Magical Moments and Spots of Sunshine: A Partnership to Support Multispecies Flourishing

Victoria Derr[1]*, Alice Miller[2], Madison Moreno[1], Kenton Parker[3], Juan Ramirez[3], Cynthia Torres[2]

To be published in: Patty Born (Ed.), ***Multispecies Thinking for a Sustainable Future*****. Lanham, MD: Lexington Books.**

****

A dozen fourth graders huddle around a young rodent. The fur on its back is wet and potentially showing marks of a recent escape from a predator. The rodent appears stunned for a few moments and then begins digging. We watch with rapt attention, wondering aloud what this creature is, what it resembles, and what might have happened to bring it to this particular place. After a while, Kenton smiles and begins to narrate:

> *Imagine:*
>
> *You are a little tiny animal. And you are scurrying around and feeding in the grass. And something comes up from behind you [perhaps a hawk] and grabs you by the back, and picks you up, and all of a sudden you are in the air. You are flying.*
>
> *And something attacks that bird, and it drops you. And you fall, fall, fall, fall. And fortunately, you land in some grass. And you bounce.*
>
> *Now you are surrounded by these tall creatures, with hair on the top of their head, and they are wearing these funny clothes, and they have shoes on.*
>
> *What are you going to do? You are going to dig a hole.*
>
> *And hide. "No, they're not here." [mimicking the rodent trying to get back underground] "They're not here."*

Silent wonder gives way to giggles as Kenton brings the story back to the present. Bearing witness to this event, however it unfolded for the little creature in actuality, is a magical moment, one of many on an end-of-year field trip and hike, after a year of activities on a special plot of land. Over the years, we have observed many such magical moments, small vignettes or *spots of time* in which children demonstrate subtle shifts, as they build connections to the more-than-human world. In her 2002 essay, Louise Chawla describes the Romantic poet Wordsworth's *spots of time* as moments in childhood that are hard to articulate but where emotions imprint on memory. Within the partnership, we have talked about these magical moments as potential markers of transformation and of the goals and dreams that we share.

This chapter introduces the context and history of the formation of our partnership, provides a working definition of multispecies flourishing as it relates to our approach, some of the outcomes and outgrowths from our most recent year of activities, and some of our hopes for the future. We seek to document magical moments, *spots of time*, in our students' lives as they experience a new place with wonder, humility, and joy. We draw upon elementary student drawings and university student reflections about the experience. We also seek to describe how we can create openings that allow children to experience other ways of knowing and being with nature. We conclude with next steps and reflections on

[1] California State University Monterey Bay; [2] Hall District Elementary School; [3] Elkhorn Slough Foundation; *Corresponding author

our work to facilitate multispecies flourishing that builds on social, affective, and inter-species interactions with place.

An Evolving Partnership

Socio-Ecological Context

This project is set in the context of a rural, largely underserved community along the central coast of California. The property, acquired by a local land trust in 2002, is composed of 356 acres of maritime chaparral, oak woodlands, coastal scrub, grasslands, and a riparian corridor that feeds into one of the state's largest wetlands and eventually into the Pacific Ocean. A central feature of the site is a one-hundred year old oak that drapes its elegant branches to the ground, creating an arched canopy that encloses stump bench seating. The property also is adjacent to a historic ranch, one of the oldest cattle ranches in the region, which is now being managed for native grasslands and coast live oak woodlands. The work is situated on lands of the Calendaruc Ohlone and the Amah Mutsun people.

The elementary school serves approximately 500 K-5 students from the local, unincorporated community. More than 95% of students are English learners and are considered socio-economically disadvantaged[2] by the State of California (Ed-Data 2022). Students are predominantly Spanish speakers in the home with some families speaking Zapoteco or Mixteco, indigenous languages from southern regions of Mexico. About 20% of students are from migrant families and about 20% are homeless (Ed-Data 2022). The most common occupation of parents is as farmworkers in regional industrial agriculture. While some families visit regional nature amenities, the community itself has few access points to natural areas, open space, or parks. Some families have home gardens. Despite the rural character of the region, many children have limited exposure to plants, animals, or nature. The field experiences from this partnership provide many "firsts" for students in being exposed to bugs or snakes, or collecting and planting seeds.

Partnership History

Like many partnerships, this project has evolved over several years, in the shifting context of a local school and community. In the 1990s, several teachers at a local elementary school initiated a school garden and integrated it into teaching at the school. Gradually, as standardized testing and other curricular directives were set in place, use of the garden declined. One of the teachers eventually retired and others became too busy meeting the new directives to do any work in the garden. In 2002, the local land trust acquired a new property across the highway from the school. Soon after, the land trust, a group of local medical professionals, and teachers at the school began thinking about how to get children to the land trust property for hiking and health, and so that the children could experience the site, which was not open to the public. The first such field trip was a success, but because the students had to be bussed across the busy highway, it was not sustainable.

Then in 2016, one of the key partners to this project (Kenton), who is a member of the community who had retired from his position at the local nature reserve, began volunteering his time to work with the land trust staff and a new principal at the school, eager to get kids outside. Once again, planning a walking field trip to the site was explored. Getting kids across the street is seemingly simple, but it is a highway with heavy traffic as a throughway between agricultural lands and major freeways of the region. Partners worked through many hurdles and eventually were able to set up a system where

[2] According to the California State Board of Education website, the State of California defines students with socio-economic disadvantage as those who meet any of five criteria: both parents without a high school diploma, eligible for free or reduced-price lunch program, homeless, a migrant, or under foster care.

school staff would stop traffic and allow the students to walk across the road and gain access to a tract of land that in a small area hosts many of the ecotypes of the region.

Over time, teachers acquired grants, explored connections between storm drains at the school and the watershed, and worked with project partners to coordinate field trips and activities at the site. As planning evolved, an interest in connecting the children to their local watershed and integrating activities that helped students learn about watershed science resonated with fourth grade teachers, which is the grade level discussed in this chapter. The land trust has also invested in infrastructure to support safe access and better functionality of the space for field trips and restoration activities.

In 2017, local university students began supporting the partnership as part of their service learning or capstone courses, attending field trips and supporting children's activities and developing potential surveys and assessment tools. In 2019, the university partnership was embedded into a newly established course in critical pedagogy for environmental education. This scaled university student involvement from a few student volunteers to more than 20, and provided smaller ratios of instructors to children to facilitate experiences at the site. Work was grounded during the COVID pandemic, between 2020 and 2021, but partners still occasionally checked in via email or a meeting, and expressed a desire to continue the work as soon as it was feasible for everyone. Some virtual field trips and an end-of-year hike were held in the spring of 2022. Activities resumed in the academic year of 2022-2023, and this time period is the focus of this chapter.

Junior Ranger Conceptual Structure

For many years, the school hosted a field trip for students to a national park about an hour from the school. Students would go to the park, meet the Park Ranger and learn about that role, and then would return to the school and take on Junior Ranger roles for the school itself. When the outdoor classroom project started, the Junior Ranger role was a strong conceptual fit because there was already an understanding of these roles at the school. This concept also influenced how activities were structured, with students learning about natural history of the area, but also taking on care-taking, stewardship, restoration, and education roles as part of their experiences. When the 90-some students in three classes (grades 4-5, approximately age 9-11) started taking monthly field trips to the site, they participated in natural history lessons, care-taking, and stewardship activities between September and December, and then in January began preparing their own educational lessons that they would lead for second grade students (approximately ages 7-8) in a March field trip (Figure 1). The primary focus was to learn about the habitat and the species that are living in the ecosystems and then to share that with younger children, many of whom are siblings at the school. At the end of the year, a culminating hike takes students to a ridgetop. The ridgetop, about two miles from the outdoor classroom, allows the children to make connections between the ephemeral creek and riparian habitat and the wetlands and ocean the water feeds into. From the opposite vantage point, children can see their school and the checkerboard of small farms, maritime chaparral, oak woodlands, coastal scrub, and hills that comprise their home.

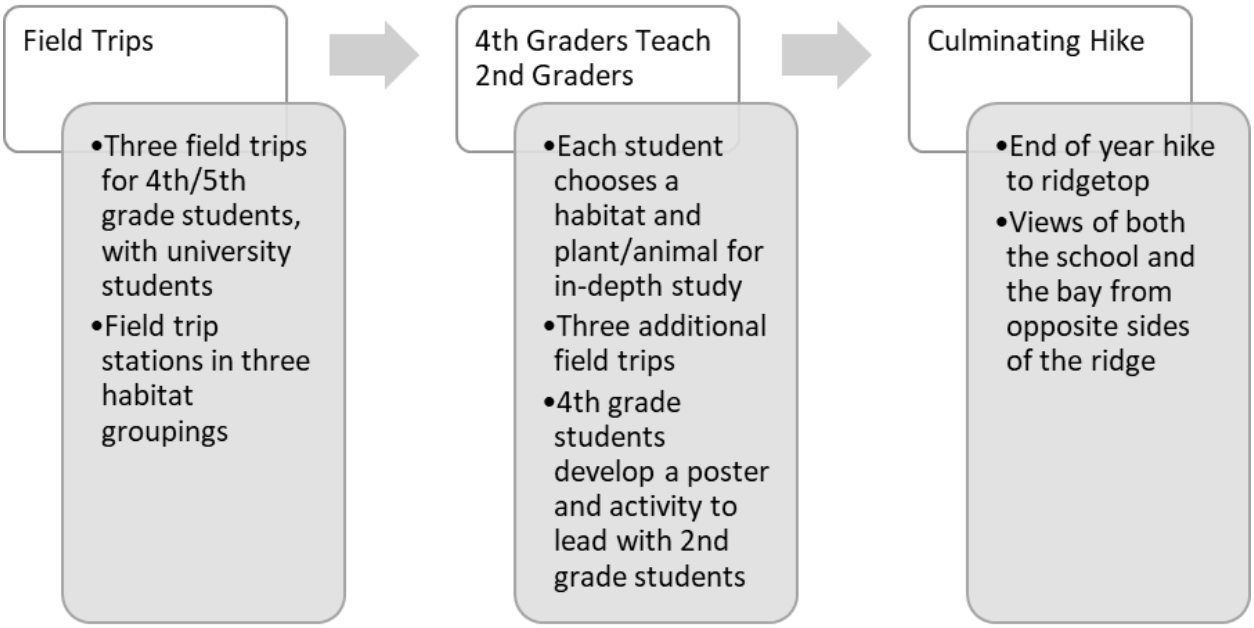

Figure 1. Progression of activities across the academic year
[insert figure 1 about here]

With some variations, this progression of activities has remained relatively consistent since 2016. Partners typically meet once during the summer to debrief and plan. This meeting is important for working through some logistics and details that will advance the goals of the partnership educationally but also provides time for dreaming and envisioning where the work can lead longer term. During the academic year, project partners also check in monthly to plan field trips and coordinate many moving parts on a weekly basis. The project informally works within an action research framework (Mertler 2019): adding, reflecting, and refining along the way.

Education for Multispecies Flourishing

As partners, we have been using terms like "magical moments" throughout the year as we described small spots of sunshine in students' experiences. When the opportunity to write this chapter arose, the phrase "spots of time" popped to mind, and I (Victoria) remembered Louise Chawla's (2002) essay with that title. The essay resonated with the ways that we have been talking about our partnership, practice, and dreams, and how we frame, support, and listen to children's experiences in this special place. In her chapter, Chawla (2002) articulates Romantic legacies and methods of interpreting children's experiences with nature. She begins with Wordsworth's moments of clarity, *spots of time*, that come to influence our lives. Wordsworth believed that interactions with nature shape our memories and when children develop sympathetic relationships with nature in childhood, these experiences bring forward a moral influence of "unremembered acts / of kindness and love" (Wordsworth 1798/1952, as cited in Chawla 2002, p. 202). In this essay, Chawla also articulates a way of understanding children's experiences:

> We can create a "clearing," metaphorically, in which we invite a phenomenon to show itself on its own terms – whether child, tree, or any other object of knowledge. In this shared space, we

> seek to move from a mode of domination to a mode of listening (Heidegger, as cited in Chawla, 2002, p. 205).

When we move into this mode of listening, there is a "fusion of horizons," in which we are transformed by an encounter (Gadamer 1975, as cited in Chawla 2002, p. 205). Chawla asserts that in our role as adults observing or facilitating children's experiences with nature, we need to listen and observe, to be open and sensitive to these spaces and modes of being.

In her essay, Chawla (2002) also draws upon the thinking of Jean Gebser, who fled the rise of fascism in Europe and World War II and subsequently visited much of the world. His study of comparative cultures led to articulation of archaic, mythic, and magical forms of consciousness. Magic consciousness describes a "vital experience" and connection to the world (p. 209). According to Chawla's own research, deep and abiding relationships with nature provide not only a basis for environmental consciousness and commitments but also "funds of calm" (p. 215) that people can draw upon as sources of support. *Spots of time* are thus not trivial childhood pleasures but significant across many cultures in learning how to enter into relationships that are both ecological and ethical, "for the good of the whole" (Gebser 1985, as cited in Chawla 2002, p. 220). Chawla concludes that "Gebser and Wordsworth draw our attention to ways in which our connection with the natural world depends on how we inhabit our bodies in the world" (p. 221). For children, Chawla writes, "these principles point to the need for a new constellation of human relations with the world that must indeed be simultaneously ethical and political as well as ecological" (p. 221).

These ideas are salient to more recent discussions that seek to decolonize place and promote multispecies flourishing. For example, in the volume *Teaching in the Anthropocene*, Khan and colleagues (2022) reflect that the purpose of our educational practices, in times of social and ecological precarity, should be to support multispecies flourishing. They write that "An education for multispecies flourishing asks that we attempt to filter our programmatic, pedagogical, political, professional, and personal decisions through an expansive view of ethics that includes the ability to survive, experience transcendence and dignity, and take on challenges for all species" (p. 148). The idea of transcendence emerges through relationships with land, stories and lore about the land, and meanings that emerge across complex embodied systems (Khan et al. 2022). Khan and colleagues identify practices to achieve this including: *reclaiming mystery* in teaching, asking questions that promote wondering and sensory experience; *perceiving the "other,*" or setting aside preconceptions or educational agendas to make space for open encounters that encourage imagination; and *embracing an attitude of humility and grace* (p. 153). Teaching as a way of reclaiming mystery, in particular, resonates with how we prepare university students to facilitate children's experiences, and to rethink their own relationships with nature. Khan and colleagues describe an approach "akin to what many artists do: making the familiar unfamiliar or the unfamiliar familiar" (p. 152). In this same chapter, Doug Karrow describes taking preservice elementary teachers on a walk as a practice in reclaiming mystery. He writes that "teaching in the Anthropocene must begin to interrogate humanistic views of reality and consider other views that recognize that while humans play a role in discerning their reality, there are aspects of reality beyond our reach" (Khan et al. 2022, p. 150). When the preservice teachers encounter a puffball, he invites them to resist naming and instead to respond to open questions like "what is this?" or "have you seen anything like this before," or to experience the "soft spongy feel of its skin" or its "earthy fragrance" (p. 152-153). In our partnership, we similarly encourage students to experience environmental elements, whether living or non-living, with such wonder, openness, and humility.

The university course that is an integral part of this partnership explores critical pedagogy within the context of environmental education. Students read, discuss, and explore examples of education that draw upon Paulo Freire's (1968/2009) conceptualization of critical pedagogy, in which students and teachers learn together, in dialogic explorations that can address social inequities and environmental

destruction (Garson 2022). As a result, university students often ask questions about how to "unsettle" educational practices to bring forward the ideals of multispecies flourishing while also addressing colonial legacies. Nxumalo (2019) describes this as "refiguring," "an ongoing experimentation in articulating everyday practice in ways that unsettle the ease with which anthropocentric and child-centered ways of seeing are enacted" (p. 28).

In our own landscape of practice, colonial legacies are present in the shadow of the eucalyptus trees brought from Australia or in stories of the land as a former Spanish ranch. Contemporary global colonization is also present in the very presence of all of us on the land, and of the children and families who have migrated to this place, primarily from Mexico, for work in a global agricultural economy. As we build our partnership and deepen our practices, we are mindful of how we situate ourselves and orient our practices but also recognize that we are limited in time and curricular space to unsettle years of colonial legacies all at once. We hold space for these ideas to emerge, to sometimes sit with discomfort and unknowing, as our vision grows. And we also seek to support and honor children's experiences as they encounter millipedes and spiders, often for the first time.

Moises Gonzales has described this thinking as the "messification" of how we understand landscape and conservation practices in a post-colonial world (Personal communication, July 13, 2022, Albuquerque, New Mexico). Messification references the ideas that land holds many stories, through its past and present inhabitants, their migration and inhabitation of place, and the resultant complexity of people's identities (Gonzales and Lamadrid 2019; Gonzales 2020). In this way, we seek to "embrace an attitude of humility and grace" (Khan et al. 2022, p. 153), while holding space for children who also embody this messification, so that they can begin to see themselves in relation to others and develop a sense of belonging.

Our Educational Approach

Our approach in the 2022-2023 school year was to build a series of lessons at habitat stations that would allow students to explore and learn about each habitat type. The lessons would move in scope from open-ended questions about "who lives here?" to how people also are connected to the ecosystem, for their own survival and as caretakers who also play a role in restoring ecosystem health (Table 1).

In general, university students were provided with overarching goals and then brainstormed activities, and the teachers and project partners provided feedback. After each session, fourth grade students drew their favorite activity and briefly described why it was their favorite, and university students provided written and photographic reflections about how each activity went. In discussions at the university, we also made connections between other course content and the outdoor classroom. In January, students went out to the site to record in their own words and images what makes each habitat unique, the plants and animals that make that space their home. Back at the school, each class brainstormed what they thought second graders would like to know about plants and animals. This formed the basis for a research project: students formed teams and, drawing from their field notebooks, selected a habitat area and a plant and animal that they would research, prepare a poster, and present to second graders. They also designed a hands-on activity for second graders, ranging from small drawing activities to card games. Teachers link these activities to the Common Core Language Arts standards but also value the collaboration and leadership skills students develop. Some of the university students who had been in the fall semester course were able to volunteer through service learning to support the development of student presentations to second graders. In May, all three elementary classes participated in a day-long hike up to a peak with an overlook of the ocean as well as the school.
[insert table 1 about here]

Table 1. Summary of activities for three habitat stations on each field trip

	September Field Trip Goals: Sense of Wonder	**October** Field Trip Goals: Curiosity, Wonder, Focused Attention, Plant Relationships	**December** Field Trip Goals: Connecting people and habitats
Riparian	In the Upper Riparian zone, students consider "Where would I eat?" "Where would I sleep?" for a range of animal species that inhabit the ecosystem In the Lower Riparian zone, students use their senses to identify 5 things they can see, 4 things they can touch; and as a group, 3 things they can smell and 2 things they can hear with eyes closed	Students engage in a Scavenger Hunt to find and make connections between plants and animals that live within the habitat, looking for galls, seeds and acorns, invertebrates	Habitat Construction: Students build on using their senses and experiencing natural history of animals to use found natural objects to build a potential shelter in a habitat zone "This is what animals do."
Oak Woodland	Students wonder about "who lives here" by tipping up log sitting stumps and asking open questions like "what does this remind you of?" "how many legs does it have?" "what do you think it eats?"	Students play "Village Resources: A Social Trading Game," designed by the university students, using items from the habitat that could support provisions of food, shelter, tools, or other species	Students learn roles that people play in a habitat, including stewardship and restoration science. Students collect and plant yarrow for greenhouse propagation and transplant yarrow seedlings. Students learn about concepts of native and non-native species "This is what land stewards do"
Coastal Scrub and Grasslands	Students participate in photovoice and Zoom-In/Zoom-Out Activities with the goals of seeing their school as connected to the land (zoom out with binoculars to find their school from a high point), and to explore habitats at multiple scales and literally through multiple lenses (binoculars, frames, cameras, hand lenses)	Students engage in a Scavenger Hunt focused on plant identification that helps students learn plants within the ecosystem and connect the plants with senses of sight, smell, touch, and (when appropriate), taste	Students learn different roles that people take on in a habitat, including stewards and scientists and participate in a basic bioblitz using hula hoops as mobile plot markers "This is what ecologists do"

Spots of Sunshine: Elementary Student Reflective Drawings

Spots of time reflect moments that seem significant from our encounters with other nature, even if we cannot articulate why or how (Wordsworth 1798/1952, as cited in Chawla 2002, p. 202). These experiences form a basis for relational knowing. Elementary students were provided with pre-printed drawing sheets with the prompt, "My favorite activity was… because…" This drawing reflection was a methodological attempt to capture *spots of sunshine*, or to understand from children's experiences what seemed salient, and what emotional memories may be imprinted on the children over time.

In our analysis, we categorized drawings into three groupings that reflected affective themes within the pictures: "fondness for nature," "curiosity or novelty," or "enjoyment." Fondness for nature was reflected by students expressing ideas such as "I like finding animals…" or "I like the centipede." Curiosity or novelty was identified by students' describing something "new" or as "the first time" they had done or experienced something. For example, one student wrote that they liked "seeing the lizard shed its skin" because "it was the first time I'd seen that." Enjoyment was identified by students' use of words like "cool," "happy," or "fun," such as "it was fun to use the tools." Some students' responses could be coded into multiple categories, such as this student who wrote, "I have never collected insects. I did it for the first time, and it was fun," which shows both novelty and enjoyment.

After the first field trip, students' drawings most commonly reflected enjoyment, followed by curiosity, and fondness (Figure 2). This distribution shifted over time, however, with students' increasingly expressing more fondness for nature (Figure 2). After the final fall field trip, a few students also drew moments where they were described getting lost, encountered spiders, or heard voices. We coded these as "curiosity" because even though emotions of fear were expressed, students also identified this as a favorite moment, a kind of thrill from experiencing the unknown (Figure 3).
[insert figure 2 about here]

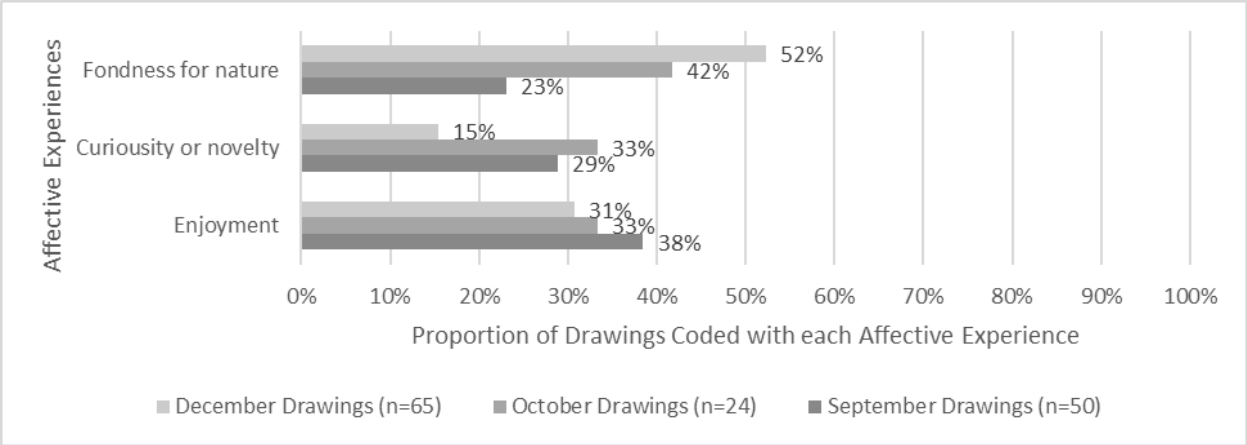

Figure 2. Students' affective responses to field trips, as reflected in their drawings. (Drawings could be coded with more than one type of experience; drawing proportions may exceed 100% for a single field trip.)

Figure 3. Drawings that express novelty or a thrill from exploring and getting "lost". At left, "My favorite activity was … exploring and the whole group got lost and saw raw meat… because we were scared when we heard voices and ran." At right, "My favorite activity was … when we got to go anywhere… because we got lost and spiders were chasing us."
[insert Figure 3 about here]

We also analyzed drawings for overall content. In this analysis, students' drawings were coded for the actual presence of elements, such as other people, plants, or animals. Educational settings reflect the infrastructure of the outdoor classroom, such as tree stumps or the large oak tree. Educational experiences reflect details of the activities, such as cameras, binoculars, observation jars, or building materials for animal shelters. In this analysis, we found that drawing elements shifted over time to show more human connections and connections to other species. Our analysis is limited because not all students in all classrooms completed the drawings each time, and in the October field trip only one class of students completed drawings. However, the drawings reflect trends that show students experiencing greater connections to other people, and to seeing other species as a significant part of their experience

(Figure 4). Overall, we noticed a shift in children's drawings from reflecting very basic elements and experience to more complexity and detail as relationships with place expanded. This progression suggests that children were developing a sense of belonging, first to the space itself, and then to the inhabitants within that space.

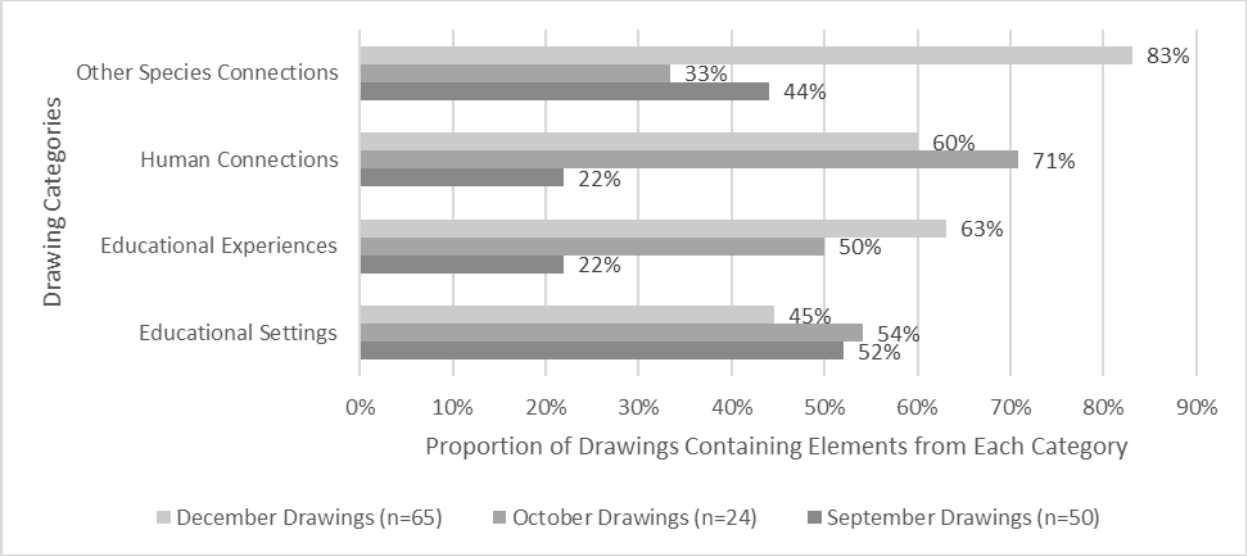

Figure 4. Content analysis of students' drawings, reflecting the overall proportion of drawings that contained elements related to each of the four categories (y axis). (Drawings could be coded with more than one type of experience; drawing proportions may exceed 100% for a single field trip.)
[insert Figure 4 about here]

Metaphorical Clearings: University Student Reflections on Field Experiences

Metaphorical clearings are spaces in which we move from a mode of domination to a mode of listening (Heidegger, as cited in Chawla, 2002). University students' reflections also showed a progression over the course of the semester, moving from fairly short descriptions to more detailed vignettes that articulated ways that children connected to activities, other species, and each other. Everyone was learning and growing together, and the field trip in December was a culminating experience that built on prior field experiences. The reflections below compile multiple students' submissions, themes, and stories from the December field trip:

- "*They get better at noticing*": University students reflected that this partnership provided opportunities for the elementary students to step into a world other than their own. As children got involved in activities and learned more about other species and habitats, they also increased their ability to investigate, notice, and connect to other species around them. On the final day, students in the bioblitz were observing tiny manifestations of life: water droplets on a spider web, tiny fungi, small plants emerging from decaying matter.

- "*Their surroundings made them curious*": On the final day, one of the stations involved children collecting and planting native yarrow seed and transplanting out yarrow seedlings. Students observed children gently placing hay around the plants, making small nests to keep their plants "safe." The children were full of questions, asking, "how long till the plants get big?" "Is hay a plant?" "Can I eat it?" and "When will the plants start growing?"

- "*They constructed ideas together about how things worked*." Some of the students in the bioblitz discovered old bones from a cow or horse. While initially they wanted to take the bones home, one of the girls reflected that it would eventually "turn to food for the ground," and they decided to leave the bones in place. Another group of children found a slightly pointy, brown ball in the mud. As they wondered about it, they found fluffy seeds inside, then parts of the plant that were still alive. By talking to each other, and with a little bit of guidance, they were able to piece together that it was a thistle plant head, a species they had experienced in earlier trips because of the prickly touch.

  Children were highly engaged in figuring out ways to build shelters for animals in the riparian zone on this same day. They used prior ecological knowledge of the riparian area to collect good materials that would be sturdy or help to keep animals warm or dry. One group left water for the animals at the entrance to their shelter. Another "stress-tested" their structure to see how it would hold up to the elements. These habitats were more imaginative and creative than realistic for the animals, but children identified specific animals for their shelters, considered what these animals need to survive, and drew on prior knowledge and collective problem solving to achieve their construction goals. The shelters were the most frequent subject for drawing reflections on this day. Students reflected on making shelter for other animals (Figure 5), and on how building the shelter opened imaginative windows for what species might come (Figure 6).

Figure 5. "My favorite activity was… when we built the habitat we built it for the animals… because it was fun building the house for the snake."
[insert Figure 5 about here]

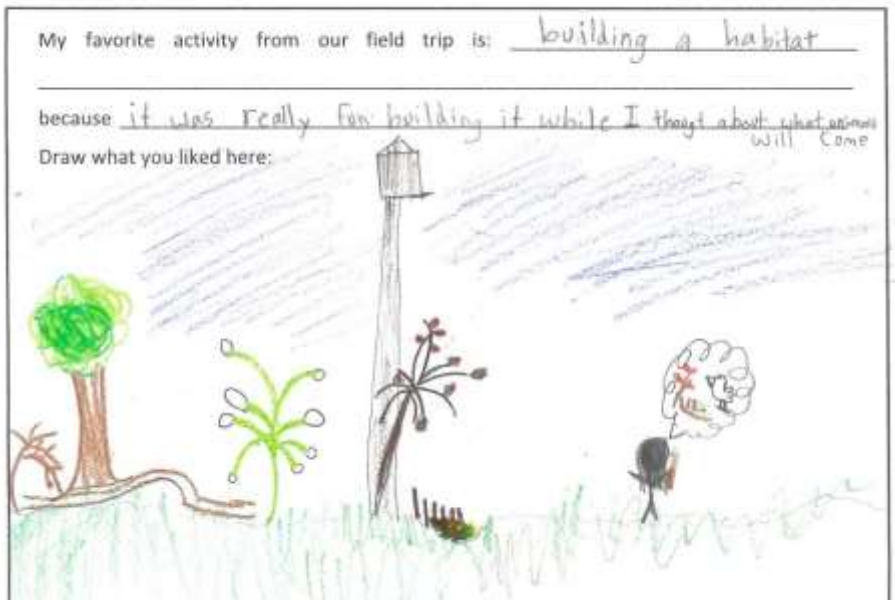

Figure 6. "My favorite activity was… building a habitat … because it was really fun building it while I thought about what animals will come". In the drawing, the imagination bubble shows a bird coming to the shelter.
[insert Figure 6 about here]

- "*We could foster imagination*": University students self-reflected that they got better at fostering imagination and magical moments alongside the children. One student who was introducing eucalyptus trees to the children in the yarrow-planting area reflected on the effectiveness of their own open-ended questions. Rather than telling, they asked "Where do you think this tree came from?" or "Have you ever seen a koala here?" In response, children jumped up and down to share how koalas eat or where koalas live. Another student reflected on their experience facilitating the bioblitz on the final field trip in the fall semester. They wrote:

> *My biggest takeaway from today was letting the kids' imaginations drive their experience conducting the BioBlitz. My second group wanted to visit "Shrek's swamp," the area near the eucalyptus grove. Rather than denying Shrek's existence, I asked them questions like "why do you think Shrek lives here? What does he eat? How can you tell he was here? To my surprise, the kids were making observations that an ecologist might make about other large predators. For example, they were talking about Shrek not being nomadic, he likes to stay put. Plus, he's large so we could expect him to eat larger animals. It was really exciting for me to see the kids get excited about the BioBlitz because they believed it was a way to figure out if Shrek truly lived there or not. From my perspective, they were doing many of the same methods a field ecologist would do.*

A Fusion of Horizons

When we move into a mode of listening, we open the door to be transformed by an encounter. This is the "fusion of horizons" (Gadamer, 1975, as cited in Chawla, 2002) that can be provided when we listen, observe, and are open to children's ways of being within natural encounters (Chawla 2002). These

moments often happen organically, and reflect potentially important moments of time in which children are developing their own relationships with the nature around them.

Like the Shrek vignette above, children bring their imaginations to their experiences, navigating worlds of culture, stories, and science that all fuel their curiosity about what is around them. For example, on one of the field trips, children were looking closely at plants and animal signs. They found hoof prints and collectively began imagining stories of wild boar walking on the same path as them. They described Pumbaa from the Lion King, with huge tusks and strong muscles. A bit later, a massive deer buck ran through the creek that was full from winter rains. The buck splashed as it leapt, and the students pointed without making a sound, simply awestruck. As it disappeared into the far-off brush, they roared with cheers as they informed all the others about what they had just witnessed. Many then changed their minds about the hoof prints they had encountered earlier; they now were convinced that this massive deer had been the creature who had walked the trail earlier and left its mark.

The culminating hike also supported students in making connections to broader regional experiences and where they live. As part of a camp experience, some of the students had been kayaking in the bay earlier in the year. However, it was not until they hiked to the view point at the top of the ridge at the end of the year, that they realized how close they had been to their homes. Cynthia remembers:

> *Many of the students who had gone kayaking became excited when they recognized the significant landmark of smoke pipes from a power plant. They remembered seeing these as they kayaked under a bridge that opened up into the harbor. This connection was so important to their geographical understanding of the area. To them, the kayak trip had been to some far-off special place, never to be seen again, but then to discover that this place is just on the other side of a mountain from the school? They were mindblown.*

Most importantly, and perhaps hardest to capture, are those moments when children make significant connections between their lived experiences and the provisions of nature around them. Cynthia remembered one such moment under the oak tree:

> *We were building the shelters and one of my students, Marco, wandered away from his group. A college student let him be for a while, then called him back asking that he participate in building the shelter. Marco looked surprised and said, "I am participating." Then he slowly emptied his pockets, which were full of acorns. Marco stated that he was gathering food. The college student then thanked him for his contribution and told him to have at it, their shelter would be ready for a long winter.*

On the surface, this moment may not seem very significant, except that Marco lives with food insecurity. At school, Marco was often hungry in the mornings, not having had dinner the night before. Marco hoards lunches and asks each day what the menu will include. He dreads breaks from school because he worries about the amount of food that will be available to him. In collecting acorns, Marco found a purpose, and the college student validated the job he was doing. Marco's real life experiences drove him to participate in the activity in a way that would allow him to make sure that his shelter was stocked with enough food. His purpose was much deeper than met the eye. This experience reflects the importance of conceptualizing multispecies flourishing not just as "more than human" but as everyone connected, the reciprocity of caring for and being part of nature.

While we primarily describe positive and magical moments in this chapter, we also want to highlight that not all children come to this experience with equal comfort or interest in natural settings. While most elementary students are excited to get out of the classroom for a day, there were several boys

who were quite anxious prior to the first field trip and almost had to be left at the school. Alice remembers that:

> *Once we got there, each of those boys interacted with the activities differently: two of them jumped right in and had a blast, one of them was content to just watch and stay on the edge of the action, and another had a really hard time with the whole experience. Because we visited the site repeatedly, all of these boys had multiple opportunities to explore and participate in different ways, and it was a joy to see them all become increasingly more comfortable exploring the natural world and making connections. By the end of January, they all eagerly looked forward to those field trips and when several had to be canceled in February and March due to flooding and storms, they were very outspoken in their disappointment. When we were finally able to return in May for the big hike up to the ridge, they could hardly contain their excitement.*

Refiguring: Listening and Being Listened to by the Land

Nxumalo (2019) described "refiguring" as "an ongoing experimentation in articulating everyday practice in ways that unsettle the ease with which anthropocentric and child-centered ways of seeing are enacted" (p. 28). As partners, we navigate messy spaces, in which children bring their imaginations, media connections, and lived experiences to a place, while we consider how to honor the land and its history. The juxtapositions are not always seamless but are a part of frequent conversations and reflections.

In their reflections and in-class discussions, university students had many suggestions for ways to deepen the partnership and practice. Some of these emerged from the published work of others. Common among these was university students' interest in using the Eco-Picture Diaries model (Ito and Reid 2020) for drawing reflections. University students read a case study of the Yokohama City Eco-Picture Diary Project and found it inspiring as an example of using multiple cognitive abilities in reflective learning. While the drawings and reflections are similar to the prompts currently used as reflections, the use of "backcasting" as a future visioning tool was new to the students, and they thought this could be used as a tool for integrating intergenerational and community-based desires into the project.

In their own reflections, university students stated that they liked being a part of and contributing to something that they felt would be sustained over time—they learned that they were a part of something larger, part of a group of people committed to learning how to enact educational practices within the context of a single, complex community. They felt it was important to be working in an area of somewhat degraded land that could be improved bit by bit, plant by plant. Students wanted to see more ways that the parents and families could be connected more directly to the project.

We have explored ways to carry these ideas forward. One possibility is to consider ways we might invite back and respectfully engage with local Indigenous community members. In the early years of the outdoor classroom, Indigenous musicians and dancers came to the outdoor space and shared their music, stories, and relationships with the land with the children. Bringing this back would allow the children to make deeper connections to how people relate within a habitat and land. We have also explored introducing the processing of acorn flour into food, ways to bring children's artwork into the space, or to expand children's work into a public venue like the library, to expand a sense of community. As we consider such possibilities, we recognize the importance of moving slowly, respectfully, and authentically.

Creating opportunities for families to engage in the same space their children learn has been a focus of a new land trust program, *Nosotros Nos Curamos* (Together We Heal), which seeks to create a safe, welcoming space for everybody to experience nature, and to do it together, through *platicas*,

conversations that nourish everyone through food and connection to natural areas within the community. As a kick-off to the Latino Conservation Week in July, five families from the elementary school, about 25 people in total, went on a boating trip into the wetland and estuary. Each participating family also had a student who had been part of the academic year programming and partnership. Juan shared that as the families entered the boat and spread out, the captain asked if anyone wanted binoculars, and all hands shot in the air. "It was really cool to see that they were curious and wanted to see this as a family. Imagine: a dad and his son looking through the binoculars together." As Juan shared this, he also got choked up, saying, "the kids in the program - they're me." When I (Victoria) asked him to elaborate more about this, he explained:

> *I always want to be able to be myself, and I feel like our program does that for the kids. To even explore what that means with them… I say "they're me" because we have a similar background, most of their parents work in agriculture, both my parents worked in the fields for such a long time, they worked with the land, [but] I didn't feel connected to land, I didn't feel connected to this country, until I was much older…*

But, he explained, the outdoor classroom space provides opportunities for children to experience nature on their own terms, without interruption:

> *Because you can have your moment with the place, whether exploring your senses at the riparian habitat, or digging under a log, because we do have a softer approach with them in this place, they can feel that, it's more possible to feel that.*

Juan reflected that as a child he wanted to feel connected to this place, this country, "like I'm from here," but it didn't happen for him. He hopes, and we believe, that by creating a welcoming environment, one where children enter on their own terms and have the opportunities described herein, they begin to make connections that they have a place they belong, and that this special place in nature, the special oak tree, and the experiences the children have there, facilitate a bit of this connection.

Part of our approach has been to meet people where they are. In the context of this school and this partnership, children do not have much exposure to natural spaces that are inhabited by other species. Asking basic questions about "who lives here?" can extend over time to "who walked here before us?" and "what is the history of this land?" Ibarra and colleagues (2021) describe a process for reawakening biocultural memory, or memory of living experiences that shape how we interact with the past, present, and future of a place. In this intergenerational process, children engage in a cycle that includes children learning natural history from elders and educators; children engaging as researchers, including interviews with grandparents; artistic workshops in which children express their learning; and dialogues of memory that connect the past and present with desired futures. Ibarra and colleagues' model is a clear process for stepping into what Moises Gonzales has called "the messification" of our times and could be one way to think about additional ways to foster community relationships and to connect stories to the land.

Conclusion

This partnership emerged from a shared commitment to connecting children to a special plot of land in a rural community where children do not have much exposure to nature otherwise. The details and scope of the project have grown over time, and myriad benefits have been realized. Because students visit the Outdoor Classroom multiple times, they develop a sense of wonder and appreciation for the natural world in their own neighborhood. They begin to realize that the small bugs, snakes, and rodents are just as interesting and important as larger animals. Students are exposed to future career paths—that of a park ranger, an ecologist, and to some degree, that of a teacher—and get a small taste of what each of those professions entails. Given the socio-demographics of the students, these career paths are not ones

they are likely to have heard of before, nor are they ones they are likely to consider for themselves. Their interactions with the university students, many of whom come from similar backgrounds, underscore the notion that they too can go to college and pursue careers different from those of their families.

Ultimately, it is a shared commitment to social, cultural, and ecological goals that bind us together in this partnership. We feel proud that this partnership has been able to sustain itself and push across a variety of obstacles, from barriers like crossing a major road, to the traumas and hardships of the pandemic. An important part of what has sustained us is the extent that we have built a sense of shared ownership of the program, and we pour energy and passion into this partnership because of the magical moments, the beautiful spots of sunshine.

In a sense, the partnership itself is living; it is a collective of all of us, a multispecies flourishing that lifts each other up. Juan suggests that those moments of magic are living moments that will stay with all of us: "Maybe because of the way we structure it, because there is actual movement and cycling through, but it feels alive, and that is what meaningful programs have to feel like for kids." Juan likens the experience under the majestic oak tree to a grandmother holding you, an ancestor reaching out, wanting you to feel connected: "whether you are playing, exploring, or having deeper connections in a space, being out there opens you up… Those moments of magic—when everyone is alive and present—the trees, the water, the birds, everyone alive in that moment." This, for us, is a pathway to multispecies flourishing.

Acknowledgements

It takes many hands and hearts to realize and sustain deep and abiding partnerships. We thank: Dash Dunkell and the Land Team at Elkhorn Slough Foundation for their commitment to care for the land where this endeavor takes place; Mary Paul and Kalipay Somosot for their support in growing the plants the students planted and grew from seed; and Executive Director Mark Silberstein, Principal Mayra Fernandez, and Interim Principal Denise Phipps-Craig for their support of the vision and logistics; all the university students for their openness, challenging questions, and the many ways they showed up to engage with children and reflect on the process; Katie Pofahl for her important role in getting things started; and Jessica Valdez-Schulz, who supported student transportation and logistics on the university side of the partnership. This work builds on many efforts to protect and restore special ecosystems of our region; we acknowledge in particular the Elkhorn Slough National Estuarine Research Reserve for their stewardship, educational leadership, and support during the COVID shutdown.

Literature Cited

Chawla, Louise. (2002). "Spots of Time: Manifold Ways of Being in Nature in Childhood." In Peter H. Kahn, Jr., and Stephen R. Kellert (Eds.), *Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations*, (pp.199-226). Cambridge, MA: MIT Press.

Ed-Data (2022) Fiscal, demographic and performance data on California's K-12 schools. Available at: https://www.ed-data.org/index

Freire, Paolo. (2009). *Pedagogy of the Oppressed* (M. B. Ramos, Trans.; 3rd ed.). Continuum International Publishing Group. (Original work published 1968).

Garson, Kyra. (2022). “Weaving Critical Education Perspectives in Teaching for Social and Ecological Justice.” In Alysha Farrell, Candy Skyhar, and Michelle Lam (Eds.), *Teaching in the Anthropocene: Education in the Face of Environmental Crisis,* (pp. 4-15). Toronto: Canadian Scholars.

Khan, Stephen, Douglas D. Karrow, Hang Thi Thuy Tran, and Stephanie La France. (2022). “Plantation Logics and STEM Economics: Make Kin as Education for Multispecies Flourishing.” In Alysha Farrell, Candy Skyhar, and Michelle Lam (Eds.), *Teaching in the Anthropocene: Education in the Face of Environmental Crisis,* (pp. 147-161). Toronto: Canadian Scholars.

Gonzales, Moises, and Enrique R. Lamadrid, eds. (2019). *Nación Genízara: Ethnogenesis, Place and Identity in New Mexico.* Tucson: University of Arizona Press.

Gonzales, Moises. (2020). “The Genizaro Cultural Landscape Model of Community Land Grants in Northern New Mexico.” In Vanessa Fonseca-Chávez, Levi Romero, and Spencer R. Herrera, eds. *Querencia: Reflections on the New Mexico Homeland* (pp. 243-268). Albuquerque: University of New Mexico Press.

Ibarra, José Tomás, et al. (2021) “Listening to Elders: Birds and Forests as Intergenerational Links for Nurturing Biocultural Memory in the Southern Andes.” In Derr & Corona (Eds.), *Latin American Transnational Children and Youth: Experiences of Nature and Place, Culture and Care Across the Americas* (pp. 161-175). London: Routledge.

Ito, Hiroshi, and Alan Reid. “Promoting an environmental education project: the eco-picture diary in Yokohama City, Japan.” *Environmental Education Research* 26, no. 11 (2020): 1656-1675.

Mertler, Craig. (2019). *Action Research: Improving Schools and Empowering Educators,* 6th Edition. Thousand Oaks, CA: Sage Publications.

Nxumalo, Fikile. (2019). *Decolonizing Place in Early Childhood Education*. New York: Routledge.