

“Flying for the First Time”: Situating Sustainability-in-Place Among Children and Young People within Agricultural Communities of California

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Introduction

When sustainability is enacted in ways that are responsive to the socio-cultural, physical, and emotional landscapes of a local community, the impacts can be transformative for students who otherwise might not connect with environmental topics. A teacher from an alternative education school in the Central Valley of California described the transformative impacts of green school practices as such:

The attendance goes up, grades go up, [it] doesn't have anything to do with the learning in class, I think it's the self-esteem. Once you have momentum going forward, they flourish. Kids in continuation school, they've been pruned too much, they don't really grow. [They've had] adverse childhood experiences, a lot of times it has to do with their ability to grow, their self-esteem. Once you poke through, it's like a hole in a dam, they've been contained for so long, it's joyful to them. It's like they are flying for the first time. [Nurturing Heart, teacher a]

In this chapter, we seek to explore the idea of 'sustainability-in-place' as a means to understand the subtle but significant differences in ways that sustainability can be enacted. We focus on the way schools in diverse geographic contexts frame and enact cultures of care. Pisters et al. (2019: 1) frame “place-based transformative learning” to include an inner-dimension, one that “understands consciousness as the embodiment and experience of our values, culture and worldview: going beyond a cognitive understanding of the world to actually sensing it in our bones.” Their framework promotes a vision of sustainability in which emotional wellbeing is interrelated with the social and physical environment.

Understanding the approaches diverse schools employ in fostering a sustainable community has relevance for the built environment because as communities develop, consume resources and are burdened with the challenges of climate change, sustainable strategies are increasingly employed. Yet *how* they are employed and *by whom* are essential aspects that influence whether diverse children and young people will identify with and connect to these systems and practices. *The manner in which* sustainable practices are enacted in diverse schools and communities fundamentally influences whether young people from historically excluded communities will embody sustainability, whether they will ‘sense it in their bones’ and, ultimately, whether agency will be realized for transformative change. Broad definitions of sustainability do not capture the nuances or intricacies of what happens in the localized contexts of schools. To more effectively lay the groundwork for sustainable societies, we need to advance models that show how local communities and schools shape sustainability from their own experiences of local ecology, culture and interests. In so doing, we contextualize not only sustainability but also meaningful ways that young people gain a sense of agency in their lives.

Sustainability-in-Place: A Holistic Framework

For decades, place-based education has been promoted as a means to cultivate human-nature relationships in local communities (Smith and Sobel 2010). Recent critiques of this approach arise from Indigenous scholarship, which advocates the importance of other worldviews and ways of knowing within land-based education, as well as from scholars who promote a conceptualization of the ‘more than human’ world. These critiques are important because without a re-thinking of how we approach sustainability, we often still advance the inequities, settler colonialism and binary thinking that have led to social oppression and environmental decline (Barrett et al. 2016). In their special issue on Land Education, decolonization and Indigenous scholars highlight the importance of ‘Land’ as first teacher, as sacred geographies, as encompassing all elements of the earth, as the urban and more-than-material world. They also emphasize the importance of agency and resistance. Agency, cultivated through participatory frameworks, can center and sometimes elevate land-based or community-based issues and concerns; elevate storytelling and narrations of resistance to exploitation and settler colonialism; and facilitate “more ethical relations on and with the land” (Tuck et al. 2016: 11).

Such critiques promote a need to “move beyond the psychic numbing that has deafened human perception” and to find ways to “aliven students to the sentience of the world” (Barrett et al. 2016: 132). These critiques have gained traction because of their relevance socially as well as environmentally; for as one of our research participants stated, “you would really need to live in a protected space to not see the impacts of climate change every day.” This thinking is mirrored and advanced by Pisters et al. (2019) in their framing of place conscious sustainability, through connection, compassion and creativity (Figure 1). This framework resonates with our own research because while we agree that education often promotes a human-centered approach to the environment, there are also very real challenges that communities face, particularly in communities that disproportionately experience acute disparities in health and wealth and who sometimes see sustainability initiatives as separate from themselves, if they think about them at all. The framework that Pisters and colleagues articulate clearly identifies compassion for self and others. Their framework advances ideas of a relational ontology, in which connections can be made internally, across communities, in a spiritual realm, as well as across species boundaries, and it makes way for diverse perspectives, issues and concerns to unfold in relation to sustainability (Figure 1).

Central to our chapter is this framing, of sustainability-in-place. We view place as the situated realm where specific ecologies, geologies, cultures and ontologies coexist and give rise to a sense of belonging. In our research, we were particularly interested in exploring the way these relationships developed and were framed by communities themselves. We ultimately view this approach as a means of developing and realizing agency for change among diverse childhoods because it provides a broader range of ways that sustainability can take shape and unfold.

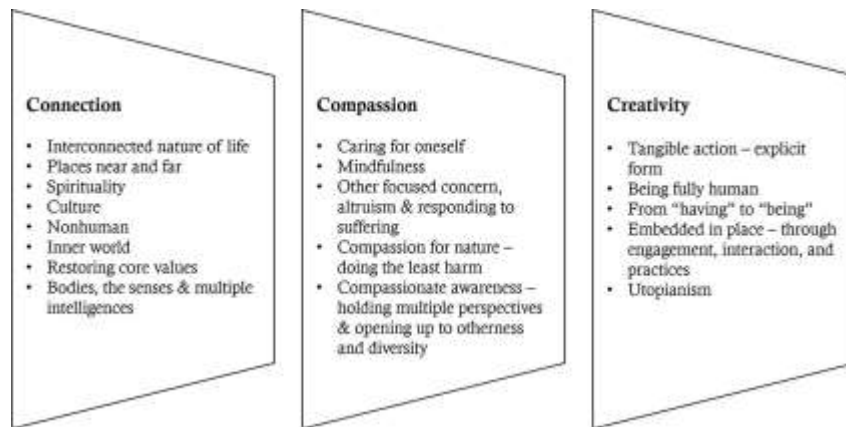


Figure 1. A framework for sustainability-in-place (Pisters et al. 2019)

Research Approach

In 2021, environmental studies students enrolled in a capstone course researched green school practices in California schools which had received one of four award recognitions: the U.S. Department of Education Green Ribbon School awards from 2012 to 2019 (US DoE: website); the Leadership in Energy and Environmental Design: LEED for Schools awards between 2009-2019 (USGBC: website); the National Wildlife Federation Eco-Schools program between 2010-2019 (NWF: website); and the National Oceanic and Atmospheric Administration (NOAA) Ocean Guardian School program between 2009 to 2019 (NOAA: website). Each of these programs varies in its structure and goals, but each promotes student engagement and learning in relation to sustainability practices. Capstone students first conducted a statewide assessment of the systems and approaches award schools were taking and then conducted interviews with a sample of teachers and administrators.

Based on this research, our team (the authors of this chapter) set out to more specifically understand how green school practices were being enacted in communities that have been historically excluded from environmental or sustainability practices. In the context of California, these include low-income communities; communities with high proportions of ethnically diverse populations; and communities with high proportions of ‘socio-economic disadvantage,’ which the California State Board of Education defines as sub-group of students who meet any of five criteria:

- both parents without a high school diploma
- eligible for the free or reduced-price lunch program (an indicator of low income)
- homeless
- a migrant
- under foster care (CA Department of Education: website).

Historically excluded schools may also include those who seek to ‘green in the red zone’, a phrase used by one of our participants to denote regions of the state represented by politically conservative officials and a subgroup of citizens who historically and currently resist or oppose environmental protection efforts including water conservation, climate mitigation or industry regulation. Historically excluded communities may also include agricultural communities which typically are composed of high numbers of migrant and immigrant families who do not necessarily have a strong connection to local places. Importantly, not all citizens in these regions align with prominent political views that reflect anti-environmental orientations, and not all citizens in these regions experience environmental harms or benefits in the same way (Flores-Landeros et al. 2021). These communities therefore present challenges and opportunities to enact sustainability-in-place so that it is relevant, meaningful and sensitive to local contexts.

From the list of schools generated in course-based research, we filtered all schools who had received at least one of the four awards to those with more than 50 percent of students in the socioeconomic disadvantage category *and* less than 50 percent of students identifying as White, non-Hispanic in their racial or ethnic identity. This resulted in 25 schools that we reached out to for an interview. A total of 21 semi-structured interviews were conducted with 7 school or district-level projects between September 2021 and April 2022. We have anonymized participants by referencing broad regions within California, giving pseudonyms to schools based on specific phrases from the interviews, and using they/them/their for all pronoun references.

Case Study Selection

For this chapter, we selected two case studies from schools located within agricultural communities in the state. We focus on agricultural communities in part because they comprise many geographic regions that are under-represented within environmental and education research (Sawyer et al. 2021) and because they are among the most socio-economically disadvantaged communities in California (Flores-Landeros 2021) and potentially the entire US (Jasis 2021). In particular, children of migrant farmworkers are among the most vulnerable educationally and for mental health (Jasis 2021; Sawyer et al. 2021). Most environmental justice research with farmworker communities is targeted at pesticide exposure and environmental health, but little research directly connects educational opportunities with a sense of agency towards the environment beyond minimizing these harms.

Lack of opportunities and lack of representation (racially, culturally and socio-economically) are common factors impacting the success not only of children of farmworkers, but also of working class students of color more broadly, and these same issues can also be significant in inhibiting young people's connection to environmental issues (Akorn et al. 2013). In the context of education, scholars have posed questions as to how to shift youth and family participation and educational advocacy so that youth can obtain a meaningful, quality education while maintaining their racial, ethnic and social identities (Akorn et al. 2013; Jasis 2021). In particular, Akorn and colleagues (2013) pose the question of how 'working class kids' can achieve this while also "healing from physical and emotional trauma... exercising self-efficacy and self-determination... and remaining connected to their community cultural wealth" (p.155). The case studies of this chapter therefore reflect not only the context of education within agricultural communities but also potentially of experiences connecting with sustainability from many communities that are working class, low-income and/or of color.

Beautiful Oak School: Set in a small, rural community along the Central Coast of California, this case is important from a geographical context because it shows how children with transnational identities, whose families may be new to a place, learn to connect with nature through a partnership with a conservation organization which holds private lands adjacent to a school

(Figure 2). It is also important from the context of historical exclusion from environmental practice because these children – 99 percent of whom are Chicanx or Latinx and with 95 percent from socioeconomic disadvantage (EdData: website) – learn to see themselves as caretakers of people and land, through their role-taking as ‘rangers’, modeled from the national park system.



Figure 2. Students cross a busy highway to get to private conservation lands from their school. Without the partnership, these lands would not be accessible to students. (Photograph by Kris Rose)

Nurturing Heart School: Introduced in this chapter’s opening, this alternative education school in the Central Valley is important from a geographical and political context because the Central Valley has strong voices both for and against environmental issues. Young people growing up in this region can be excluded, historically and in the present, from opportunities to consider their communities as places for sustainability or as sites for transformative learning. The school serves students who have not been able to succeed at a regular school; 96.5 percent of students come from socioeconomic disadvantage, 79 percent are Chicanx or Latinx and 7 percent are African American (EdData: website). Many of the students have parents and family who are farmworkers, working in the Central Valley’s orchards, farms and packing industries (Figures 3 and 4). The school takes a broad approach to sustainability, engaging with green technology careers, environmental advocacy and mental health.



Figure 3. The Central Valley is an agricultural checkerboard of open space and agricultural lands. (Photograph by Annie Jones)



Figure 4. Almond orchards are a predominant crop in the Central Valley and supply as much as 80% of the world's market with these nuts. (Photograph by Annie Jones).

Case 1: Beautiful Oak School

The Central Coast of California is a checkerboard of agriculture and natural areas (Figure 5). It is home to maritime chaparral and coast oak woodlands, and most of the region's watersheds ultimately feed into the Pacific Ocean. Despite the natural beauty and relative abundance of open spaces, including agricultural lands, not all communities along the central coast are tied to nature or experience it much at all. In the case of the Beautiful Oak School, one of the

community partners who is also a long-time resident believed that most families were not very connected with nature:

The main connection for a lot of families is that they are farmworker families, so they're connected to nature through the agricultural community, or agricultural work. And for a lot of those families, the notion of spending your family time or your time not working is *not* to go out into the field, *not* to nature. If you want to do something fun at home, you want to go to a park to play soccer or have a party. [partner a]



Figure 5. On a hike to a view point, students make connections between open spaces, agricultural lands, and the ocean (Photograph by Victoria Derr)

Yet many of the children in this school program express excitement at being out in nature for the first time. Children gather under a majestic coast live oak whose arching branches create a sheltered outdoor classroom. A video from one field trip shows a group of children and their parent chaperones peering intently into a bucket. They squeal with excitement at the bucket's contents, and when the camera zooms into the bucket, the video reveals just a few small roly-pollies and beetles. As the video illustrated, viewing nature of any scale through the lens of exploration and inquiry could be new and exciting, but for others, these experiences could be met with fear or apprehension:

... sometimes they are, you know, repulsed, initially. But through the way we present things and the comfort we have with the animals and sharing them, ...you start breaking down those barriers and those fears.... And for a lot of families from parts of Mexico, it was good to be scared of snakes because in the desert there are ... rattlesnakes, ... you've got a lot of poisonous snakes in the jungles.

So people come from a different environment where snakes are scary and to break down that barrier here and say, 'Well, fortunately, we live in the area where the only poisonous snakes around are rattlesnakes, and they tend not to like cold, damp creeks'. So we've got gopher snakes and garter snakes, and these are important for the habitat, that they eat rodents so you don't have an overabundance and the problems that they can cause. Then you start talking about habitats and, you know, just basic ecology. So you're breaking down some of those barriers for students as well as bringing the parents and families [together]. [partner a]

The program is structured such that fourth grade students (generally ages 8-9), whose curriculum aligns with human impacts on the environment and watershed systems, learn about the ecology of local ecosystems and take monthly field trips to conservation lands that are across the street from the school. These lands are not open to the public except through special events like these field trips. Towards the end of the school year, the fourth grade students lead the second grade students through a series of activities at the site. In this framing, fourth grade students explore what it means to be a 'ranger' and enact those principles on site. Derived from their experiences with a national park that is about an hour's drive from the school, students self-identified 'park ranger' as a role model for their activities. Ranger activities include observing and illustrating nature, ecological restoration, picking up litter and educating others. In surveys conducted by the teachers, students described feeling like a ranger for a variety of reasons including when they "help people," "help kids learn about the environment," "pick up trash and plant seeds," "explore nature," "catch insects and let them go," "design a sign" and "help animals and listen." Survey results emphasized that students come to see their work as rangers not only in taking care of the land and animals, but also each other. Teachers emphasized the increased comfort and confidence they see in their students:

Kids really get a pretty good understanding of what a watershed is and how it functions and how their actions directly affect the watershed and how that affects the larger community. And they get public speaking experience; they get to spend some time out in nature. It's ... not really a wild area, but it's more wild than our school campus is. Some kids are really kind of scared and timid to be out there at the beginning ... [but] by the end of 4th grade for sure, they're much more comfortable being outdoors and in a place that's not really landscaped or structured, more natural surroundings. [teacher a]

I think it is the confidence that gets instilled in the students. It's like the understanding of [their community] as a natural habitat and the connection it fosters. And also the confidence to go out and talk about it with others. [teacher b]

Yeah, that public speaking experience and the leadership skills that they develop as fourth-graders when they are leading the little second graders on their guided tour of the Outdoor Classroom... That is pretty amazing to see because they ... plan it, prep it, and lead it... And it's just pretty amazing to see the kids who really struggle in the classroom academically. They tend to be the ones that just shine in that setting and doing this kind of an activity. And it's a way for them to feel successful at school. In a way that they don't usually feel. [teacher a]

One of the community partners identified an expansion not only of confidence but also of students' sense of place, in how they come to view their community and who inhabits it:

It can be a sense of place in terms of 'this is my community, this is where I live, I know these people, these are my friends'. And taking that sense of place, but expanding it. ... 'This is my community and this is our backyard, which is an open, wild space', which, at first, they're a little scared of..., and getting away from that kind of stereotype of the outdoors to actually ... *see* the creek, they get to *see* the butterflies. They have a butterfly land on their shoulder or they have a [praying] mantis crawl up their back or, or any of these kinds of experiences where they're not at the store, they're not on the street, they're

in an open wild space: It expands their view of community that their town is surrounded by agricultural land, but also by open space. [partner a]

In this way, this project supports children to embody ideas of the more-than-human world: It fosters an expanded sense of who inhabits the place where they live. This expansive thinking is also connected to their increased self-esteem and developing skills. As they come to embody the more-than-human world, and the compassionate roles they take on as rangers, they develop the possibilities and their own visions for sustainability-in-place.

Case 2: Nurturing Heart School

The Central Valley watershed covers more than a third of the state of California. Its agricultural productivity can overshadow the poverty, hunger and chronic mental health challenges also set amid that land of abundance. Many of the predominantly Latinx community members do not have access to clean water, clean air, food security, sufficient housing and health services, employment opportunities beyond low-wage jobs, nor political representation. Educational attainment in the valley is also low, and many grassroots organizations do not generally identify with environmental justice work even if it is part of their focus (Flores-Landeros et al. 2021).

In this context, the Nurturing Heart School is foremost about supporting its students so that they can find pathways to sustain themselves in life beyond school; it supports students to learn their own value and inner wealth (NHI: website), which is particularly important because by the time they get to this school, “a lot of the students have given up” [teacher b].

Three teachers are foundational in supporting its green school activities in particular: a history teacher who engages students in understanding connections between local issues and state policy and has their students connect with students internationally as they learn about and help employ the United Nations Sustainable Development Goals; an English and mental health teacher; and a green technology teacher. The school has received awards from the state and federal governments and the US Green Building Council and is often featured in local and state media for its innovative approaches to sustainability. In the context of a school that is focused on

providing alternative education options to students who have been “pruned too much” and are often living with the consequences and damage that has come from adverse life experiences, approaching sustainability requires finding new windows and charting new paths:

Sustainability, to be honest, is a secondary value for them. They hear it but they’ve never experienced it. From home to community, they haven’t seen it. Living in at risk communities (because we are on the EPA index) [in the 80-90 percentile for environmental health burdens (CA OEHHA: website)], it is really important that we first connect to employment and then to reiterate that there is also a higher moral purpose, so it goes from: ‘Oh, I’m helping someone,’ to ‘Oh, I’m helping the planet; I’m helping the community.’ They begin to see you can do both. It doesn’t have to be a scorched-earth policy. [Nurturing Heart, teacher c]

An example of how this works is through a ‘let’s get growing’ partnership between the green technology classroom and the fourth-grade students. To help them achieve the science standards in fourth grade, the green technology class produces strawberries hydroponically and then visits the elementary classroom with the strawberry plants and shares what they did and what they’ve learned with the elementary students. Growing strawberries hydroponically, however, requires resources that the students are a part of generating, installing and building: They learn about design and construction and build the sheds that house the hydroponic systems; they research and install the hydroponic systems; and they learn about solar power and install the panels that fuel the energy required by the system. They also research the economic value of the strawberries and develop cost estimates for selling them at the farmers market. The green technology teacher calls this approach “the special blend” because it needs to directly connect students with future employment opportunities, such as careers in solar technology or technology innovation. The teachers emphasize that “We are trying to get them to that ‘a-ha!’ moment when they say, ‘I could work in this field! I could see my life sustained with a purpose’ [teacher c].

At Nurturing Heart, sustainability emphasizes how students can sustain their own lives, and the mental health curriculum and practices in the school also provide students with essential tools and awareness: how to develop support plans, how to advocate for oneself or a family member.

The school employs a variety of approaches to achieve this, including the Nurtured Heart approach, a relational methodology that supports students in establishing meaningful relationships (NHI: website). A number of teachers are trained in the nurtured heart curriculum, and they have one on-site trainer. This trainer expressed the profound challenges students have faced during the time of COVID:

They lost uncles. They lost cousins. They have lost friends to COVID. So the students are coming back [to school in person] with grief. So we talk about it's okay to not be okay. We are not alone because of the isolation of COVID [even if] it feels like we are alone in our suffering... [teacher b]

Agricultural communities were particularly hard hit during the pandemic, with a higher incidence of exposure, illness, and death among families due to 'essential worker' status, overcrowded housing conditions, and lack of access to healthcare services (Flores-Landeros et al. 2021). These impacts also led some children and teenagers to work in the fields to support their families rather than to attend schools during the pandemic (Aguilera 2020). All the teachers spoke about needing to spend more time helping students learn how to be students again because the young people had spent so much time caring for siblings and family members, working to support their families and mostly *not* doing school during the year and a half of remote learning. The green technology teacher relates this to how they seek to redefine what sustainability is from their perspective: students explore questions like 'was your environment safe?', 'how are you sustaining your life?' and 'what are you trying to sustain?'

You see how fragile their environment was, loss of family, being at home... school was their only safe environment. So it's been rebuilding [since school resumed in person].
[teacher c]

After reflecting at length on the pandemic, teachers collectively circled back to the concept of sustainability:

The textbook definition of sustainability and how it is used in society and industry, is pretty far-fetched [for these students]. You can't save the planet; you can't save today... [teacher c]

...When you are trying to eat [teacher a]

Each of the teachers approached sustainability through issues students already were familiar with, such as food insecurity: teaching them how to grow food, looking for inspiration from Ron Finley—a “gangsta” community gardener from Los Angeles (Finley, 2023) and community gardeners and distributing foods to others who were sick or at risk during the pandemic. They reflected on the irony that often, “farmworking families don’t connect sustainability and food” and that students’ families often eat at inexpensive fast-food restaurants because it is the most convenient and cost-effective way to feed their family after long hours in the fields. Because of the school’s can-do reputation in the broader community, one of the teachers was asked during the pandemic if they could take in vegetable boxes from a nearby college that was completely shut down. The teacher agreed and ended up with more than 50 tons of food harvested, delivered, and rescued. To distribute the food, students made a database starting with personal connections: “someone has cancer,” “someone can’t get to the store safely,” and then expanding to area shelters and other service organizations, but the teacher also described that “there is a lot of pride” and “people don’t want to take handouts”, so they created a food challenge in which houses were handed a bag of produce and asked to see what they could cook with it. In this way, the school facilitated nutrition and eating during some of the hardest times of the pandemic.

Prior to the pandemic, the garden was an important source of emotional support for some of the students. The small orchard, greenhouse garden boxes and vermicompost were places where students could connect with nature, get away. “When they can get their hands dirty, things shift... as the community grows together, they open up” [teacher a]. One student in particular was very reclusive but loved to be with the worms; it was a way for him to relax and connect with something outside himself. One day when the Superintendent of California schools came to visit, he spent about 10 minutes talking to this student, asking questions and listening to his experiences with the worms and the school. Later that day, the student asked his teacher who the

visitor had been, and when he found out it was the head of all the schools in the state, he was elated: “He spent 15 minutes with *me*? He was asking *me* questions?” The experience changed the student’s perspective, providing a broader window into the significance of his interest, and he went on to become a leader in the classroom, trying to find ways to engage other students in sustainability work.

The Nurturing Heart case highlights both the privilege and responsibility that come with consideration of the *more-than-human* world. It is a privilege because when youth literally are struggling to sustain themselves, due to food or housing insecurity or other risk factors, they do not necessarily have the wherewithal to think beyond themselves and their impact on the environment. At the same time, finding the right window, the right pathway, is also a *responsibility* so that these youth also can see themselves as inhabiting possible futures, in which they can envision themselves sustaining their own lives *and* sustaining them in relation to the broader world, a world to which they come to see themselves as belonging.

Nurturing Agency through Sustainability-in-Place

These cases are from agricultural communities, but they share much in common with other communities in the US and around the world where lack of investment and opportunity often limit possibilities for children and young people. Akom et al. (2013:156) advance the construct of structural resistance and agency, which suggests that “individual youth agents and social structure are formed and reformed through the action of each upon the other”. Societal structures, rules, and, we add, infrastructures, are all systems that govern norms for behavior and action. In the realm of sustainability, communities and schools seeking to resist domination, have a challenging task in asking how to engage young people in healing and self-efficacy while at the same time promoting culturally responsive educational opportunities associated with environmental action. Akom et al. (2013) promote approaches such as project-based learning, approaches that center principles of social justice and that examine issues of relevance to communities of color. They also promote racially and gender diverse role models. While this chapter’s case studies differ in approach, they embed many of these principles into their practice. In the case of the Beautiful Oak School, racially and gender diverse role models come through

partnerships with a local university that is a Hispanic Serving Institution. At Nurturing Heart, the teachers themselves embody this diversity. In both cases, students themselves serve as role models for younger students in their same school system.

Together, these cases illustrate ways that sustainability can be enacted in place, by fostering (re)connections to nature and life, to places near and far and to a diversity of species and issues (Pisters et al. 2019; Figure 1). They also bring forward the critical aspect of compassion in enacting sustainability, particularly in the context of communities who have experienced disproportionate social and environmental harms. Caring for oneself and others and bringing forward intentional mindfulness and focused concern (Figure 1) are aspects of both of these programs, with both schools creatively engaging in tangible actions that are intricately tied to place (Figure 1). Pisters et al. (2019:1) suggested that “acting to alleviate suffering or doing the least harm, naturally follows a sense of interconnectedness”. In our research broadly, and in the case studies presented here specifically, we see this interplay; however, for youth who have experienced adverse childhood experiences, (self) compassion is a more accessible entry point for sustainability practices.

In the context of these and other cases of our research, we found ourselves seeking a new term for agency that was intersectional with social justice. While participants in our research described educational practices that can benefit many students and learning profiles, they particularly highlighted educational benefits to students who thrive in these contexts but not in traditional settings. We term this outcome ‘just potential’ because it is a form of educational justice and equity in which students are able to realize their potential for learning and growth, when agency is emphasized. When green schools can center communities and youth as a part of their pedagogy in the way our case studies demonstrate, ‘just potential’ is more likely to be achieved. The theme of ‘just potential’ was initially discerned from a story shared by a teacher at the Nurturing Heart School. This teacher described one student as a “recluse” who was devoted to the worm compost project in their school garden. Initially, this student sought refuge and alone time with the worms, but one day, the school was visited by the State Superintendent of Education. The superintendent spent time asking this student about the worms, how they made compost, and what the student liked about the project. This student later asked their

teacher who that adult had been. When they learned the significance of his position in state leadership, the student was shocked, saying “he spent fifteen minutes with *me*? He was asking *me* questions?” The teacher reported that this single experience “transformed their whole life. They used to be a recluse, [but] after that they’d be in class, trying to be a leader, working with students.” [teacher a]

In the context of the Beautiful Oak School, agency formation develops across lessons and field trips, with the culminating activity that the fourth-grade students lead second grade students in educational activities at this site. One teacher reflected:

It’s just pretty amazing to see the kids who really struggle in the classroom academically. They tend to be the ones that just shine in that setting and doing this kind of an activity. And it’s a way for them to feel successful at school in a way that they don’t usually feel.
[teacher a]

In the context of this school, fifth grade students subsequently designed and implemented educational storm drain murals at the school. They were directly able to make connections between school litter and the waste they had seen and collected on their field trips. After the murals, these students also made public service announcements for community radio stations. Both teachers reflected on the significance of this:

I think, because the kids are invested in a project and they’re working in groups. They’re learning the basic respect and responsibility skills, but as their groups work together. ... There are those certain kids who really don’t do well in the classroom, but they do really well with the projects. It really fosters empathy in there, because I think it almost kind of levels the playing field, right?, because when kids come into classrooms, they know who gets the good grades, they know ... [teacher a]

They know who can read and who can’t. [teacher b]

So, in that way it sort of builds up confidence and helps them [in] just treating each other better. They find out new things about each other through this work that they don't in just an average school lesson. And in that way, I think it builds that empathy for each other. They really learned that everybody is good at something. And something is hard for everybody. [teacher a]

At this school, teachers reflected on the importance of project-based learning that scaffold across the grade levels, and the effectiveness of small linkages that could be made across the curriculum and years as essential aspects of agency formation.

Kids do need the more structured and targeted instruction, yes, but it's these projects that really keep them engaged and show them that there's a reason why you're learning how to read, there's a reason why you're learning how to do some of this math, and here are some real world ways that you can apply this learning. It really has transformed the school and the kids here who do those projects, they come out different at the end in a really wonderful way. [teacher a]

A teacher at Nurturing Heart School also emphasized the importance of 'just potential' in extending concepts of sustainability and student agency to basic care and mental health:

Most of them don't have the infrastructure to be successful, that's why they're here...these kids on our campus, they don't have it... I think one of the most important things for students, to me, is trying to get them to care for things. [teacher a]

In this context, the teachers also focused on an approach that "gets into the mind" and seeks to teach them self awareness and responsibility:

So when it comes to the green schools, it comes across in a big way because we don't do what we do here for the [award recognition]. We do what we do, because we love what we do. But the [award] has a way of giving props to people that are doing it throughout the system, not just in the maintenance of the air conditioning... and the classrooms with

the lighting, but [also] the mental and physical health ... the CTE [Career Technical Education] and environmental stuff. The [award] is basically just showcasing the people that are trying to get it done right. [teacher a]

These cases show the importance of shaping sustainability from the ground up, in a way that comes from and works within the local school and community context, and that builds young people's agency through their engagement, participation, and leadership formation within projects. In shaping sustainability-in-place, these schools also forge possibilities for what it means to be part of the more-than-human world and demonstrate the complexity of what it means to enact sustainability in communities historically excluded from these processes and practices. Agency is initiated with small projects that promote problem-solving and discovery, such as building a small shelter for an animal that lives in the habitat or a small-scale hydroponic system for strawberries. As skills, knowledge and connection expand, so too does agency grow. In the case studies of this chapter, agency emerges in the context of schools and partnerships where young people develop capabilities. According to Giddens (1984), agency implies not just the ability to do something but also an ability to influence other people or processes. In these case studies, young people learn to influence their local environment and other people. From this view, sustainability-in-place is an enabling framework for agency formation. Agency *matters* in the context of sustainability because it supports children's sustained interest and continued participation in environmental actions (Trott, 2020). As Tuck et al. (2016) articulated, agency in these contexts also elevates and centers land-based and community-centered issues and concerns that promote more ethical, relevant and holistic approaches to education or to problem-solving.

These cases are particularly important for small and diverse communities, communities that seek to reclaim place, communities whose local governments may not have the capacity or political will to advance sustainability on their own. Schools can be sites for small-scale change, for students to experiment with and enact sustainability in a way that is place-specific and locally meaningful. Young people's agency in these contexts is particularly important because it can be one of the only means of moving the needle towards change that will ultimately foster sustainability-in-place. Advancing these models can help schools and cities everywhere to

consider how they are shaping sustainability so that places hold up windows of opportunity that embrace local ecology, culture and participation of groups who too often are excluded.

Perhaps most importantly, these cases illustrate a variety of ways that schools can support students from historically excluded communities in finding “windows, sliding glass doors, and mirrors” (Sims Bishop 1990: ix). As initially framed by Rudine Sims Bishop (1990: ix), the representation of story book characters in children’s literature that reflect the identity of the readers provides “windows, sliding glass doors and mirrors” which allow children to see themselves in the broader world and to imagine possible futures for themselves. In their own ways, each of these projects also held up windows to their students, “offering views of worlds that may be real or imagined, familiar or strange” (Ibid.). Windows sometimes became sliding glass doors, with possibilities for action or advocacy that felt meaningful to the students. When “lighting conditions were right”, the windows sometimes became mirrors, with opportunities to “transform human experience” and “reflect it back” so that students could see their “own lives and experiences as part of the larger human experience” (Ibid.), thus affirming one’s agency and oneself as a part of a broader community, a more-than-human world. In this way, enacting sustainability-in-place swings the door wide open, allowing students to fly, sometimes for the very first time (Figure 6).



Figure 6. A student from the Beautiful Oak school joyfully flying from an oak stump (Photograph by Kris Rose)

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