# Spacemaking by Those Rendered Placeless: Youth Enacting a Culture of Care through Learning, Identity and Design

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## Abstract

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In my ethnographic dissertation, I employed participant observations, audio and video recordings, interviews with young people, and examination of artifacts to investigate a nonprofit organization's 20-week youth design and build program. This program took place over a calendar year and aimed to construct a space for the deaf community, combating issues such as rapid gentrification, displacement, and the loss of place. Throughout the study, the focus was on five girls of color who engaged in activities ranging from selecting the client to designing the space with the guidance of architecture mentors and ultimately building the space with the assistance of carpentry mentors. Data analysis involved grounded theory, open coding, and thematic analysis methods, culminating in a multimodal collage-style presentation that explores the data and its connection to the ways in which youth constructed a sense of place through

narratives and vignettes. The findings are presented in a three-paper format, highlighting emerging insights regarding (a) making and maintaining places of resistance, (b) identity cultivation, space and belonging, and (c) building a culture of care. Throughout this work I pull heavily from Black spatial and geographic perspectives, knowledges, lineages of thought and ways of being to foreground Blackness in how we understand learning. By learning through Black spatial histories and the ways it can inform and guide learning and spatial resistance that leads to liberation is where my dissertation is situated. This work serves as a foundation for future research on designing learning environments that promote Black spatial perspectives as a means for dismantling whiteness and white supremacy, including their interlocking systems of oppression. This dissertation also positions young people and youth as key contributors and producers of space in our urban landscape. A focus on their engagement in interdependence, learning, and resistance during the process of designing and constructing physical spaces demonstrates how youth employ their learning experiences as a key tool for resistance through space. Moreover, the implications of this work extend to policies that allocate resources towards various initiatives in planning and community development, shift how we position Black spatial perspectives in learning environments, and ultimately, build infrastructure to support youth in leading.

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# Acknowledgments

I'm not entirely sure how to start this section outside of just expressing how much I couldn't have gotten through this process without an eclectic breadth of people. At times I probably should've stopped this journey, I probably should've put my health first and been done as I wasn't supported, slipped through the cracks or was made to feel like I didn't belong. For some reason, the folks both in this section and those here in thought allowed me the room and motivation to get through. Like many institutions, the University of Washington and Seattle exists on the Indigenous homelands, specifically that of the Coast Salish homelands, amongst other communities that now live in what is Seattle. I am grateful to be here as an uninvited guest on these lands. This occupation is ongoing and a prime example of geographic harm, rendering a community placeless and in need for ongoing resistance. I ask the question of what repair and redistribution looks like rather than just a land acknowledgment? Please also educate yourselves on what Indigenous lands you are on today, tomorrow, wherever you may go. Land acknowledgements only go so far and are a small gesture to recenter Indigenous peoples. Support local Indigenous businesses and communities by being intentional about standing in solidarity with Indigenous folks, see who's land you're on here.

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# Dedication

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# Chapter 1: Roadmap of the Project

The phenomena of inquiry I am focusing on is the ways youth develop a sense of *identity-in-place* at the individual and collective level as they engage in the collaborative design of a physical space for another group of people with disabilities. In doing so, I inquire about the role of place and space in the teaching and learning of spatial justice through a design-build out of high school-age youth program. I follow this thread to dig into how cultivating spatial knowledge can sustain learners and their various intersectional identities as spatial producers (i.e., designers and builders). The introduction chapter (or "wrapper") that follows covers my positionality and how I come to the work through brief stories connecting my spatial knowledge to the dissertation project. I follow that up with a literature review and study context to provide a brief overview of the project's entirety and the ways Black Geographies frameworks offer new ways to understand learning. Then, I present my data collection and analytical methods to highlight the guiding principles that promote my inquiry into the phenomena above. Toward the end of the chapter, I introduce the general findings and implications of the project. To enclose the introduction "wrapper," I present the following three papers and their general descriptions.

In this presentation style and focusing on the presented phenomena, I ask the following questions:

- *Paper 1*: How do creative justice-centered learning environments support youth development and understandings of power and space pertaining to their identities in place as spatial producers?
- *Paper 2*: How do disciplinary-based spatial practices (e.g., designing and building) support the development of identities?
- *Paper 3*: What framework emerges from understanding how one group (the students who are able-bodied) designs, builds and advocates for another group with different shared experiences, intersectionalities, and needs (the client representing a group with disabilities)?

## Positionality + How I Came to This Work

My lived experiences, as shaped by my intersectional identities, have informed my commitment to conducting research. This commitment honors our (those of us with marginalized identities and rendered placeless) need to counteract spatial inequalities by cultivating belonging through learning and identity development. In the summer of 2000, at five years old, I was on my first flight to Atlanta, Georgia, from Phoenix, Arizona, to visit my dad for the first time where he lived and grew up. After jumping from extensive triple-digit temperatures in Phoenix (where I grew up until college), I figured I would be going to a place that felt better weather-wise. At this time, youth under 16 had to wait until everyone had deplaned while flying alone for unaccompanied minors. This was also before 9/11, so family members could walk to the gate with kids. The operations agent could walk them down to their parents at the gate when arriving. So as we pulled into the gate in Atlanta, the flight attendant reminded me, and to my delight, I remember feeling a gush of air that reminded me of eating hot soup in the middle of summer if you got sick for some reason. After walking through the soup, to my astonishment, I recall thinking how excited I was to see a new place, and it was the first time I felt un/seen as it was the first time I was in a majority Black city. I had a similar experience when I first traveled to Philadelphia, Pennsylvania, to visit a school I was recruited to play football. There was a different feeling in a city where I saw people who looked like me; the sounds reverberated in my bones, and I recognized music playing. The smells reminded me of family cookouts and dinners around the holidays. The way people dressed made me feel like I didn't stand out. My experience growing up lent me to be one of few in many spaces, and my experiences in Atlanta and Philadelphia were equivalent to my understanding of what it means for me to belong.

On this visit, we ventured off the plane (experiencing a similar feeling of soup). We spent hours walking through the city, albeit sweating profusely, so obviously, I had to wear Black, and it was the second time I felt un/seen in a way that made me feel whole because I felt a sense of belonging and place. At many points in my time in Philly and Atlanta, I felt a sense of place and belonging I hadn't felt for most of my life.

This form of belonging, having a sense of identity-in-place was the case until I was diagnosed with Multiple Sclerosis (MS) in December 2019. As I sat in the hospital and started googling what MS was, I was shocked and scared and started questioning why. I also noticed how my friends and family who flew in, and doctors were shocked—almost more than I was. At this point, I was still playing football and received the news I couldn't play anymore. Having a disability forced me to reorient how I understood space and the city. Through this I realized how little spaces were made for folks with disabilities, causing very limited access to spaces where Americans with Disabilities Act (ADA) requirements were the bare minimum and often more challenging to navigate. With my MS being an invisible disability, rarely are people able to see when I'm struggling to walk, speak, see, and/or experience chronic pain and fatigue. This limitation in the way a city's poor designs to include a more expansive definition of access communicates to people like me, that we don't belong to various spaces within the cityscape. Thus, the experience of unbelonging, while resisting the need to belong to spaces not built for me, has informed the way I understand and view spaces within the city, more so as a way to construct spaces that allow me to feel like I belong. This is further informed by focusing on design and learning design activism as a way to disrupt power through space within cities.

At that moment, I was shattered, and over time as I understood my disease, I grew into my disability identity and what that meant for me spatially. In my academic career, personal life

and social life, my disability and health come first as I learn to renavigate an ableist world socially and infrastructurally. I hadn't felt supported in the context of my disability identity until moving to Seattle, WA, for school. Every doctor, physical therapist, chiropractor, acupuncturist and others understood the baseline that MS was challenging and supported me in my journey. Academia was not, and still isn't, one of those places, and I've felt disposable, disregarded and written off in different instances as someone who's regularly not included across various cities I've lived in. I highlight how spaces, belonging and learning to cultivate a sense of place have influenced my work, this project, and how I approach the need for spaces, places and geographies. Thus, I approach fostering belonging for people from a Black Geographies and Disability Justice lens, which stems from intersectionality theory and Black feminist thought. This calls attention to the ways systems oppress and socially construct ways to oppress people through interlocking violence against multiple identities and its effects on the body.

As a researcher, the conceptual framework presents my preconceived notions of the areas of research I am interested in, subscribed to and seen within my context and story. In the context of this study, I wear multiple hats as a participant observer, mentor, extra hand and researcher. As a key component of community-based research, as the researcher, sometimes you're asked to get food for the group, other times you're taking field notes, and sometimes you get to partake in a TikTok. These notions support my understanding and practice of research as I do my best to show up in the ways my community partners need, not necessarily strictly to do research. Knowing the majority of the youth were Black and Brown, I wanted to make it a point to recruit Black and Brown architects, planners, and designers to support this process, as this was both important to me and Sawhorse Revolution to make this shift in design. In the research setting, my role as a participant observer during instruction allowed me the opportunity to model and

engage in the content being presented. Through this process, I supported and guided the program through the intentional design of the learning environment through collaboration with mentors and program coordinators of Sawhorse Revolution. Thus, my involvement in the research as a participant brings forth my preconceived notions and hopes for the learning space. I acknowledge those as they influence my approaches to ethnographic data collection and grounded theoretical analysis, as I enjoy studying and learning with students in learning experiences I wish I would have had growing up.

As a Black man with a disability, I don't have the option of not being involved in my research. The communities I am a part of have various challenges facing us. Yet, the disruption of cis-heteropatriarchal hegemonic powers is at the core of making and holding space for various groups sharing similar societal experiences. In designing and choosing who is involved in the space, my goal was to have the learning experience embody this cross-movement/discipline and disability solidarity, drawing connections through relationships that were not always visible. I did this by sharing my own experiences as a means of bridging connections and supporting the facilitation of learning about space, justice and disability through our design work.

I am also bringing in my own social, cultural, historical, and political identities, conceptions and knowledge that influence the work I choose to do. One learning ecology component of note that was influenced by myself was the recruitment and organization of the mentor group, including myself, that was involved in the teaching of the design-build program. Sawhorse Revolution has mentors built into their learning model, and I proposed bringing in Black and Brown designers and builders specifically via my network. Therefore, we met three times starting in June 2021 to plan the curriculum based on skill sets for the program, which was the second iteration of Sawhorse Revolution's *Tiny Cultural Space* program.

My intersectional identities about spatial inequalities, the trajectories available to me, and my connections to navigating the world with a disability have allowed me the opportunity to pay attention to focus on these concepts at their connections. As someone who grew up being displaced from several homes, specifically those within areas that reflected my racial demographic as a Black-mixed man, this program provided a unique opportunity for me to support efforts to combat those growing issues. Moreover, in high school, I experienced a similar program, where my economics classmates engaged in an Urban Plan project. We were tasked with taking a fictional city through an urban planning project where we broke out into teams to design the best city for the constituents. In this learning space, I was tasked with being the urban planner (placing the buildings on the map using Legos), catering to the community's needs while ensuring the design's sustainability for future growth. My classmates served different roles in finance and community relations, amongst other things. At the end of the project, we presented our final design and proposal to a panel of real city planners, council members and industry leaders. In this context, I got singled out as presenting the "best" design, although our team didn't win the competition. Although the result wasn't deemed as "success," this learning opportunity, coupled with experiences of being displaced, drew me to the theoretical connections, learning program and opportunity to support young people in learning and designing a physical space within a program where the overall aim is to fight displacement and gentrification.

In this vein, I both use theory to guide and justify the importance of this work for myself and others while taking ethnographic approaches for data collection and then conducting a grounded theory analysis of the data to develop a theory that can encapsulate the complexity of this project. Therefore, this project follows a disability justice principle of cross-movement and

cross-disability solidarity, which includes the design of the learning environment through its ecology.

From a young age, I have inquired about how people hold and make space for themselves and others. Especially focusing on those folks who have disrupted power exercised through the social (relationships, communities) and physical (built environment, infrastructure) space and how they do so. Thus I aim at understanding how holding and making space emerges as a method to resist unbelonging, and realistically what it means to resist belonging to places not built for oneself. As a young person who felt that a lot of spaces were not necessarily made for me, I regularly paid close attention to the ways a space made me feel. As such, that's where my understanding of space and the injustices it perpetuates developed as a young Black person in Arizona. I was fortunate to be good at school, which alleviated some of the potential harm I could have experienced. My younger brother, on the other hand, experienced a load of invalidation while being deemed unintelligent and ostracized within school. I witnessed our different stories unfold, with no evidence as to why schools could not adjust to the style of learning he longed for. We had very different experiences, and he loves learning more than any person I know, yet he had one of the more difficult and challenging experiences in school because he was being forced to belong in a place that wasn't made for him. With this in mind, I do this work for him. I do this work for learners like him, and hope this provides a picture into why and how I come to this work.

## Literature Review: Black Geographies Adding to the Learning Conversation

Not only do Black geographies call attention to bodies and their relations to and within spaces, but it also gives us the tools to understand how bodies are harmed by and disrupt the ongoing operations of white cis hetero patriarchal colonial projects. As we combat the climate

crisis, urban decay, gentrification, and continued attacks on land, understanding how to develop and leverage people's relationships and perspectives on space is integral. Soja (2013) calls for a spatial justice[1] approach to address issues within the urban landscape. Within the urban landscape, spatial justice centers on the experiences of those most affected and those who receive geospatial[2] harm (e.g., the results and aftereffects of redlining). Spatial injustice and geographic oppression take many forms, such as redlining, environmental racism, gentrification, displacement, and over-policing. Areas, and the people in them, have been redlined and experienced elevated forms of urban decay and divestment of resources and now are experiencing excessive rates of gentrification and displacement (Pearman, 2020). For example, areas that have experienced gentrification over the last 20 years have contributed to the decline in enrollment in public schools, especially when gentrifiers are white (Pearman, 2020). Rarely is there an opportunity for the youth in those schools affected by gentrification and displacement to address the root of those injustices through learning and action.

This is evident in how physical and social spaces have often been used to oppress learners, for example, through the physical design and separation of stories within spaces (see Brown, 2019; Jenkins, 2021). To better understand how physical spaces create oppression, Black geographies call attention to the spatial matters of the youth of color through identity development work and space-making. Black Geographies are "subaltern or alternative geographic patterns that work alongside and beyond traditional geographies and a site of the terrain of struggle" (McKittrick, 2006, p. 7). In Germinaro (2022b), for example, youth of color

[1] "*Spatial (in)justice* refers to an intentional and focused emphasis on the spatial or geographical aspects of justice and injustice. As a starting point, this involves the fair and equitable distribution in space of socially valued resources and the opportunities to use them." (Soja, 2009, p. 2)
[2] *Geospatial* "refers to geographic space that includes loca- tion, distance, and the relative position of things on the earth's surface. Geospatial perspective calls for the addition of a geographic lens that focuses on place and space as important contextual variables" (Hogerebe & Tate, 2012, p. 68).

use learning as a geographic practice to disrupt the physical ramifications of racism at school. Youth used relationality and storying their identities to navigate racialized school spaces for their belonging.

Black spatial knowledge cultivation is a new and necessary contribution to the study of learning. It calls attention to the mutually constitutive relationship between resistance, negotiations and geographies of domination—racism, sexism, colonialism, ableism and other means of othering (Hawthorne, 2019). A Black geographic approach serves to understand how youth learn to produce, make, and design physical and social places for belonging. I position Black geographies and a Black sense of place as a methodological and analytical framework to deepen understanding of learning and identity development as parallel processes (McKittrick 2020, 2011; Nasir, 2011). McKittrick (2020) illustrated the components of a Black sense of place as ". . . not a standpoint or a situated knowledge; it is a location of difficult encounter and relationality . . . it is collaborative praxis. It assumes that our collective assertions of life are always in tandem with other ways of being . . . it reframes what we know by reorienting and honoring where we know from" (p. 106).

In the urban landscape, tackling the displacement and gentrification of people of color from their redlined neighborhoods addresses the harm. It supports resurgent programs about spatial justice for the people affected by these forms of geographic oppression. The learning that produces the built environment calls attention to how engagement in justice struggles regarding space builds theoretical knowledge for those disproportionately affected by spatial oppression (Soja, 2013). Moreover, space shapes various dimensions of human life and takes a learning lens to spatial justice. A spatial perspective to learning interweaves mechanisms for interpreting and

engaging in contemporary politics through understanding how space is organized. Many contemporary and historical issues come down to space[3], land, and how they are used.

In addressing socio-historical issues around the place, space and land, I also want to add that these constructions have always intersected with racial injustice, particularly when we factor in ableism and design. For example, various communities, neighborhoods and regions of the United States were not designed for those within the margins. Tate (2008) details how geography determines educational opportunity, which sits at the intersection of racism, sexism, ableism, and other injustices, converging at urban infrastructure[4] and development. Further, I view learning and identity development as processes to be understood through a Black geographic lens. Because young people are typically excluded from urban development conversations, we need their perspectives to be involved in this design work for spatial justice through expansive understandings of belonging, learning, and identity.

### Space, Place and the Learning Sciences

From Learning Sciences, when youth are engaged in design work, identity is central to learning about these spaces and places.[5] People in the built environment and education realm have been looking at spatial injustice (see Meléndez, 2021; Mitchell & Elwood, 2012; Tate, 2008; Taylor et al., 2018; Walker, 2000). Taylor et al. (2018) highlighted how African American youth counter-map their communities, mapping them in a way conducive to their mechanism of

[3] I am conceptualizing *space* as the raw material that makes up social and physical space, detached from culture, history and political influences, space is a clay of sorts after just being collected and before being thrown. Relationships can be had with spaces, similar to how clay has significant meaning (see Barajas-Lopéz & Bang, 2018) or the concept of a porch as being a flexible and liminal space (hooks, 1996).
[4] I am referring to *infrastructure* after Alexandre (2018) signaling the significance of both, "the presence and absence of infrastructures" (p. 67) and their ramifications for how spaces and places are produced.
[5] *Place* therefore is clay after being thrown, given purpose and being produced or made by social, historical and cultural influences. For example, clay being turned into a home, ceremonial candle holder, bowls, or a sculpture.

place-remaking by engaging power and the socio-political dimensions of community development. Similarly, Mitchell and Elwood (2012) engaged youth in developing digital stories to engage historicity in their communities. Spatial learning provides a unique approach to engaging in the social, political, historical and cultural renditions of space and place.

We know youth have unique perspectives and imaginings for their respective communities in the study context. Taylor (2020) found that youth built and employed spatial imaginaries through their relationships with spaces within a learning environment. Similarly, Taylor and Hall (2013) and Taylor et al. (2018) further conceptualized and detailed how youth resist and offer perspectives through advocacy in learning spaces where they engage in spatial justice teaching and learning. In these studies and others. Mapping serves as a key mechanism and tool for understanding and developing skill sets to enact spatial justice for youth and their rights to spaces (Rubel et al., 2017).

Rubel and Nicol (2020) present another medium for how critical mathematics can be used to teach concepts of place for spatial justice. Learning Sciences and built environment education intersect in the ways youth can contribute to designing their communities and the built environment. Yet, there aren't ample opportunities for youth advocacy going from the learning space to the physical built environment of their city, situating them as key contributors to their future. Therefore, we have yet to see a full-scale project of a learning environment built for spatial justice that engages youth in designing physical buildings to combat the displacement of people in high gentrification areas (Germinaro, 2022). The process of going from thought to architectural design, building a space, and then delivering that space to a client can provide implications for the ways we design learning environments around the efforts to rewrite the city through equitable development and insight.

## A Timeline of People Learning from a Spatial Lens

To best piece this project's complexity together, I briefly detail more foundational texts and scaffold their meaning and my sense-making as we move toward the present day. The spatial turn within the learning sciences has unfolded for a few decades, and some of the key texts informing this project are presented below. As space has become a central point to various theorists, I hope to add to this lineage of scholarship and thinking to weave a focus on identity by applying Black geographies frameworks to understanding learning. Thus, I work through the sociocultural and ecological theoretical lenses and work that has led me to be able to add to this scholarship.

To start, Jan Nespor (1997) conducted a 2-year ethnography that interrogated the complexity of the webs of social-spatial interactions that occurred across an urban ecology, including schools in neighborhoods, cities, states, and regions. In this project, the findings most connected to my project allude to how youth carve out spaces for themselves outside of school and school as a space that provides resources to learn and construct identities. Further, Leander (2002) discusses the social construction of identity in and through space. Specifically, he discusses how Latanya, a Black girl on whom the ethnography is focused, is positioned by identity artifacts within the learning context. The artifacts discussed are racialized descriptions of the Black community, home geographies, embodied spaces and physical features of the classroom and how those influence her identity development as a learner. These conversations prompted questions for Leander to interrogate the intersections of space, learning and identity in urban ecologies.

Further, Gutiérrez et al. (1999) discussed how students develop and learn within *third spaces* through language practices. These spaces allow for sociocritical literacies and

mechanisms for inquiry into in/justice (Gutiérrez, 2008). Moreover, Gutiérrez (2008) introduced spatial justice by using concepts presented by Soja (2009) to the learning sciences and coupled them with the Third Space theorization of learning spaces. Justice and resistance through sociocritical literacies and development are key components of the Third Space context, where learners demonstrate their ability to design possible futures from a sociocultural lens (Gutiérrez et al., 2019). Attention to space promotes designing spatial imaginaries and realities by youth learners as they interrogate space, place and learning.

Furthermore, Lee (2008) presented a cultural, ecological lens as a mechanism for understanding and studying learning and identity for the Learning Sciences. She emphasized a key connection for how this approach is served by paying attention to identity through an ecological lens: "One's construal of the self serves as an important guidepost for a range of affiliations that one seeks and works to sustain. The self is connected with the ego such that we seek experiences that support ego development, not necessarily in terms of a purely individualistic conception of the self but rather in terms of a psychological state that is affirming and in which basic human needs are met" (pp. 270–271). From an ecological lens, I understand this through identity development as a means for building and sustaining connections through and with spaces. As the sense of self is realized concerning a space, spatial knowledge emerges as a connector of self across ecological systems. This highlights the importance of identity-in-place as a knowledge-building process. The everyday learning occurrences also mediate this process within and across space (Nasir, 2002). More specifically, positioning learners as key components of social relationships and connections across a learning ecology is essential.

Jumping to a more recent moment, Marin (2020) used a definition of space to weave together ecologies of learning and the stories enveloped within spaces. For instance, spaces are

in-process, meaning they are being cultivated into something with sociocultural and historical meanings. Stories of the place detail the meetings; thus, a space + meaning emerges as a place. The in-processness of space-making necessitates spatial knowledge, as Hawthorne (2019) presented previously. Key components of Black geographies engage spatial justice by stressing the power of Black epistemological centering to bring about new ways of understanding the world. Therefore, as one cultivates spatial knowledge, an applied version of that knowledge can be situated as spatial justice, explicitly addressing the ways space has caused harm to communities of color and systemically marginalized folks. So, as learners construct the self through a learning process, they engage various resources that allow for literacies to emerge and spatial knowledge to be constructed. As the knowledge is constructed and then applied, learners and specific youth can employ resources within a learning ecology to steward a space towards a place. Specifically, this process allows for a sense of place and belonging development through identity inquiry.

This project, and my work, follow a line of thinking that by focusing on the self, learners can interrogate their own belonging and use identity resources to cultivate their belonging. As they learn and cultivate their belonging as Black and Brown youth, they make space for their intersectional identities. Through this learning spacemaking process, they redistribute power to others who share similar experiences of marginalization through space. As they learn their stories and others, they make spatial connections that enact justice in a way that builds toward a culture of care. Learning and identity processes are key components of a culture of care and cultivating belonging across urban ecologies. I build off the scholars and activists who continue to do this work and am humbled to be in conversation with folks making moves on spatial justice work.

## The Study Context

Our built environment is something we all share, come into contact with and is integral to our daily life. Youth have a unique perspective within the built environment, forcing them to primarily rely on adults to advocate for changes they may want. Youth are the first to link physical and social spaces that oppress others and harm marginalized groups, specifically youth (see Jenkins, 2021, 2022). To better understand how physical spaces create oppression, Black geographies call attention to the spatial matters of the youth of color through identity development work and space-making. Black Geographies are "subaltern or alternative geographic patterns that work alongside and beyond traditional geographies and a site of the terrain of struggle" (McKittrick, 2006, p. 7).

Regarding learning, Black spatial knowledge cultivation calls attention to the mutually constitutive relationship between resistance, negotiations and geographies of domination–racism, sexism, colonialism, ableism and other means of othering (Hawthorne, 2019). Specifically, a Black sense of place is used as a methodological and analytical tool to understand belonging and identity for youth. This study lays the foundation for research and design methods that promote spatial belonging through identity development in a design-based learning environment. Mainly, Black geographic questions and methods of spacemaking and power about space are used to understand how youth learn to produce, make, and design physical and social places for belonging. This work pushes the theoretical and methodological mechanisms for designing learning environments that support youth identity development, well-being, and justice.

This program, run by Sawhorse Revolution (SR), centers around spacemaking. With my understanding of their programming, I approached them as a means to revise the curriculum in a way that catered to facilitating identity-in-place knowledge building to support the designing of a

space. The study includes seven adolescent girls (two white, three Black and two Southeast Asian) and five adult mentors (three mixed race, one white and two Latinx). Their involvement occurred over 12 months until the conclusion of the project. This project initially occurred online, where the mentors and I got together to design the program's curriculum starting in Spring 2021. We (the youth and mentors) met in person every Sunday for seven weeks in the Fall of 2021 and part of the Winter of 2022. Then, interviews took place over zoom, and the build-out of the physical space occurred in person in the Spring of 2022.

In Spring 2021, I offered to bring in mentors to the program who were Black, Brown, and/or Indigenous POC planners, architects, designers and spatial producers to help design the initial curriculum and support the leading of particular sessions. This addition to the curriculum ensured that the youth would have mentors in the learning space that reflected the majority of their visible identities in a way. This was not to discredit their previous program but to offer up my connections and network to build some reciprocity and support for the programming SR was already conducting and build out mentor support. With that said, this led us to have sessions that emphasized the ways design meets culture, disability justice design, the ways space is used to harm through environmental factors, all of which were place-based and within the context of the neighborhoods students were joining us from. This design's importance and applicable goals led us to seek to sustain the sociocultural histories and ways of being for the students as they navigated their communities (Paris & Alim, 2017). This also promoted and connected to SR's mission and historical approach to making and doing.

## Sawhorse Revolution Origins + Approach

Sawhorse Revolution (SR) is a non-profit organization that supports guerilla building projects, student-led design-builds and a new way of thinking about education, building, and

work. As an organization, SR is women and POC-led and operated. This leadership structure disrupts the power dynamics within the profession of builders and designers by supporting those marginalized within the space, anyone who is not white and/or a man. They began their incubation under Seattle's Rubicon Foundation in 2010 in Arlington, Washington. After three cycles of working in incubation, they honed in on their community-based pedagogical approach of learning through doing in a place-based format. In the Fall of 2012, SR moved to Seattle intending to do work focused on the intersection of skills building, arts-based education and youth-centered community development. Their model was refined to support coordinating students, volunteers, and professionals around community-based building projects focused on creativity and abundance.

One of SR's most notable foundational projects came about in 2017 when they were commissioned to build 10 tiny homes in the year and place them in city-run homeless encampments throughout Seattle. To date, Sawhorse students have completed 57 projects, housing over 150 people and impacting various community organizations across Seattle.

As detailed in this work, SR works at the intersections of centering an individual across ecological boundaries. They center their students' cultural and community development while shifting to address institutional racism and socio-spatial injustice. Further, they endorse what I would call a culturally sustaining pedagogy where they employ and teach cultural representation, leadership in and for our community, and sustaining the neighborhoods in which the youth who engage in the program are growing up. They specifically recruit youth from the SE Seattle region, where gentrification and displacement are a shared experience amongst Black and Brown communities.

Further, within the context of the conceptual part of this project, the spatial knowledge that comes through hands-on experience is necessary and can support our understanding of learning and identity development. SR holds that the physical discovery of confidence grounded in skill and self-reliance also applies to identity development through a holistic format, allowing youth to be positioned as designers and builders through the learning process. Through the power of making and doing, they restore the value of working and working in the community to build something bigger than themselves. Through this, SR promotes growth through relationality with others to inspire new ways of being oneself.

| **Participant Name** | **Role** | **Specialty** | **Racial + Ethnic Identity** |
|---|---|---|---|
| Sam | Program Lead + Mentor | Architecture + Carpentry | White |
| Daví | Mentor | Landscape Architecture | Latinx |
| Sergio | Mentor | Architecture + Interior Design | Afro-Latinx + Pacific Islander |
| Rebecca | Mentor | Architecture | Asian |
| Belén | Mentor | Planning | Latinx |
| Kaleb | Connector + Mentor | Education | Black + White |
| Patty | Deaf Spotlight ED | Arts + Film | |

*Figure 1.1.* Adult participant information.

| Participant Name | Role | Grade + Pronouns | Racial + Ethnic Identity |
|---|---|---|---|
| Hailey | Student Designer | 11th, she/her | Filipinx |
| Carolyn | Student Designer | 12th, she/her | Black American |
| Samira | Student Designer | 9th, she/her | Black African |
| Halima | Student Designer | 10th, she/her | Black African |
| Thienvan | Student Designer | 11th, she/her | SE Asian |
| | | | |

*Figure 1.2.* for student participant information.

## Methods for Studying the Program through an Identity Lens

Further, I position learning and identity development as parallel processes that cultivate belonging to space (hooks, 2008; Nasir et al., 2020). I build off the definition of Hand and Gresalfi (2015), where identities reflect that of a dance "between individuals and their interactions with norms, practices, cultural tools, relationships, and institutional and cultural contexts" (p. 190). Identity is central to understanding what youth are learning and how their intersectional identities shape the ways they approach, think and implement their, and others, identities into spatial designs. My ethnographic project leans on participant observations, audio and video recordings, natural conversations, and artifacts to study seven girls of color in a youth design-build program over a year. Information on what youth want to see in their cities is vital, and this project showcases how they would design spaces in their communities if they had the choice. Thus, learning and identity are seen as parallel processes that promote belonging, as reflected in this project. Youth designed and built a space for a client representing the disability

community to support combatting rapid gentrification, displacement and being rendered placeless.

Specifically, the youth designed a space for an organization called Deaf Spotlight, representing the deaf and disabled communities to provide them with a physical space within the city limits. The space itself is a two 120ft structure that reflects Deaf Spotlight. The building's structure reflects the need for a gallery and meeting space guided by Deaf Space design that permits communication for ASL speakers. These designs and the space reflect the identities of the youth designers and the stories and needs of Deaf Spotlight. These buildings are also located within a historically Black neighborhood in Seattle called the Central District. Location-wise, this is the first physical space for this organization and the first physical building presence of Deaf culture in the Central District. Data were analyzed using inductive mechanisms from data collected and deductive grounded theory employing Black spatial knowledge and sense of place concepts such as spacemaking, students knowing and understanding their environments, and producing the spaces they want to see (McKittrick, 2006; 2020). These concepts in Black geographies hold that Black folks know their environments and are change agents, specific youth in the project context. Within these frameworks, my understanding of learning is socio-spatially informed and aims to cultivate belonging through intersectional identity inquiry. Thus, I used the girls' words (via video, field notes, interviews and natural conversations) to open code and foster thematic analysis, as their decisions and opinions are often invisibilized or nonexistent across many spaces (Charmaz, 2005). Prevalent example codes are *Culture, Identity, Community; remembering/memory; speculation; relationality; futurities* and *spatial literacy/knowledge.* They also showcased how they design physical spaces by infusing the design with stories from their own identities.

Lastly, they enact relationality as a tool to co-construct and physically build a place for a client they chose to build a place of belonging. In the SR program, the city of Seattle gives surplus land back to communities that have experienced geographic oppression. In building (both figuratively and physically) a space, youth from SR can seek spatial justice through their design and involvement within the program, where they are tasked with picking a client to receive land and then building that space for them. This project takes place in Seattle, a city developed via disproportionate rates of environmental racism, gentrification, redlining, over-policing and displacement. To design and understand what youth do in the Tiny Cultural Space program, I draw on sociocultural theories of learning and identity in space (Nasir et al., 2021; Nasir & Cooks, 2009) and concepts of spaces, holding they are socially produced and provide a way for learning to be understood (Lefebvre & Smith, 1991; McKittrick, 2006). For this study, I tie interdisciplinary renditions of learning through identity trajectories and narratives (Gholson & Wilkes, 2017; Nasir et al., 2021) and Black Geographies (Hawthorne, 2019; McKittrick, 2006; Reese & Johnson, 2022) to investigate the ecological[6], sociocultural and spatial connections and relationships to spatial justice teaching and learning. Space can be thought of as the raw material, such as clay, while a place is something created from the raw material (implying human agency and dominion), such as a pot or sculpture. The raw material of space is thus socially produced through coalition building, resistance efforts and learning (see McKittrick, 2006; Soja, 2013). Space is not to be confused as being apolitical, it is pre-political as it has various meanings within cultures, thus it being a practice of producing place.

[6] Ecology/Ecological is being used to express and signal to ecological networks of identities across spaces and places, following more of a science-based claim about connections between identities and the spaces and places they interact with, and how those connections are leveraged and negotiation when coming into contact with another individual's ecological network in learning settings. This acknowledges an individual's connections and intersectional identities influence their learning and development when producing a space.

## Approaches to Ongoing and Iterative Analysis

The nitty-gritty of the data collected traversed multiple forms of data, with particular attention to two data forms and the others providing support. I leaned heavily on individual semi-structured interviews, video recordings of design sessions (many captured informal natural conversations as well (Bhattacharya, 2017)) and ethnographic participant observations in the form of field notes. My analysis served as an in-depth process of coding qualitative data. In an approach to answering my three research questions, I sifted through data in a simultaneous process during the data collection and checked in with students and mentors as regularly as I could. For example, after one of our *Taste* exercises, Hailey mentioned a particular photo and design element as something that reminded her of her old room at home. After watching back the GoPro footage, I followed up with her in the next section to ask about the particular photo and why it stuck out to her.

Hailey proceeded to mention that this photo reminded her of herself as a kid before her neighborhood started changing a lot and that it's something she would want in any new spaces she could design. She proceeded to connect her past memories to the design element and described how that particular image connected to another image that represented something new she would want in a space that could be fun in her speculative design (i believe it was a yellow submarine-shaped bed). With that, it led me to follow some of the ways the students were both weaving in their own understandings and memories and past to their future designs, recentering on the ideas that new designs can both cherish and celebrate the past, specifically based on the wants and hopes of those who have been in that particular neighborhood or community. After collecting the data, I started with my field notes to open the code (Saldana, 2013). When initially

within the learning environment, I noted many identity-focused elements to track some of the identity work and learning in the design sessions (Nasir, 2011).

At this stage of collecting my field notes and following up with natural conversations, I regularly conducted side-by-side research, where my data collection and analysis continued with the video data from GoPros, the natural conversations, field notes and the artifacts the students created. This led me to various discoveries within the data (to be discussed in subsequent papers). For example, when tasked with drawing a dream wall that represented oneself to story a design, all the youth within the study drew images that represented them culturally, ethnically, and intersectionally. While at *Hood Famous,* Carolyn drew a shape that represented her textured hair in a way she liked to have it braided as a way to celebrate her hair and tell a story through design, especially as a Black woman whose hair was regularly policed and devalued, causing tension in many spaces she traversed. This led me to make connections between the ways youth engage an intersectional lens through their spatial knowledge pertaining to their identities. This data mining and support occurred parallel through natural conversations and analysis of these particular moments.

Within this data corpus and phase of analysis, I leaned on inductive coding to call attention to critical instances within the video data that I could go back to and review (i.e., activity days, collaborative work, and critical moments in the program). At this point, I started to follow the individual and collaborative identity narratives and trajectories for how the youth both engaged their stories across timespace, and also how they employed their spatial knowledge through their design process, whether that be them engaging in personal intersectional identity analysis or exercising care to themselves and others through their design process. These open codes led to themes that emerged from the field notes and were confirmed in the video sessions

with specific verbiage and language used by the youth. Those keywords and phrases were where I went through a process of in vivo coding to ensure the youth described the themes that emerged within the learning context.

Since the interviews came to post the design sessions, the questions created for them were adapted from my initial timeline (I had planned to do interviews during the program). They reflected the in-process codes and the open code themes from the field notes. I then analyzed the interviews chronologically for when they were conducted and applied the codes used for video, field note, natural conversation and artifact coding. This allowed me to see the interviews as confirmations of the previously collected data, thus seeing them as interconnected, not separate. For RQ1, my main sources of data were artifacts, field notes and interviews discussing the role of Sawhorse Revolution in their approach to addressing power through activating spatial knowledge and positioning the youth as spatial producers (designing through intersectional identities and personal experience) through the learning environment they provide. For RQ2, I leaned on video data and natural conversations (captured through field notes) that were collected and analyzed side-by-side. These data sources allowed me to follow the identity narratives and trajectories illuminated through the spatial production process (the design). Specifically, I looked at how they employed an intersectional approach, centered on relationality to one another as well as space as a keen mechanism to build a sense of identity-in-place through the connection of spatial knowledge and design. For RQ3, my primary data source was video data from the design days that were specific to designing for *Deaf Spotlight.* This allowed me to build connections across the sessions. Thus, I started with this set of data and then explored the interviews and field notes to confirm my conclusions (Paper 3 features a section on historicity illuminated care and their intersectional analysis).

Working from the top down, I continually read and listened to information sources looking for analytical constructs across Black geographies and Black Feminist thought to understand space through those who are closest to said space (hooks, 2008; McKittrick, 2006, 2011), care practices and disability justice (Berne, 2013; Piepzna-Samarasinha, 2018; Sharpe, 2016) and learning and identity narratives and trajectories (Gholson & Wilkes, 2017; Nasir et al., 2020). From the bottom up, I began to sort out the different connections to place illuminated by the girls, the elements that impacted the cyclical design and spatial production process as well as the sociocultural tools provided by mentors to allow youth to make sense of themselves within the design process. These patterns helped me to generate conceptual categories and develop codes and place them in google sheets to allow for frequency counts. Through grounded theory, I used a comparative method to refine my codes by cyclically returning to the data for clarification and understanding through the writing process (Erikson, 1998; Glaser & Straus, 1967; Harry et al., 2005). After settling on my codes, I used Google sheets, transferred all of my student interview files into otter.ai, and began to build my codes for those within that system. Otter.ai allowed me to color code the actual transcriptions and my notes within them which allowed me to make connections across codes and identify and apply revisions to expand and narrow in codes as necessary. Further, I've created a visual of my coding sequence (Figure 1.3 adapted from Harry et al., 2005).

| **Coding Process** | ***Paper 1*** | ***Paper 2*** | ***Paper 3*** |
|---|---|---|---|
| **6. Grounded Theory** | Culture of Care–A complex set of processes allowing care, reciprocity and social relationships built on mutuality. This theory centers on urban ecology and then highlights critical components of space, infrastructure, education and learning as interwoven pieces that allow for care to be centered and promoted across intergenerational and demographics and communities of people. This theory also showcases how youth enact a culture of care by activating their spatial knowledge. When allotted, they disrupt white patriarchal ableist spatial hegemony through mutual caring for one another via sociospatial means. | | |
| **5. Interrelating the explanations (axial)** | Youth as legitimate spacemakers ←→ | Representing self and others in space to take up space ←→ | Taking up and making space exercises care |
| **4. Testing the themes (interviews, artifacts, natural conversations)** | Making and Maintaining Sites of Resistance | Relationships between identity (individual and collective) and designing futures/places as resistance | Caring for self and others across timescape |
| **3. Themes** | Design and building as consequential learning; tangible action/change orientated | Individual and collective cultural identity key to spacemaking process | Willingness and hope to care for others who don't have spaces |
| **2. Categories*** | Agency **(70)**; Skill Building **(50)**; material conditions **(45)** | Culture, Identity and Community **(61)**; Relationships **(63)**; Memory **(34)**; Spatial Knowledge **(38)** | Advocacy and ethical Responsibilities **(57)**; Relationships **(63)**; Pedagogy **(32)**; Speculation **(64)** |
| **1. Open Codes** | Based on field notes and video data | | |
| **Theoretical Contribution** – Building and providing and learning lens to care and spatial practices while also providing a literary application of humanities style thinking to how we understand learning as a caring and sociospatial cultural practice. | | | |
| *__Bold__ are frequency code counts. | | | |

*Figure 1.3.* Data analysis map. The numbers at the far left represent the six levels of analysis, moving upward from the bottom of the figure. Directional arrows indicate nonlinear connections among items.

Lastly, the overarching grounded theory that emerged revolves around a culture of care, adding to the disability justice work presented by Sins Invalid, Care Webs by Leah Lakshmi Piepzna-Samarasinha, and an ethic of care, or "shared risk" by Christina Sharpe (2016). Learning and identity provide keen insight into producing spaces and places that cultivate a culture of care that is both felt and physically experienced. Finally, the way I represented data within each paper reflects my decisions about the stories within the text. I provide data by combining themes and pieces of data from several parallel instances into one section. The process of utilizing different levels of analysis led me to focus on the ways student trajectories and their spatial production process were presented. Throughout my findings and analysis sections, I aim at mending two literature bodies to offer how Black Geographies can offer Learning Theory a pathway to attend to the body, understand spatial knowledge and center the needs and wants of individuals closest to the spaces they inhabit in Papers 1 and 2. Similarly, I attempt to apply a learning lens to the design and spatial production process by illuminating the ways youth exercise care in Paper 3.

## General Findings + Implications

Each paper has its own specific pieces of data that provide information on the findings and implications in detail. As follows, they are set up to elicit the findings from the entirety of the project. Three findings from my study are: (a) When youth are in a creative justice-based learning environment, they place those who are marginalized into the public consciousness through spatial production, including themselves by making and maintaining homeplaces; (b) Inquiry through identity-in-place stories and learnings influences the design of a physical space and positions identity inquiry as a political endeavor; and (c) Learning is key to building a culture of care and reciprocity, as told through the design process. These findings are consequential to the deepening of identity in spatial belonging work. With these aims in mind,

this work contributes to the design of programs that allow youth to contribute to and design their communities, understanding how when youth are given decision-making power, they disrupt hegemonic forms of power distribution. Many cities across the country are starting to invest more in the redevelopment of their urban landscapes since the infrastructure is brutally failing (Vincent, 2006). This work also has implications for policies that direct money towards different endeavors in planning and community development, as the perspectives of youth shift an axiological learning design focus to care and to making sense of self. As youth disrupt the persistence of power and harm through their design of spaces, they invoke inquiry into what design activism is and can be for communities.

I am highly intentional in my approach and positioning within this study. I interweave theories that all have emerged out of Black feminist thought to understand learning and identity, such as the culture of place (hooks, 2008), Black geographies, the social production of space as resistance (McKittrick, 2011), and Disability Justice (Berne, 2013). Furthermore, I do not have the luxury of doing research for the sheer joy of doing research. As Chambers et al. (2018) alluded to, my research ultimately affects my communities and me, reflecting my experiences or lack thereof. Engaging in justice-centered work and conducting such research, I carry particular methodologies, theories and concepts that guide my work because they have presented language and an approach to combat the issues I've seen and experienced. I center and highlight joy and resistance within the communities I'm privileged to be a part of. Therefore, I am not dissimilar from or ignoring the theories that have influenced my scholar archetype. I also see the importance of introducing foundational theoretical concepts and approaches to situate myself in conversation with other scholars and communities. Thus, as presented in my conclusion chapter, I develop a theory using grounded theory. A theory that supports building a culture of care

through learning, as told by you in design-build programming, emerges to showcase the ways youth disrupt spatial hegemonic power structures. In essence, this paper attempts to distill the importance of redistributing power, and the ways spatial justice and designing for belonging can do so, promoting theory as liberatory practice (hooks, 1991). As such, youth do this almost naturally, we need to listen as this has implications for how planning and development can occur.

## The Process for the Three Papers

Understanding learning through a Black geographies lens enables us to position our bodies within and about space and how to counter our bodies being othered and placeless inherently. Furthermore, by focusing on learning about the body as geography, we are, by extension, leveraging learning as geography through our bodies. In doing so, we are using learning as a spatial practice that lends itself to producing geographies of learning and development, such as the work done by SR. This is especially the case where critical consciousness is being developed, specifically in cases of justice, and in this context enacting critical consciousness development and justice through space and those who get to have positive relations to spaces. This adds to the literature in a way that allows youth to not work through consciousness as an experience but rather as a way of being. Building and making space, instead of just holding, which at times is temporary, is the aesthetic labor that is liberation through spatial praxis.

Further, the following page contains a collection of keywords and definitions to provide context for words that are often used interchangeably in daily contexts and, thus, are ambiguous when little information is provided. I hope to quell the “what does this mean?” questions to ensure more accessibility while reading. I also have multiple images and figures to support making connections to understanding the text. The definitions serve as an encapsulation of the

connected threads throughout the study. This dissertation is a story of the body in space, how we can attend to the body to build better spaces, and how we can listen to our bodies for future worlds. This further supports researchers in incorporating a spatial lens that focuses on justice and the disruption of cis-heteropatriarchy hegemonic and ableist power structures through learning. Therefore the three papers follow three lines of inquiry: (a) how learning produces physical space and how youth make space for themselves, (b) identity and its connection to belonging and a culture of place, and (c) how youth produce a culture of care through the design of physical space as told by overlapping disability justice principles tenets.

Definitions and Key Terms

*Black sense of place:* McKittrick (2020) illustrates the components of a Black sense of place as ". . . not a standpoint or a situated knowledge; it is a location of difficult encounter and relationality . . . it is collaborative praxis. It assumes that our collective assertions of life are always in tandem with other ways of being . . . it reframes what we know by reorienting and honoring where we know from" (p. 106).

*Black Spatial Knowledge:* Black spatial knowledge cultivation calls attention to the mutually constitutive relationship between resistance, negotiations and geographies of domination–racism, sexism, colonialism, ableism and other means of othering (Hawthorne, 2019).

*Space:* I am conceptualizing *space* as the raw material that makes up social and physical space, detached from culture, history and political influences, space is a clay of sorts after just being collected and before being thrown. Relationships can be had with spaces, similar to how clay has significant meaning (see Barajas-Lopéz & Bang, 2018) or the concept of a porch as being a flexible and liminal space (hooks, 1996).

Marin (2020) further examines the topic of space:

> Massey's (2005) definition of space as a simultaneity of stories-so-far is tied to her conceptualization of place: If space is rather a simultaneity of stories-so-far, then places are collections of those stories, articulations within the wider power-geometries of space. Their character will be a product of these intersections within that wider setting, and of what is made of them. And, too, of the non-meetings-up, the exclusions. All of this contributes to the specificity of place. To travel between places is to move between collections of trajectories and to reinsert yourself in the ones to which you relate … Places not as points or areas on maps, but as integrations of space and time; as spatio-temporal events. (p. 130). (p. 282)

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*Place: Place*, therefore, is clay after being thrown, given purpose and being produced or made by social, historical and cultural influences. For example, clay is turned into a home, ceremonial candle holder, bowl, or sculpture.

*Learning Ecology:* Ecology/Ecological is being used to express and signal to tools and resources of identities across spaces and places afforded within a learning environment, following a claim about connections between identities and the spaces and places they interact with, and how those connections are leveraged and negotiation when coming into contact with another individual's ecological network in learning settings (Marin, 2020). This acknowledges an individual's connections and intersectional identities influence their learning and development when producing a space across time.

*Spatial Justice:* "*Spatial (in)justice* refers to an intentional and focused emphasis on the spatial or geographical aspects of justice and injustice. As a starting point, this involves the fair and equitable distribution in space of socially valued resources and the opportunities to use them" (Soja, 2009, p. 2).

*Infrastructure:* I am referring to *infrastructure* after Alexandre (2018) signaling the significance of both, "the presence and absence of infrastructures" (p. 67) and their ramifications for how spaces and places are produced.

*Belonging:* I'm building on the belonging definition of Bennett (2014) "history, people, and place . . . belonging is inherent in the daily actions undertaken by people who have inalienable connections to the places they inhabit" (p. 669) towards how bell hooks describes belonging by making the distinction that "Objects are not within spirit. As living things they touch us in unimagined ways. On this path one learns that an entire room is a space to be created, a space that can reflect beauty, peace and a harmony of being, a spiritual aesthetic. Each space is a sanctuary." she goes on to note, "Aesthetics then is more than a philosophy . . . it is a way of inhabiting a space, a particular location, a way of looking and becoming" (hooks, 2008, p.122).

*DisCrit:* Disability Critical Race Theory (DisCrit) is a framework that takes up intersectionality in various ways. Similar to Crenshaw's (1989) representation of intersectionality, DisCrit has a clear aim of approaching complex issues with a usable, functional and adaptable framework. As a framework, it allows for the complexities of race and disability to be explored and explained as they pertain to other social markers (Annamma et al., 2018).

*Care Webs and Disability Justice:* Care webs are defined as (Piepzna-Samarasinha, 2018) "Some of them rely on a mix of abled and disabled people to help; some of them are experiments in "crip-made access"—access made by and for disabled people only, turning on its head the model that disabled people can only passively receive care, not give it or determine what kind of care we want. Whether they are disabled only or involve disabled and non-disabled folks, they still work from a model of solidarity not charity—of showing up for each other in mutual aid and respect" (p. 33).

*Identity:* I build off the definition of Hand and Gresalfi (2015), where identities reflect that of a dance "between individuals and their interactions with norms, practices, cultural tools, relationships, and institutional and cultural contexts" (p. 190).

*Identity Resources:* different resources are used to understand how individuals experience learning, form identities and make sense of their position in a particular space. Practice-linked identities consist of an individual's everyday practices, the roles made available to individuals as they engage in cultural activity and possible ontologies; thus, people negotiate their identities as they engage in activities (Nasir & Hand, 2006).

*Intersectional:* intersectionality calls attention to the interlocking systems of oppression that create complex forms of injustice (Crenshaw, 1989).

Chapter 2: Black Geographies and the Learning Sciences: Youth As Spatial Re/producers

## Abstract

This article applies a Black geographies lens to sociocultural learning and reshape how we understand learning as consequential to the sociospatial production of physical space and infrastructure. Through a design-build program run by Sawhorse Revolution, youth learn to design and build physical spaces in the wake of the rapid displacement and gentrification due to systemic racism in the Central District and South End of Seattle, Washington. I argue that a learning lens on the design and build process makes legible what gets hidden through the painful processes of gentrification, rendering folks' process, and displacement/dispossession. This paper uses Black geography framing to understand learning and spatial production from a Black perspective that centers on Black stories and experiences to understand the role of learning as a tool for resistance. What is revealed through the spatial reorientation to Blackness as we understand learning is the convergence of two ways youth employ learning as a spatial resistance and justice tool as they design and build spaces. I show how youth learning can be a mechanism for city-making, belonging and spatial justice. Further, the intentional design of the learning environment shifts the spatial production process, setting a standard for youth involvement in city-making allowing them to be seen as legitimate spacemakers as they employ insurgent aesthetics. The article thus theorizes that our spatial orientations through a Black perspective allow us to understand learning as a tool for resistance and organizing through collective action.

## Introduction

In 1968, the Black Panther Party made its first chapter outside of California. That chapter was located in Seattle's Central District and a historically Black community experiencing rapid displacement and gentrification over the last 30 years. Although Black homeownership and population have declined dramatically in that time frame, the Black geography of the Central District persists in many ways through cultural space reclamation, public space activation, community land trusts and the sharing and holding of stories to counteract the gentrification of the Central District. The neighborhood itself went through many spatial injustices to various groups of people, notably the displacement and internment of Japanese Americans during WWII and the racially restricted covenants that led to the Central District being considered a Black neighborhood with a population peaking at 80% in the 1970s and currently at around 18%.[7] Over the next decades, urban decay and divestment of resources to the neighborhood led to urban renewal. Simultaneously, the technology boom in Seattle led to the astronomical gauging of the wealth of particular types of people through the 1990s and '00s. Particularly, large local and foreign real estate firms have bought up multiple plots of land in the Central District and manage a lot of the area at the moment.

This process of rendering Black folks placeless through dominant power disrupts the Black sense of place, often virtually impossible under white supremacist notions of control and domination (McKittrick, 2011). Further, Black sites of resistance call attention to spatial techniques replicated from plantation slavery, yet a Black sense of place revitalizes tools to resist white supremacy. The Central District has emerged as a site of resistance and Black geography. However, I would argue is an ongoing reclamation of space through emerging and returning

[7] See more information on the historical and current project of displacement in the Central District.

businesses, cultural spaces, community organizing and large-scale efforts to disrupt the ongoing agenda of quelling the Black sense of place.[8]

Reclamation and spatial resistance have been ongoing in the Central District since the William Grose family purchased 12 acres in the area in the late 1880s and sold the land to Black families (Taylor, 2022). Throughout this history, Black families and people within the Central District have resisted dissents of white domination and displacement through today. Quintard Taylor (2022), a historian, described the experience and trajectory of Black people in Seattle from the days of William Grose to the Civil rights movement:

> As a self-proclaimed politically progressive city, Seattle celebrated its image as a multicultural, multiracial democracy where opportunity was open to all. The reality for the entire century between 1870 and 1970 was vastly different for most of Black Seattle. . . . the forces arrayed against Black aspirations were sometimes supported consciously, and often unwittingly, by the vast majority of Seattleites who chose to ignore the plight of the impoverished, the uneducated, the economically disadvantaged—particularly if they were of a different color. (p. 239)

This line of description and thinking holds as it affects the schools and educational experiences of learners in Seattle that are Black, Brown and Indigenous. With skyrocketing property values, massive displacement and divestment from schools, the continued geographic harm and spatial violence persists well into the twenty-first century through busing, the gutting of communities of color and rapid divestment of community resources for the attraction of white, affluent and bustling tech scene. As a continued line of thinking, Pearman (2020) calls attention to the correlation between the white population increase in urban schools and gentrification in those areas, leading to a decline in Black and Brown populations. A decline in enrollment signals gentrification and displacement through rising property taxes, housing prices and cost of living, and school closures, especially when intermixed with a limited affordable housing supply. As

[8] Ongoing efforts and reclamation of space in the Central District.

such, many cities are experiencing these effects of white affluent and neoliberal patrons moving back to the city as cities follow up on the Urban Renewal Act[9] that destroyed large swatches of urban communities between the 1940s and 1970s (Davis & Oakley, 2013). This is occurring again with various factors contributing to the displacement of Black people (Pearman, 2020). As a disruption of Black space, Black learning is further challenged.

Although long and challenging, this process demands a collaborative praxis based on relationality across racial and cultural bounds (hooks, 2009). In doing so, one of the main mechanisms to reframe is to inquire about "where we know from," is to understand the purpose of learning in the larger urban ecology while honoring and restorying space through Black methodologies (McKittrick, 2021, p. 131). There aren't ample opportunities for youth to design and advocate for their built environment/infrastructure to combat intersectional spatial injustice. Learning environments often pose as sites of suffering (Dumas, 2018). This positions and highlights space as a key component in learning (Tate et al., 2012). Therefore, we must also pay attention to the reverse, learning as a key component of space and its physical and social production.[10] Physical refers to learning environments that guide the infrastructure of the built environment, and social refers to belonging within and to a learning community/environment.

Below I will highlight the physical and social learning determinants of spatial production. First, I will leverage Black Geographies as a framework to showcase the ways the physical product of a learning environment leads to spatial justice in high displacement areas, rendering the learners and houseless community as having a place, enacting spatial justice. "Spatial (in)justice refers to an intentional and focused emphasis on the spatial or geographical aspects of

[9] See history of Urban Renewal here.
[10] I want to shoutout Dr. kihana miraya ross' dissertation because it's brilliant and put me on this tip of thinking about the ways Black studies and Black space can depict/highlight learning space.

justice and injustice. As a starting point, this involves the fair and equitable distribution in space of socially valued resources and the opportunities to use them" (Soja, 2009, p. 2). Secondly, I will highlight how the learning environment enacts, supports and promotes agency, building a sense of place for oneself and the collective age of youth and renders the youth of place having as resistance and spatial production as a resistance, and then producing their learning space. Also, youth are rendered placeless through mechanisms of adultism, race and gender and other intersections (see Taylor & Hall, 2013). This is problematic in that it decenters their expertise in advocating for and creating space for themselves and others within the context of the city through spatial and locative literacies (Taylor, 2017). When discussing who is generally deemed able to create/have the ability to make and construct physical representations of place, we must consider how youth can offer keen insight into the future of spatial justice and the design of our spaces.

In highlighting learning as a resistance tool for spatial justice, I want to detail the urban ecology Sawhorse Revolution operates in. Therefore, I conducted a critical race spatial analysis was used and done to deepen analyses of the significance of these projects (Solórzano & Velez, 2015). This map (Figure 2.1) showcases the design-build Sawhorse Revolution has produced over the last nine years. The entirety of these projects is youth-directed, built and placed. In looking at this map, we can identify the locations of these buildings, predominantly being placed in previously red or yellow-lined areas of the city. This further builds on Black geographies and Learning Sciences intersection by displaying how youth engage in sociospatial historical issues across shifting geographies and the ever-changing timespace to build a just future (Gilmore, 2022; Gutierrez et al., 2019).[11]

[11] As a visual representation, we see how Black and Brown youth within SR engage themselves as legitimate spacemakers through art and building. This is a partial description/analysis of the racialized

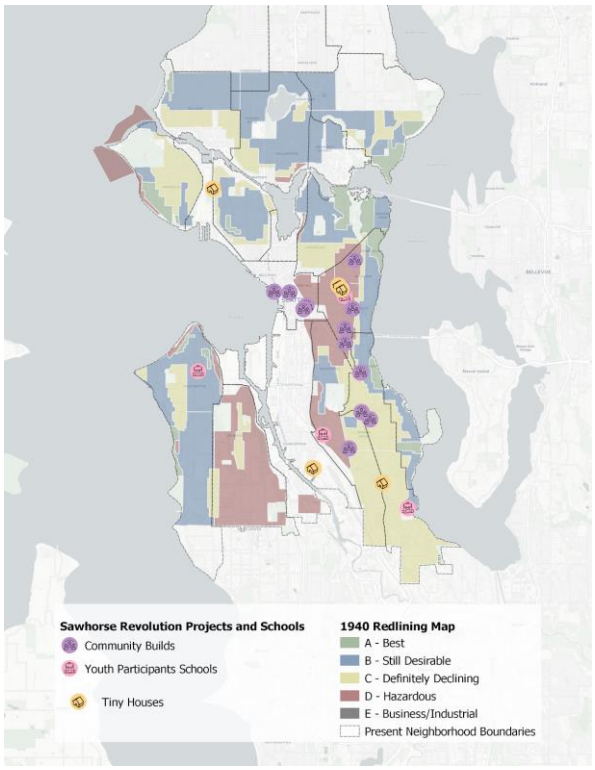


*Figure 2.1.* Sites of Resistance produced by Sawhorse Revolution youth to date in Seattle, making and maintaining sites of resistance and/or homeplaces within formally redlined and systemically marginalized areas experiencing rapid gentrification and displacement.

More specifically, this showcases connections between learning, race, space and the power of education to produce infrastructure that centers and enacts justice through spatial means (Velez & Solórzano, 2017). Redlining in Seattle has contributed to the astronomical divestment in low-income and communities of color until the emergence of tech companies and pressure for urban renewal. Coupled with this unfortunate reality, stark single-family house zoning laws causing a housing shortage, and unchecked gentrification, people and families have been displaced. Therefore, youth can have agency in their decision-making to counteract the geographic harm through their engagement (Germinaro, 2022). In doing so, learning allows them to address and build a sense of place within their city. To address this issue, the organization started building tiny homes for the unhoused and providing beautiful, elegant and moveable dwellings to render people worthy of having a place within the city.

Black geographies lend themselves as a framework to understand and position the learning process (design, environment and affordances) as a geography to highlight how we envision the approach and build out of our physical and social environments (Bauer & Sandolt,

infrastructure that young people inherited and are working within when they design and build homeplaces through SR programming; this provides context for how the organization is situated within the city context and their main focus/places of work.

2018). Learning has a key focus within the urban ecology guides this process differently, complicating the various layers and dimensions of learning as a spatial practice while also making a rhetorical shift in thinking through the ways youth can learn to advocate and make changes to their built environment**.** Furthermore, positioning the power of geography and spatial learning can promote healing by combatting spatial injustices (Germinaro, 2022; Taylor, 2017).

I hope to provide insight into how learning frameworks can support understanding and studying social and cultural geographies (i.e., identity resources as a way to understand tools and their uses in the learning process to make space). Building on geographies of learning and physical spatial justice production, I showcase the placements of Sawhorse Revolution's projects layered over redlined maps to showcase the ecosystem the youth are building of the spaces they engage in producing. Geographies of learning are defined as "the importance of spatiality in the production, consumption and implications of formal education systems from pre-school to tertiary education and of informal learning environments in homes, neighborhoods, community organizations and workspaces" (Holloway & Jöns, 2012, p. 482). Furthermore, this study looks at a youth design-build program and organization, precisely one program that allows youth to pick a client, design a space for them, then build the space for them in a high gentrification and displacement area. This program also calls attention to spatial realities and understandings from a Black perspective, instituting Black methodologies to frame and understand learning as a tool for liberation through spatial production.

## Literature Review

### Historical Spatial Connections to Education and Learning

Using geospatial mechanisms to understand social demographic and place-based differences has been a well-developed space of literature and scholarship. Tate (2008) brought

spatial analyses into education research conversations centering around the disproportionate learning opportunities based on geography. This line of inquiry and thinking can be linked to WEB Du Bois' *The Philadelphia Negro* (2010) as Du Bois mapped the social demographic brilliance of Blackness in Philly rather than focusing on the deficits as told by the white narratives of Black people in Philly. Similarly, geospatial analysis of learning provides insight into the complexities of urban space and the complex distribution of wealth, race, resources and opportunity when there's an opportunity to focus on the resistance instead of 'lack thereof' (Tate et al., 2012). In education, this promotes a focus of analysis and inquiry to focus on space and place as key contextual factors by framing learning in the context of a neighborhood, community or city as generative and tied to resistance for thriving (Pinkard, 2019). Thus a key motivation to focus on learning through the lens of space within urban landscapes and the built environment.

Additionally, a more historical and contextual take on space and education has been explored in the stories and realities of Black educators during racial segregation in the Jim Crow South by Vanessa Siddle Walker. Her take on the realities of public schooling and community development shifted and put education, researchers and scholarship on a path that pays attention to the various contributions of Black educators, families and communities made to resist and provide educational opportunities to Black children. She calls attention to the successes and triumphs of Black educators during segregation. She also calls attention to the hardships and how Black integration into white school systems harmed the Black community, specifically concerning achievement, pedagogy and family involvement (Walker, 2000). This furthers the notion that a geospatial lens on education is a line of inquiry that calls attention to injustice, and the synergies provide an opportunity for spatial justice learning.

**Spatial Justice and Power Disruption in Education and Learning**

Additionally, scholars within the Learning Sciences specifically have addressed spatial justice in various ways, such as social design experiments (Taylor and Hall, 2013), mobility justice and learning on the move (Marin et al., 2020), learning for social movements (Gutierrez, 2020), drawing connections between self and society (Kahn, 2020) and making space for self in a science center (Barton et al., 2021). I mention these various forms of how spatial justice has been taken up (and there are many more) to highlight the variations and mosaic of how learning can disrupt power through spacemaking and place-based teaching and learning practices.

Furthermore, at the intersection of learning and spatial production, Ma and Munter (2014) specifically highlight the spatial production of learning opportunities by focusing on the various activities and engagements of learning skateboarding at a skatepark, thus socially producing a learning space around the activity of skating. A multitude of scholars also discusses how learning interacts with space. Specifically, Taylor (2020) discusses resisting through spatial knowledge. Nxumalo and ross (2019) discuss Black space in education to argue for more attention to Black thriving, the application of Black sociocultural knowledge systems, and how they appear in learning space. Nxumalo and Cedillo (2017) discuss space in environmental education. Bang et al. (2014) discuss land education as a form of teaching and learning that decenters the human as a center of ecology, allowing for more robust relationships to space to be built. In short, learning is a critical component of justice in urban landscapes, and a spatial perspective on learning and development can address socio-historical and political inequities across time (see Leander, Phillips and Taylor, 2010; Pinkard, 2019; Hollett & Vivoni, 2021). Space and learning are also political and there’s a need to promote belonging and justice by understanding the importance of spaces, as a critical piece of a learning ecology, in our work (Kraftl et al., 2012).

Additionally, Jurow (2005) conducted a study where students participated in a symbolic architectural design project. In this study, youth took on the concerns and responsibilities of what Jurow calls the figured world and how that influenced their mathematical tasks. I am taking a similar approach for this project by engaging youth in an architectural design and building a project that takes their concerns and responsibilities reflected in their intentional design and decision-making process. My project complements and differs by focusing on the concerns and responsibilities of the youth's literal world and their approaches to spatial justice and belonging through infrastructure. This confronts how physical space has meaning and can be used to learn through the design of the building (Kraftl & Adey, 2008). These scholars provide unique understandings and ways of using their connections between learning, space, and Blackness across different contexts. Putting myself in conversations with them, I aim to employ Black Geographies in learning, education and spatial matters are Black matters (Hawthorne, 2019). With this, I am adding to the current literature to understand the role of learning and design as spatial resistance from and for Black people, communities and spaces.

### Black Geographies, Learning Environments and Youth Addressing Spatial Harm

As a subset of Black studies, Black Geographies is a critical methodological and analytical tool to interrogate issues and questions at the intersection of space and learning. Through Black geographic concepts of spatiality, I offer it to interrogate the design of justice centered learning environments that focus on identity, belonging and building a culture of a place through physical space production. Further, design and building as a spatial and cultural practice promotes resistance to what is considered art and moves past the rigidity of arts education. For example, spatial aesthetics of gentrification and displacement are evident in and around our cities (Summers, 2022). Aesthetics and design also formulate ways and mechanisms to address spatial harm through design (Summers et al., 2022). Moreover, art forms, including design, have been a

site of limitation for Black and Brown students as the field privileges well-off White male artists (Mims et al., 2022). Designing and building in the community allows Black and Brown youth to see and envision themselves as legitimate spacemakers through art and building as they develop identities related to such practice and beyond (Nasir, 2011). Additionally, design practices in the community context allow youth to also build relationships with space through the social and physical production of space accompanied by art (Charland, 2010). As a resistance tool, designing allows for aesthetics of reclamation and resistance within a city (Summers, 2021). This in turn allows for a geo-onto-epistemological understanding of how the youth enact reclamation and maintain space within a city through their design and production process.

Furthermore, youth are disproportionately affected by spatial injustices as they rarely have decision-making power over the sociopolitical dimensions to advocate for themselves, including how the spaces they engage in. As Jones et al. (2016) put it:

> The extent to which young people have power over shaping their geographies and how power operates within those spatialities can have long-lasting effects on how young people perceive themselves and their places in relation to others and other places. (Jones et al., 2016, p. 1153).

Thus, there's a need to understand, confront, and reflect on how the learning environment can produce spaces that reclaim and embed resistance in the city. Through their design process, young people offer insights into ways to reclaim histories, stories and relationships in their built environment. Even more important, they provide a way to improve the decision-making process that disrupts power and promotes resistance that determines the outcomes of our cities. There is a need to add more understandings and viewpoints that interweave geography and education within the "spatial turn." Specifically, this paper aims to add concepts for spatial learning that add depth to this type of research and inquiry within an urban landscape through how a Black geographical conceptualization allows us to understand spatial matters as Black matters, despite

our decree. Socio-cultural and human geographies have many things to offer the Learning sciences, how we think about the learning process, and how it impacts our future in real time, particularly the role of learning in supporting Blackness and Black perspectives on Black issues. In doing so, whiteness is made visible, the techniques used to disenfranchise and inflict spatial harm is illuminated when learning through a Black perspective and thus addressing issues from that standpoint, similar to how Native and Indigenous scholars have called for a centering of Indigenous knowledges in education and learning (see McGinty & Bang, 2016). Therefore I ask how our youth within Sawhorse Revolution engage issues of power in their city and the larger effort of contributing to and preserving the Black community through design.

## Conceptual Framework: The Offerings of Black Geographies to the Learning Sciences

Geography is not static; it is how we produce and make space and construct meanings of space. Traditional Geography (McKittrick, 2006; Taylor, 2020) focuses on cartesian and physical interpretations of space, such as maps and land. It affects people, but not how people affect it, thus building binaries based on power (i.e., borders, zip codes, etc.). Additionally, Black geographies call attention to geographic domination through anti-Blackness, displacement of difference (nondominant intersectional identities), and an analysis of spaces of resistance to power to understand Black folks' imaginative and future geographies. Therefore, Black geographies frameworks call attention to Black life and experiences from Black people's perspectives, which are starkly missing from the Learning Sciences. Black Geography is defined as "subaltern or alternative geographic patterns that work alongside and beyond traditional geographies and a site of the terrain of struggle" (McKittrick, 2006, p. 7). Black geographies situate our current geographies as rendering those with nondominant identities placeless, calling for a need to analyze and showcase how those being rendered placeless socially produce and

make a place in spite. In a 2014 interview, McKittrick notes how the systems of domination and whiteness "rewards practices of capital accumulation, which is also a world where Black is always owned and un-owning—necessarily informs a Black sense of place" (Hudson & McKittrick, 2014, p. 234). The described context highlights how whiteness is anti-Black while also necessitating what we would call specialization in the discipline. However, Black geographies counter that notion by breaking down discipline in a serendipitous way that necessitates connecting in and across 'disciplines.' Thus, Black geographic knowledge allows for questions to break down discipline silos and promote the emergence of deep intellectual questions about complex issues to provoke complex solutions. This is limited in many fields that cling to age-old white foundational traditions. Therefore, I am working from Black perspectives that disrupt whiteness and make visible a different path of inquiry that engages concepts and modes of thinking that embrace complexity and difference.

For this study, the concept of a homeplace provides a framing for how homeplaces, tied to home and family, are a form of resistance to the displacement of Black people and, more broadly, people of color in US cities. Homeplace connects to the cultivation of belonging, a belonging that heals and builds on resistance that occurs. Thus learning facilitates healing (Germinaro, 2022). In essence, placing ourselves in the future is a healing practice guided by belonging (Kirshner, 2015). Similarly, Black geographies highlight the connections between these acts of violence and abuses of power and how Black women have resisted and manipulated these spaces from within to socially produce space. For example, bell hooks (1990) presents the concept of the homeplace as a space constructed by Black women who have historically survived and resisted white patriarchal power and supremacy. For my project, I will opt to use the operational definition by Bettina Love, where a ". . . homeplace is a community, typically led by

women, where white power and the damages done by it are healed by loving Blackness and restoring dignity and also acts as a site of resistance" (Love, 2019, p. 63). Sites of resistance do promote healing and resistance to oppression while positioning Black girls as sociopolitical and historical actors (Kelly, 2020). In doing so, sites of resistance enable the activation of tools for combatting oppression through learning (Germinaro, 2022).

Conceptually, understanding sites of resistance as they emerge through learning is necessary for the context of urban landscapes where displacement, gentrification and environmental racism are persistent in disrupting the learning and development of youth. Displacement and harm done through geographic oppression are described as urbicide or the killing of a city through social and political means (McKittrick, 2011). This study looks at a learning environment that facilitates the creation of physical space in a rapidly gentrifying city, an understanding of how infrastructure promotes resistance and hope of the people in a city and serves as a means for reclaiming the city (Summers, 2021). As Alexandre (2018) described, "people become enrolled into communities of aspiration through the presence and absence of infrastructures and that infrastructures are therefore implicated in how the city's progress is envisioned" (p. 67).

In developing a sense of place, people use cultural, historical and social perspectives and experiences to design spaces of belonging, which is not defined by their very real oppression (McKittrick, 2011). This act of resistance, or construction of a homeplace in the context of Black geographies, lends itself as a way to both identify the means of urbicide in a context while shedding light and uplifting the ways people, and specific to this study, women of color, resist through their development and construction of a homeplace, and infrastructure, through learning. As a place, Seattle has historically had and designed infrastructure to keep people out of spaces

who are deemed as not belonging. For example, Seattle's zoning and permitting laws limit access to affordable housing and prioritize single-family homes (Taylor, 2022). Summers (2021) presents opportunities and examples for spatial reclamation and resistance within cities through aesthetics, such as soundscapes in DC that are historically and unapologetically Black. Students engaging in design work get to interrogate their mechanism for uplifting, uncovering and centering aesthetics of spatial reclamation and resistance as they design for particular ways of being within the city.

However, the areas rezoned and used for more dense housing happen to be historically Black, Brown, Indigenous, immigrant and low-income neighborhoods. Further, when Seattle committed to building transportation infrastructure for a train, Black neighborhoods were demolished for above-ground train stations (similar to urban renewal). In contrast, the whiter, more affluent neighborhoods had underground train stations, preserving the neighborhood. Further examples of spatial aesthetics emerging as a means of disposal and harm to center and preserve whiteness (Pearman, 2020). Space and place has often been racialized in a way where decisions by those in power have made "a Black sense of place virtually impossible under Eurocentric geographic arrangements" (McKittrick, 2011, p. 103). Thus, in response to redlining, gentrification, segregation/integration, over-policing, etc., physical spaces where oppressed people can create and construct a space for their intersectional identities have been a site for resistance, safety and healing. Black geographies then centers Blackness within a spatialized and racialized context, especially with how we must understand learning as a key contribution to building out and supporting Black liberation.

In essence, Black geography illuminates whiteness as it operates against Blackness and specifically Black space. We must shift how we understand learning as a process that rarely

illuminates and calls out whiteness and the various ways it operates, where Black geographies offer us that process of inquiry. Therefore, it provides a framework for how youth learn to understand and eradicate whiteness techniques of spatial harm and dispossession through design and their ongoing activism (Summers et al., 2022). Black geographies takes on a "radical political dimension" where this site of resistance affirms the having of a place (hooks, 1990, p. 384). Thus, a Black sense of place as a method and analytical tool for understanding a learning environment and how learning produces space lends itself to re-spatializing the built environment through social, historical and cultural relationships and representations to space. Learning then is being positioned as an essential tool for the larger urban ecology to address and organizing for resistance movements.

## Program Locations, People and Methods

Our project and program planning and duration took place from Spring 2021 until Summer 2022 at two different sites in the Pacific Northwest within the United States–one indoor learning site and one outdoor building site. The indoor site was located in the headquarters of the non-profit organization that facilitated the program, where they had a dedicated classroom and educational area, also located within the southeast region of the city where the students were generally from and experiencing a host of challenges with regards to gentrification, displacement and historical spatial harm. The organization also ran three other youth programs within this space on different days. The outdoor building site was located at a local community college carpentry school in a neighborhood familiar to the youth and about 4 miles from the nonprofit's headquarters. This site allowed for the physical buildings to be built over three months. I participated and observed an equal amount of time at both sites. However, one activity differed,

and I was positioned more as a learner in the outdoor site as my expertise is not in building or carpentry[12]. Figure 2.2 is a project and curriculum timeline that details the program's makeup.

[12] Process of building relationships: As one of the few, if not only men/male identifying people in the space the majority of the time I leaned on Black feminist theory as I approached being in the space. I also leaned on Dr. kihana mariya ross' (2018) work and offerings on Black girl space in education specifically to guide my approach to trust building and relationships. Similarly, as a pedagogue, culturally sustaining pedagogy really grounds my way of being within a learning space (Paris & Alim, 2017). For example, in starting with relationships and trust within this space I would approach getting to know the students by sharing my own interests and concerns with being there. For some background, I had experienced displacement growing up, often felt othered in many spaces growing up and have long been on a journey of belonging. I also noted and let them know my motivations behind supporting and being a part of this organization was mainly because I love to selfishly be involved with learning experiences I wish I had growing up. As a man in space, I had to work extra hard to earn the trust of the students, knowing that my presence has an effect on the learning ecology. I also found my strong foundational relationships with the mentors and program coordinators of Sawhorse Revolution to be a key aspect of trust building as the youth within the study were already close with them. That closeness allowed for trust to be bridged instead of built from the foundation up. Routinely I would offer up parts of my story and history as a means to learn more about the students' experiences and this process seemed to be key to us getting to know one another. I learned there wasn't any way for our relationships to grow without myself moving forward with care first, often asking how they were doing, probing about their families, communities and interests to prompt a dialogue to get to know one another. Over time we built trusting relationships that centered around some of our shared interests (such as dogs, design, science, art and fashion). As I'm writing this, the program coordinator texted me to participate as a chaperone in an obstacle course 5k relay with some of the students in the study. Humbled to be a part of this learning community while continuing to learn how to use my own privilege to disrupt power dynamics across the ecology. I did some do this through means outside of the strict learning environment to support the organization more broadly to support their programming through funding acquisition and pedagogy support. Some of our conversations did fluctuate on acknowledging the need for more girl and femme only spaces. As I brought these topics up in our natural conversations and later interviews, they noted the brilliance of learning from other girls of color within the space. As the only male identifying person in the space quite often, there wasn't direct conversation around my beingness within the space, although not being an expert in the content being taught, I often opted to take the position as a liminal learner, meaning I was at any point in time a researcher, mentor, fellow learner, participant and/or errand runner. I wore many hats within the space, and personally felt this to be key in building trust as this also allowed me to physically leave the space at times allowing for there to be girl and woman only spaces as discussed by the students. I often thought consciously about the space I may be taking up, concerned about detracting from the space overall and in these positions, I would opt to pick up food or move to another area of the classroom space. I also aimed to support the cultural and ethnic identities of the students in various ways through the design of the curriculum. Whether that be our examples of designing our dream spaces or the importance of talking about the connections between our identities and spatial relationships historically, we all sat down and had more natural conversations on these topics. Specifically, one of the learners, Carolyn, and I had conversations about being Black in the Pacific Northwest, and for myself shared about being Black in Arizona. We then discussed the many benefits of being around only Black people, or different ways to seek out those spaces. This conversation traversed many natural/informal conversations over time as we discussed her wants to explore HBCUs to play sports as I had mentioned I played in college. We also talked a lot about hair, our relationships to our hair and the importance of it to us culturally. Another example of building relationships with one of the students, Thienvan, had to do with where we both lived within the city. Since we lived in the same neighborhood we often discussed the changes we would be seeing in the neighborhood, she would give me tips and the tea on the good spots to go in the neighborhood for food and I would share some of the information I offered about my favorite spots. She wanted to be an architect and we talked about the importance of her perspective as being both a designer and builder as a young woman and being Southeast Asian. Samira and Halima were cousins spoke Oromo which is a language spoken by the Oromo people in southern Ethiopia. Early on in the study I recognized the language and asked them about it, sharing that one of my good friends at school is Oromo (s/o to you fam). They started teaching me some words and when it came to design work their designs and shadings revolves around the Oromo culture. This was our point of entry into the relationship and trust building. Also, I would often encourage their TikTok making when we would be on breaks, or sometimes during a learning


*Figure 2.2.* Project and curriculum timeline.

session. I think this choice to allow them to enjoy their time/space allowed them to know I wasn't planning to exercise power in that way, but rather partake in something they cared about. Later on they opted into using a GoPro to support in data collection. Another student, Hailey, often shared her love for her neighborhood and community. In our conversations, we talked a lot about Filipino design, fashion and what she wanted to be after high school. She put me onto different TikTok and language trends while also being the resident videographer for a majority of the days we took field trips as she was into vlogging. I often negotiated and toed the line between professional 'researcher' and my own joy in building relationships based on reciprocity to reclaim community (Baldridge, 2019). My approach is not objective but rather very intentional on building connections by sharing why and how I've come to the work with these girls of color, my history, my life and my aims to learn with/from them in a community based educational space (Baldridge et al., 2017). I cannot and will not separate myself from the work. As the learning was in flux I aimed to also be within these liminal spaces to add value wherever I could.

Although in vastly different settings, the two sites had many similarities in layouts. Both sites were broken up into stations that reflected mini-project teams that divided the workload and allowed youth to choose their spectrum of engagement towards what they wanted to participate in. The indoor site in the fall and winter of 2021 was an open room with four large tables with photos, projects and notes strung around the walls. Students could sit where they chose and participate in group work, usually at their tables or with partners. In comparison, the outdoor area was very open and offered more movement during the spring and summer of 2022. Locations in the outdoor site were broken up by building (buildings 1 and 2) and the activities taking place (floor building, framing, cutting, nailing, sheathing, etc.). The youth within the study were all high school age and ranged from 14 to 18 from most urban neighborhoods, although a couple came from the suburbs. Many students noted their distaste for equal learning opportunities and courses within the school (woodshops, where the classroom ratios to learn complex power tools, made it difficult to build efficiency in using a power tool.) Thus, many students opted into joining the design and build sessions that occurred weekly on Sundays during the school year for 4-6 hours at a time. Most, but not exclusively, the students within the program were girls or femme-identifying people of color. [13]

[13]There were also white students and one Black male student engaged during the building position of the program. Although young girls, women and femme folks, as well as Black, Brown and Indigenous folks are not well reflected in the industry demographics of architecture, carpentry and planning, they reflect the majority in Sawhorse Revolutions students. This indicates larger implications about who is deemed legitimate as a builder and spacemaker. The participants shared the need to make space for people like them in the industry and wanted to disrupt the discrepancies often reflected by the program mentors. This highlights another need for more vocational training for youth that allows them to inquire about space, thus promoting an understanding of how youth think about space (Mayega, 2018). Mentors are a vital component of the learning environment and programming taking place. Precisely for this program, we invited planners, designers and builders of color and women better to reflect the demographic of students in the program. These mentors also provided more intimate ratios for feedback, design and build sessions, insight into the industry and how whiteness infiltrates design and the built environment.
The mentors are all people of color and/or women as well. Through observations, I noted how interactions between the mentors and students centered around relationship building, humility and agency, and prompting spatial literacy. At both sites, I conducted participant observations and natural conversations about the learning environment and building days, most of which were videotaped or audio recorded. Natural conversations took place during breaks, in between activities or over lunch. With six students and the client, I conducted more in-depth recorded and filmed

Following ethnographic methods, I allowed my force and interest in space and learning to be guided by what I observed and the natural conversations in the setting (Shange, 2019). In a grounded theory approach (Glaser & Strauss, 1967), I used a thematic analysis approach, I noted questions, assumptions and lines of inquiry to pursue as questions around space, justice, and development began to emerge during the design sessions. Codes that led to the vignettes below were agency, skill building, spacemaking and material conditions, which led to the theme of youth making and maintaining sites of resistance as legitimate spacemakers. The design process curriculum was built on SR's previous curricula with support from myself and mentors who all had a hand in shaping the content. We focused on promoting socio-spatial issues from perspectives around environmental justice, redlining, disability justice and mechanisms of storying a place. Through this curriculum and the lines of inquiry that emerged, I focused on the patterns that detailed potential themes as they started to occur more frequently (Charmaz, 1983). Specifically, I looked at the activities within the curricula, the associated artifacts with said activities, the formal teaching periods led by mentors, and the tools they allowed prompted students to learn through (arts, sketching, 3D modeling, 2D modeling, etc.). My in-process data collection and analysis via field notes and natural conversations (as video recording was taking the place of the context) fluctuated from teaching to practice, teaching to practice cyclically, with breaks built in to debrief and commune over food. In particular, I looked for the learnings that emerged from the activities when the youth would share their process, thinking and justification for sketching or designing a particular way, exercising agency, advocating for themselves and others, and providing sociopolitical implications to their decisions (Jurow et al., 2016).

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hour-long interviews, recordings, and audio data. Overall, I conducted over 80 hours of observations, 40 of which were recorded. Focal students were chosen based on consent to participate in the study and those who went through both the design and build portions of the programs.

Furthermore, these activities paralleled their natural conversational reports on why they enjoyed this learning environment, what it allowed them to do and how they experienced the learning. Recordings of natural conversations, formal interviews and field notes were transcribed and analyzed in conjunction with artifacts to provide more insight into the overall story. Since my analysis took place during the program's entirety, I was, and still am, able to check with youth, mentors and the non-profit organization to address and ask any additional questions for clarification. Lastly, two conceptual findings were chosen for detailed, in-depth vignettes and analysis to offer a story of the themes backed by data through a vignette (Toliver, 2021). I aim at mending two literature bodies to offer how Black Geographies can offer learning theory a pathway to attend to the body, understand spatial knowledge and center the needs and wants of individuals closest to the spaces they inhabit through applying a Black Sense of Place as a tool to the data presented.

A Black Sense of Place is being used as a tool to address complexity within the study and inform the affordances Black Geographies thinking offers the Learning Sciences. Firstly, the vignettes will focus on and detail how the learning process produces space and infrastructure in the built environment, deeming youth as spatial re/producers as they exercise resistance. Secondly, a vignette will focus on how youth employ learning as a mechanism and process to render themselves and others worthy of having a place as they apply an intersectional lens to their design process, thus figuratively placing themselves in the city by making places for those rendered placeless. These spatial production stories will be represented through maps, quotes and artifacts from the projects to provide an accessible mechanism for readers to engage with data. This mechanism of analysis, leveraging Black geographies, is appropriate as it calls attention to

the building and components of a sense of place (McKittrick, 2021). Additional artifacts and/or natural conversations were supplementary data when necessary.

In the next section, I present two examples to detail how the learning process is a mechanism for producing sites of resistance. In Such section, youth exercise placing the placeless, including themselves. The examples themselves are aimed at being a small representation of how youth can and should be able to support the build-out of our cities. They are also being represented as components of a highly theoretical concept, a Black sense of place, which has traditionally not been used to support qualitative data analysis. Thus, a vignette proves most appropriate to detail the key components of a Black sense of place. As detailed by Katherine McKittrick (2021), a Black sense of place is:

> A black sense of place draws attention to geographic processes that emerged from plantation slavery and its attendant racial violences yet cannot be contained by the logics of white supremacy. A black sense of place is not a standpoint or a situated knowledge; it is a location of difficult encounter and relationality. A black sense of place is not individualized knowledge—it is collaborative praxis. It assumes that our collective assertions of life are always in tandem with other ways of being (including those ways of being we cannot bear). A black sense of place always calls into question, struggles against, critiques, undoes, prevailing racist scripts. A black sense of place is a diasporic-plantocratic-black geography that reframes what we know by reorienting and honoring where we know from. A black sense of place is a methodology and an analytical frame that believes in and believes black humanity. A black sense of place draws attention to uncomfortable relationalities yet understands these as a method through which we can wade through the horrific uneasiness of black death that is, as we know, posited as an easy resolution to a vast range of social problems. (pp. 106–107)

In using the concept of a Black sense of place, I will apply it as a spatial storytelling method to highlight the learning process, the development of youth across that process and how learning leads to spatial production.

Overall, I built the vignettes as composites of information across the programs conducted by the non-profit organization, specifically focusing on instances that allowed physical spaces to be built. This aims to justify using Black geographies to understand learning as a space-making

and spatial imaginary process (Hawthorne, 2019). Specifically, one that confronts enforcing intersecting oppressive powers such as racial capitalism and carceral geographies that set up spatial unevenness (Freshour & Williams, 2020; Gilmore, 2022). This calls attention to spatial knowledge construction and how learning can resist spatial harm, thus promoting an understanding of making and maintaining homeplaces, or sites of resistance (hooks, 1990). Firstly, I provide a vignette of the decision making process youth engaged in when they chose Deaf Spotlight as the client to receive the new space they were to design to illustrate the placing of the placeless and their decision making. Then I provide a snapshot of a reflection by one of the students to highlight their commitment that moves past design and to how they conceptualize interrelations between bodies and space. The second vignette showcases how learning allows youth to render themselves and others worthy of having a place, making space for themselves through their individual and collective decision-making processes. They go through a process of building design elements, then applying those to Deaf Spotlights' wants as they negotiate their hopes for a space as well. This example further showcases their making and maintenance of a resistance space through their design process to cultivate a sense of place.

## Being and Becoming Spatial Re/Producers

> Adults should actually listen to the youth because we are actually the future, right? We're the ones that's going to be the next generation, the people that are actually going to become the builders, the lawyers, the doctors, all the jobs. So it's better to listen to the youth. Because if you don't, we're really the ones that have the ideas for the future. And I think it makes us feel respected and more open to talk to people, like people older than us actually listen to us and actually make us feel included. (Samira)

As detailed above, youth are the truth and the future. In the experience of learning with Sawhorse Revolution, youth can engage in larger decision-making processes. In doing so, they can build identities as spatial re/producers as they learn (Nasir, 2002). As a particular example, youth began to build a relationship with Deaf Spotlight through their deliberation and decision-

making process where they chose them as the grantee. This is the beginning of drawing connections across social inequities, space for community building and the disability community. This conversation was held on Zoom, mid-week and the students read through applications that were boiled down to four by the mentor group earlier in the week. Through understanding and identifying the relationship between the disability community, social inequalities illuminated by covid-19, and physically having a space to build community, the youth interrogate the uncomfortable relationships between bodies (themselves, the clients and others) and lacking a sense of place. Their decision-making and design process yields a resolution to the interlocking social problems that they experienced and witnessed during the pandemic.

When prompted to detail their thoughts on Deaf Spotlight and their proposal, youth involved in the study mentioned various reasons such as:

> But there was one that talked about that specifically for the benefit of the environment. And I thought that was a really cool idea because it can help with aesthetic too, but it also is a good cause. (Carolyn)
>
> I thought film literature and personal storytelling was kind of their main focus. And I thought that was interesting. (Hailey)
>
> ... like deaf and blind and disabled people had especially hard time during COVID because increased physical distancing, and isolation. So this place would be a really good building for them just because it will be an art center. And I actually looked at their website, and they've partnered with so many people. Yeah, they don't have a headquarters too. So I thought it would be a good idea to build them one. (Thienvan)

Here we see youth wanting to build through their decision making process. They highlight the need to address how a new space could allow them to rebuild and recover from COVID stress; they want also to learn more about the Deaf Spotlight community, incorporating and seeing youth and they value the opportunity for youth to feel safe and supported. Youth call out the connections between bodies and space, and specific access to self-determination through space (Hamraie, 2018). Further, the example displays how students engage in the process of design in

order to negotiate these challenges of producing space, which involves reinterpreting their cultural practices in ways that are consistent with their beliefs of folks being deserving of physical space while also affirming their identities as spatial re/producers.

For example, during the deliberation during the program's first quarter, students noted, "I really like the fact that like it, they represent, like a community that isn't represented that often . . . And it's also like a safe space where people don't have to go through the obstacles they would like in other public places." Here we see the connections between space, placing others and caring for various identities through design. Youth engaged in learning (see timeline in *Program Locations, People and Methods* section) that positioned themselves as spatial producers while connecting to the broader community's purpose. This connects the mind, body and spatial components to the broader community and development. As youth learn, they develop and build a sense of place within the learning environment and their communities, shifting perspectives of aesthetics to promote a sense of place. Furthermore, this student also reflected on the ways their neighborhood would be difficult for folks with varying disabilities:

> I think learning more about that really made me realize that, like the neighborhood I live in, it's really hard, it'd be really hard for them to get around. (Thienvan)

As the youth in the design-build program for this project alluded to above, they connect themselves and others within the learning process, promoting their humanity and others. In this project, the youth picked a client who previously didn't have a space within the city. This client also represents the Deaf community. This required us to shift the learning process and experience to focus on deaf space design and disability justice concerning space. As youth engaged in this learning process, they reflected on their trajectory to shift towards seeing themselves as spatial producers. One student, in particular, noted this realization of becoming a spatial producer as she reflected on the design process and midway through the build program:

> I think in the beginning, I definitely took it from the approach of my personal interests, rather than what it does for the community. I think through Sawhorse, the design, I think the design phase, I didn't really see much of a vision, rather. But I learned more about the community. But then, during the building program, I kind of saw, wow, this is real, like, this is going to be a space for... for people. And it just blew my mind that we could do something and it was relatively fast too. And it's just like that, it changed everything for me. And it just excited me even more. (Thienvan)

*Figure 2.3*. Building program photo showcasing the collective iterative group work in sequence and weaving together the applied portion of the building resistance through space, learning and seeing theirs, as well as others, futures turned into a reality.


*Figure 2.4*. Building program photo showcasing the collective iterative group work in sequence and weaving together the applied portion of the building resistance through space, learning and seeing theirs, as well as others, futures turned into a reality.

*Figure 2.5*. Building program photo showcasing the collective iterative group work in sequence and weaving together the applied portion of the building resistance through space, learning and seeing theirs, as well as others, futures turned into a reality.

This highlights how learning serves as a key organizing tool as it connects the dots through the place, land development for individuals and others within a city's infrastructure. Moreover, the design and build learning process allows for self-determination that is socially, psychologically and culturally grounded, highlighting the necessity to understand the relationship between space critically (Davis et al., 2020). This promotes skill sets for thinking about the decision-making of the space and how designing allows for youth aesthetics of reclamation to occur, which includes their involvement in the process. Youth are also piecing together the social and cultural part of feeling in a space, which in turn represents belonging and a sense of place for themselves. A key part of their design process is ensuring the collective belonging and wellbeing of others they are in community with. This is a key component of their space within the communal urban ecology, particularly as they emerge into being spatial re/producers. They promote spaces of community, education and allow

their learning process to activate and determine aesthetic differences that ensure the longevity of others within a geography through designing for a sense of place.

Furthermore, Black geographies call attention to the sense of place, spatial thinking, and collective learning as a mediator for young folks to develop their agency as spatial beings who address histories of dispossession and individualism through community-based education (Baldridge et al., 2017). This study highlights youth engage in various forms of resistance, including challenging dominant narratives about who is seen as a legitimate spacemaker, creating spaces of belonging within the city, and forging alliances with communities who share their concerns about sociospatial justice. Overall, the paper suggests that the process of learning and design is a form of resistance that allows youth to negotiate their identities and engage in the larger urban ecology. As youth see themselves as legitimate producers of space, they build off their learning to employ that identity as a resistance strategy. Specifically they use their identities as a means of building responsibility to disrupt spatial injustice.

## Process of Spacemaking, Stewardship and Learning

In order to do this work, Sawhorse Revolution engaged in a number of different tactics to position youth as the main decision makers within the design and build process. Through this mechanism, they highlight and embody the overall process of building a collective to address various spatial issues. In their focus on the Central District and the South End, SR is deliberate in their choosing of students from the neighborhood they aim to do work in. They also embody the assertion that youth should be making key decisions in our urban landscapes. Within the SR model, we provided a wealth of precontextual work to ground the programming that allowed us to build a spatial orientation and provide historical context to Seattle, the displacement of communities within Seattle and they ways we could support those efforts. By doing so, youth

engaged in this work from the perspective of a Black sense of place being disrupted by gentrification and displacement while connecting it to the ongoing displacement of Black and Brown folks within Seattle. Further, Sam set forth a goal for the learning and designs we were doing together that would disrupt this process of ongoing geographic harm, with youth leading (Nasir, 2002).

This goal led to increased engagement and learning more. For example, we engaged in a design activity called *Taste.* This exercise took place in week 2 of the 10-week design programming before the client was chosen. In this exercise, hundreds of images were laid out throughout the five tables at the indoor site. The youth and mentors were asked to pick ten images that best represented their design aesthetic, and we all had about 10 to 15 minutes. As we started, music played in the background, which was otherwise silent. As we swiftly moved around the tables searching for images, a subtle buzz of excitement emerged as images were collected and shared. As images were collected, and everyone landed on their ten representations, we posted them in a gallery walk style and went around and shared the reasons behind our choices. Some were chosen because of openness, colors, light, shade and elements of nature. Others were chosen because they were nostalgic, wanted that design feature in the future, or simply because they liked it.

After sharing individually, we were tasked with dot voting on the images across the individual aesthetic boards. Once voting commenced, we put the top 15 to 20 images on a table (see Figure 2.6). At this conjunction, Sam addressed the group and stated ". . . it doesn't matter how many votes they have now, everything's back on the table and everything we put onto the table is a combination of all of us and our inspirations. we're not going to be involved. We're gonna go over here and hang out." At this point, the mentors/adults left, and the youth decided

on ten images that would guide the final design of the space. Below we see their orientation to their choosing of the images, as they chose one by one detailed the synergies across their images such as “we think like a similar theme is like the lighting on all of them like, it feels cozy and we are creating space that connects to the environment” (see Figure 2.7).

*Figure 2.6*. Voting on images.

*Figure 2.7.* Images displayed.

This exercise both allowed youth to go through the process of making their own dream space and specifically the design elements that would guide it. They build relationships with each other and the people they're designing for through design. They use design as a form of humanity and humanizing (Langer-Osuna & Nasir, 2016). They center humanity on building the best space. They build the best space because they want someone to feel comfortable and that they belong in such a space. They want them to feel like they belong as a form of resistance to interlocking violence at play. They understand this as a mechanism to work through the uneasiness of social problems and make space for themselves and others. From here, they could bridge their differences and demonstrate how to move from individual wants and aesthetics to a collective aesthetic.

> . . . when we're designing separately, or for people different than us, we have to do what's best for them, and what benefits them. (Samira)

> And, like, upon meeting them, I just.. No matter how it turned out, I just wanted to do the best I could for them. And because they went through so much [the pandemic] and like they're working so hard to give their community a voice, how could you not put 100%? (Thienvan)

Here, Samira and Thienvan detail the constant dance of building out aesthetics that reflect their ethical responsibilities of producing The act of representation serves as a key aesthetic for spacemaking, especially one that's embedded as a process of making and maintaining a space for another group of people. The design then supported their understanding of the varying needs between self and community, while showcasing and highlighting the individual students roles in the larger urban landscape and community in which they lived. Summers et al. (2022) highlights the need to design for "the needs of those who are already here" and move away from the desires of an "ideal, future urban population" that often upholds white supremacy and neoliberal urbansim.

Building on the idea and wants of youth to be seen as legitimate spacemakers and stewards of our spaces, one of the mentors, Sergio (who is an architect and designer of cultural spaces and grew up in Seattle), posed an interesting question in his reflections of his learnings from participating in the program.

> I learned the power of that sort of authentic curiosity that young people have and how that can be such a powerful tool in the design process as a design prompt; [design] is all experience driven or how long have you worked in the industry. But there's something beautiful and unique about the youth perspective, and the ability to dream big. And harness that as, as an inclusive tool within design, I think is immensely powerful. *What if replicate this model all over the city?* We suddenly create this ecosystem of spaces in places folks really gravitate to, and really feel seen and feel heard all over the region.

Sergio connects to the idea of design activism, a form of resistance that positions design as a tool to combat injustice, and further justifies the making and maintaining of space by youth. As they learn the practice of design, they identify as spatial re/producers, as they identify as spatial re/producers they develop more goals of maintaining said spaces of resistance. As they make and maintain these spaces, they reclaim stories and aesthetics of their community. A sense of place provides an analytical approach to understanding how youth render themselves and others worthy of having a place through agential mechanisms that leverage individual and collective identities. This co-constructive process showcases how learning is a spatial practice that can address spatial and social inequities.

In reflecting on this particular activity and experience, Samira noted "in Sawhorse, we can do more; there are limits to certain ideas [in school], what you can like, [and what you] really want instead of doing what other people want you to do. You can't do designing and stuff at school, we don't really get to use all these tools. And really, and have a lot of like . . . a lot of time to think about what you want to do." She notes there's value in the process of being to think, work and design that is valuable in a learning space. The ability to take ownership and

exercise what and who gets to exercise agency within learning environments. Not only do the youth feel they should belong and value being valued, but they also know others are excluded from having rights to space in the city, especially in the context of a rapidly gentrifying city. They detail what it means to have learning be a process of spatial stewardship, making and reclamation.

## Implications

This project and program highlight a framework to involve youth in the civic process to address spatial and geographical issues within their respective communication through learning opportunities (supporting learning programs that allow for this process). It also provides insight into axiological orientations to learning as geographically constituted that complement the movement of addressing design commitments to the learning environment (Bang, 2017). Further, Black geographies offer keen insights and framings to understand space, race and learning by focusing on the body and its relation to space, the bodies relations to others, and the intersection of those relations in spatial production. For example, within urban ecologies, Summers (2019) introduces the ideas of spatial aesthetics as a tool to reclaim space. Aesthetic activism refers to the use of artistic and creative practices to engage with political and social issues (Summers, 2022). As a tool, aesthetic activism emerges as a unique response to the political and social crises of our time, including the types of spaces that are within our city, such as youth insurgent aesthetics as a way to reclaim space in the wake of gentrification and displacement.

This study highlights how we learning can create identities, specifically those that contribute to the reclamation of identities in space. Youth within Sawhorse Revolution engage in learning that creates opportunities to identify as a spatial re/producer (Nasir, 2002). In doing so, youth disrupt various notions of who is deemed a legitimate spacemaker as they make and

maintain these sites of resistance in areas that are experiencing hostile gentrification and displacement. As a community of practice (Wenger, 2011) of designers and builders, youth "learn new skills and bodies of knowledge, facilitating new ways of participating, which in turn, helps to create new identities relative to their community" (Nasir, 2002, p. 239). As a concept, Black geographies deepens the understanding of these reciprocal processes taking place in this context by added a layer of spatial literacy that connects learning and identity to the larger ecology and geography. For example, when youth are supported in seeing themselves as learners who are legitimate spacemakers they engage learning activities with more gusto (Bang et al., 2012) and learn more. Engaging in consequential learning that not only has a actionable element but also sociopolitical implications offers more engagement. As the youth understand geopolitical issues from a historical Black perspective, they are able to reconceptualize how to address that issue and then learn more. In other words, as youth see themselves as spatial reproducers, they uncover more geopolitical issues to explore ways to address.

This continued line of using design to address these issues builds a form of activism that is connected to, and a result of, learning and identity development. This process connects to the ways we can critically interrogate access to space, accessibility to stewarding space, and the ways learning allows for the cultivation of resistance spaces and the role of political work in the Learning Sciences (Booker et al., 2014). In their ability to pick and choose their builds and projects, youth exercise their decision-making skill sets to apply spatial literacies to disrupt power hegemony through space. Thus, learning and identity emerge as a key element of the social and cultural practice of spatial production as a means of resistance. A critical aspect of this connection is the ways that identities both as a learner and spatial re/producer are related to the process of becoming. This work further contends with ways we can address power within the

Learning Sciences from a humanities and Black studies perspective, one that is often limited and not privileged within the Learning Sciences discourse (Esmonde, 2016). We must center various ways of understanding learning that reflect the settings and contexts where learning takes place, taking into account the spatial and temporal dimensions of learning in context the reflect said context.

## Conclusion

This article examines the way learning is used to make and maintain space within an urban ecology. By focusing on the Black sense of place and homeplace concept, I drew attention to learning has, and continues to be positioned as a resistance tool for spatial means (Bauer & Landolt, 2018; Germinaro, 2022). Especially one that connects products resulting from a learning environment and/or the learning process. This opens the door for designers and planners to put forth a movement beyond the adult gaze and adultism that excludes youth from their rights to the city as a way to support and engage youth in the civic process. Applying a Black geographies lens calls attention to how youth address placelessness and othering as mechanisms to address inequities through space. By attending to a sense of place for themselves and others, they disrupt the power dynamics and relations between systematically marginalized people (including themselves) and the spaces we/they inhabit. The collective we show up in the design and build process, one that supports collective action and resistance to make and maintain networks of homeplaces (Curnow & Jurow, 2021; Germinaro, 2022). These networks extend past the individual self, yet they cherish the collective we of individual bodies and their interwoven and interdependence on one another through space and infrastructure. In doing so, youth's maintenance and stewardship of homeplaces and sites of resistance seems to build and reflect a self-portrait of how they want their world to be, by reflecting and maintaining spaces

that reflect themselves and their hopes.

When we think about learning as a spatial practice, we recognize that it leads to recognizing everyday life's lived spatial realities when we learn from specific perspectives. In this case, we feel those repercussions when a learning environment approaches spatial matters as Black matters. In other words, the best-designed learning environment leads to the best-built environment. The best learning environments when designing center the voice, agency and design of those positioned as placeless, othered and disposable. This learning program centers those people, specifically the youth, on how they want to see their city by allowing them to build a product beyond the speculative process. The work that Sawhorse Revolution has done, along with a Black geographies framework, provides methodological insights into the ways we can understand youth and their resistance through space. They do this by providing an individual and collective self portrait of the city they want to see and be involved in that reflects their concerns and possibilities for just futures (Gutierrez et al., 2019). They design and build spaces that reflect themselves as well as others, a mechanism that promotes the making and maintenance of homeplaces to heal from and through (Germinaro, 2022). As such, youth place themselves and others in the public consciousness unapologetically.

Lastly, Black geographies theory provides a lens to understand youth learning and development when they have a say in their built environment. As a school of thought, Black geographies renders whiteness visible and allows for learning to be positioned as a way to critique and understand how learning can challenge whiteness. Although a Black geographies are from Black perspectives, marginalized people must make whiteness visible by centering spatial knowledge of systematically minoritized people. Further, we must understand the role of learning in the larger ecology of a context, specifically, I am arguing for the role of learning to be

better understood as an organizing tool in urban ecologies to connect across movements. Moreover, a Black geographies perspective offers methodological and analytical techniques to understanding learning as a process that facilitates the cultivation and literacy of bodies in and across space. Learning serves as a mechanism for them to have a say in the process, their learning extending past the walls of a school or program.

Most importantly, they can build geographies of their learnings that reflect the results of a well-designed learning environment and space. Thus promoting a design element that deepens understanding of resisting belonging to places not built for oneself through identity, cultivating a self-portrait through what ‘place’ looks, feels, sounds and smells like for oneself through a collective process, deepening how learners can extend that belonging from themselves to others. Therefore I ask, what if youth designed and built our cities as key steps along the process (knowing we must address their labor and provide infrastructure for their brilliance to be the main contribution while we do the backend work)?

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# Chapter 3: Youth Cultivating a Sense of Identity-in-Place through Spatial Storylines

**Abstract**

Collaborative spacemaking fosters a sense of identity-in-place at the scale of the individual and at the scale of the collective. Following Black Geographers like Katherine McKittrick (2020), this paper examines spatial learning by asking "where we know from." This conceptual piece presents a spatial-learning praxis to discuss concepts of connection to place, community, and identity centering instances of abundance in learning environments. I work through how youth cultivate a culture of place as they develop their own sense of identity-in-place. As they do so, they detail identity narratives and trajectories across individual and collective dimensions to address and ensure they represent themselves and others within their designs through an out-of-school architecture and carpentry design-build program. I use instances of when the youth allowed their identity narratives and trajectories to lead their design process of a space they designed and built for another group of people. In doing so, they engage identity as a political endeavor, one that caters to their belonging along with the clients as a mechanism to resist not representing themselves and the client within the sociospatial landscape. I use identity narratives to display the key components youth learn and employ when cultivating a culture of place, one that allows those who have experienced unbelonging to belong through design. Furthermore, elements of a culture of the place that emerged were the youth's ability to tie their memories of said places to their hopes and future design, relationality and their individual trajectories to connect across the collective identities to connect to their collaborative design, and their ability to emerge as spatial storytellers. As they work towards belonging, a culture of place is detailed through identity inquiry and understanding. This paper and identity inquiry provides insights into the ways youth resist, disrupt and advocate for equitable power

through and for connections to space, place and land across time by engaging in identity development praxis and sociospatial learning.

## Introduction

Space has been used to oppress and systemically exclude various identities and their intersections. Our work and paper aim at showcasing the ways identities and world-making can, and have, been achieved through elements of learning and education. Thus, focusing on identity through relationships with places allows for a potential understanding of how identity can facilitate a culture of the place, called belonging (hooks, 2009). Specifically, we highlight how youth who have had their racial and ethnic identities suppressed within a rapidly gentrifying urban landscape. We aim to add to the equitable conversations about how a culture of a place can lead to belonging through learning. Learning facilitates the development of connections students and learners see between their own intersectional spatial ecologies, thus leveraging those conditions while navigating differences. Identity-based research allows for a complex rendition of the study in understanding how learning and identity move individuals to build a culture of place that counteracts spatial harm. Specifically, the way identity development works to promote learning that builds toward an individual and collective sense of place. Through the architectural design process consequential learning, through revisions, leads to action through building something tangible. This process embraces collective creative investigation, individual aesthetics, and cyclical adjustment.

As both an individual and collective task, identities are molded, forged and negotiated based on who's located within the design process. Youth in the study engaged in a justice-centered learning process to design and build a space for another group of people where they were tasked with negotiating their individual identities in conjunction with others. Therefore, focusing on space and its relationship to identity development and cultivation calls attention to the ways identity can be a sociopolitical task. Gholson and Wilkes (2017) describe various

approaches and dimensions of identity research within mathematics learning, although for this paper I will be focused on orientations led by Danny Martin (2000) and Na'ilah Nasir (2002; 2011). These approaches understand identity construction as a communal and social endeavor that applies cultural practices (Gholson & Wilkes, 2016). From this vantage point, I am positioning place-making as an individual and communal cultural practice. Furthermore, identity is conceived as a storytelling process through narrative, transcending time and space, while connecting an individual to others through the relationality of values, beliefs and concerns (Martin, 2000). I use this logic as a foundation to then highlight the process of storying a space, or spatial storytelling through design as youth achieve a sense of identity-in-place. This process emerges as the youth engage in the sociocultural practice of spacemaking as individuals in a collaborative environment.

From this view, we also have to understand the whole learning and identity ecosystem and how it allows for and promotes identity development and belonging. Thus, a sense of place promotes belonging across complex representations of identities in and across spaces. This can be achieved through mechanisms of prolepsis-type investigations of identities in the present, and speculative design allows for youth to place themselves in the future, often when they are rendered placeless. Currently, there are few psychological acts or techniques to combat the traumas experienced that stem from discrimination (hooks, 2009).

In the context of this study, I position learning as an identity development process where youth learn to belong to a space and learn to recognize themselves within a space. In doing so, they learn how to represent others' belonging in space, thus leveraging identity development as a tool for ontological belonging. In their attempts to learn about their identities in space through design, storytelling and arts-based activities, they can investigate their identities across time

about space as they design and speculate about their dream spaces. As they investigate individually, they share the practice of this inquiry and develop and learn about their identities; they are also developing relationships with places that support, prioritize and reflect their archival renditions of spaces that represent their identities. In my conceptualization, learning and identity are tied to how youth cultivate a culture of place guided by belonging, precisely one that resists belonging to places not built for oneself (Campano et al., 2016; hooks, 2009). Paying attention to the learning that produces the built environment calls attention to how engagement in justice struggles regarding space builds theoretical knowledge for those disproportionately affected by spatial oppression (Soja, 2013). Therefore culture is something that is produced through a particular participatory process. Thus, learning and identity are positioned as mechanisms for a culture of place, and a sense of place to be built as youth work towards building relationships to spaces they belong to.

Youth don't regularly get to see their hopes and dreams for city infrastructure go from speculation to a finished product. Within this consequential learning environment, they not only get to see a finished product and build a practice in enacting their future selves within the present (Gutierrez et al., 2019). This allows them to build identities as they learn through arts based activities, relationship building and critical pedagogies that sustain their histories and present selves (Paris, 2012). Such speculative design activities, which center on a robust learning ecology, support the learning and identity development of youth prolepsing (Vossoughi & Booker, 2017). In this paper, youth use various identity narratives and trajectories to both cultivate their belonging and resist unbelonging, providing a sense of place past their present and enabling their identities to make space in the future. These opportunities allow for belonging to be the guided principal within this learning environment, supported by the need to understand the

social production of space (Lefevre, 1991). In understanding the key components of the production process, we also build ontological understandings that can influence learning design. For example, through the work of Nxuamlo and Cedillo (2017) with Black youth and families, we see the complexity of place and land as knowledge givers and holders. This connects to ideas presented in Black geographies that situate the production of space as a cultural endeavor and social process that is ongoing and continuous, similar to learning. Learning occurs through this spatial production process, and understanding how youth enact and learn to produce space is necessary to add a Black Geographies approach and rendition to learning and spatial justice.

My logical progression in this paper starts with how learning about a place helps youth identify with a place. As they identify with a place, they are able to see themselves in that place's future, thus being able to imagine the place in more radical, expansive ways. This allows for people like them, their friends, and their families to belong by imagining (and creating) a place where friends and families belong. As they do so, they create a culture, not of capitalism/exploitation/oppression, but of learning in/for the commons of said place. Therefore, I explore the question of how the youth of color build a culture of place through their learning and identity development as they design a physical space. What emerges when belonging is a goal of the design product?

## Literature Review

### Spatial Learning Theory and Praxis

A significant body of literature engages the participatory learning process with and about space. Many scholars have highlighted the importance of the practice of mapping as a tool for participatory learning, planning and design process (see Enyedy, 2005; Fishman et al., 1998; Melendez et al., 2018; Meléndez & Parker, 2019; Radinsky et al., 2014). These are but a few scholars who highlight the complexity of spatial learning while situating learning and its role

within the civic process (see Taylor, 2017; Taylor & Hall, 2013). Spatial learning as a practice has been situated as engaging communities in the planning and design process within their geographical context, allowing for the opportunity to engage in critical spatial learning (Gordon et al., 2016; Mitchell & Elwood, 2015). Thus connecting to the processes of a critical pedagogy of place that inherently provide the foundation for understanding and critiquing the ways geography and place have been used to harm various communities throughout the urban landscape.

As they conduct this research with and for communities, these scholars provide the opportunity to learn about the spatial injustices within one's own communities while providing a foundation for communities to resist and dictate the changes they want to see within their own communities. This calls attention to the need for more opportunities for folks to get involved with civic processes and better design of learning environments that support individuals in their agency and self-determination of community infrastructure (Meléndez, 2021).

In another vein, community-based data science teaching and learning occur at the intersection of space, place and education. Van Wart et al. (2020) present a study in which participatory digital mapping is used to teach data literacy to understand its real-world applications. We can build a better world by providing a learning environment that connects learners to the application of data science, planning, mapping and other spatial praxis to the broader world, we can build a better world. For example, Hall et al. (2020) provide a digital spatial storylines framework that allows preservice teachers to learn about history, segregation, and racism within their respective communities through archival media. In essence, learners can create and follow maps and stories across archival, lived and current spaces, connecting the past to the present while building a foundation for critical spatial thinking. This work reemphasizes

spatial literacy, understanding and learning as a historical, social and cultural practice. Learning is a social process and mechanism that can be utilized to understand the production of space. Ma and Munter (2014) found skateboarders took-up teaching and learning opportunities as they engaged in skateboarding activities. They describe the participants as "editing" the setting and shifting the activity in real-time, thus reshaping the space itself as the community of practice engages in teaching and learning. Learning and spatial production are simultaneously occurring as a practice, and these scholars showcase the need to continue understanding how spaces, places, and infrastructures are socially produced through learning.

### Youth Engaging with Connections to Place and Land

Building off the spatial analyses and learning theory section, youth and their connections to space play a significant role in spatial justice work. Scholars (see Bang et al., 2014; Marin & Bang 2018; Tzou et al., 2010), have been integral in shifting conversations about place to conceptualize land as a site of place-making, as a social, cultural and historical practice. Scholars have regularly engaged in spatial storylines although pulling from different perspectives such as a socio-ecological relationships and movement as learning (Marin, 2020). The land is a key element in the learning process, positioning itself as carrying knowledge to pass onto learners and more than human beings. Through the context of science education, Bang and colleagues have built a strong foundation for the ways place and land are integral to youth learning and development while centering on Indigenous knowledge systems and the consequential fact of the connection between self and land (Learning in Places Collaborative, 2020). Specifically, presenting theory and praxis for how youth connect to land within an urban context, often adding complexity to how people connect with and socially produce space through connections to land.

Similarly, Barton et al. (2013) found that girls view themselves in the future as engaged with science when their identity trajectories are supported and expanded. Barton (2021) and Barton et al. (2021) also started to build concepts of a spatial justice theory that advocates for how youth build and design spaces for themselves by including themselves within a space represented by design. The program I am studying will both do this and add to the current literature by understanding how youth negotiate their intersectional identities with other people's wants and needs, thus making space for understanding the ecological ramifications of this type of action-based learning and making an environment.

Rubel and Nicol (2020) put forth the idea of teaching concepts of place through critical mathematics and data to spatialize and build connections to places through math. These connections allow the students to see real-world applications of the specific skills they are learning within a classroom setting. Furthermore, Rubel et al. (2017) use map to explore spatial justice concepts to contribute to learners' political formation. Moreover, mapping and technology serve as an accessible and engaging learning mechanism in the context of spatial justice, spatial thinking and spatial frameworks on learning (Taylor, 2020). Gordon et al. (2016) put forth the concept of critical spatial learning that calls attention to the socio-spatial processes contributing to spatial injustice.

Similarly, Taylor (2017) adds to this literature to understand how youth advocate for their communities, allowing for the longevity and sustainability of this type of learning that transcends the learning process, creating history as the learning takes place. In many ways, mapping is one of the major tools in supporting spatial learning in activating political and civic engagement (Elwood & Mitchell, 2012a). Mapping allows learners to learn about their communities through a lens that situates them as capable of enacting learned skill sets for intervening (see Mitchell &

Elwood, 2015; 2012a; 2012b). Since learning is a social process, attention to how a space is socially produced is necessary to promote, shape, design, adapt, and understand how the learning environment allows for belonging and spatial justice. In doing so, I position identity and relationships to places as central components of a learning framework where space/infrastructure is being produced. Therefore, I use the concept of *Spatial Storylines* to detail the learning process and contexts in which youth engage stories across time and space to reclaim their identities through design. Black geographies opens up our understandings of learning to promote Blackness as a starting point to understand and resist geographic harm. Spatial storylines then detail various connections for how learning and identity development activate spatial knowledge and can serve as a tool for resistance to gentrification and displacement.

## Conceptual Framework

### Belonging and Identity Across Time and Space

This project will interrogate the point where identity and belonging converge through the design of physical space. When discussing identity, I am explicitly building off the definition of Hand and Gresalfi (2015) where identities reflect that of a dance "between individuals and their interactions with norms, practices, cultural tools, relationships, and institutional and cultural contexts" (p. 190). I see and position identity development as a radical act that has the power to start movements, resist oppressive powers and center joy and liberation. In doing so, I also approach it from the context of how identity development coexists with belonging. A definition of belonging and its components I will be building on for this project is proposed by Bennett (2014) "history, people, and place… belonging is inherent in the daily actions undertaken by people who have inalienable connections to the places they inhabit" (p. 669). I view belonging and identity as parallel processes that are affected and influential to one another while also

occurring and being facilitated by sociocultural tools. Ultimately, I also assume the learning process can illuminate how a culture of place is cultivated and why this development occurs.

Furthermore, this project will follow similar conceptual takes on building a world youth want to see. This mechanism of engaging in learning inquiry is presented to ideas around prolepsis and prefiguration (Cole, 1996). Moreover, learning and identity development relate to these topics as they are studied and call attention to how time plays a role in youth development. With this more prominent underpinning and understanding of time as a process, I will leverage this frame to highlight the role of time and the act of prolepsing as it pertains to the development and building of a physical and social place by youth within the study. In doing so, the ways youth enact and leverage their sociocultural tools to place themselves and others within spacetime will further illustrate the interwoven properties of belonging and identity development facilitated by learning to remember the future (Cole, 2016). Artifacts highlight how "identities consist of the jointly constructed stories about people that specify the significant, recurring practices, values, or ways of being in and across particular situations" (Hod & Dvir, 2022, p. 2). Below I detail the specific theories that highlight how I'm thinking about and understanding the micro-interactions that took place within and throughout the project. Identity construction is the baseline point of inquiry to understand the complexity of cultivating a culture of place through design. Thus I start there in the study and follow strands of inquiry as they emerge.

### Learning + Identity Development as Sociopolitical and Cultural Practice

The more specific conceptual approach I will take to the study stems from mathematics and science identity-based researchers working with Black and Brown youth. I am taking on the task of using their renditions and disciplinary categories laid out by Gholson and Wilkes (2017) and Calabrese Barton and Tan (2023) as a way to ground my understanding of the complexities

of identity and how it connects to building a culture of place. Generally, these approaches hold identity development as a cultural practice, which I'm arguing is connected to exercising a spatial practice (see Martin, 2000; Nasir, 2002). Thus, I aim to weave in the role of learning and identity development as a spatial and cultural practice. As students learn to design, they are building a cultural understanding of the place that pertains to their individual histories and sense of self, while also understanding their connections to others within this process. In doing so, identity development, and identity research broadly, serves as a political endeavor (Calabrese Barton & Tan, 2023). Further, the field has begun to consider how racialized identities inform learning and show in and across contexts of schooling. In *Racialized Identities* (Nasir, 2011), different resources are used to understand how individuals experience learning, form identities and make sense of their position in a particular space. Understanding the plurality of identities in education should inherently encompass promoting identities by understanding histories (highlighting the importance of the student's own cultural histories and their present/evolving stories) and the ways they have been pathologized in society while working towards supporting identities through learning. In understanding these pluralities, I plan to apply the different categories of identity research to understand the trajectories of identities within the scope of the design-build learning environment.

For example, as students practice in a learning setting, they develop identities salient to the practices being conducted, i.e., designing and learning a subject. As touched on above, the context of this learning environment had youth inquire about what belonging means to them through spatial design elements. As they went through this process, activities were scaffolded to introduce how to identify relationships between design aesthetics that connect the group of students. This technique was then used to mend design aesthetics, and stories, to design for a

client group. Youth embarked on the cultural and spatial practice of telling an identity story through the design of a physical space that allowed intertwining stories and relationships to guide the design. Nasir & Hand (2008) also address how this conceptualization of identity is fluid over time, detailing how our interactions are constant across settings and histories. Thus, these identities may be intrinsically tied to cultural practices associated with a racial, ethnic and/or social group. At the same time can be open to redefinition and transformation as we meet with new social and cultural arrangements (Nasir & Hand, 2006). Specifically, how students can develop identities in relation to space while engaging in design activities across settings. Those settings afford the students opportunities to understand how their, and others, identities connect to (in)justice (Calabrese Barton & Tan, 2023). As they do so, they take an intersectional approach to disrupting and resisting hegemonic power structures by letting a sense of identity-in-place guide their design.

### A Case for Centering Blackness in Understanding Space and Place

When we don't center or foreground Black space in learning we miss the opportunity to learn support Black spatial liberation through socio spatial reclamation and the understanding of history for why and how power imbalances persist. In learning environments we then miss the connection to current identities, issues of systemic power imbalances and other geopolitical issues. Black matters are spatial matters and Black geographies calls attention to us starting learning about space within Black spatial knowledge and histories (Hawthorne, 2019). Reframing spacemaking as a cultural practice, one that ensures our futures centers Black liberation through the spatial production reclamation and maintaining process as a thread through learning.

I understand learning and identity development in this framework as attending to the multiple identities developed through collaborative design learning. Not just what those trajectories are, but how learning takes place using spatial storylines; knowledge is constructed, and identity trajectories are forged and connected to the social production of space. Furthermore, Black geographies does the work of uncovering spatial storylines to facilitate a learning process that resists dominant narratives that render particular intersectional identities and people placeless (McKittrick, 2011). This lends insight into how youth socially produce space for liberation and resistance, advocating for their built environment and showcasing the necessity for their perspectives in the design process. Youth engaging in this process also display insurgent aesthetics as a result of their learning by both designing and emplacing themselves in the design process (Summers, 2022). Thus, a study of the learning and identity development process, how belonging and the cultivation of a culture of place occurs in a resistant learning environment, how identity narratives and trajectories, who pushes the learning and how learning allows youth to shape spaces for themselves and others.

Black geographies demands learning scientists to embark on a justice-intervention. It actively builds in a lens to see the resistance against the sociopolitical and spatial dimensions of Black marginalization and how they affect us. Through engaging in spatial storylines grounded in a Black geography provides the foundational knowledge to take historical and contemporary perspectives to analyze events around current social issues (Lee et al., 2021). Furthermore, it's important because geographical belonging and the act of rendering people placeless played a significant role in creating the problems plaguing urban ecosystems today. Spatial re/production by youth must factor in as part of the solution (Shabazz, 2015). This is necessary for equitable, dignified, and just forms of education that support learners who they imagine themselves to be

and might become (Espinoza & Vossoughi, 2014). Furthering the conversation on the role of liberatory learning and its ties to pasts, presents, and futures that sustain and imagine spaces of resistance for young women of color (Warren et al., 2020). Allowing identities to be formed through learning spatial storylines promotes connections across time to cultural, historical and social methods of resistance through spacemaking. Specifically, there are implications for the consequentiality of youth engaging in identity inquiry to turn a design into a physical and social product within their community. In this vein their design projects activities based on their individual identities, collaborative group identity and another group of people's identities serve as a political endeavor to make belonging a reality. In this program and study, youth can, and do build the world they want to see (Cole, 1996). Thus, I will detail how youth develop identities by promoting belonging for themselves and others through learning.

## Research Methods

The project took a humanizing approach through ethnographic research methods (Paris & Winn, 2013). Data was collected throughout 20 4- to 6-hour design-build process programs. The design programs began in Fall 2021 and the beginning of Winter 2022, located at the nonprofit organization's headquarters. During the first part of the program, there were 10 sessions where youth and mentors met weekly to focus on the architectural design elements and principles of the building for a client, another nonprofit organization representing the deaf community. Research collected in this portion of the project consisted of participant observations in the form of field notes, video and audio recordings, individual formal interviews, and photographs of artifacts conducted through activities. The build portion of the program took place throughout the Spring and Summer of 2022. During the second part of the program, there were 10 sessions where youth learned carpentry skills to build the physical space they designed in the fall and winter

programming. Five youth participated in both aspects of the programming, while a total of 15 were involved across the program itself.

For this paper, we will focus on those five youths that participated in the entirety of the programming. Specifically, I will showcase three different vignettes of key moments that showcase how their identity development emerged through the learning process to build a culture of place as they leaned on their identities to build connections through sociospatial means. These three vignettes were analyzed using grounded theory, specifically open coding and moving through thematic analysis (Glaser & Strauss, 1967). I leveraged an inductive and deductive approach to coding the videos, interviews, field notes, and artifacts. As noted previously, identity trajectories and relationships across identities were used to start my initial participant observations and field notes. I followed moments of interest that were both decided on inductively via side-by-side research with the videos and field notes. Those individual moments led to remembering checking via natural conversations and then informed the interviews after the design portion of the overall programming. The codes led me to move towards the theme of a sense of identity-in-place, one where the youth engage in collaborative spacemaking at the scale of the individual and at the scale of the collective. Following Black Geographers like Katherine McKittrick (2020), I engage identity-in-place by asking “where we know from” and “how we come to know where we know from?”

Further, identity narratives and their trajectories were a guide to highlight key points during the program. I followed this idea of how the youth learned to story a space for how to understand and make connections between identity and space. Storytelling then is seen as a cultural practice that illuminates identities, especially in a spatial reclamation process (Toliver, 2021). As a point of starting at Blackness as a methodological process, storywork and

storytelling allow for the envisioning of futures to promote consequential learning in the context of spatial design processes (Toliver, 2021). Therefore, identity understanding, and activation of spatial knowledge of the role of the Sycamore tree allows us to take up space by designing for a sacred site, representing identity by adding to a culture of place through storytelling. For the coding process, I followed a thematic analysis that reflected and followed the key points I noted during programming (Saldaña, 2011). I especially paid attention to specific activities, field trips and outings we took. As reflected in the following vignettes, the youth had opportunities to build and explore belonging through their individual, collective and communal identities across their learning process. This led me to focus on a concept I describe as *Spatial Storylines* as a mechanism of learning across the timescape.

As presented below, I focus on different instances of those spatial storylines that emerged during the programming and were affirmed through the data and significant points of emphasis when conducting member checks. The first vignette showcased an arts-based design activity where the youth explored their individual identities represented by spatial aesthetics. In this activity, they built their own design aesthetic that represents them. After identifying these elements, they shared their reasonings behind their choices and remembering, memory, and resisting forgetting emerged as reasonings and tools they use for their identity development across space. Secondly, on our way back from a site visit we engaged in a conversation around relational aesthetics of gentrification. This vignette analyzes how youth relationships to places were disrupted through their noticings of gentrification. Thirdly, we took a visit to a cultural space that was designed by one of the mentors. In this space, we met with the owner, who detailed the importance of storytelling within a space, specifically through design as a means of spatial reclamation. This vignette focuses on how youth think through the co-construction of a

physical space for belonging, one that makes themselves extend and connect spatial storylines. Moreover, these three vignettes will focus on data collected from the first part of the program during the design sessions, the videos, artifacts, natural conversations, and associated interviews. Quotes, photos and excerpts from videos will be used to support the claims being made.

## Findings: Building a Sense of Identity-in-Place through Spatial Storylines

In order to weave together these identity constructs I orientate this section around the trajectories, relationships across individual identities and mechanisms for spatial storytelling through design. This section then describes different orientations to identity-based research (Gholson & Wilkes, 2016). This approach attempts and interrogates the complexity of identity development while detailing the ways the youth in the study couple it as they build a culture of place. I will discuss how students are positioned as storytellers as they design for their identities to come. Belonging in these contexts also is deemed a mechanism for a prompt for folks to center their designs around. As they went through the program, they developed a *sense of identity-in-place.* This holds design as a means of employing identity development as a political endeavor that disrupts power within and across spaces by embedding them with identity-based stories, designs and ways of being. Youth did this by placing parts of themselves, parts of the collective group and through storytelling to ensure their connection and representation in a building design. A sense of identity-in-place then serves as a key component of a culture of place as it builds on a Black sense of place and concepts of belonging through cultural spatial design practices and aesthetics (McKittrick, 2020; hooks, 2009, 1996). Design through identity then ensures the future of stories in space through design, as spaces are not apolitical but rather political entities. The sociospatial design and production process of the youth illuminates the way learning activates their spatial knowledge as detailed below. This further shows their

commitment and process to building a culture of place where not only do they belong, but so do others, and their families across time.

**Memory, Futurities and Connecting A Spatial Storyline of Self Across the Timescape**

In connection to the youth's ideas of belonging, we conducted an activity called *Taste*. This activity requires a participative orientation to identity, guided by the narrative they are tasked at building that's represented by images. This activity allowed youth the opportunity to curate a set of 10 images for themselves. Images that represented themselves, their wants and aesthetics for a design. The setup was within our classroom site with five hexagonal tables and printed images in the hundreds. These images consisted of designs, colors, features, structures and inspirational architectural elements. Youth and mentors took 20 minutes to curate what can be described as a personal Pinterest board of design aesthetics.

After the 20 minutes, everyone posted their 10 images together in a mood board style around the classroom, reflecting a poster presentation at a conference (albeit more accessible and better curated). We went around in a gallery walk to take in and assess one another's choices before sharing. Students went around clockwise, storying their design aesthetic boards, naming the reasonings behind their choices. By walking through, we embodied the importance of remembering and not forgetting our design importances. Some had reasonings such as color, feelings of openness, coziness or the way the shadows looked; others had more personal reasons; such as "my younger self would have wanted something like this" or "I want more greenery in my future house to help out animals" or "I want to use this for my room now."

In this presentation, every youth participant noted some element of themselves across time connecting to their spatial storyline, specifically those memories and futurities connecting

to their feelings of belonging. In this project, they were able to *author* their space and hopes for the futures of their home guided by prompts of belonging.

> Thienvan: Like, there's the people who cause this, you don't see them. Like, you can't be mad at the people who move in. And the people who, like are tearing down businesses, they're not there to like, experience like the lash. So I don't know, I'm not really angry. I'm just, I'm scared that, like, say, I leave Seattle for a while, and then I come back, and it's just something I can't recognize.

Here, Thienvan engages the larger conversation of who and how gentrification occurs connected to her spatial storyline. She built on their design aesthetic elements form her neighborhood that she wanted to include and highlighted the larger issue of gentrification and her personal aesthetics as a way of ensuring longevity of said storyline.

> Halima: When I've had memories in that place. I remember like past stuff. And it makes me want to, like go back to those times. And then yeah, it makes you remember them and it makes you feel good. And the qualities like, like, it has your favorite places and the stuff that you did in there.

Halima details a unique process as she described her personal aesthetics, this connects to what bell hooks describes as the aesthetics of intervention (hooks, 1996).

Halima engages in a conversation of "showing us that all art is situated in history, that the individual choice of subject matter reflects that situatedness" (hooks, p.162, 1996). This centers her own history and storyline of a place, how it's changed and unfortunately will change.

> Samira: That can be a good change in a bad change. Like some in our communities, like, especially where I live, there's a lot of new buildings being placed. And it's kind of weird, because every day when you look outside, it's always new construction and all the good stuff that used to be there is gone now. And it makes you want, it just makes you rethink and remember, what you got, like how it used to be. And sometimes it's for the good, sometimes it's bad, because you don't even notice your community around you anymore. Just looks like a whole bunch of buildings. So, it's also a new place for new people to live. But at the same time, it's like, it doesn't even feel like it's your house anymore. It just feels like a whole different place. And you can't imagine being your best friend when you first live there….I mean, I remember how it used to be and it makes me sad, because how it used to be was just like a complex is really quiet. And now it's just a lot of construction. A lot of new places. More people like coming in and taking people out of their homes and stuff. Yeah. So yeah, it's not really always a good thing.

Samira here describes the intense complexity of gentrification as connected to her aesthetics of her neighborhood and the continued story of gentrification. She's describing the suppression of a the stories of the folks who currently are being pushed out of their homes. Samira engages in the act of recognizing those stories and enhancing the larger spatial storyline of the people in the her community by centering their experiences of displacement and bringing it to light via her aesthetics that connect to how her neighborhood used to be. She highlights the need to linear storyline with one that's more complex and holds nuance and difference at the center, one that disrupts patterns of domination through her engagement in forms aesthetic where goal can building community for the future.

Young people have deep ties to their neighborhoods, their communities and the relationships they carry within those spaces. They are also one of the few demographics that largely depend on public good and others making decisions for them. These quotes point to an unease with, not just change, but change resulting in displacement due to white, monied people moving in. When prompted to think about what belonging meant to them and how it emerges in their world, they describe it in a way that invokes feelings across time and space. They highlight nostalgia before it happens, fear of forgetting, hopes for community and a key component of belonging; memory. In relation to belonging, I am formulating memory as a process of *inhabiting,* or placing oneself within a time and space. Barnd (2017) describes inhabiting as "differing notions of relations to land… and the related processes of legitimization for bodily presence in specific locations" [page 7]. I also pull from the Black geographic tradition of a Black sense of place by which youth see themselves in and across spaces (McKittrick, 2020). Thinking with these two concepts, I am weaving together the variations and complexities that I believe constitute belonging. In doing so, the young people are centering memory, and acts of

memory, as spatial praxis, a praxis that details their own belonging and their building towards a sense of identity-in-place in an imaginative sense tied to their current realities.

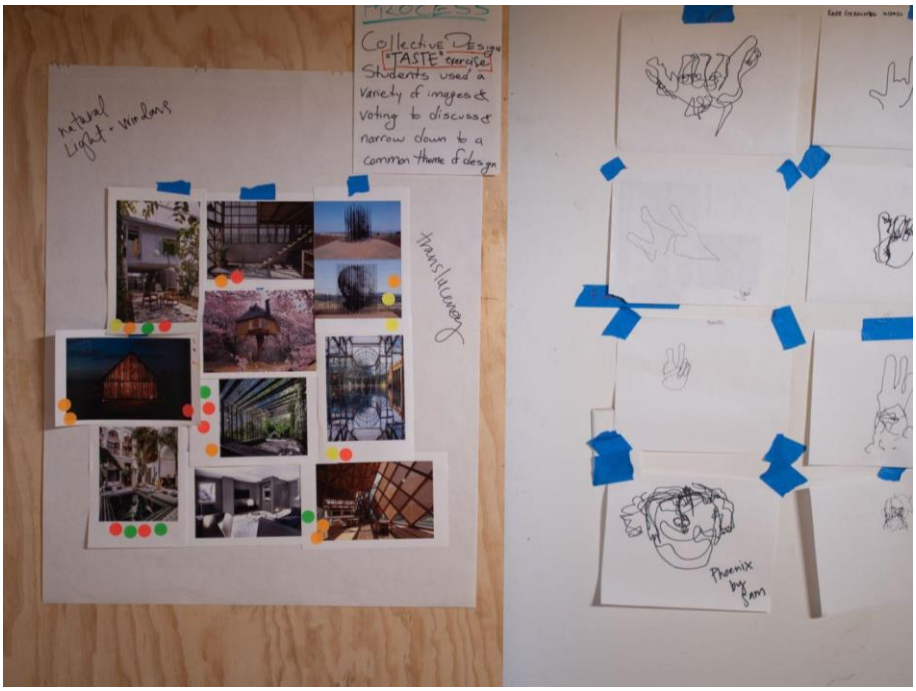


*Figure 3.1*. An example of the Taste exercise where youth and mentors picked their images and the collective design foci as voted using the dots, next to our collective blind contour drawings.

**Relations of Gentrification and Displacement Across Spatial Storylines and Identities**

During a sunny (albeit surprising) winter day, we ventured to the build site, where the space youth were designing was going to live after it was built. We planned to do this to get official site measurements and envision where and how the building would fit onto the land. We also aimed to collect more data on the natural elements, where the sun was, how much traffic (both cars and humans) was going on, and to get a feel for how the building site may shift our design.

As we waited for the van to pick us up to take us back to HQ to codify our data, the students talked about their noticings about displacement, gentrification, and how their building would help counteract that in the Central District neighborhood. They displayed knowledge of

how their relationships with space also connected them to their design, the people they were designing for, the neighborhood, and ultimately, each other. Those who stayed back and who waited for the second shuttle consisted of myself, Hailey, Halima, Samira, and Thienvan who all live in red or yellow lined areas. Some of the key storylines the youth engaged in were related to their relationships with their neighborhood, the people within that neighborhood, and how relational aesthetics of gentrification shift the neighborhood. Some key notes are displayed here:

> Thienvan: Because there's like a history of redlining. So like, on the other side of Franklin, that's like we're like a really wealthy community lives and then on the other side is where the like the lower income and it's just I grew up like walking down to the train station with my mom all the time and seeing like all these new people at a big apartment complex a few blocks away from my house. I kind of have like, mixed opinions, because obviously, I'm happy that there's like new people coming in. But there's buildings around me that are being torn down that I grew up around and walking by every day. And I'm just scared that one day, like that part of my childhood is just gonna be gone. And there's like a new apartment or something.
> Samira: And I just, like, don't want it to change because of all the good memories that happened there. And, like, if it changes, then sometimes change is not always as good as people make it. You know?
> Halima: Yeah. Like meeting new people is good for like every other week, it is not as good as the people you've known for a lot of years.
> Hailey: So being in South Seattle, this is really important. Because if you grow up in a diverse community, it's more ethnic. And you're not trying to erase your culture, I didn't realize the importance of growing up in South Seattle until I had gone through this one school. I forgot where it was [in north Seattle]. And it was like a white school. But it's like the kids that weren't racist, but they were just so clearly ignorant.

In this exchange, these four students describe the different spatial stories that revolve around gentrification in their respective neighborhoods disrupting their relationships with the neighborhoods. They highlight their relationships and identities-in-place by describing their feelings of seeing themselves and their people being rendered placeless (McKittrick, 2011). They also begin to describe the relational aesthetics of gentrification and displacement, what it feels, looks and how it happens in real time. It is the severing of relationships to a place that's historicized. Black Geographies concepts and ideas served as a key point of inquiry, meaning

gentrification in the Central District and displacing Black people (including some students), and how it connected to the techniques they witnessed in their neighborhoods. The spatial storylines emerged as a collective experience, albeit taking shape in context specific ways, yet also built their own relationships to one another through the shared experience.

Later on in the day, Hailey touched on some of the ways the relational aesthetics of gentrification and displacement connect to the overall timescape and mission of oppression through space by rendering those in a community as placeless:

> Hailey: But I do know when everything started happening, before it was very family oriented. And us kids in the neighborhood would always just be riding our bikes together and playing outside. And all the parents would be talking. But now a lot of those people moved out. And it's like, I always be seein white people walking their dogs every single morning, which is like something I never had seen before.

The relationship between place, self, and community ends up being severed and a point of inquiry to understand how the youth used their identities and spatial knowledge of their relationships of space to reclaim parts of themselves through their design (Summers, 2021). Relational aesthetics are being disrupted, co-opted and used to replace with white affluent aesthetics of family and place that are a longstanding effect of urban renewal. Spatial storylines complicate the timescape, serve as a way to connect identities across stories, and provide a point to analyze and design for resistance to being rendered placeless.

**Reclaiming Spatial Storylines through A Sense of Identity-in-Place + Learning**

> In *Belonging: A Culture of Place (2009),* bell hooks eloquently writes:
>
> Objects are not within spirit. As living things they touch us in unimagined ways. On this path one learns that an entire room is a space to be created, a space that can reflect beauty, peace and a harmony of being, a spiritual aesthetic. Each space is a sanctuary" she goes on to note, "Aesthetics then is more than a philosophy…it is a way of inhabiting a space, a particular location, a way of looking and becoming. (p. 122)

Physically, space has many implications for belonging. Going from something considered a space to the culture of a place is a process of cultivating belonging. Youth have an intrinsic way

of showcasing and communicating when and why they feel they belong through spatial aesthetics, design elements and choices they make. In the project context, one of the design sessions we partook in led us to take a field trip to a local Filipino bakery and coffee shop. This place was designed by one of the mentors who took us on tour to highlight how they employed design to promote belonging, stories and cultural identity. The space reflected various parts of the Philippines and elements of cultural history as a mechanisms for reclaiming space and stories. For example, the client/owner aimed to pay homage to the folks who came before within the building, specifically through motifs and design elements. The owner noted how much people who came in felt represented and connected to the larger building, neighborhood and now, *Hood Famous.*

The design itself provided youth designers the opportunity to see the aesthetics of repairing relationships to a space through a spatial storyline. One design element that stood out was the owner mentioning, "everyone tells a story, and design tells a story." For example, the owner mentioned how the current shop that's in Central International District of Seattle is physically located where what was called Filipino Town. The building it is located in also used to be a place where day laborers from the Philippines would stay. They were the first Filipino restaurant back in this area after experiencing displacement, and thus invoked a reclaiming of space and honoring those who came before. They also aimed to reclaim and continue stories of resistance through the design. For example, as a designer, Sergio and the owner had specific co-design with goals of having it feel like "a) If you're from the Philippines or Filipinx you feel seen and heard b) I feel at home because I've never seen this in a public space and c) people will be able to spark curiosity and learn something about the Philippines. Thus the intentionality of every detail in a space has a story about it" [video data citation, 11/7/2022]. The design elements

below highlight the ongoing spatial storylines of reclamation that gave youth ideas for how to story a space for themselves.

After learning about the different motifs, we tasked the youth with designing their own 'feature' wall, modeled after the one in hood famous, as a way to represent themselves. As we went around to share, Carolyn detailed a key element to her wall:

> In my wall I decided to make these fixtures that represent my hair when its curly. I feel like it kinda tells the story of my relationship to my hair, and like, how my hair is important. Not a lot of people see the beauty in Black hair when its coarse so I wanted to put something that represented me and people like me.

A number of students also presented information similar that continued spatial stories across their designs. Carolyn's explanation and wall (not pictured because of ethnographic refusal and artist ownership) interrogated larger societal issues and ways Black people, and specifically Black women are excluded from belonging to spaces because of their hair when not fitting into the White gaze. She's also displaying her understanding of techniques used to render folks placeless grounded in her identity as a Black women that connects spatial storylines across the timescape. In doing so, she's reclaiming space through building a sense of identity-in-place with her design.

Key design elements within the hood famous space for how to tell a story of a space, connecting to how to build a culture of place with belonging being a goal of the design (see Figures 3.2 and 3.3). These images showcase *Hood Famous*, where we facilitated the spatial storytelling efforts that used this restaurant and cultural space as a unique example of how design can center identities, histories and ways of being.

*Figure 3.2*. Feature Wall by Jordan Nicholson.

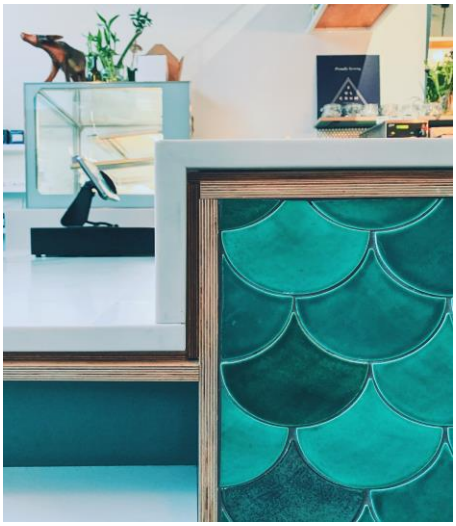

*Figure 3.3*. Representing relations to the sea, by Sergio Max.

Further, there is a need to "engage with social issues through a process of inquiry (Philip et al., 2013, page number)." This story-based inquiry process was enhanced by the facilitation of mentors who employ unique skill sets and ways of connecting identities and place. As a component of belonging, this axiological element promotes a collective approach to design, adding a healthy dose of complexity to how we approach and think about space through a narrative identity perspective (Curnow & Jurow, 2021; Martin, 2000). Belonging in this vignette fluctuates between the design features of the self to the physical elements of a space and extends to future designs and justice through design.

While designing a feature wall, Samira and Halima decided to draw a sycamore tree that represents the Oromo people, their people, an ethnic group from Ethiopia. In their illustration, they detailed the tree, including it to tell their people's story and teach others about their people.

The tree itself also represents "the culture of Oromo people and symbolically represents their identity. The Sycamore tree is presumed as a hall of Oromo Gadaa institution under which different socio-cultural affairs are performed. It is a sacred site" (Roba, 2021, p. 7). This was a constant storyline throughout their designs, that also connected to their cultural histories that connect to different lands. Halima explained this concept when we were sharing when back at HQ:

> See the Tree lets people know this is Oromo. It's really important in our culture. See it's on our bracelets too! We do a lot of ceremony and meetings around the tree. This summer I get to go check one out too!

In Samira and Halima's design process of including themselves throughout the design iterations, they advocated for a wall of the final building for Deaf Spotlight to include a feature that had *Deaf Spotlight* in multiple languages out front, including Oromo. Through this process, they're casting design aesthetics to enhance they storylines of the building so that it connects to the cultural dimension of their spatial storylines as they reclaim space within their neighborhood. By ensuring their sense of identity-in-place is actualized in the design, as the building is going into their neighborhood, they are both reclaiming their individual and collective storylines to continue into the future.

As detailed through the field trip to Hood Famous, designing and storying a space is a cultural practice. By valuing the production of space by those who learn and cultivate spatial knowledge by remembering and infusing stories within the design, belonging can exist. As an axiological practice, identity inquiry, remembering and building stories into space is a cultural, historical and spatial practice. Further, as an experience, learning how the intentional design of a space calls attention to the designers and their learning and storytelling process as well. The girls of color in this context of the larger project are positioned as designers, knowledge holders and

producers of spaces of freedom and belonging (Reese & Johnson, 2022). Seeing youth, girls, and specifically, girls of color as spatial producers and designers is essential to building care into the design and the built environment by centering remembering as a way of being (Bang, 2017). Black geographies thinking lets us understand the ways learning promotes the reclamation of space through identity development and uncovering, learning and centering spatial storylines through design aesthetics.

## Implications

In presenting these vignettes, I tie together Black geography's sense of place, aesthetics of gentrification and how it opens up how we can understand learning as a social movement and organizing process around spatial issues. The spatial storylines frame helps us understand how to design interventions that provide opportunities for a sense of identity-in-place to be cultivated and reclaimed through the reclamation of space. Learning and the design process here position learners and their relationships to spaces as a means of building their narratives across the timescape (Gilmore). It promotes learners to question, critique, and resist the storylines that mediate how they communicate and participate in their city and spatial environments. This allows the youth to integrate their (sometimes newly) developed spatial literacies, aesthetics and skill sets to restory their spatial storylines through design (Thomas et al., 2016). Thus, being able to shift, design and author identities and communities through spatial storylines is integral to designing learning environments that are also interested in supporting the identities of nondominant youth moving forward (Pinkhard et al., 2017). As told through these stories, youth undergo an illustrious process of rehumanizing themselves and their complex identities from the context of being othered (Langer-Osuna & Nasir, 2016). This process of rehumanizing ensures

their placement within particular spaces they have been excluded from, othered in and or oppressed through.

From a Black geographies perspective, spatial storylines also engage our collective storytelling process as a pedagogical and methodological praxis to center, uplift and honor Black spatial stories by engaging our own as a model. Black Spatial Storylines disrupt racial stereotypes, deficit narratives and white normative ways of teaching Black stories, history and ways of being, and understanding learning. To connect storytelling to space, by understanding and centering Blackness, the youth are working to unearth what it means to resist belonging to places not built for them, and how that knowledge can invite pedagogy and ways of being that center Blackness (Jenkins, 2021). They activate learning by building a sense of identity-in-place through relations to places, identity trajectories and practices to build belonging in their designs. Therefore, we must understand learning as a tool for activating and understanding spatial storylines. This process of designing through the emplacement process, or the process of designing a space for oneself, emerged through learning how to produce a space (Takeuchi & Ishihara, 2021). Further, the spatial storylines resemble a form of embodiment as told through aesthetics, where the space and design itself embodies the identities of those who designed it. Takeuchi and Ishihara (2021) described this process of embodiment by making visible of previously hidden bodies. The youth then, as they built a sense of identity-in-place by learning their spatial storylines, allowed for the design to both serve as a form of embodiment and emplacement, which provided a consequential through their sociospatial production and learning process. Learning and identity development through a Black spatial storylines is a tool to address larger geo-political and geographic issues of being rendered placeless.

### The Purpose and Cultivation

Several students also presented similar information about the complexity of identity narratives by repairing relationships to spaces, positioning identity cultivation a political endeavor and key to larger social movements like gentrification and displacement (Vea, 2020). Further, Love (2019) highlighted "the often radical act of (re)membering in our present lives and work, that is (re)membering as an act of decolonization" (p. 99). This helps educators understand and support learners in exploring who they are, why they are and where they know from. Further, understanding relational aesthetics of gentrification emerged from spatial storylines and connections to place and served as a point of inquiry to define what belonging looks, feels and acts like for them because of the complex ways they may experience oppression and violence (Collins & Bilge, 2020). To understand themselves, they are also making sense of who they are through their relationships to each other, their mentors and the spaces they get to learn in as solidarity across differences (Vossoughi, 2014). This means a collage of identities can fuel a sense of place and belonging in one context and not the other. Therefore, we must continue to find ways to support the identity development of learners, specifically viewing identity development as a socio-spatial learning practice and design methods of inquiry that center the lives of youth.

The way youth use relationality to build more material and social connections to a place influences their relationship with other groups of people who are less embedded in said place, thus extending their spatial storylines to possible futures learning opportunities such as design (Gutierrez et al., 2019). Black geographies also calls Learning Scientists to see and disrupt ways spatial tools of Black exclusion normalize and materialize in our daily lives, especially in how we understand and view learning. Further, Black geographies scholarship provides frameworks

to center how Blackness and anti-Blackness relate to and through space and place. Black geographies forces Learning Sciences to understand ways in which Blackness and anti-Blackness exist in learners' relations with the places and spaces, and how they learn about the spaces and places they inhabit.

Spatial storytelling as a key learning process supports the ever-evolving mechanisms and ways to promote belonging and combat larger geo-political issues of displacement. Bang (2017) details the complexity of place and land as being a knowledge giver and holder. This connects to ideas presented in Black geographies that situate the production of space as a cultural endeavor and social process that is ongoing and continuous. In this context, spatial storylines activate said spatial knowledge to promote the continuation and complication of place and land to reframe how we understand learning. This work directly calls attention to the histories and contemporary stories of place (Learning in Places Collaborative, 2020) while building towards cultivating socio-ecological relations (Marin, 2020). Young people need the time and space to understand and situate themselves and their identities within and across time. They also do this eloquently by having memory and future-orientated ideas connected to spatial storylines (Gutierrez et al., 2019). These multiple social and cultural relationships extend across time and places (Bennett, 2014). This process furthers the notion that learning environments can also serve as a mechanism to disrupt the centering of hegemonic identities by promoting a redistribution of power.

In doing so, the component of spatial storylines lent itself as a lens to understand the role of a collective action approach to learning for social change and disrupt power hierarchies based on who has rights and access to space (Curnow & Jurow, 2021). As the girls of color develop their spatial and self-knowledge, they applied these skill sets to emerge as spatial producers, we all benefit from their resistance to belonging to places not built for them as they make space for

themselves and others through storytelling and ways of being (hooks, 1991). Focusing our understanding of learning through Black geographies and Black stories of place allows for the engage complex spatial knowledge systems from Black perspectives. As a cultural and historical practice, the girls of color are connecting to identities across the timescape as sociopolitical practice, one where identity inquiry influences design, the disruption of power and belonging.

## Conclusion

Through design, youth are building a culture of place for themselves, their collectives and other groups of people. By allowing identity to be a holistic point of inquiry and learning, they show us how they do this, why it matters and how to radically design spaces. Specifically, when identities are displaced, belonging is disrupted, and young people can leverage prolepsis for designing and building a future in the present. Leveraging a radical aesthetic applied to the design of belonging of identities through learning, youth show us how they address their concerns and how we can build futures following their guidance. If we design from a youth perspective, one we understand through Black geographies and identity, everyone benefits.

In this context, we see the role of memory, relationality and spatial storytelling as key components of a culture of place that supports belonging. This paper and work have the opportunity to support scholarship that uplifts spatial practice of learning and identity development. Particularly leveraging how it mediates "...representation and nascent experience of the future in the present" (Vossoughi, 2011, p. 184). This is a critical take, as concepts like prolepsis detail how people pull from their past histories and experiences to inform their desired futures in real-time (Nasir et al., 2020). The youth within the study use their identity development as a cyclical everyday activity to individually and collaboratively design alternative

futures as they learn about the components of their belonging (Gutiérrez et al., 2019). As they do this, they work towards spatial justice and liberation.

Through their praxis of interweaving learning and identity, youth interrogate the power of space, how it is used to harm, and how they can, want, and will use it to liberate. As educators, scholars and practitioners, understanding and learning how youth develop a spatial lens and literacy guided by their belonging are inconsequential to our overall wellbeing and fights for justice. Social change cannot take place without our attention to space. Youth are already doing this and paving the way for us as adults to learn from and facilitate their brilliance. In abundance, we need more of a radical aesthetic for how we engage and think about space. This would lead us to acknowledge that we are not static in our needs and concerns, but rather our movements reflect our knowledge building and learning (hooks, 2009). Further, research can be done with a spatial lens, as most of our social issues stem from harm administered through the acreage and square footage. Youth demand more of us as they show us the world they want. How will we respond?

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# Chapter 4: A Culture of Care: Youth's Learning as a Tool for Organizing


## *Abstract*

This paper focuses on how girls of color enact care practices and interdependence through their learning. These care practices are best framed through the Disability Justice Principles framework as they youth work to build a culture of care as (Piepzna-Samarasinha, 2018; Berne, 2013) ways of thinking to design a physical space for a client representing the Deaf community. This study builds on scholarship exploring a) the intertwining complexity between learning, space and disability, b) how youth surface these intersections to cultivate a culture of care (Sharpe, 2018), and c) the role of learning as an organizing tool for care within urban ecologies and its role in the spacemaking process (Hobart & Kneese, 2020; Reese and Johnson, 2022). In this context, I focus on how youth engage in interdependence, learning and resistance as they design and build a physical space where they enact and reflect the asks and needs of the community they were designing for. In the process, they showcase how we can understand learning as an organizing tool, one that contributes and disrupts larger systems of oppression and shifts the urban ecology in a way that moves it towards a culture of care.

## Introduction

In the Spring of 2020, the first case of Covid-19 pandemic emerged just outside of Seattle, WA and subsequently spread across the United States. With such a rapid rise in cases, a necessary quarantine was put in place. In doing so, the country moved the majority of its work, communication and relationships online. During this time, it became evident the ways in which our ableist society lacked accessible means of communication, at least mechanisms that were taken up and used by the status quo. Disability Justice advocates and advocates had been advocating for that which the quarantine had brought to light: flexible work schedules, collective care, and access to affordable healthcare, mutual aid, and the discrepancies that exist that disrupt moving towards collective liberation (Berne, 2013). Further, as the country dipped into this those with disabilities were put at higher risk and seemingly left out of many conversations being had on how to address these issues. As a response to such issues, mutual aid and collective care has served as a way for people to build reciprocal relationships around solidarity and care (Summers and Fields, 2022; Milligan, 2022). This has often been introduced and taken up by those in the margins (see Collective, 1983; Piepzna-Samarasinha, 2018). The dual pandemics of COVID-19 and the racial justice protests in summer 2020 promoted an abundance of mutual aid throughout the country as an onto-epistemology (Fernandes-Jesus et al., 2021). Given the rise in mutual aid, care and the ways its occurring, there's a need to understand the unique value sets that emerged out of these contexts to resist and persist against the continuing disenfranchisement of those in the margins. Simultaneously, youth experienced all that was occurring while having to immediately pivot to online schooling for the following two years.

In Seattle, where this paper is situated, students were learning (although deemed by many in power as learning loss, learning occurred and further informs why this papers context is

necessary) remotely while witnessing the duality of ongoing white supremacy and color evasiveness during a global pandemic (Annamma et al., 2017; Donnelly & Patrinos, 2021). Little empirical work has been done to understand how we can understand learning in relation to the emergence of care and mutual aid during the ongoing pandemics. Therefore, this paper focuses on how girls of color learn and employ Disability Justice Principles (Piepzna-Samarasinha, 2018; Berne, 2013) as they learn to design a physical space for a client representing the Deaf community. Conceptions of space, race, learning and disability are interwoven in this context to apply a sociocultural learning lens to cultivating a culture of care through the sociospatial production of physical space. Geography and spatial mechanisms have been used to harm individuals, groups and communities from obtaining adequate resources (Tate, 2008). For example, physical space within cities is hard to come by, and property is often positioned and available to those with privilege (Pierce, 2022). Furthermore, youth seldom have decision-making power within the context of development and/or space within their communities (e.g., Taylor & Hall, 2013). Often adults and city professionals ignore people's socio-political agency to reinforce an adult-centric understanding of childhood (Skelton and Valentine, 2005). This process disregards youth's institutional and experiential knowledge as they approach various justice and social change topics.

The production of spaces is important to understand how geopolitical mechanisms enforce spatial harm. As a school of thought, Black geographies focus on how bodies exist, how those who inhabit them are seen and how they produce space as acts of resistance (McKittrick, 2006). Furthermore, this thinking mechanism can be tied to an intersectional lens that confronts the interlocking violences "of sexism and racism" experienced by Black women (Crenshaw, 1989). Additionally, space causes violence for those multiply-marginalized based on

intersections of ableism, racism, and sexism (Annamma, 2018). While the young designers in the study are not Deaf, they have experienced marginalization and deficit-based thinking surrounding their abilities/capacities through their identities of being girls, Black and Brown and sharing varying experiences of gentrification and displacement. So while they cannot understand what it is like to be Deaf, they have experienced being othered within space. High school-aged girls of color are faced with combating interlocking violence and mechanisms of oppression around their race, gender, sexuality and socio-spatiality when it comes to who is deemed worthy of producing and building space in the contexts of architecture and carpentry as a manifestation of cis heteropatriarchy (hooks, 1996).

Within this learning ecology, girls of color were tasked by mentors to employ Universal Design concepts as a means to design and build a space for the group Deaf Spotlight. Universal design is described as answering the question, "Who benefits from a more accessible world, and how can designers know?" An architect named Ronald Mace offered this question in 1985 as a means to design for all (Hamraie, 2017, p. 175). Hamraie calls for a need to both embody, and critically historicize access and how this growing knowledge can reshape "Universal Design'' (Hamraie, 2017). As detailed below, the girls of color in this study engaged in the aims Hamraie discussed and moved past Universal Design as a construct by focusing on their identity and belonging. Then they extended that sense of place as they designed for Deaf Spotlight. Youth's investment in both care practices highlights their political agency as a means to further involve them in the sociopolitical decision-making process and then center their contributions and well-being (Joassart-Marcelli & Bosco, 2015). The youth engaged in care practices that connect to their process of designing a space, best framed by and through a Disability Justice framework (Berne, 2013). Through engaging in sociocultural learning to design and build a space, they

promoted access and reciprocity, practices often forgotten as a means for urban development (Reese and Johnson, 2022). Therefore, care allowed the youth to resist ableism/racism by honoring wholeness, creating liberatory access, and cultivating interdependence (Berne, 2013).

Furthermore, a culture of care is explored and produced by the youth within the study through how they explain and interweave the ways their learning and advocacy process is relational (Noddings, 2002). Thus, as they learned about Disability Justice, they focused on our collective interdependence, which led to various bouts of inquiry that will be detailed below. Through this program, they elucidate a process to curate the youth's sociocultural learning and understanding of justice across space to connect with places and others and think about how we critically experience the world. Within this paper, I aim to provide spatially informed research that moves beyond adultism toward youth and how care practices can be understood as an ecology of learning. In this same vein, I aim to showcase the connections between people's learning, space, disability and justice as a collective action approach to various forms of justice and social change (Curnow & Jurow, 2021). Young people's perspectives and activism about disability allow us to understand the interconnectedness of our urban ecologies by highlighting key points for care and challenging systemic violence through the community.

## Literature Review

This study builds on scholarship exploring (a) the complex intertwinings of sociocultural learning theory, disability justice and urban ecologies and (b) how youth surface these entanglements to cultivate a culture of care. Previously, scholarship has explored the various ways learning can, has, and should facilitate collective action (Curnow & Jurow, 2021). Less scholarship has attended to care practices and their facilitations of collective action at the intersection of, space, disability, and sociocultural learning. I build and extend this scholarship by focusing on this key connection to illustrate how care practices can be seen as an ecology of

learning, where learning cultivates a process of action. Similar to how Marin (2020) calls out ambulatory sequences as an ecology of learning, I aim to showcase care in a similar way to draw attention to care practices in sociocultural learning contexts and use for justice. For example, I am proposing that care has cultural and historical dimensions that are shaped by sociocultural factors. Therefore, care practice allows individuals to interact and learn from their environment in dynamic ways that promote disability justice. I'm arguing for understanding the role of care practices in learning and its implications for education and learning design.

### The Role of Disability Studies in Cultivating Care

A smaller body of disability scholars has regularly used spatialities to understand Disability Justice in education and with youth (Annamma, 2018; Miller & Kurth, 2021). Annamma (2018) explored incarcerated girls of color and their disabilities through Educational Journey Mapping, a critical methodology to disrupt the research process and center their counter-cartographies through a creative process. Artifacts and their analysis allow one to access selves across time, allowing for social and temporal representation (Annamma et al., 2018). With a focus on identity in this project, youth engaged in several self-representation and creative investigations through designing spaces that accurately represent them. Hobart and Kneese's (2020) concept of radical care offers a framework for understanding how care and mutual aid can be used as survival strategies in uncertain times. Radical care involves responding to immediate needs and engaging in longer-term projects of building community resilience and challenging structural inequalities. This approach is consistent with Piepzna-Samarasinha's (2018) vision of care work as a means of dreaming of disability justice, which involves valuing the labor of care and recognizing its potential for creating more just and equitable communities built on reciprocity and relationality.

Disability Justice activists and cultural workers discuss the relation to these schools of thought and their connection to disability through concepts of a culture of care via care webs. Care webs are defined as (Piepzna-Samarasinha, 2018):

> Some of them rely on a mix of abled and disabled people to help; some of them are experiments in "crip-made access"—access made by and for disabled people only, turning on its head the model that disabled people can only passively receive care, not give it or determine what kind of care we want. Whether they are disabled only or involve disabled and non-disabled folks, they still work from a model of solidarity not charity—of showing up for each other in mutual aid and respect. (p. 33)

Thus, in the context of this paper, I am arguing Care Webs are enacted as a socio-spatial and cultural practice that employs an intersectional process of attending to care (see Piepzna-Samarasinha, 2018). The youth within the study adhere to design wants, needs and choices by a community organization named Deaf Spotlight. In this sense, access is being determined by design. Seldom are care models adhering to "crip-made access" within their process, and the youth within the study administer care based on the need for space as dictated by Deaf Spotlight's community. Moreover, the practice of care within these interconnections is necessary and a point of inquiry for how different groups of people employ care for others through the design of a space. Further, Miller and Kurth (2021) show how photographs of a group of disabled girls of color helped make visible the ways they were materially positioned in school and what mattered to them. This is connected to the justification and mechanism for identity inquiry and connections to design. There's a need for more examples of care where people show up with the intention and action of mutual aid and respect to build community and relationality.

Further, intersectionality calls attention to the interlocking systems of oppression that create complex forms of injustice (Crenshaw, 1989). Intersectionality has been used to disrupt single-lined analyses of oppression (Collins and Bilge, 2020). Mollett & Faira (2018) provide context for the spatialities of intersectional thinking. They postulate that intersectionality is

deeply spatial and that this interrogation of space and its relation to Black feminism and intersectionality further deepens our ability to build a more just society. A focus on care then provides insight and purpose as an ecology of learning that encompasses the self, inquiry into history across the timespace and our ethical responsibilities to one another through relationality and advocacy.

### Care as an Ecological Component of Learning

The importance of care and mutual aid in supporting marginalized communities has been increasingly recognized in recent scholarship. Reese and Johnson's (2022) study of urban Black ecologies of care and mutual aid highlights how these practices are rooted in histories of racial and economic oppression and are crucial for survival in the face of ongoing systemic violence and neglect. Such practices can be seen as part of broader ecologies of learning and development, as individuals engage in ambulatory sequences (Marin, 2020) and other embodied practices that allow them to interact with and learn from their environments in dynamic ways. This intertwining thread illuminates the mechanisms that allow for a space to be produced and therefore provide insight into the "project of knowing and making access" (Hamraie, 2017, p.5). The historicity of this process connects to learning theory as the youth emerge as historical actors and learn to design possible futures (Gutierrez et al., 2019). My/our study connects to the need to historicize design and accessibility, attend to belonging, and illuminate youth as cultivators of a culture of care and designers of our futures as they learn. Thus, learning interwoven with care serves as an organizing strategy to disrupt injustice.

As youth within this learning environment built their sense of place guided by belonging, they built community with the client, an ethic of the organization facilitating the design-build

program. Hi'ilei Julia Kawehipuaakahaopulani Hobart[14] and Tamara Kneese (2020) define radical care wherein care is knowledge and strategies for relating, engaging, and remediation. The design-build learning program run by Sawhorse Revolution followed a format of inquiry into socio-spatial belonging by focusing on the self, the group of people (community), and the client. This paper focuses on the latter portion of this learning program (to be described in the methods section). Specifically, this study focused on how the people in this learning program employed a culture of care in their relationship with the client Deaf Spotlight, as shown through their enactment of care and interdependence which a Disability justice framework helps frame the cultivation of those relationships. Thus, I am focusing on the spatial production process and its connection to the process of learning and development that occurs through social interactions and cultural practices (Martinez & McGrath, 2019).

Moreover, I position spacemaking and care as social and cultural practices that are resistance mechanisms within a learning ecology (Reese and Johnson, 2022). Marin's (2020) concept of ambulatory sequences offers an understanding of the role of embodied practices in a learning ecology. Ambulatory sequences involve movements that people engage in while attending to and observing their surroundings and can support a range of cognitive processes such as attention, perception, memory, and problem-solving (Marin, 2020). Similarly, practices of care and mutual aid are part of a broader emplacement process, or the process of designing a space for othered bodies, facilitated by learning shaped by sociocultural factors and can vary across different contexts and communities (Takeuchi and Ishihara, 2021). Youth in this study showcase how being a *historical* actor (Gutierrez et al., 2019; Meléndez, 2021) emerges from our attending to the past and cultural traditions to promote a collective future. Care in this

[14] A strategic and political move to honor, histories and cultures through names.

context serves as a process of exercising agency wherein a future grounded in relationality, community and respect is paramount.

Together, these care practices highlight the importance of understanding the interwoven thread of care, mutual aid and learning as part of broader urban ecologies. They underscore the value of care as a social, cultural and historical practice. To add to this research, I show how care practices also serve as vehicles for challenging systemic oppression and building more repair-focused communities addressing past harm, especially through the learning process. Care then offers important insights for educators and instructional designers wherein youth are seen as competent spacemakers. This study adds insight into the consequentiality by highlighting relational resources for counter-hegemonic urban spacemaking practices.

## Conceptual Framework

I conceptually frame this study using two theoretical tools that I feel scaffold one another in a common format: (a) Disability Justice and care work (Berne, 2013; Piepzna-Samarasinha, 2018); and (b) care and urban ecologies (Hobart & Kneese, 2020; Reese & Johnson, 2022). These frameworks provide perspective on interweaving lineages of Black feminist thought, which inform my understanding and undertones of urban ecologies and spatial production detail care practices as spaces are produced. Further, urban ecologies call attention to the process of producing social space. Therefore I'm focusing on the social process of producing a culture of care through a care web detailed through Disability Justice principles. This supports my approach to understanding the ambiguity within this project while attempting to honor those who have built the foundation of this work for it to persist.

As our current systems are not built for those with disabilities, ableism is rampant through instruction, design and application, especially at identity-specific intersections of race, gender, class and across ecologies (policy, culture, history) (Kahn, 2020; Lewis, 2020; Love,

2016). This project specifically focuses on how girls of color address unique ways ableism operates in Deaf spaces, as the client, the youth within their grantmaking process chose, represents the DDBDDHH (Deaf, DeafBlind, DeafDisabled, Hard of Hearing) signing folk.[15] Disability rights are different from Disability Justice. Disability rights have historically marginalized those who have intersecting forms of oppression. In contrast, a disability justice framework addresses ableism by "understanding that able-bodied supremacy has been formed about intersecting systems of domination and exploitation" and "that all bodies are unique and essential, that all bodies have strengths and needs that must be met. We know that we are powerful not despite the complexities of our bodies, but because of them. We understand that all bodies are caught in these bindings of ability, race, gender, sexuality, class, nation-state and imperialism and that we cannot separate them" (Patty Berne, 2013). In addition to these frameworks, the concept of Deaf Space (Byrd, 2017) has provided a framework for the youth, myself and mentors to guide our design to ensure we are doing the legwork to educate ourselves to support the client. Some of the key elements of Deaf Space design are to maximize visual accessibility such as clear signage, color contrast, lighting, and layout. Others the youth learned about were from Gallaudet University, a school designed and designated for the deaf and blind community[16]:

1. Spatial Layout: Spaces should be designed with a clear line of sight;
2. Acoustics, given the building, will be on a busy street and need to use sound-absorbing materials and minimize background noise;

[15] In this paper, I will describe this group as the Deaf and disabled community via a conversation with Deaf Spotlight as they both represent DDBDDHH and the disabled community more broadly through their advocacy and efforts.
[16] Deaf space materials and principles.

3. Lighting should promote contrast between light and dark areas, specifically in paint and colors; tactile surfaces for those who use touch-based communication systems, such as textured walls or floors, where appropriate;
4. Communication for a myriad of visual aids or written communication systems into the space.

Furthermore, the students engaged in an interview with Deaf Spotlight to launch their initial design ideas that would build off the work they were learning about and doing. In the interview, Deaf Spotlight noted some of their larger objectives for the design being:

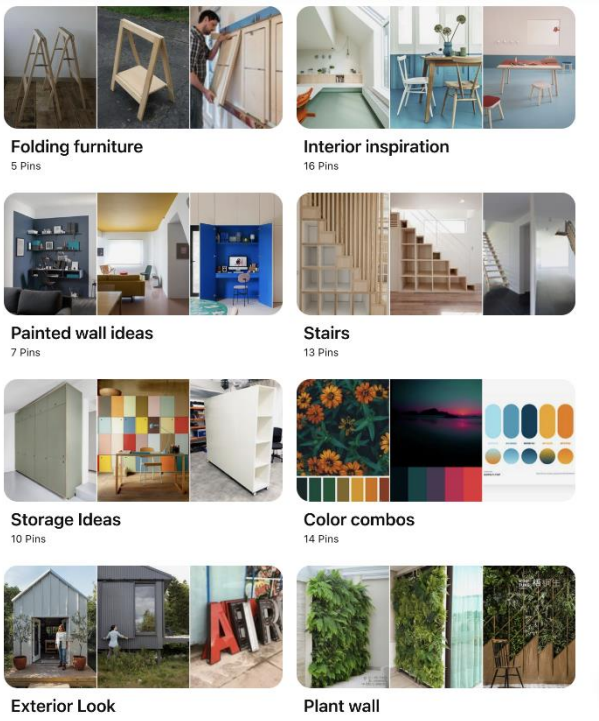
- ADA friendly
- No physical barriers
- Warm and cool temps - energy efficiency use
- Recycled materials
- Environment-friendly
- No neon colors/ bright colors- not eye-friendly
- Smart storage system
- Solar powered
- Great lighting system without glare

Figure 4.1 showcases some of the main design elements collected on a Pinterest board the youth curated as a result of the conversation. As the youth participated in their activation of Disability Justice Principles, they fused their care within the design process to enact the asks and needs of Deaf Spotlight. Seeing as how the youth involved with the program is not a part of the community Deaf Spotlight represents, I found it as a place of inquiry for how they embark on the design journey, negotiating their intersectional identities with the clients' intersectional

identities, specifically ones of access and disability as a means of building community and organizing a just future.

**Disability Justice and Intersectionality**

*Figure 4.1*. Pinterest main design elements.




Furthermore, Disability Justice holds that much of the world has been rendered 'invalid' due to the cisheteropatriarchy, thus calling a principle of intersectionality as a means of inquiry and advocacy (Berne, 2013). This is a shift from the state providing care to people with disabilities, but rather the people caring for one another in a common format that addresses varying disabilities, bodies and minds. Disability Justice intervenes to understand and divest from the state, including the academy. Thus, the other options, outside of the state, allow us to think up the mechanisms to build a culture of care within our community. As it pertains to this project, an added dimension of space is discussed as a tool to both understand concepts of intersectionality seen within the study. In doing so, the youth in this project take up and showcase the mechanisms learning allows for constructing a culture of care through the design of a space, learning about a community and leveraging their community-building praxis to care for one another.

## Disability Justice and Learning as an Organizing Tool

To explain the Disability Justice principles as they show up in my study, I pulled out three principles that showcase how youth employed them throughout their learning experience to invoke a culture of care. In doing so, youth are showing us (adults, researchers, practitioners, and people who randomly enjoy journal articles) how to employ this framework as a key component within an urban learning ecology (Marin, 2020). Further, as I theorized how Disability Justice principles emerged within the design process, I leaned on the principles to understand and think through the care practices the youth were employing. A culture of care is largely framed by the concept of care webs as I view them as a sociospatial practice (Piepzna-Samarasinha, 2018). I connect to care webs as a socio-spatial practice through my understanding of the ethic of care explained by Sharpe (2018). She described care taking place in a metaphoric wake, in the in-between spaces, similar to the connections between nodes on a figurative web. The connections between nodes (i.e., the youth and their client, the youth and the neighborhood) serve as explanations of care as an ecology of learning. These connection points illustrate sociospatial care practices through the three Disability Justice principles detailed below.

### Intersectionality

Disability Justice principle 1 builds off Kimberlé Crenshaw (1989) definition of intersectionality that provides a need for analysis on the interlocking systemic violences experienced by Black women. At this overlapping of values across frameworks, they understand and value multidimensional identities and aim to disrupt monochromatic takes on identity. Youth in this study showcase those through a vignette as they interrogate socio-historical issues around space, race and disability regarding where the designed space will be located. In doing so, they add a dimension of place-identity to the discussion that interrogates justice across time to

promote a culture of care through a social dimension of understanding history and precontexual work as key to organizing.

### Collective Access

DJ principle 9 promotes the creating and exploring ways of going 'beyond able-bodied and neurotypical notes (Berne, 2013). These overlapping values privilege the voices of multiply-marginalized communities and their needs. Youth in this accompanying vignette below "balance autonomy while being in the community" (Berne, 2013). In this vignette, they employ relationality as a practice to center care and connection through learning ASL. This connection then gets promoted and brought into the design of the space, where a wall outside of the building has Deaf Spotlight in various languages (ASL, Brail, English, Spanish, etc.) to reflect those who may use the space and those within the neighborhood to promote reflexive mechanisms in organizing.

### Collective Liberation

DJ Principle 10 calls us to "move together as people with mixed abilities, multiracial, multi-gendered, mixed class, across the sexual spectrum, with a vision that leaves no bodymind behind" (Berne, 2013). These intertwining values support activism and resistance to ableism/racism. With a goal of activism and working towards collective liberation, the youth understand and showcase how they value doing it together. As showcased throughout the study, they disrupt spatial hegemony and employ disruption as a collective liberation and activist practice through sociocultural learning as a collective action praxis (Curnow & Jurow, 2021). Because of their collective decision-making, everyone involved within the networks of the groups within the project benefit.

## Applying Principles to the Cultivation of a Culture of Care

To this end, the three previously discussed overlapping tenets and principles will be accompanied and explained through vignettes from the study itself. Youth have showcased their commitment to employing and developing a culture of care through spatial learning mechanisms that work towards Disability Justice. In doing so, they intertwine their learning with their geographies to place others within the public conscience, similar to how other scholars continue to do with various demographics (see Annamma, 2018; Love & Beneke, 2021; Moore & Paris, 2021). Bosco (2013) interweaves these topics to detail the political turn of youth geographies through relational thinking to invoke social change. In wanting to build off this collective work, I will detail ways youth employ care practices through their learning and design process that yields space development and emerges into a culture of care. This work will add to the literature on Disability Justice and sociospatial learning to bring these disciplines into conversation through understanding the ways they contribute to the larger urban ecology as organizing tools. We can continue to learn from how youth understand and apply a care-centered lens to various topics, such as the design and production of spaces.

The youth within the study engages in a spatial knowledge cultivation and application process that intersects with race, gender, disability and geography afforded by the learning environment. We know sociocultural learning theory draws attention to the tools a learning environment provides to produce possible futures (Gutierrez et al., 2019). This work adds to learning theory by applying care as an ecology of learning through the space-making process, often a practice is forgotten in urban development (Reese and Johnson, 2022). By allowing youth to attend to their [and others] identities and needs within and across space, they understand how to care for themselves and others in the design process. This learned process allows them to

apply it in other contexts, such as the opportunity to design a physical space for another group of people. In doing so, they apply their understanding of self (afforded to the learning ecology) and use relationality to connect it to others' experiences with others. This begins to emerge as a culture of care (Sharpe, 2018), which positions the youth as care-centered cultivators, designers and builders of our collective futures. Therefore, I aimed to understand the emerging framework for how one group (the students who are able-bodied) designs, builds and advocates for another group with different shared experiences, intersectionalities and needs (the client representing a group with disabilities). Through DJ principles, I aim to display the sociospatial production process and care tactics used to build a culture of care after this concept emerged through a grounded theory coding process.

## Research Setting, Participants + Methods

The Tiny Cultural Space program is a partnership between the Seattle Office of Arts and Culture, a community-based organization, Sawhorse Revolution and a client. Seattle's the Office of Arts and Culture provides a piece of surplus land to Sawhorse Revolution to run a youth design-build for a client (another community-based org). This program aims to give back land to Black and Brown arts and culture-based organizations as a way of building and to support the development of community assets through spaces while fighting the city's rapid gentrification. Sawhorse Revolution is a Woman owned and operated architecture and carpentry non-profit that solely does youth design-builds. Their projects are designed and built by youth, largely girls and the majority aged 14 to 18. Not only do community groups have the opportunity to own the land given to them, but they also turn what are seemingly the scraps of the city into beautiful and tangible spaces for communities to feel a sense of place. Thus, building geographies of cultural spaces through this program allows youth to have a hand in building the city they want in their future, creating history in real time.

Over 8 weeks, 8-12 youth engage in a curriculum co-designed by Black and Brown designers, planners, architects and builders to ensure the cultural, historical and social understandings of the place are explored to support the best design process possible. Youth design for themselves and represent themselves through sketching, building and making. We also took tours of the building site and other cultural spaces designed by mentors. The youth also engaged in design retreats after conducting client interviews and architectural theory to build the final design. The client for this program is Deaf Spotlight, an organization that represents the Deaf, blind, Deaf-blind, hard-of-seeing and hard-of-hearing communities at the time of the program did not have a physical space within the city. Therefore, the youth are both learning about themselves and their preferences for designing while building their skills and learning to negotiate both themselves and the client's wishes, and more specifically, as able-bodied people designing with those who have disabilities. As the researcher within the project, I have the privilege of being involved with the organization that was the first iteration of this program. I also organized the mentors through my own network and led the curriculum and co-design meetings before the first design day with the youth. My participation in this process allowed me to see the program from its inception to what it is now while supporting it as a future endeavor, serving as a framework for cities to support youth in designing the built environment through learning. With that in mind, I also bring my experience navigating the world as a Black disabled person who has also been searching for his places of belonging and care through community building.

As a concept for the youth to better understand their role as designers in making space for a group representing the Deaf and advocating for the larger disabled community, Deaf Space is a design methodology accessible for this demographic and others. Similar to how Black

geographies hold the understanding that Black folks who hold and make space understand non-Black people will inevitably share the space, different folks benefit from the space as a whole. Additionally, Deaf Space design has principles about contrasting colors, transparent windows, emphasizing sight lines and open space. This allows for negotiation and learning for the youth, making and designing a space for people who are not Deaf or hard of hearing while centering their learning and design understandings. Through the creative process, these core design principles guide the overall design, while the youth themselves socially produce a space within the client's parameters, their own creative investigation and what's feasible.

### Ethnographic Approaches

Understanding spatial production as a political endeavor necessitates an inquiry method with a framework to understand those complex relationships and connections across ecologies. I drew upon ethnography as a methodological approach to data collection and grounded theory as an analysis technique to navigate the program's complexity. Data collection traversed multiple artifacts, interviews, video data and participant observations. Ethnography is well suited to call attention to power and difference in communities (specifically, I focus on othering through space itself) and the sociospatial and ecological factors influencing power by including and historicizing sociopolitical and cultural factors (Morgensen, 2015). Ethnography also allows us to focus on relationality (Morgensen, 2015), calling attention not just to ourselves as researchers but to others. Through a relational approach to thinking and employing ethnography, I focused on the relationships (social, ontological and epistemological) within the context of the research setting. I take an unapologetic liberation-centered approach to identify and make space for the ambiguities as they illustrate spatial justice and mechanisms of resistance through youth-desired realities and futures through the care lens.

Ethnography also lends itself to being positioned as political, seeing that as a methodology, ethnography pushes back on notions of objectivity within a context while still participating in a context. In my attempts to honor the methodology, I pushed on how ethnography can grow through constructivist approaches within a research setting. In the following section, I started by detailing my own influences and ways of being that have pushed me to pay attention to this research setting. I used a comparative method through grounded theory to refine my codes by cyclically returning to the data for clarification and understanding through the writing process (Charmaz, 2006; Glaser & Straus, 1967; Harry et al., 2005). After settling on my codes, I used google sheets, transferred all of my student interview files into otter.ai, and began to build my codes for those within that system. Otter.ai allowed me to color code the actual transcriptions and my notes within them, making connections across codes and identifying and applying revisions to expand and narrow in codes as necessary. Because of the complexity of the study with varying theories and schools of thought, grounded theory is the best way to encapsulate these complexities into an emerging theory. The theories in the conceptual framework detail the intertwining schools of thought to frame the study and how the data is in conversation with accompanying frameworks. Therefore, to best honor the complexity of the study, I present the data and themes that emerged from codes through storytelling approaches that serve as a complementary way to present qualitative research (Toliver, 2021).

### Coding Methods

I was guided by a hybrid approach to grounded theory: deductive and inductive reasoning. I paid attention and let myself be guided by my participant observations of events during the design sessions while knowing that the concepts of identity resources guided the observations. That said, I use inductive coding for the interviews conducted with student designers and Deaf Spotlight. I then follow descriptive prompts after pulling out direct quotes

from the youth from video data and develop codes from there that are influenced by the inductive reasoning developed by a deductive approach that guided the observations of being in the design sessions since the interviews took place months after the start of the design sessions themselves. Thus, the codes applied to the interviews result from the observational inductive codes from field notes and participant observations. As I built off my open codes and moved to themes within a side-by-side process using interviews and other data pieces, I noticed connections between the codes. This led to the axial coding that drew me to create individual papers such as this one focusing on care. Another layer of axial coding led to the foundation of the overall theory of a culture of care (Charmaz, 2006). The codes shifted and matured as the data was collected and solidified via member checking and natural conversations with the youth and those involved in the study. Memos supported this tracking process to ensure reliability and transferability (Charmaz, 2006). Codes were the foundation for this paper: Ethical *Responsibilities and Advocacy* and *Relationships.*

My analysis served as an in-depth process of coding qualitative data. In an approach to answering my three research questions, I sifted through data simultaneously during the data collection and checked in with students and mentors as regularly as I could. For example, after the initial design zoom interview with Deaf Spotlight, I returned to the recording and watched how often they asked and confirmed color choices. After checking my notes, I followed up with them in the next section to ask about the particular reason why it stuck out to them. They proceeded to mention that color is both important for how they communicate (contrast using hands for ASL and being able to make out the front side of hands) and also color matters for how people feel within a space. They had researched the feelings colors emit and wanted to make sure they could meet at the intersection of functionality, access and feeling when it came to the colors

of the space inside the building and outside. They continued to share how they considered how grey it is in Seattle, and how they wanted to make sure joyous, mood-building colors wouldn't inhibit communications. With that, it led me to follow some of the ways the students were both weaving in their understandings and responsibilities for the design, recentering on the idea that they are practicing care with depth through their learning process.

After collecting the data, I started with my field notes to open the code (Saldana, 2014). When initially within the learning environment, I noted many identity-focused elements to track some of the identity work and learning in the design sessions (Nasir, 2011). I regularly conducted side-by-side research at this stage of collecting my field notes and following up with natural conversations. My data collection and analysis continued with the video data from GoPros, the natural conversations, field notes and the artifacts the students created. For example, when tasked with drawing a dream wall that represented oneself to story a design, all the youth within the study drew images that represented them culturally, ethnically, and intersectionally. While at Hood Famous, Carolyn drew a shape that represented her textured hair in a way she liked to have it braided as a way to tell celebrate her hair and tell a story through design as a Black woman and who's hair was regularly policed and devalued, causing tension in many spaces she traversed. This led me to make connections between the ways youth engage an intersectional lens through their spatial knowledge about their identities. This data mining and support occurred parallel through natural conversations and analysis of these particular moments. Within this data corpus and phase of analysis, I leaned on inductive coding to call attention to critical instances within the video data that I could go back to and review (i.e., activity days, collaborative work, and critical moments in the program). At this point, I started to follow the

individual and collaborative care practices through their learning advocacy to disrupt spatial injustice, understand the historical context and learn the language.

These vignettes use various data to develop stories of the students during the program, especially as I followed their learning and developmental trajectories throughout the program focusing on the social production of a learning community and a physical space (San Pedro, 2018). This process detailed how the specific care practices show up in their learning and connects to an overarching culture of care. Through the coding process, I allowed checking, adjusting, adapting, and refining rigid codes to lead to fluid concepts and themes developed from theories (Merriam & Tisdell, 2016; Saldaña, 2014). The care practices facilitated by learning map onto the Disability Justice principles, which formulate the vignettes. In this way, I focused on the ways method and theory employed by participants are emerging and honoring the ways method-making and theory is used as a form of resistance and liberatory practice in learning settings (hooks, 1991). As an approach, the vignettes detail the beautiful complexity within a care-centered ecology of learning while complimenting and honoring those who have so eloquently detailed variations of these intersections before me.

## Findings: Building a Culture of Care Through Learning

Youth built a culture of care through a care web by learning about and engaging in (a) exploring the context of the neighborhood and its significance to Black history in Seattle and Black ASL broadly, (b) learning ASL to present their final design to Deaf Spotlight, and (c) the decision-making process where they pivoted immediately upon learning Deaf Spotlight didn't have a physical space within the city. The finding of youth employing Disability Justice Principles as they move through their learning and design process showcases how they build a culture of care through their learning. Below are three moments where the youth displayed their

advocacy, ethical responsibilities and the importance of their relationships to the client through the moments they voiced the learning they want to partake in.

### Examining Socio-Spatial History and Ableism for Possible Futures

Youth employed intersectionality to value the multiple dimensions of identities, including socio-spatial and historical place-identities promoting multidimensionality to understand identities at intersections as they took up ethical responsibilities and advocacy through their design process. Youth interrogated how people outside of themselves being multiply marginalized by and through space, and therefore interrogated the need to address these issues of injustice perpetuated by space, such as not physically having a space within the city in the case of Deaf Spotlight and the overlapping erasure of Black ASL speakers, their Blackness and deafness, in and through access to space within Seattle. Deaf Spotlight has relied on media and art to build community and provides housing, educational and advocacy services, and various other supports. In doing so, they often encounter difficulties regarding space and equitable physical development of spaces. When the youth were able to get a chance to speak with the folks from Deaf Spotlight, they were prompted to use a guiding principle of Deaf Space design. Gutierrez et al. (2019) call attention to this learning and reasoning as youth develop into historical actors. Meaning youth connect to the past and how transformative agency is in designing a space by building a relationship with people within a neighborhood across time to enact justice. This type of design centers on one's ability to see expressions, and open-sight lines, negating harsh light while promoting transparency and contrast. As the youth leveraged this design, they also connected where the building was going and the neighborhood's history. As they engaged in these conversations, a key point came up in their deliberations, and they hoped for Deaf Spotlight to come to a newer space.

Kaleb: Have you ever heard of Black American Sign Language?

Samira: No, I haven't. What is it?

Kaleb: Soooo, it's kinda a different version of American Sign Language that's been used by Black deaf communities for generations because of segregation. It has its own unique grammar and vocabulary that reflects the culture and history of Black Americans.

Thienvan: I wonder if Black deaf kids in the CD could learned ASL in their community

Carolyn: Oh! I've seen someone on TikTok doing Black ASL

Hailey: Oh yeah me too!

We watched TikTok videos (via YouTube) about Black ASL for the next few minutes and discussed the intersections of us designing a space within this neighborhood. We then discussed more history and the potential futures for the design:

Kaleb: Yeah, for sure. This connects to our visit where we saw tile designs at the train stations that made navigating the train platform more accessible for folks who may use a probing cane… and how design can provide access to resources for folks to feel like their full selves and needs are met, like being able to go to a deaf school that also allows Black students.

Halima: Maybe with the design, we can include both those histories, that way it's easier for Deaf Spotlight to connect to a new neighborhood

Sam: How about for take home work today we all pull together some resources on Black ASL in a google drive so we can learn more and share with Deaf Spotlight later on? How's that sound?

(identified from field notes and confirmed/transcript pulled from video)

Because of the space going into a historically Black neighborhood, the youth reflected on some of the resources and teachings they explored via TikTok about Black ASL culture.[17] At this point in the project, the youth suggested, engaged in and asked for resources to learn about Black ASL speakers and the community within Seattle. While in a design session, they scoured TikTok to find resources, and we spent time engaging in explanations by a TikTok artist named Charmay who detailed the difference between Black ASL and the ways Black ASL speakers resisted oppressive tactics to erase Black people from being able to learn ASL.[18] They noticed and highlighted how they didn't necessarily see many Black ASL speakers or many resources, if any, within the neighborhood when we conducted a site visit. In making these connections, they concluded there was a keen opportunity for both Deaf Spotlight to connect around providing a space for Black ASL speakers to be represented and supported within the neighborhood. Within this approach, the youth made connections across time and space, reflecting a need for Disability Justice regarding race and space. This allows them to reshape their relationship to the design of the space itself from something the youth are designing from their perspective to a more holistic and sociohistorical perspective based on geography. As they made they reflected on their decision, Hailey noted:

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[17] Feel free to check out this book *The hidden treasure of Black ASL: Its history and structure*. Also, Chance the Rapper was one of the first rap/hip-hop artists to travel with a Black interpreter, Matt Maxey, and here are more resources from TikTok.

[18] Charmey, @realcaunsia

> I thought like the film literature and personal storytelling that was kind of their main focus. And I thought that was interesting. And I thought that was a really cool idea because it can help with aesthetic too and would be really cool to design for.

As noted above, the students took into account the need for stories within a space and how we could design and make space for stories. Hailey reflected and described what aesthetics of stories as a means for disrupting spatial power hierarchies by trying and wanting to figure out how to design for and through spatial histories. In doing so, they emerge and develop towards being historical actors and designers of possible futures as they employ and cultivate a culture of care that is both intersectional and demands collective access that addresses racial harm.

Moreover, as a historical editorial, Black Deaf children and speakers had less access to resources leading to the development and a culturally relevant form of ASL (McCaskill et al., 2011). This led to ASL's geographical and cultural variations based on physical and social separation and isolation during Jim Crow (McCaskill et al., 2011). This stems from the understanding and learning they explored within this program that racism reinforces ableism through the mechanism of space. Specifically, in this example, the "Deaf Community is both spread out and isolated, making it hard to find community and feel a sense of belonging. Therefore, there's a need to connect through space" (Patty Liang, Deaf Spotlight interview). The youth understood this tenet as it showed up over time; Black ASL speakers couldn't attend white Deaf schools, prompting them to build and teach themselves about ASL and Deaf culture that revolved around their Blackness. In response to this, we collectively built a google drive folder of resources on Black ASL communities and histories for the youth to share with Deaf Spotlight as they felt it to be their responsibility also to educate others and build a sense of reciprocity within their node on the care web. Some of those resources are detailed in the footnotes. This understanding led the youth also to note that there are very few spaces in the Black neighborhood

for ASL speakers. As they cultivated their access knowledge, they connected to space and how they couldn't recollect many spaces that honored Deaf Space design outside the Seattle Central Public Library[19]. This continued to provoke their understanding and interest of the intersections of race, space and ableism and how space is regularly used to exclude people from buildings, parts of the city and experiences. Thus, their motives behind design stemmed from these inclinations and their learning, which allowed them to start to advocate for a Disability Justice approach to their design. A spatial lens can facilitate understanding racism and ableism within a learning environment.

### Language Learning as Relationality and Building Connections

In American society, whiteness and the English language are privileged as dominant and proper forms of communication and ways of being (Soto-Boykin et al., 2021). For example, in the context of this study, the youth designing for and with members of Deaf Spotlight communicate differently than themselves using American Sign Language (ASL). When the youth conducted their client interview, we met on Zoom to have interpreters translate throughout the conversation. After this moment, the students expressed interest in learning ASL to both show appreciation for the language and embrace the joy of learning something new and that they wanted to do their part to connect with the folks from Deaf Spotlight. Verbal languages and forms of communication are also privileged within American society, thus pushing ASL speakers into the margins of communication without considering their intersectional identities. The youth took an approach to this principle that employed their skill sets of relationship

[19] One of the mentors presented this case to them as an example of how we design for accessibility and Disability Justice because her firm designed it so we got to look at the scaffolded design process and mechanisms for thinking about accessibility and its relation to design. Here's more information on the space itself: Seattle Central Library.

building. As detailed below, the youth had a positive experience in learning ASL better to showcase their value of ASL and the Deaf community:

> When we were learning sign language, it opened my eyes to the community that I've never really been introduced to. And, like, upon meeting them, I just… No matter how it turned out, I just wanted to do my best for them. And because they went through so much [during the pandemic as an organization] and like they're working so hard to give the Deaf community a voice, how could you not put in 100%? (Thienvan)

Youth in this context chose connection points to honor the wholeness of their clients and partners within the design work (Piepzna-Samarasinha, L. L., 2018). They did this by seeking out connections from their identities to the design hopes for Deaf Spotlight, for example, they advocated for a living wall and various environmental elements that would help that space feel alive, a shared design feature between the youth and Deaf Spotlight. For example, Carolyn noted "But we can design for the benefit of the environment. Just like the way that it's structured. Because we only have so much space, I think it would be cool to have like incorporating the plants and everything having like space up top and then space down below to like eat and then like with a plant wall or something."

Furthermore, the youth also advocated for a wall outside of the space on the street side near the entryway that would have 'Deaf Spotlight' in various languages, ASL, Brail, Oromo, and other languages represented within the neighborhood, Deaf Spotlight's community as well as their home languages described here by Halima during the design process "Even like, if we could paint something or recite, like even if you can't look at it from the perspectives but like painting like that on the side would be really cool to see the languages from different angles." They elicited "care work through languaging" (Henner & Robinson, 2021). Often discussed among the deaf community, care linguistics is showing up here across groups. Part of this showed up by focusing on and learning concepts of Deaf Space to ask informed questions during the client

interview. Another component emerged as the youth took the design wishes of Deaf Spotlight and used their creativity to imagine and employ key design futures, honoring design's collaborative and creative process. They employed opportunities for their learning that allowed for the honoring of wholeness and extended their aspects of relationality to understand better and build community with Deaf Spotlight (Berne, 2013). For example, they did this by learning ASL was a key opportunity for the designers to connect to Deaf culture as non-ASL speakers.

*Figure 4.2*. Here, Carolyn is applying the ASL she learned to introduce herself, her age, and a fact about her as she presents her portion of the design.

They both wanted to showcase their efforts to connect, learn and develop a space that honored the organization and its justice work during the pandemic while also seeking joy in learning something new. Youth sought this opportunity to learn and grow to design the best space possible. In learning ASL, taking the time to understand the culture of the Deaf community and the disability community at large, their goal was to ensure they were as prepared as possible to build Deaf Spotlight a space of belonging. Youth employ this practice as a mechanism to honor wholeness and disrupt social constructions of marginalization through learning and relationality. Through a cyclical mechanism, they regularly go back and forth to check their notes, ask clarifying questions, and ensure they provide their clients with the best space possible. In doing so, they are also willing to engage in their development to ensure they are the best prepared to conduct the job needed to provide the youth a sense of belonging. As they developed identities as designers, girls of color who are designers and builders, they employed that disruptive skillset to learn something new to cultivate a relationship with Deaf Spotlight further. After the initial interview with the client, many designers felt inadequate because they couldn't introduce themselves and communicate more with Deaf Spotlight. Thus, they inquired about us shifting part of our design day to learn some introductory ASL (name, age, school, thank you, etc.). This advocacy for relationality through language normalized learning something new to

disrupt the social norms of having to be perfect in communication, especially as they messed up, encouraged one another and sought a connection to the entire group.

Again, this cyclical format of the designers advocating to do more to equip themselves better to communicate, design and advocate for the best space possible is a key example of the care web being reinforced. They involve themselves in the connection piece that centers relationship cultivation and relationality as an ethic of care. After learning ASL, during the presentation of the design space to Deaf Spotlight, the youth introduced themselves and communicated/partially presented in ASL with members of the organizations. In doing so, they subliminally leveraged learning, and Disability Justice to their design experience. Further, this advocacy for learning ASL also required the mentors, educators and Deaf Spotlight to care for the students in a way that allowed space for them to mess up, learn, be incorrect and then perform something they'd only just learned. This type of reciprocal space is necessary in building learning spaces that build a culture of care. This provides implications for how a culture of care within a learning environment can address social constructions of marginalization across experiences and realities by designing a learning environment.

### Disrupting Spatial Hegemony by Claiming and Taking Up Space

In our learning environment, youth provided various care practices for resistance, specifically one that pertained to their belonging and extended their self-compassion to Deaf Spotlight. Youth participated in the decision-making process that led to Deaf Spotlight being the client receiving the grant and space. During the deliberations, a few care practices actively took place. As for the process, the youth went through a relatively standard grant review process where they read through applications, ranked them on an 80-point scale, and then listed all their rankings together. In this process, the Deaf Spotlights application consistently ranked the highest amongst all youth and significantly higher than other applications for the majority. Reasons for

this decision-making revolved around their application, for example, when youth were explaining their reasoning for choosing Deaf Spotlight, Thienvan noted:

I really like the fact that like it, they represent, like a community that isn't really represented that often. And so it shows like art, and it's like, it's a creative idea. And it's also like a really safe space for people where they don't have to go through the obstacles that they would like in other public places.

Deaf Spotlight wants to connect and build community in a new space and neighborhood, to be a hub for the Deaf and disabled community, and to draw attention to art and environmental justice. A key point in their act of resistance during this deliberation process occurred when the youth realized that Deaf Spotlight currently did not have a physical space within the city:

[For] Deaf and blind and disabled COVID was hard, the increased physical distancing, and isolation. So this place would be really good, to build for them just because it's going to be like an art center. And I actually looked at their website, and they've partnered with so many people, had done a lot of stuff like in the past and don't have a headquarters either. So I thought it would be a good idea to build them one. (Carolyn)

In this case, the property is akin to ability, and the ability to own property is exclusive to those within the margins (Annamma, 2016). The youth took note of this, and at this point, within the deliberation, they immediately shifted their decision to being Deaf Spotlight. They envisioned how to support the collective community, those across the disability community and the neighborhood.

In doing so, youth actively chose to bring the disability community and Deaf Spotlight into the public consciousness by leveraging space and property as a means to do that. As an act of resistance, they challenged who could have a property and contribute to the community. This kind of internal dialogue is reflected in Thienvan's description of her perspective across the program:

> I think in the beginning, I definitely took it from the approach of like my personal interests, rather than like, what it does for the community. I think through the design phase, I didn't really see a vision. As I learned more about the community I kind of saw,

> like, wow, this is real, like, this is going to be a space for . . . for people. And it just blew my mind that we could do something and it was relatively fast too. And it changed everything for me and got me excited even more.

In the learnings of their belonging cultivation, they also employed skills of showcasing how people with disabilities are worthy of having a place, challenging the regular practices employed by cities and policymakers to other those with disabilities through mechanisms of space. This practice is showcased in Annamma et al. (2018) work, where Black girls with disabilities who are incarcerated are also brought into the public consciousness through socio-spatial learning mechanisms. Youth actively disrupted the spatial mechanisms of racism and ableism that are reinforced through space by leveraging their decision-making power to place Deaf Spotlight physically within the city.

Moreover, their location is in the city's central area, as the youth considered the importance of people needing space accessible by transportation and a hub for the community. The youth understood that space for one's body to feel whole, cared for, and belong is a plausible mechanism to disrupt spatial injustice. In this context, they could consider the historical and future ramifications of Deaf Spotlight having a space and thus apply that learning to embrace what could become of the space. They understood that although the place wasn't designed for them, they would also be welcomed and cared for in the space as members of the community, and for them, that allowed them to feel the reverberation of belonging. Also, youth showcased their understanding of how a physical place and collective access to space broadly are necessary for collective liberation. In turn, a culture of place emerged through an elaborately beautiful care web between various organizations, partners, youth, educators and spaces throughout this learning ecology detailed below.

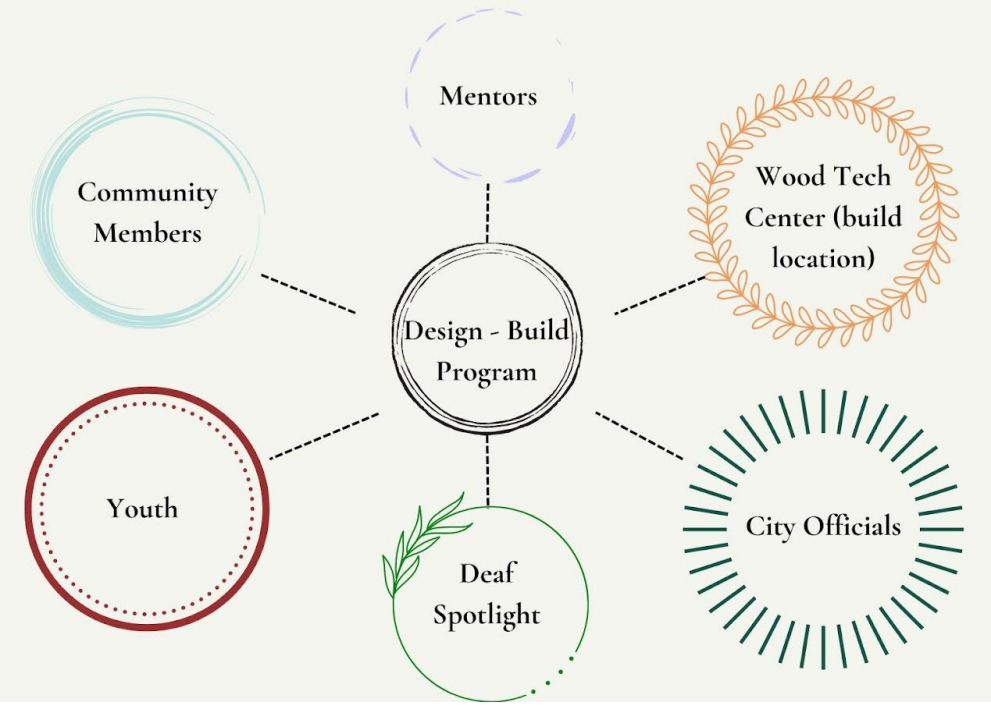


*Figure 4.3*. Learning ecology.

As detailed in this study, youth are engaging in a learning environment and building relationships with one another to support and advocate for different groups of people. They learn about self/identity development and co-construct a learning space for coalition and relationships to be built through intellectual activism (Collins, 2012). In essence, through self-self, self-peer, self-client, self-group, and self-space relationships, the students are showing how they engage in wider-reaching practices of advocacy and development through learning, these relationships emerged as my *Advocacy and Ethical Responsibilities* code as well as *Relationships*. This furthers the literature on learning and its relationship to the built environment and the role of Learning Sciences in urban planning and architectural design (see Bustamante et al., 2019; Hadani et al., 2021; Hassinger-Das et al., 2018). Learning environments and research on them that employ a culture of care to disrupt power while promoting youth decision-making power as an act of resisting oppressive powers can learn how to ensure spatial justice occurs, the

production of space is equitable and used as an act of resistance (as discussed in McKittrick, 2011).

## Implications

Care practices are a viable and needed practice in disrupting power, more so, a pedagogical approach to care as a sociocultural learning process. From a sociocultural learning lens, I highlight the care practices youth designers used to intervene against ableism. A robust care-centered perspective in the learning sciences is necessary to enable youth to become decision-makers and consequential learners. By building care as an ecology of learning, we can emphasize the reciprocal nature of learning, where individuals interact with and learn from the physical and social environment around them. This has implications for how care can support learning while promoting meaningful actions as a crucial skill set for world-building (Kayumova et al., 2019). Attention and perception play an essential role in care work, as individuals need to learn to pay close attention to their surroundings to provide adequate care in a broad sense. Memory, history and reflection are also crucial for consolidating learning from these experiences, as learners would need to reflect on their experiences to improve their future care practices. Youth who cultivate care techniques and processes for thinking can showcase how collective action can lead to sustainable social change. They can use mentors, community members, and their networks to learn about various communities and connect with historical contexts and the future (Piepzna-Samarasinha, L. L., 2018). Sociocultural learning through a spatial lens allows for the past, present, and future to connect in ways that facilitate belonging for another group.

Moving with care, youth showcase how we use collective action for sustainable social change. They have mentors, community members, lived knowledge and experiences within their

neighborhoods, the client, and their network. They take advantage of this network in such a way that allows for collective action as they learn the ins and outs of various communities on top of the design. The complexity of place and coalition building adds to the resistance and spatial justice across geographies and ecologies, making it critical to improve the built environment through a sociocultural identity and learning framework. A culture of care can provide a community infrastructure that supports justice-centered movements and is consequential to learning environments. Care deserves more attention as it plays a key role in the sociopolitical realm of learning and social change. Sociocultural learning through a spatial lens is a mechanism to connect past, present and future for youth to facilitate belonging for another group of people. Reagon[20] (1998) presents the idea that although Black folks haven't been able to have a place in the traditional sense, such as land, property or a neighborhood long term, the culture they create places, further rendering place as a more-than-human being. This showcases the complexity of how a place can be seen as part of a coalition, adding to the resistance and spatial justice across geographies and ecologies.

Learning is a viable process to center mutual aid networks within urban ecologies. Learning creates a political, social, and cultural container for people to practice collectively administering care through difference by focusing on relationality. These efforts are already practiced within communities through liberated lifeways (Heynen & Ybarra, 2021, p. 22). As a care practice, sociocultural learning reminds us that the goal of disability justice cannot be met without infrastructures to build geographic knowledge of care for each other in ways that

[20] Reagon is an activist and artist, and was formally expelled from Albany State University (formerly college) in 1962. Her activist work supported and was integral to the Civil Rights Movement and Montgomery Bus Boycott: My paternal grandmother was actually attending Albany State at the same time (1961-65) as a student there. Although I never met her, she was the first in our family to go to college, became a special education teacher, and I've been told the work I get to do is very similar to what she was doing (this was way after I actually started on this path).

counteract the interwoven strands of violence being experienced. The youth did this and exercised notions of emplacement, or designing of space for othered bodies, for themselves and the folks at Deaf Spotlight (Takeuchi & Ishihara, 2021). Learning, design and care is "a way to bring activists into conversation with learning researchers to advance activists' self-defined goals and move us closer to a world where justice prevails." (Curnow & Jurow, 2021, p. 22). I also reinforce the study of care as a tool for social action and position care as a conceptual tool to conduct this work. My/our work supports the growing focus on spatial injustices in the learning sciences showcasing the role of relationality and reciprocity in justice movements led by youth, which highlights an onto-epistemology key to mobilizing care practices for unity.

Therefore, we must learn from frameworks developed within the academy and apply them to community work. Spaces should be developed and designed to emphasize care, considering the interwoven strands of space, learning, and disability to promote justice across experiences. Ultimately, a care-centered learning framework allows youth to become consequential learners, decision-makers, and agents of social change. Therefore, a culture of care can provide a community infrastructure that supports justice-centered movements (Jurow et al., 2016). Care is also consequential to learning environments and deserves more attention as it plays a key role in learning during social movements (Vea, 2020). Care is a form of pedagogy as it interweaves strands of responsibility, history, and responsibilities and cultivates relationships that promote justice across experiences and have implications for how we develop and design learning environments with an emphasis on care.

## Conclusion

Physical and social space serves as a point of inquiry to understand how the development of learning as a spatial practice can influence the ways our physical spaces are developed and

considered. Branching off of a strict ethic of care seen through moral education by Nodding (2002), I focus on the ways youth employ a Disability Justice framework within the learning process, which illuminates their ability to promote relationality, take charge in decision-making that disrupts spatial hegemony and provides space for others and seeks out ways to gain historical context to make informed design decisions for a culture of care. These three mechanisms provide insight into the qualities, connections and characteristics of sociocultural learning tools and practices one can use to also allow for informed decision-making processes that can center care. These processes and connections the youth both experienced and advocated for are replicable and can further support youth being involved in larger decision-making opportunities within their own contexts to address inequalities (Kirshner, 2015). I feel this type of care is showcased in various forms as it connects to learning environments, such as coalitional politics (Reagon, 1998), social activism (Vea, 2020) and learning on the move (Marin et al., 2020). Furthermore, this culture of care the youth employ emerges from their learning and holistic inquiry into how they aim to support their client. Thus, this process is inherently relational (Noddings, 2002). A recentering around care-based education within the learning sciences and the design of learning environments can provide healthy complexity to how we aim to incorporate youth into the civic process. As shown in this study, youth actively engage in care-based education and seemingly think critically with the support of a design and facilitation that supports that interest and concern. Care, then, is a mechanism of resistance, specifically through spatial production; it disrupts spatial injustices and the way systems of oppression perpetuate harm (Reese and Johnson, 2022). Care also can be seen as an ecology of learning that promotes reciprocity, advocacy and opportunities to engage in historicity.

In this study, youth showcased how care-based education promotes and sustains their lifeways while also allowing them to ascertain how to sustain multiple groups' lifeways (Paris and Alim, 2014). Care is also an epistemological strategy in inquiry and learning (de La Bellacasa, 2017). Youth promoting a radical care ethic through a learning environment exercise knowledge building and strategies within relationship building, engagement, and remediation (Hobart and Kneese, 2020). A move towards care as showcased by the youth, produces insight into our pedagogical practices that sustain their interests and concerns as they engage with others who share different experiences with them. As a point of inquiry, space is the middle ground we all interact with and thus prompts the necessary understanding of how we all engage in space together, specifically when prompted to make and hold space for one another. This spatial take on a culture of care also emphasizes this as a spatial and cultural practice that demands a shift in our axiological and ontological ways of engaging with one another. When we value and center care, we all benefit. We must then learn how ourselves, others, and communities need and want care.

This takes a skill set that can be learned, and to do so, we must design learning environments that facilitate and allow for this time of inquiry and process. Reese & Johnson (2022) offer an analysis of the late bell hooks' work, highlighting how we learn to know we belong through giving and experiencing mutuality, which connects Black geographies to Care Webs as a spacemaking process through care. They present a sharp ecological lens on promoting care, caring practices and mutuality across Black geographies in the wake of harm (Reese & Johnson, 2022). Overlapping principles of Disability Justice not only provide a way to see the role of care in learning environments, but it also illuminates that youth are already interested and doing care and justice-centered consequential learning. We must provide them the space to

continue creatively resisting ableism and racism through spatial learning and spacemaking, while promoting education to action. As we learn from youth and their care practices, we also learn how to care for ourselves and others, specifically through providing and holding space for one another. They cultivate a culture of care across time and space, for themselves across past, present and future as a point of inquiry. As a thought process, they place other people within a physical or social context to ask questions of ‘will this person feel safe and like they belong in this space?’ as a means of guiding their design of spaces.

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# Appendices

## Figures

### Participants

| Participant Name | Role | Specialty | Racial + Ethnic Identity |
|---|---|---|---|
| Sam | Program Lead + Mentor | Architecture + Carpentry | White |
| Daví | Mentor | Landscape Architecture | Latinx |
| Sergio | Mentor | Architecture + Interior Design | Afro-Latinx + Pacific Islander |
| Rebecca | Mentor | Architecture | Asian |
| Belén | Mentor | Planning | Latinx |
| Kaleb | Connector + Mentor | Education | Black + White |
| Patty | Deaf Spotlight ED | Arts + Film | |

Figure 1. for adult participant information

| Participant Name | Role | Grade + Pronouns | Racial + Ethnic Identity |
|---|---|---|---|
| Hailey | Student Designer | 11th, she/her | Filipinx |
| Carolyn | Student Designer | 12th, she/her | Black American |
| Samira | Student Designer | 9th, she/her | Black African |
| Halima | Student Designer | 10th, she/her | Black African |
| Thienvan | Student Designer | 11th, she/her | SE Asian |

Figure 2. for student participant information

**Coding Process**

| **Coding Process** | ***Paper 1*** | ***Paper 2*** | ***Paper 3*** |
|---|---|---|---|
| **6. Grounded Theory** | Culture of Care–A complex set of processes allowing care, reciprocity and social relationships built on mutuality. This theory centers on urban ecology and then highlights critical components of space, infrastructure, education and learning as interwoven pieces that allow for care to be centered and promoted across intergenerational and demographics and communities of people. This theory also showcases how youth enact a culture of care by activating their spatial knowledge. When allotted, they disrupt white patriarchal ableist spatial hegemony through mutual caring for one another via sociospatial means. | | |
| **5. Interrelating the explanations (axial)** | Youth as legitimate spacemakers ←→ | Representing self and others in space to take up space ←→ | Taking up and making space exercises care |
| **4. Testing the themes (interviews, artifacts, natural conversations)** | Making and Maintaining Sites of Resistance | Relationships between identity (individual and collective) and designing futures/places as resistance | Caring for self and others across timescape |
| **3. Themes** | Design and building as consequential learning; tangible action/change orientated | Individual and collective cultural identity key to spacemaking process | Willingness and hope to care for others who don't have spaces |
| **2. Categories*** | Agency **(70)**; Skill Building **(50)**; material conditions **(45)** | Culture, Identity and Community **(61)**; Relationships **(63)**; Memory **(34)**; Spatial Knowledge **(38)** | Advocacy and ethical Responsibilities **(57)**; Relationships **(63)**; Pedagogy **(32)**; Speculation **(64)** |
| **1. Open Codes** | Based on field notes and video data | | |
| **Theoretical Contribution** – Building and providing and learning lens to care and spatial practices while also providing a literary application of humanities style thinking to how we understand learning as a caring and sociospatial cultural practice. | | | |

Figure 3. Data analysis map. The numbers at the far left represent the six levels of analysis, moving upward from the bottom of the figure. Directional arrows indicate nonlinear connections among items.
*__Bold__ are frequency code counts.

**Timeline**


PROJECT +
CURRICULUM TIMELINE
1
After approaching SR, I (Kaleb) organized and co-hosted meetings between SR and mentors I orgnaized to talk about curriculum. (3 over May/June
MENTOR MEETINGS
May/July 2021
2
THEORY PLANNING
Aug/Sep 2021
I met 1-on-1 with SR staff to finalize the activities list and general framework to follow for the curriclum planning for each session and timeline.
3
Planning meetings continuedwith the finalization of a framework that revolved around acitivites to explore the self in space, emphasizing identity-in-place design.
PLANNING MEETINGS
Sep/Oct 2021
4
ENVITONMRNTAL JUSTICE + SKETCHING
Oct 24, 2021
First session was intro to design, universal design, acces to space, environmental justice and sketching acitivies to learn perspective.
5
These activities centered building design aesthetics based on the self, also how to covert feelings, words and details into physical representations for design.
TASTE + VISUALIZING VERBS ACTIVITIES
Oct 31, 2021
6
ACCESSIBILITY + FIELD TRIP
Nov 7, 2021
Intro to disability justice and design through planning and transportation. We took a field trip to Hood Famous to understnad storying a place and applied sketching activity.
7
After the city and grant committee (I was apart of this) narrowed RFP's to 4, youth decided on Deaf Spotlight via zoom meeting.
CLIENT DECISION
Nov 21, 2021
8
RETREAT DAY
Dec 4-5 2021
Day 1: Youth interviewed Deaf Spotlight about design hopes. Day 2: Trip to the build site where youth collected data and started their design (two 5 hr days).
9
Continued design days, build off of floor plans to start scaling. Split into different groups with mentors to tackle different areas (Building 1 + 2, Exterior.
DESIGN RETREAT
Dec 12, 2021
10
ASL + PRESENTATION
Jan 22-23, 2022
Day 1: A member of SR community came and taught youth ASL. Finalized Designs. Day 2: Pulled together designs and presentation to Deaf Spotlight.
11
Data analysis on video, field notes and natural conversations. Started and finished interviews with 5 youth and Deaf Spotlight.
INTERVIEWS + ANALYSIS
Feb-June, 2022
12
BUILDING PROGRAM
April-June, 2022
Got to support and learn with/from the 5 girls of color to the build portion of the program to finish out field notes and video data.

**Ecology of Learning Environment**