kimmerer, 2013; Haraway, 2016; Puig de la Bellacasa, 2017). These views resonate deeply with me on an intellectual level, and I see their spread as crucial to the collective thriving of more-than-human worlds. However, in practice, I often catch myself slipping into old habits of binary thinking. Therefore, I did not approach this study assuming that I enact care perfectly, but rather aware of my imperfect attempts to “live well” (van Dooren, 2016, p. 16). Indeed, the T-ReCS data are rife with instances of my flawed attempts (one of which appears in this paper), which prompt introspection and unease. However, I believe that as researchers and designers striving to cultivate socioecological care, we must be open about our struggles toward collectively learning how to care well.

## Findings and analysis

Aligning with van Dooren et al.’s (2016) arts of attentiveness, I present findings as complexities that emerged in practices of noticing and practices of responding.

### Practices of noticing

#### Complexities of disciplinary engagement in relation to care

The curiosity and close observation of MTH that are central to disciplinary science can cultivate attentiveness necessary for care. However, scholars have critiqued Western science for perpetuating nature-culture binaries and foreclosing care through objectifying MTH and overemphasizing classification (Bang et al., 2012; Bang & Marin, 2015; Kimmerer, 2013). This was reflected in a theme that emerged from the data: ways that scientific disciplinary tools and practices both constrained and opened opportunities for care.

Creek play activities sought to foster youth’s curiosity and sense of connection to the creek. To support exploration, we provided tools often used in aquatic studies—field guides, nets, and collection devices (e.g. ice cube trays). We aimed for these tools to enable interaction with MTH that might otherwise be difficult to observe and to help youth overcome fears (Carlone et al., 2015). For Amira, nets provided an initial entrypoint to interact with lifeforms that scared (or disgusted) her from a comfortable distance; she could hold one end of the net’s pole while someone else searched the debris in the net for organisms (Figure 2, left). Similarly, Amira expressed fear of animals lurking under rocks, exclaiming, “I’m not riskin’ my life!” when an instructor demonstrated how to gently lift rocks to find crayfish; however, her affect shifted toward calm curiosity when presented with the opportunity to interact with a crayfish contained in an ice cube tray (Figure 2, right). The ice cube tray thus created an opportunity for curiosity to bloom (see Figure 3 for a more detailed account of this encounter). At the same time, the tools displaced MTH from their lifeworlds. For example, crayfish typically hide in burrows during the day, so from the crayfish’s perspective, being placed in a white container in broad daylight for examination was likely traumatic. Indeed, the instructor pointed out how the crayfish attempted to swim backwards in the container to get away. One might ask then, what kind of relation these scientific tools presupposed (more-than-human object available for examination by human subject) and to what extent they enabled youth to attend to the particularities

of more-than-human lifeworlds. This spurs me to consider how educators might more explicitly trouble the ways tools position MTH to engage youth in ethical deliberation.

**Figure 2**

*Tensions with Scientific Tools as a Resource for Connection*



Taxonomic identification comprised another disciplinary practice of noticing toward care. For example, in one activity youth identified and classified macroinvertebrates by pollution tolerance to evaluate Willow Creek's health. Additionally, given the Newtown Crayfish's endangered status, noticing their distinctive pincer tips and shoulder saddle was critical to helping to protect them. However in moment-to-moment discourse, instructor prompts toward classification seemed to shift attention away from care. For example, in one interaction an instructor oscillated between referring to two macroinvertebrates as "brothers" with "separation anxiety" when one fell from the net that held them, and prompting Amira and her friend to count their legs. In another, an instructor's interjection to identify a dead crayfish—"There's the red tips, and the red on the saddle"—contrasted with the preceding interactions of youth petting the crayfish and another instructor narrating, "You're like shaking his hand. Nice to meet you!" In these instances, classification talk disrupted framings of MTH as subjects in the realm of sociality where care circulates and instead positioned them as objects. Given the value of classification toward care in some circumstances, I wonder how moves to classify in moment-to-moment interactions might sustain MTH's status as agentic social beings.

#### Complexities of touch as care

Touch can be an important means of developing care for MTH (Hecht & Nelson, 2022; Carlone et al., 2016), and emerged as another theme. As Puig de la Bellacasa (2017) states, "when bodies/things touch, they are also touched" (p. 99), not just physically but emotionally. Amira gently held and observed a crayfish for about 30 seconds within the first 30 minutes of exploring Willow Creek, then referenced this encounter throughout camp, indicating its salience to her. Furthermore, Amira and her friend Adrian mentioned encounters with crayfish as part of their motivation for creating a zine to educate others about Newtown Crayfish (Figure 6). Amira recalled, "I held one and I was like, 'Oh, that's so cool.' And like, it didn't...it didn't bite me or nothing so I like 'em." Touch thus played an important role in cultivating Amira's connection to crayfish. However, touch became problematic when associated with a conquest-like orientation that framed MTH as objects that may be exploited for the sake of proving one's bravery and gaining bragging rights. While one of the goals of the camp was for youth to explore identities and spaces outside of their comfort zones, the praise instructors gave students for touching organisms for the first time may have encouraged this conquest-like orientation. A closer look at two instances of touch—Amira's initial crayfish encounter (Figure 3) and an encounter with fish that occurred about ten minutes later (Figure 4)—provides insight into the tension between touch as care and touch as conquest.

In Figure 3, we see that an instructor, Ms. Yana, immediately affirmed Amira's request to hold a crayfish. Amira's initial intent in wanting to hold the crayfish is not entirely clear—whether she had a conquest-like orientation to be able to tell friends she had held a crayfish, or wanted to feel more connected to him and observe him more closely—but this initial intent doesn't matter so much as how her encounter was positioned by others and how she responded to that positioning. At the beginning of the interaction, Ms. Yana fleetingly elevated the crayfish's experience. She began to caution Amira ("You need to be a little bit cautious so—"), but interrupted her thought as she noticed the crayfish's anxious movement. After noting that the crayfish was scared, Ms. Yana picked him up, explaining, "But you can pick it up from the back. If you get pinched it won't hurt because they're so small." So, while it is possible that Ms. Yana was going to caution Amira to be gentle to the crayfish, it seems likely that her cautionary message was going to center protecting Amira rather than protecting the crayfish; i.e. she was perhaps going to say, "You need to be a little bit cautious so you don't get pinched," not, "You need to be a little bit cautious so you don't hurt the crayfish." From a crayfish's perspective, being held out of the water far above the stream's surface by a giant human is arguably scarier than being in the water in the ice cube tray. So while Ms. Yana attended momentarily to the crayfish's experience, concern for him seems to have been overrun

by the desire to give Amira the experience of holding him. From the get go, the encounter was thus positioned as one for Amira's benefit, not the crayfish's.

**Figure 3**

*Crayfish Encounter: Developing a Conquest-like Orientation to Nature*



After some initial hesitation, Amira took the crayfish from Ms. Yana. When she did so, instructors immediately praised her. Ms. Yana congratulated her: "I'm so proud of you look at how brave you're being...Amazing honey! Good job!"; and another instructor and I expressed awe at her bravery, saying, "Oh my goodness!" Ms. Yana briefly attended to the crayfish's experience again, connecting Amira and the crayfish's calmness and noting that she "[didn't] see any signs of distress." And she and I both highlighted the close observation that touch allowed, pointing out the crayfish's pincers and eyes. However overall, the instructors' utterances centered Amira's courage rather than the crayfish's well-being or the wonder of having a close encounter with another being, thus encouraging a human-centric, conquest-like orientation to nature. An instructor's move to take "a really good picture," further promoted this orientation. Though pictures may be used to spread awareness and concern for MTH, capturing the crayfish with the camera also evokes early naturalists' exploitation of nature through collecting and documenting specimens on their expeditions to "new" lands to share with others back in Europe. Amira took up this orientation, turning to her friend, Adrian, to show him that she was holding a crayfish. Adrian's response is not caught on the video record, but presumably he expressed something to the effect of "Hell nah!" because it prompted an instructor to respond, "That's okay. You're gonna hold one by the end of the week. You got this," which reinforced the conquest-like orientation. This crayfish encounter illustrates the tension between touching MTH as a source of connection, adoration, and wonder on the one hand, and as means of conquest in service of pride and bragging rights on the other. A subsequent encounter with fish illustrates the salience of the conquest-like orientation and the ways it can easily veer towards harm.

**Figure 4**

*Fish Encounter: Holding Fish as an Act of Bravery*



A bit later, Amira and Adrian came upon a cluster of students who had caught a fish. An instructor, Ms. Castillo, asked Adrian, “Would you hold it?” Amira immediately responded, “Hell nah!” and Adrian echoed, “Nah, nah.” This exchange launched the interaction represented in Figure 4. In attempting to convince Adrian to hold the fish, it is notable that Ms. Castillo emphasized how the fish was “not hurting” the student who had caught the fish and was holding him in his palm; and that the student reinforced the fish’s innocuousness, explaining, “He doesn’t even move. He’s just there.” These statements are ironic given that the fish, having been removed from the water, is the one in harm’s way. Thus from the start, the encounter privileges human well-being while ignoring the fish’s welfare. As the encounter continued, Ms. Castillo, and then Amira, both dared Adrian to hold the fish, challenging him: “If I did it would you do it?” These challenges, in conjunction with Ms. Castillo’s assertion, “I would *never*,” position holding the fish as a contest of bravery. It becomes especially clear that touching/holding the fish is decidedly *not* about experiencing a tender connection with an MTH when (a) Amira catches a fish but announces, “I don’t want to touch it,” and whimpers, “Get that away from me”; (b) Adrian observes the fish slip out of another student’s hands and exclaims, “It’s so wet and slimy! You gotta kill it first!” (which elicits a laugh from Amira); and (c) Amira declares, “If I hold it I’m throwin’ it up in the air.” Each of these utterances suggests a stance toward the fish as gross and scary, with little value as a living being. Demonstrating bravery by holding the fish was given greater value than the life of the fish.

The impetus for encouraging direct interaction with MTH was compassion, and indeed, Amira and Adrian’s choice to create a zine about crayfish is a testament to the ways touch can spur concern. At the same time, the ways this encouragement played out also led to interactions where caring for MTH was backgrounded and conquest over MTH was foregrounded. If we want to leverage touch toward greater care for MTH, the way touch is framed is critical. Furthermore, as Puig de la Bellacasa (2017) urges, “maybe we have to ask what kind of touching is produced when we are unaware of the needs and desires of what/whom we are reaching for?” (p. 99). The touch for the sake of touching that sometimes occurred in the T-ReCS camp centered human desires. To engage seriously with the needs and desires of MTH, we must examine why we are touching, how our touch affects MTH, how we might allow MTH to lead touching interactions (e.g. as when a butterfly lands on one’s shoulder), and when the most caring option may be to refrain from touching.

## Practices of responding

### Complexities in assuming responsibility

Assuming responsibility in socioecological systems is fraught because decisions and actions that benefit one part of a system often harm another. This is not to say that care is necessarily a zero-sum endeavor, but that care “requires ongoing questioning” (van Dooren, 2016, p. 16), and practices of responding must be continually reevaluated in the pursuit of mutual flourishing. Amira grappled with the difficulty of caring for all beings in her storying of the Newton Crayfish and speculation about possible futures for the Willow Creek watershed.

In one activity, Amira’s group explored a Prezi about the Newton Crayfish and its tenuous place on the endangered species list. The group discussed how development that supports human well-being—hospitals, homeless shelters, stores—may pollute the crayfish’s home, and how delisting the crayfish (and lifting protections) could enable more development. Tasked with presenting different perspectives on delisting, Amira created a tongue-in-cheek representation of a “bad” politician advocating for delisting and callously prioritizing human needs over crayfish’s (Figure 5, left). In explicitly framing this position as the “bad” politician, Amira critiqued a human-centric view, implicitly supporting a stance that centers the crayfish’s well-being.



Amira’s representation of a “bad” politician in favor of delisting the Newton Crayfish (left) and augmented reality vision of a drive-in movie theater for Creekside Plaza (right)

In the days following the above activity, Amira (and Adrian) created the aforementioned zine (Figure 6), which further emphasized the need to prioritize crayfish's well-being. Students were given the freedom to create a zine about anything related to Willow Creek that they wanted to, and Amira chose to create a zine that aimed "to get out information to people about Newton Crayfish, and like the environment they live in, and what food they eat, like how their life has been." She thus assumed the responsibility of speaking on behalf of the crayfish. Moreover, within the zine, she contested nature-culture binaries that assume the human cultural world is separate from the natural world by representing crayfish as social beings. In one frame of the zine, the two human characters (whom Amira and Adrian created as representations of themselves) sit on a picnic blanket, having a conversation with the crayfish. The crayfish explain, "We crayfish have been on the endangered list since 1986...But in 2018 we were going to be removed!" Amira's character responds, "Wowwww I didn't know that !!!!!!" Then in the next frame, Amira and Adrian's characters further educate the reader about efforts to delist and oppose delisting of the Newton Crayfish. By positioning the crayfish as an interlocutor who begins telling a history that the human characters continue, Amira highlighted humans' responsibility to listen to other beings and share their stories and perspectives. While crayfish in the real world obviously can't tell humans how they're doing in plain English, the implicit message is that we need to pay attention to MTH because they have stories worth elevating and their well-being matters.

**Figure 6**  
*Amira and Adrian's Zine*



On the other hand, in the last few days of camp, which focused on a civic design task to re-envision Creekside Plaza—an area near Willow Creek currently under redevelopment—Amira prioritized human desires over MTH well-being. Youth were tasked with creating augmented reality visions of Creekside Plaza and ironically, Amira chose to develop an augmented reality vision of a drive-in movie theater (Figure 5, right)—one of the amenities her "bad" politician prioritized over crayfish. Amira explained the motivation for her movie theater: "on some days...it could be free" and "it'd be fun for a family activity." She thus saw it as an asset for families with limited finances, as a way to care for underserved parts of her community. When asked in an end-of-camp interview whether the design task allowed her to envision a hopeful future for people *and* the environment, Amira first responded, "kinda, maybe" but then reasoned, "if you added more buildings, wouldn't that like take away from the environment, like the animals, kinda, I dunno..." She thus harkened back to the critiques of development that she and her group had during the earlier activity with the Prezi about Newton Crayfish and actively grappled with the conundrum of cultivating *mutual* flourishing.

Across the three representations discussed here (the "bad" politician drawing, the zine, and the augmented reality project), Amira wrestled with the difficulty of providing adequate care for the multiple entangled parts of her community. She oscillated between forefronting care for MTH and care for humans in her representations. Ultimately, her "kinda, I dunno" responses to the question about envisioning a hopeful future for people *and* the environment, suggest she was engaging in the kind of "ongoing questioning" that van Dooren (2016) advocates toward "[living] well inside relationships that can rarely be settled to everyone's satisfaction"



(p. 16). In other words, she recognized that how to support mutual flourishing was an open question necessitating continued reflection and work.

## Significance

This study builds on others' research in place-based education that elevates MTH agency and examines mediators of human-nature relations by surfacing complexities of fostering, developing, and enacting socioecological care. Hecht and Jadallah's (2023) study of youth-tool-MTH interactions in stream ecosystems illustrates how MTH agency, in conjunction with tools (e.g. attempts to escape the sieves and brushes youth used to corral them) contributed to youth learning from MTH (e.g. learning how to gently move a macroinvertebrate from a brush) and to youths' careful observation. While tools may enable closeness and careful observation, by troubling the ways tools position MTH, I elevate the importance of pedagogical moves that explicitly engage youth in ethical deliberation. For example, asking youth to view interactions mediated by tools from the perspective of MTH and encouraging them to consider whether and how they ought to capture or contain MTH could foster more critical and careful engagement with how tools position MTH. The salience of touch in Amira's relations with the Newton crayfish echoes others' findings that touch can nurture care (Hecht & Nelson, 2022; Carbone et al., 2016). However, findings around the conquest-like orientation to touching MTH that emerged in the T-ReCS camp troubles this and highlights the problematic ways that social interaction with peers and instructors can shape touch with MTH. Jadallah (2025) and McDaid Barry et al.'s (2023) work around the ways educators facilitate caring and reverent interactions with land (e.g. meditation, ritual, and talk moves that recognize MTH personhood) offers insights toward more care-filled framings. Finally, Amira's wrestling with how to provide adequate care to the entangled parts of her community highlights the importance of providing opportunities and resources for youth to grapple with thorny ethico-political issues of *how* to care (Puig de la Bellacasa, 2017). Some work in place-based education (e.g. Jadallah, 2025) has begun to unpack issues of history and power in relation to place-relationships, but this is an area ripe for further inquiry.

Rather than providing pedagogical prescriptions or best practices for socioecological care, I offer my analysis and reflections to stress that diving into the inherent messiness of care with youth, and making the tensions of care explicit, is critical for supporting youth's ethical deliberation of how to live well in entangled worlds. This call to engage youth in wrestling with how to live well in entangled worlds echoes work by the Learning in Places Collaborative. They emphasize the importance and power of "Should We" questions, such as "Should we remove leaf litter from lawns?" to engage learners in ethical deliberation and sensemaking around socioecological phenomena (Learning in Places, 2020). This kind of ethical deliberation is at the heart of socioecological care. However, I believe that in addition to "should we" questions, we ought to also engage youth with "could we" questions, as in: "Could we imagine a world of mutual flourishing?" "Could we engage in forms of touch that are caring? What would that look like?" Such questions could spur otherwise ways of thinking that move beyond the constraints of dominant ways of thinking, being, and doing. We need both ethical deliberation and this kind of speculative dreaming to confront the socioecological precarity we are in.

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