

I Carry Home With Me

Exploring Meaning in Built Environments
Through Salutogenic Design

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University of Washington

Abstract

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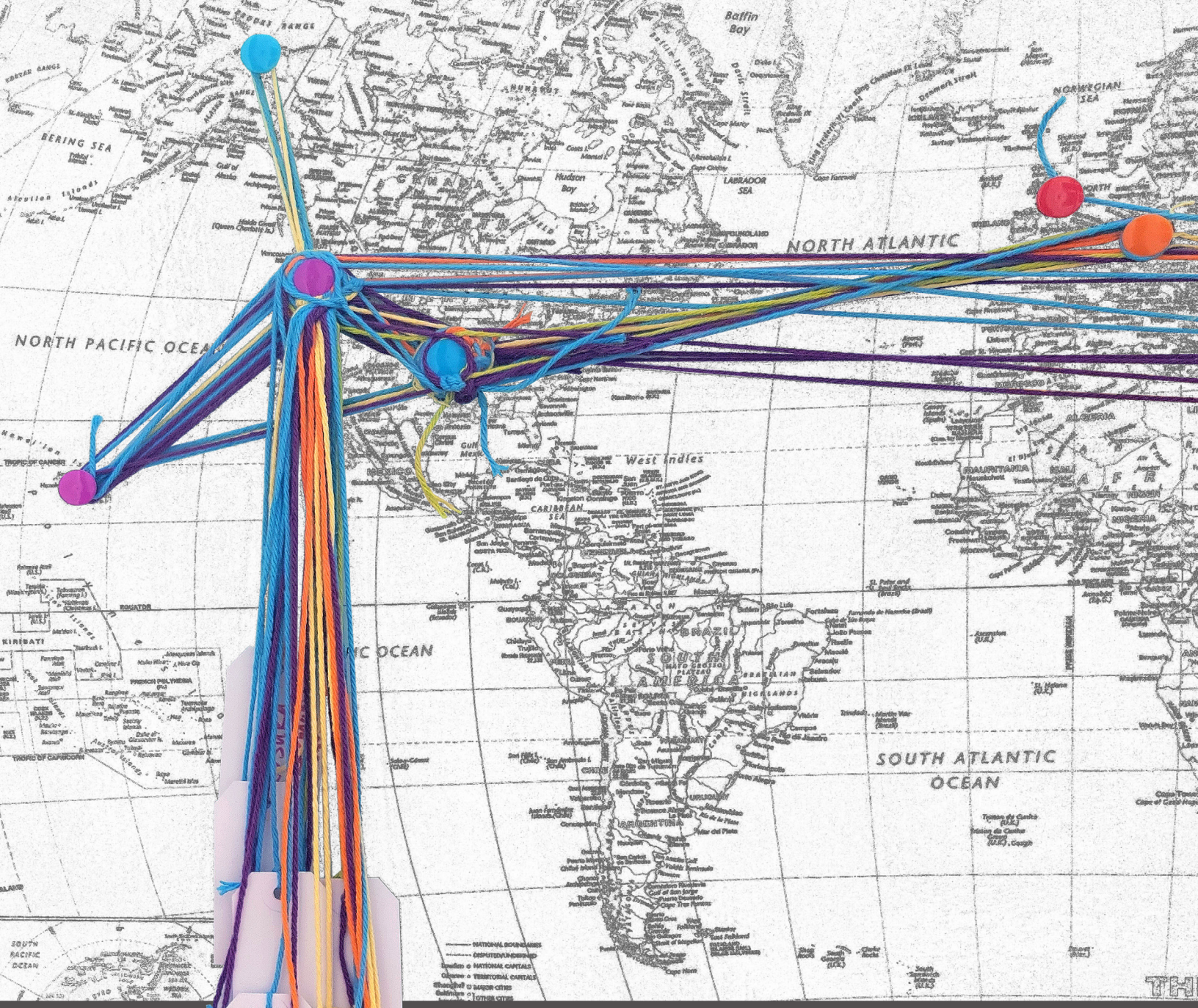
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This thesis seeks to understand how to incorporate the salutogenic model in the design of spaces for teens in Joint Base Lewis-McChord (JBLM) in the state of Washington.

This design model focuses on people's perceived capacity to comprehend, manage, and make meaning of their environments. Design workshops are used to explore best practices in community engagements with JBLM-affiliated teens. Their meaningful personal stories and preferences are depicted in written words, insightful dialogues, and physical design. By engaging teens as co-authors and co-designers of their built environments within the military base, architecture becomes a means for their personal stories about their unique culture and transient lifestyle to be expressed. This thesis is an exploration of the process in which JBLM-affiliated teens' inclusion in the initial phases of design is vital to creating meaning in their future spaces.



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TABLE OF CONTENTS

4

part one - introduction

10

part two - framework

literature review

case studies

26

part three - methodology

focus group

site selection and analysis

pre-workshop activities

workshop series

thesis goals and objectives

conclusion

initial concept sketches

60

part four - findings

pre-workshop activities

workshops 1-4

workshops 5-6

community-wide event

graphical toolkit

74

part five - conclusion

76

references

84

image credits

87

appendix

Research shows that the social determinants can be more important than health care or lifestyle choice in influencing health.

- World Health Organization (n.d.)

PART ONE. INTRODUCTION

Research across multiple disciplines makes it clear that the built environment plays a vital role in promoting the health and well-being of people. According to *Healthy People 2030*, where people live and what built and social infrastructures are available to them can actively impact their health, safety, and quality of life (Healthy People, n.d.). This connection between the built environment and public health has been a topic of discussion in a wide range of disciplines like sociology, psychology, and education (Yeang & Dilani, 2022). The built environment has always been an important and strategic component to respond to health needs.

During the 2019 pandemic, the built environment inadvertently set the stage for people to cope with the physical and mental challenges to their health as the importance of both access to fresh air and social spaces became evident (Green Schoolyards, n.d.). Concurrently with COVID19, another critical health urgency was declared in the United States. In October 2021, the American Academy of Pediatrics declared a National Emergency in Child and Adolescent Mental Health. In response, President Joe Biden proposed a national strategy to address youth mental health and the impact on young people who dealt with losses of family members, disruptions of routines, and feeling disconnected from existing relationships. The Executive Office of the President suggested that these compounding events for youths “have led to increased social isolation, anxiety, and learning loss” (The White, 2022, para. 3.) Both calls for actions outlined strategic plans to

“address mental health holistically and equitably,” (The White, 2022, para. 6) like ensuring access to care was available for everyone. This thesis seeks to understand how the incorporation of salutogenic design model in the design of spaces for teens can contribute to their mental and social health needs.

Salutogenesis is a paradigm shift from the traditional health research on well-being because it highlights the root causes of health instead of focusing only on the management of diseases. Salutogenesis takes a more holistic approach and asserts that researching the origins of health is as valuable as researching the management, prevention, and treatment of diseases. Developed by Aaron Antonovsky (1996), salutogenesis is a concept that asks, what keeps people healthy? Antonovsky suggested that people constantly move between two poles of health and sickness, during interactions with their environments and the stimuli they encounter in their daily lives (Haugan and Eriksson, 2021) (Figure 1.0). These stimuli can impact a person significantly. To cope with their environments, people use resources learned, adapted, or innate to move continuously towards health. When there are sufficient or surplus resources for coping, it is said that a person has a high sense of coherence.

A person’s sense of coherence is the person’s ability to perceive their experiences in the environment as comprehensible, manageable, and meaningful. Developing mostly during childhood and adolescent years, a person’s sense of coherence is one’s perceived ability to comprehend, manage, and apply meaning to their experiences in spaces (Lindstrom, 2022; Barach and Parker, 2022). It is therefore fundamentally related to mental health in youth. Furthermore, research in neuroscience “indicates

that the second decade of life is a period of substantial neurological development” (United Nations, 2018, p. 7) making this stage vital in the accumulation of coping resources for teens. Sense of coherence has also been studied on “a scale that evaluates how people view life and maintain their health through a feeling of optimism and control” (Gattupalli, 2022, para. 4). Since people react to stimuli from their environments (Rickard-Brideau, 2015), the person’s process of managing and adapting to the impact fluctuates between two poles of ease and disease on a continuum.

The salutogenic model is applicable to many other fields including architecture, through the creation of the salutogenic design. Salutogenic design is a holistic model for built environments adapted from salutogenesis and widely applied in healthcare settings. Other types of architecture, including offices, retail spaces, and learning environments (Yeang and Dilani, 2022) have recently explored the application of design strategies to promote health. Salutogenic design prioritizes best practices that influence people’s sense of coherence. The three tactics identified by salutogenic design are designing spaces that are comprehensible, manageable, and meaningful.

How people perceive their built environments can impact their overall health. While comprehensibility and manageability have been explored more as tactics (Brick, 2022), that often make use of a nature-focused approach, this thesis will explore the abstract component of salutogenesis: meaningfulness. The element of “meaningfulness” is driven by stories people experience internally that produce positive emotions (Golembiewski, 2022), which are vital to the way people cope in their environments. The built environment can participate in the promotion of meaningfulness in spaces through community engagement.

Issue/Problem Statement

Built environments can be highly influential in supporting people's mental health and well-being (Golembiewski, 2022). Spaces frequented by teens in military bases like Joint Base Lewis-McChord (JBLM) in Washington State can benefit from design solutions rooted in salutogenic qualities. Spaces within JBLM are lacking the specific programming to support the teens in informal spaces where they can gather with friends, rest, or reflect. The programming of outdoor spaces in JBLM are not tailored specifically for JBLM-affiliated teens, leaving them to gather in common spaces designed for either younger children or adult service members. The indoor spaces the teens do frequent are mostly tailored for adults and are programmed for retail activities or their part-time occupations.

Even though the young people offer unique perspectives on how to enhance their built environments, JBLM-affiliated teens' opinions and feedback are typically overlooked. By including their voices during initial design phases of projects, the insights of these important members of the community can reveal what is truly meaningful for them. Their familiarity with their own culture, community preferences, and unique needs significantly add value and depth to the overall design of the spaces they frequent.

Rationale/Claim

This thesis seeks to understand salutogenic design strategies for infusing meaningfulness in space teens in Joint Base Lewis-McChord (JBLM) in the state of Washington. This thesis investigates and explores the following central questions:

How can salutogenic design be used in the design of spaces to focus on meaningfulness in the built environments for JBLM-affiliated teens?

How can community engagement workshops with JBLM-affiliated teens focusing on promotion of meaningfulness in the built environments help define what is meaningful for them in relation to the spaces they frequent?

How can the best practices and lessons learned from the community engagement workshops be graphically represented through a toolkit?

Thesis Overview

An understanding of salutogenic design and community engagement practices serve as the foundation for concepts and frameworks that guide this thesis. The literature review inform the need for deeper exploration of how teens define spaces that can promote their sense of coherence. Three community-based case studies on teen design participation helped form the different activities for the series of workshops JBLM-affiliated teens. Capturing what is meaningful for them in their built environments supports the question salutogenesis presents, what keeps a person healthy? Both the literature review and case studies make up the methodology that will inform a graphical toolkit for community engagement workshops. This thesis seeks to show how having a toolkit can streamline an essential part of design inquiry that is sometimes overlooked.

Architecture is about people. Is primarily a service to humanity, to create an environment where a human being can develop itself, can be happy, and can have what I call well-being. - Francis Kéré (2022)

PART TWO. FRAMEWORK

Many studies have proven that architecture has the capacity to promote a person's overall health through the spatial, physical, and aesthetic design of built environments. Theories as seen in Attention Restoration Theory (Kaplan & Kaplan, 1989) and Stress Reduction Theory (Ulrich, 1991) proved how spaces can impact a person's well-being. A high sense of coherence is vital for individuals to cope with and overcome the impact of stimuli experienced in the built environments, like stress. Stress is defined as a condition caused by a deficiency in resources to cope against the demands of negative stimuli (Minhas & Chahal, 2021). In a salutogenic model, impact from stimuli can cause a person to move towards total wellness or total illness in a continuum, depending on the sufficiency of the person's coping resources (Figure 2.1).

Architecture can contribute to the determination of a person's capacity to cope, promoting mental health and well-being (Yeang & Dilani, 2022). Built environments are not neutral zones (Farrow, 2021) and designers are more than facilitators of differing sets of values and culture during community engagements (de la Peña and Allen, 2017). Scholars and practitioners in various health-related fields concur that "architecture is never neutral - it either heals or hurts" (Shah, 2019, pp. 150). Built environments are not passive (Murphy, 2019) and either promote health or obstruct it (Farrow, 2021; Latané, 2021; Wagenfeld & Kennedy, 2024). Spaces can either spark a feeling of awe or dissatisfaction (Latané, 2021), feel welcoming or isolating,

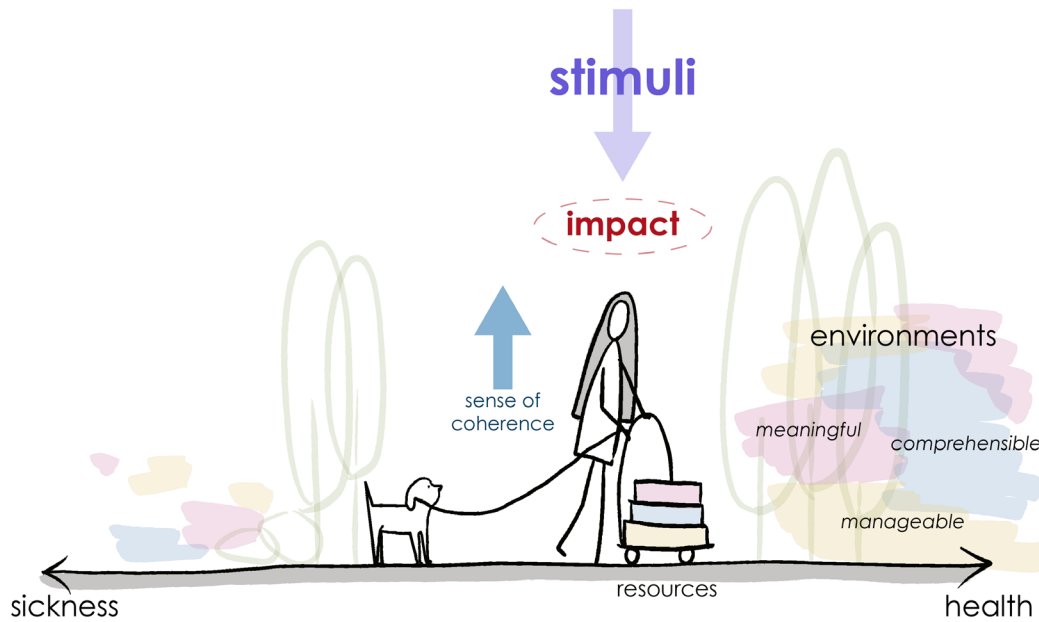


Figure 2.1. Ease/Dis-ease Continuum. Diagram showing how a person carries resources and moves between opposite ends of spectrum with one leading towards sickness, the other health. Stimuli from the environment can cause tension. A person with enough resources to overcome the tension is thought to have a high sense of coherence. When supported with designs that either support existing resources or make up for resources not yet stored, health is promoted. Adapted from Antonovsky, 1979. Image by author.

either inspire or demotivate, regulate the heart, or heighten stress (Golembiewski, 2016), either provide clarity or add confusion, rest the mind, or keep it actively searching. “Every element in every space serves to either enhance or erode our capacity to thrive” (Farrow, 2021, p. 144).

“Designed affordances deliberately trigger actions and thoughts” (Golembiewski & Zeisel, 2022, p. 156). Medical practitioners and researchers concur that environments can present threats that activate a person’s “fight or flight” responses, increasing heart frequency, using energy reserves, and intensifying attentiveness (Marmot and Wilkinson, 2022). The salutogenic design’s approach to the built environment’s role as a vital source for health promotion serves as the foundation of exploration for this thesis.

Medical scientists have found 8,000 diagnoses or symptoms of diseases... They could just as well identify 8,000 causes of health or wellness factors that could lead to a healthier society.
(Yeang & Dilani, 2022)

Framework One. Literature Review

Salutogenesis

Aaron Antonovsky (1979) defined the term “salutogenesis” in his seminal book, *Health, Stress, and Coping* as a model of health that is focused on the factors of wellness. Prior to his research, health was often addressed as a means of responding to or preventing causes of diseases known as the pathogenic approach (Antonovsky, 1996). Instead of researching diseases to manage and treat illnesses, salutogenesis focuses on the origins of health and finding ways to promote and maintain it. According to the salutogenic approach, people’s state of well-being continually moves between two points in the health-illness continuum (Antonovsky, 1979). The person’s movement between two poles of health and sickness is due to the fluctuation of people’s ability to modulate their awareness and understanding during interaction with their environments.

The shift away from disease management and prevention in salutogenesis research has sparked new directions in physical and social medicine seeking holistic approaches to mental health and well-being in countless studies. The difficulty of the task of moving away from traditional methods of disease research is also evident in the fields related to the built environment, as other design frameworks exist to counter trauma (Owen, 2022) or restore to justice (Toews, 2016). This approach of prevention and reduction of risks in environments led to the treatment of spaces as social conditions that need to be controlled. Many spaces are now designed to “facilitate and encourage individuals to engage in

wise, low-risk behavior” (Antonovsky, 1996, p. 13). To limit potential harm in youth facilities like schools and care centers, many have institution-grade surfaces and materials that reflect noise and light that can promote “hyper-vigilance and defensive or self-protective responses” (Latane, 2022, p. 2).

Antonovsky (1996) emphasizes that a salutogenic orientation does not dismiss the existence of diseases or ailments, rather proposes another way to look at the same problem, but towards origins of health. It is not a disease prevention approach, but a health promotion model. Salutogenesis “directs both research and action efforts to encompass all persons, wherever they are on the continuum, and to focus on salutary factors” (Antonovsky, 1996, p. 14) that can promote health. Antonovsky stated that “the classical medical problem of why an individual or a group [has] the disposition for a particular disease, and (2) the problem of experiencing disease or breakdown, unrelated to diagnosis and disease” (Vinje et al., 2022, p. 32) as two distinguished problems. This paradigm shift towards health promotion inquiry has led to many interdisciplinary interpretations of the framework, including architecture.

Salutogenic Design

Salutogenic design (Figure 2.2) is an emerging field adapted from salutogenesis research dedicated to designing built environments with health and well-being in mind (Yeang and Dilani, 2022). The broad application of salutogenic design is not as popular as other design models, possibly due to the abstract nature of the driving principles of the concept, as well as the lack of universal guidelines to translate health origins to spatial representations (Minhas, 2022). Built spaces present visual and sensorial complex-

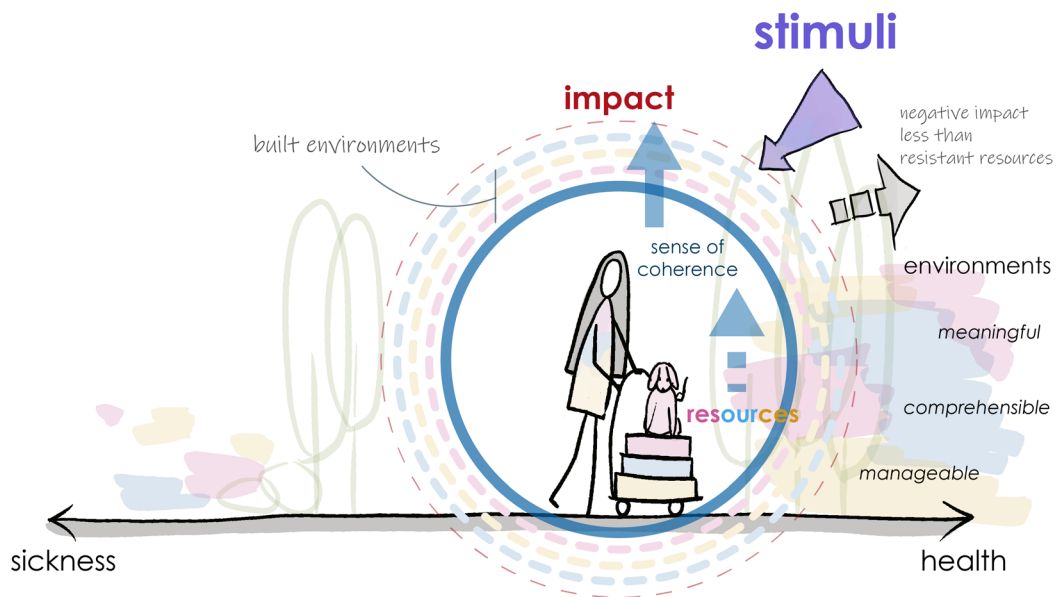


Figure 2.2. Salutogenic Design. Diagram showing how built environments add to the promotion of resources that can be used by a person to cope with the impact of stimuli in their environments. Image by author.

ities that can trigger thoughts, feelings, and behavior to protect the human psyche (Golembiewski, 2016). Salutogenic design focuses on spatial and social strategies for built environments to provide people with resources to nurture and promote the comprehension, management, and meaningfulness of their spaces as depicted by Dilani (2008) (Figure 2.3).

Salutogenic design stimulates healthy behavior (Yeang and Dilani, 2022) by restoring and promoting the Generalized Resistance Resources (GRR) needed for someone to maintain a high sense of coherence. GRRs “are either genetic or constitutional resources that provide one with sets of meaningful, coherent life experiences” (Mittelmark and Bauer, 2022, p. 37) to aid with coping in the environment. When a person’s GRR is sufficient, they have a high sense of coherence in relation to their environment and can be predicted to be moving towards wellness in the health/disease continuum shown in Figure 1 (Mittelmark and Bauer, 2022).

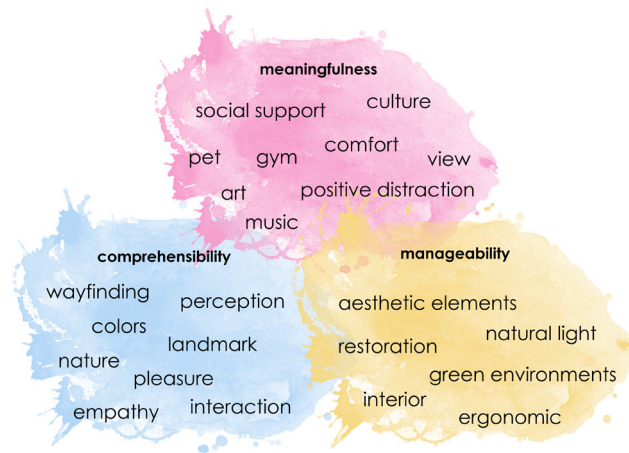


Figure 2.3. Design factors using Sense of Coherence components as tactics (adapted from diagram by Dilani, 2008). Image by author.

Sense of Coherence

In salutogenic design, a sense of coherence is defined as, “a person’s ontological sense of self” (Golembiewski & Zeisel, 2022, p. 513) that communicates people’s confidence in finding structure, management, and meaning in stimuli from their environments. A sense of coherence is a person’s perceived “ability to comprehend, manage, and apply meaning to stressful events” (Barach and Parker, 2022, p. 71). A person’s sense of coherence develops mostly during childhood to early adulthood (Lindstrom, 2022). Mittelmark and Bauer (2022) state that “the sense of coherence is postulated as an orientation towards the appraisal of stimuli, not as a cognitive or emotional mechanism that converts information about stressors and resources into coping responses” (p. 14).

Sense of coherence is also measured on a scale that evaluates “how people view life and maintain their health through a feeling of optimism and control” (Gattupalli, 2022, para. 4). This predictor for people’s health outcomes is measured according to three leading components: compre-

hensibility, manageability, and meaningfulness. These components are used to measure the coping strategies of people as they move through the health-illness continuum, constantly fluctuating between the two, depending on stimuli impact that a person can cope with (Haugan & Eriksson, 2021). In the built environment, the three components of an individual's sense of coherence are treated like tactics and strategies that explore ways to move a person towards a salutogenic state (Brick, 2022). The first two are briefly explained, while the third component, meaningfulness, will be explored deeper, as it serves as the main tactic in this thesis.

Comprehensibility and Manageability

In salutogenic design, the sense of coherence dimensions of comprehensibility and manageability work interdependently. They provide the cognitive and behavioral dimensions required for people to cope and thrive in their environments. When an environment is comprehensible, it is coherent, predictable, and orderly. In design, it can be applied to wayfinding, patterns, colors, and among other elements that help a person navigate and understand space. Even in the absence of external stimuli to promote a comprehensible environment, internal resources can maintain the coherence to understand the environment (Yeang and Dilani, 2022) or to restore it back to being comprehensible when a space is manageable. This process of manageability, the second component of sense of coherence, is the behavioral dimension in which the internal and external resources are utilized to cope (Eriksson & Contu, 2022).

When one's internal resources maintain coherence and support ways to cope in environments, salutogenesis is reached during the interaction. De-

signers of the built environments can promote both comprehensibility and manageability in ways using existing design frameworks such as biophilic design (Kellert & Heerwagen, 2008) and universal design (Mace, 1998).

Meaningfulness

While comprehensibility and manageability explain the intellectual and physical domains of sense of coherence, this thesis explores the third component of sense of coherence, meaningfulness. By investigating the community through the process of youth design workshops, meaningfulness is explored by facilitating the participation of the proposed users of an environment, allowing them to contribute their own stories to the process of design. Finding meaning in a place motivates a person's sense of coherence (Yeang and Dilani, 2022). It makes both comprehensibility and manageability of one's environment fulfilling. In existing research on salutogenic design, meaningfulness originates from the participation of the community in the decision making about the shaping of their environments (Magistretti, 2022; Braun-Lewensohn, et al., 2022).

In the health matrix for key design factors created by Yeang and Dilani (2022), meaningfulness is broken down into three psychosocial factors: emotions, experience, and lifestyle. These three factors can influence how one finds the spaces they experience meaningful. Since the representation of meaning in design is an abstract concept, the evaluation of the preferences of the users of an environment is difficult. This thesis argues that the exploration of meaningfulness must be part of the design process from the very beginning to be realized optimally in the end. Meaningfulness is enhanced by community members' abilities to express their needs

(Braun-Lewensohn et al., 2022) and priorities during the design process. In which ideally get represented in the actual design strategies and are eventually expressed through representation of the user's culture in the spaces they occupy.

The comprehensibility and manageability as tactics in salutogenic design have been applied and researched extensively in the built environments. Designers have amassed knowledge and experience as to how to design environments that can nurture health, inspire awe, and promote cognitive development in youths (Latane, 2021; Wagenfeld and Kennedy, 2024; Collins et al., 2024). When it comes to investigating how to add meaning in spaces, this author believes that the local community holds the knowledge of how spaces can be meaningful more than anyone else.

A community is the mental and spiritual condition of knowing that the place is shared, and that the people who share the place define and limit the possibilities of each other's lives. It is the knowledge that people have of each other, their concern for each other, their trust in each other, the freedom with which they come and go among themselves - Wendell Berry (1969, p.71)

Community Engagement

Community can be defined as “a group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings” (MacQueen et al., 2001, p. 1927). In a community, members are bonded through common language and shared representations of their culture (Sandercock, 2003). They create an overall picture of what enhances meaning in their spaces. Affiliation to a community promotes health and well-being because a sup-

port system motivates healthier behavior patterns (Marmot and Wilkinson, 2022). These healthy practices empower people in the community to participate in the shaping of their surroundings. Antonovsky (1979) states that the person-environment relationships “serve the regular restoration that presumably contributes to a strong and stable sense of coherence” (as quoted in Lindern et al., 2022, p. 381).

Community engagement in design can promote social capital, the idea that resources for support exist within one’s social network (Botchwey et al., 2022). For teens, social capital can be increased through their participation in the decision making of the design of their spaces (Généreux et al., 2022). At the same time, participants’ experiences during community engagements are based on empathy (de la Peña and Allen, 2017; Cleckley, 2024) and produce social well-being during the design process. Additionally, community participation has the potential to promote and enhance meaningfulness once the space is built and experienced, since the aesthetic and spatial qualities of the space were designed around their culture.

When “participant(s) with formative experiences, values, and ideas” (de la Peña and Allen, 2017, p. 9) are excluded from the design process, the decision makers that might not have rooted knowledge of the culture of the community control the narrative of what spaces should and could look like. These external voices might not accurately represent the people that will occupy them, negating an opportunity for design to promote meaningfulness. When it comes to co-imagining and co-designing with teens, the most common misconception is that they do not have the capacity to engage significantly in the process. However, adults can guide the teens’ creative ideas “in shared decision-making processes” (Botchwey et al., 2019).

This new generation of teens mostly have access to or have had extensive experience in playing simulation games that design 3D versions of environments. This means that their creativity and imagination simply “just need guidance and skills to come up with a tangible design” (Fokschaner, 2022, para. 5) outside of the simulation world and into the physical environment. The main challenge designers face during the community engagement process is translating the outcomes into design.

Traditionally, designers employ different strategies during community engagement activities like visioning, charrettes, workshops, and community action planning (Sanoff, 2000). Connecting the user responses to components that can be translated to architectural elements, specifically focusing on designing for mental health and well-being, can be difficult. “Securing a match between a researcher’s desire for valid data and children’s need for developmentally appropriate [research] strategies” (Mc Laughlan, 2023, p. 1) requires initial planning to not only be creative and free of bias, but also to be tailored to the community it is serving. Considering that there are limited resources available during these initial stages of design, conducting community engagements might not be prioritized, decreasing the opportunity for investigation into how architecture can promote meaningfulness for teens in their spaces.

Framework Two. Case Studies

To support this thesis’ exploration, a series of case studies was also conducted. These were drawn from the paper, “Including Youth in the Ladder of Citizen Participation: Adding Rungs of Consent, Advocacy, and Incorporation” (Botchwey et al., 2019). The activities in the case studies provide

complementary methods to investigate innovative community engagement workshops with youths at JBLM. “Youth participants in planning processes develop heightened senses of personal responsibility, open-mindedness, social competence, and connection to their community and various environments where they live and play” (Botchwey et al., 2022, p. 257). Their collective efficacy can promote meaningfulness in spaces by a shared belief that their input can positively impact the designs of their built environments, as well as offer representation of their culture and priorities designed in the spaces they frequent.

The following organizations lead meaningful community engagement workshops in different parts of the United States to capture youths’ voices to be translated into design and city planning:

- A. Growing Up Boulder
- B. UC Berkeley Center for Cities + Schools (CC+S)
- C. Get Fit Kauai! with Youth Engagement and Action for Health (YEAH!)

A. Growing Up Boulder

Growing Up Boulder (GUB) is a non-profit program in Boulder, Colorado. Their mission is centered on the representation of youths to “advance equitable and sustainable communities for all” (Growing, n.d.). Launched in 2009, GUB has facilitated countless programs on topics surrounding local built environments with diverse groups of youths. Their organization’s framework has four elements: engage, connect, integrate, and impact. Their goals include meaningful dialogues for youths to voice their wants and needs regarding their built environments to decision makers. Reflec-

tions from youth participants revealed how the inclusion of their voices makes them feel connected and important to their communities. Examples of their community projects include playful spaces, safe and accessible routes designed with and for youths, sustainable neighborhoods, and spaces to support youths' rights, creativity, and healing. Two of their projects in particular, "Community Survey" and "Perceptions of Resilience" informed activities for this thesis.

(1) Community Survey

In 2010, GUB assessed Boulder families' perspectives on how child- and youth-friendly the city was. Youths desired more affordable recreational activities, improved bus systems, hosting more social activities, and youth-friendly shops. However, findings showed the difference in views between adults and youths even in terms of the relevance of youth perspectives. For example, "While 40% of youth thought they should be able to give input into local decision-making, only 18% of adults did... Only 15% of youths compared to 32% of adults thought youths should be involved in formalized civic engagement" (Growing Up, 2010).

This activity helped the author understand two key points. First, by simply asking the teens what they preferred doing, similar wants would be expressed by their peers in another form. Second, letting the teens advocate for their wants revealed information on the activities that are meaningful to them. This survey polled that there is gap between how adults saw the value in the teens' input in decision-making of their neighborhoods versus the teens seeing their importance in civic engagements.

(2) Perceptions of Resilience.

GUB participated in the Rockefeller Foundation's *100 Resilient Cities Initiative* to capture youths' resilience through different forms of media like graphical art and words. "Boulder was the first member of the network to engage youths in the process" (Growing Up, 2014) with methods such as drawings, murals, digital presentations, and poetry. Middle and high school teenagers identified "things and/or places that made them feel resilient/happy or not resilient/sad" (Growing Up, 2014). They also used a process of nested ecology activity where youths specified their happiness or sadness in different spaces that nested on top of each other, starting from home, neighborhood, school, to city. High school students' descriptions of resilience in were then stitched together as a poem by a poet/professor.

This activity informed the thesis in two ways. First, the nested ecology showed that the teens understand the different layers of the communities they belong to and measure how they cope in them. Their comprehension of how they feel in the types of spaces that exist for them show that certain places have the capacity to help them feel resilient. This part of the activity revealed that home is an important space for teens. Second, the Resilience Poem highlight things about the teens' lives that help them cope and stay hopeful. This thesis will explore the art of poetry to relay meaning.

B. UC Berkeley Center for Cities + Schools (CC+S)

The University of California, Berkeley's Center for Cities + Schools (CC+S) invites children and youths to participate in the decision-making about the city to achieve a more inclusive community and city. The children and

youths participated in civic engagement efforts related to the design of spaces that are meaningful for their communities. CC+S developed what they called the Y-Plan, “an award winning, K-12 civic youth engagement strategy” (n.d.) that offers a suite of resources that promote civic youth engagement. Y-Plan is a pun for the question “Why Plan” that challenges “the status quo by asking why conditions are the way they are and then how they can be improved” (Center for, n.d.). The Y-Plans’ methodology has five steps with associated goals of creating just and joyful cities while teaching youths about college, career, and community readiness. Through engaged learning, children and youths learn about how they can impact their built environments by investigating different strategies to respond to community needs (CC+S, n.d.) youth-generated data and recommendations that highlight issues important to them with solutions.

Activities from their toolkit included many tactics that are creative and challenge traditional ways in which ideas are collected. Youths participated in telling stories of how they experience their neighborhood and elements of spaces that are meaningful for them. Youths also engaged with their peers by relaying their individual design preferences through their own piece of the puzzle and connecting it together to visually show a collective story. These activities and many others conducted by this Y-Plan informed the thesis that the collective ideas of the teens can be captured through fun activities and sharing of stories.

C. Get Fit Kauai! & Youth Engagement and Action for Health (YEAH!)

The Youth Engagement and Action for Health program, also known as YEAH! is a three-and-a-half-month curriculum originally designed by the

San Diego County Childhood Obesity Initiative. The curriculum encourages adolescents to engage with and analyze their built environments. “Adult leaders guide youth by teaching advocacy strategies, urban planning practices, and the built environment’s influence on health behavior” (Botchway et al., 2019, p. 263). The curriculum includes list of activities that build on each other, starting with the first two sessions with icebreakers, introduction, visioning, and community mapping. They have a library of online resources to support that activities proposed for each week’s workshop.

The YEAH! club in Kauai was part of the renovation of Kalena Park in the Līhu‘e Town Core in Kauai. In the club, youths were empowered to develop an action plan for a specific need they found, in this case, an underutilized park at the city center. As agents of change (Botchway et al., 2019) for their communities, teens were part of the action group that brought community ideas to life by presenting to the county council their plans to renovate the park. The youths’ advocacy led to approved park investments for a community design-build project (Figure 2.4).

This last case study proved that the Kauai teens’ were assets to their community, by bringing forth creative ideas in the built environments and leading the project to realization. The curriculum YEAH! designed is filled with processes that streamlined fun activities for their teens to realize projects that are beneficial for their communities. This case study solidified the need for organized manuals or instructions for workshop facilitators to focus on keeping the teens excited about designing their communities and interacting with the teens to capture what’s meaningful to them using different strategies. By having a guide or toolkit to plan for the teens’ events, teens receive clear instructions for the activities they will be participating in.

There's a limited number of spaces where teenagers feel at home. Public spaces like parks are usually designed with children in mind. Pubs are for adults. But everyone craves an informal space where they can unwind.
(Fokschaner, 2022, p. 1)

PART THREE. METHODOLOGY

Creating healthy spaces for teens is vital for their long-term overall health and well-being. The adolescent years are most critical. During this second decade of their lives, teens develop some sense of coherence through “substantial neurological development” (United Nations, 2018, p. 7).

UNICEF states that “increased brain plasticity during adolescence renders the brain particularly sensitive to both positive and negative environmental influences. Scientists now understand adolescence as a ‘sensitive period’” (2018, p.7). So, when the American Academy of Pediatrics declared a national state of emergency regarding their mental health in 2021, the built environment was critical to responding to this need. According to the nationwide call for action, teens carry chronic stressors that impact their well-being and how they cope (American Academy, 2021). Salutogenic design’s orientation towards health promotion in the built environments provides a means to increase teens’ sense of coherence while they experience the space.

The literature review of salutogenic design serves as the foundation for the thesis. It grounds the goals towards the exploration of an informed process to engage with communities on what their preferences and priorities are. The case studies of community engagement workshops provide the basis for many of the ideas for the methodology of this thesis, particularly the planning and execution of different activities, as well as insights into the various engagement styles that teens might bring to the workshops. A

creative approach to the design workshops is intended to make possible insightful conversations about the teens' vision of their strengths and definitions of home, a spatial concept that is familiar and yet difficult to translate to the aesthetic and design of their spaces. Outcomes from the workshops' success, lessons learned, and reflections will shape the initial phases of a graphical toolkit, which can help facilitate design workshops with teens' qualitative and mindful process.

“Without precise knowledge of military children's strengths and their opportunities for positive development, conjecture and overgeneralization will inappropriately frame decisions about meeting their needs and supporting their health.”

(Cozza and Lerner, 2013)

Focus Groups

Military-affiliated teens are adolescent dependents of active duty, reservists, and veterans of the United States military. Their cultural diversity is vast, representing many races, cultures, traditions, and affiliations worldwide (Military, 2022). While military-affiliated teens' list of challenges is long, so is the list of their capabilities and achievements. Their heightened appreciation for home and confident awareness of their personal strengths brings unique perspectives to designing for mental health and social well-being (TEDx, 2023). They have an under-researched subculture that stems from the military service of their loved ones.

Their unique sets of lived experiences require specific attention and tailored care. What uniquely identify them from peers their age, are their constant relocation, separation from families, and for some, the added responsibility to sometimes care for the service member in their family

who was injured (Hidden, n.d.). They actively support their families during geographic separations and deployments and sometimes must renegotiate their roles in the homes once the families are reunited (Military Family, 2022; Lewis et al., 2022; Military Teen, 2022).

Military teens are often defined as resilient, yet 87% of military teens surveyed by the National Military Family Association and Bloom reported having “low to moderate mental well-being” (Lewis et al., 2022), with 91% of Hidden Helpers reporting the same trend (Hidden Heroes, n.d.). “Hidden helpers are the children, youth, and young adults (up to age 18) who are impacted or involved in the mental, emotional, or physical care of a wounded, ill, or aging service member or veteran.” (Hidden Helpers, n.d.). The stressors of having a transient lifestyle can impact military-affiliated teens’ mental health and social well-being (Rossiter & Ling, 2022), but can also increase their sense of coherence. This author explores what teens from JBLM value in their culture through thoughtful design considerations for their communities, to explore how they can be captured to promote salutogenesis.

Site Selection & Analysis

Joint Base Lewis-McChord is the fourth largest U.S. military installation and home to almost 300,000 active-duty service members, retirees, civilians, and their family members (Joint Base, n.d.) in the state of Washington (Figure 3.0). There are two sites on base that were selected as the focus for this thesis (Figure 3.1). The first half of the workshop series focused on Hillside Youth Center to ground the teens in familiar spaces that they already use daily (Figure 3.2). The surrounding area to this existing build-

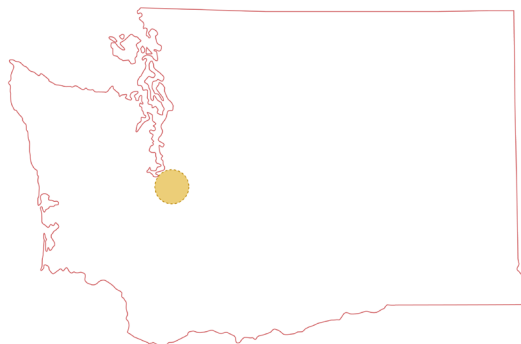


Figure 3.0. JBLM on Washington State map. Image by author.

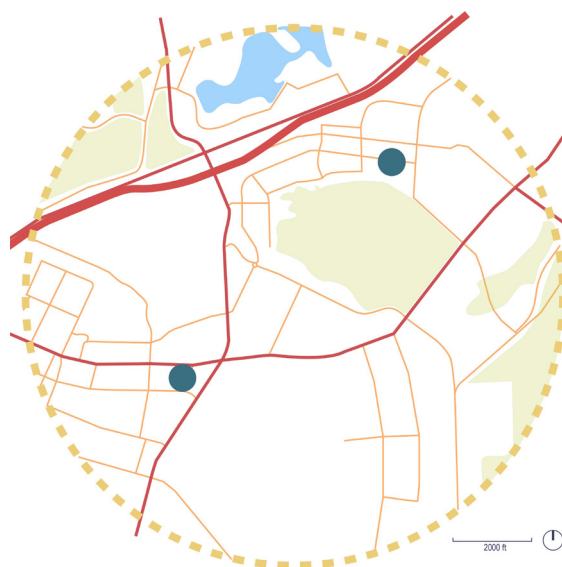


Figure 3.1. JBLM zoomed in. Image by author.

ing is mainly residential without easy access to public transportation or entry gate for teens who live outside of the military base. The second half of the workshop series focused on reimagining a vacant lot at the city center to give teens an opportunity to voice their preferences without prescription (Figure 3.3). This site is in walking distance to much of the social infrastructure of the teens, as well as places where teens are employed, like the grocery store and the carwash. In JBLM's city center are activities programmed for all ages that the teens can be part of, like the new commu-



Figure 3.2. Hillside Youth Center site. Image by author.



Figure 3.3. JBLM city center site. Image by author.

nity park, skate park, and bowling alley. All the parks are designed for, and equipped with, play equipment for younger children, as evidenced during on-site observations. Aside from community events, JBLM spaces seem to accommodate other age groups, leaving out teens' needs for informal spaces to socialize and have contact with nature.

Pre-Workshop Inquiry, Planning, and Tabling

The process of community engagement in design is based on the need to build relationships with communities (TEDx, 2011). The methodology in this thesis began with correspondence and in-person meetings with community representatives to discuss the author's proposal, alignment of goals, and planning of the logistics for the workshops. In this thesis, the author worked with community representatives, also referred to as community ambassadors for this thesis. They found benefits for their teens to participate in design workshops, such as introducing them to future career pathways, supporting their existing revitalization of their outdoor spaces through different design activities.

Community representatives shared their vision of the potential of this thesis regarding civic participation with their teens. This was important because, according to United Nations Children's Fund (UNICEF), "when adolescents are civically engaged, they individually or collectively contribute to improve their school, community, city, or country. In turn, participation helps adolescents to develop, build their confidence, negotiate decisions, and influence critical issues with their communities or more widely" (2018, p. 22).

During this planning phase, the curriculum for the workshops was evaluat-

ed and established (Figure 3.4). Many logistical arrangements were also established during the inquiry phase such as authorized staff members being present during all the workshops to ensure all safety protocols with the teens will be followed.

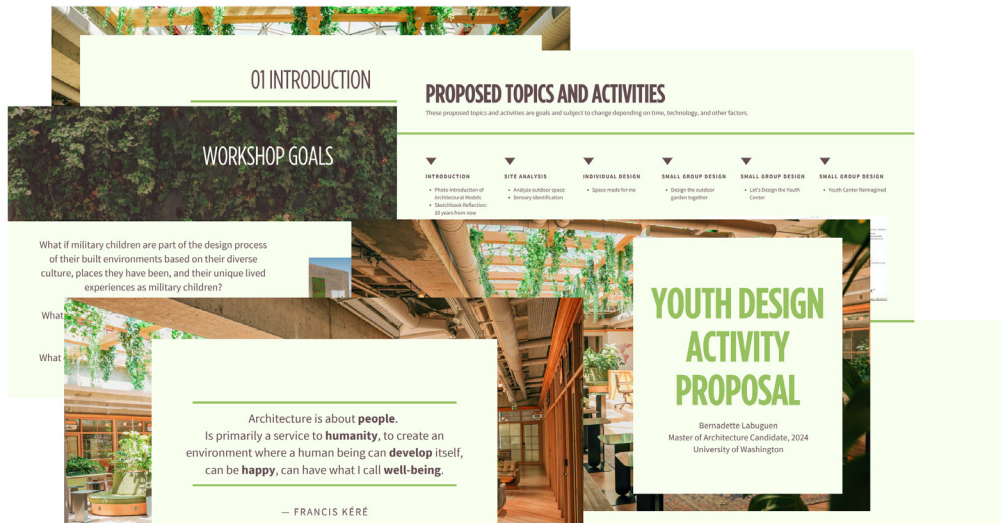


Figure 3.4. Youth Design Activity Proposal. Image by author. Slides from Canva.

The first step was for the thesis author to set up an informational table to introduce the thesis project to JBLM-affiliated teens and to invite them to future workshops that will be held in their center. The purpose of the welcome table was for the author to encourage participants' interest through distribution of flyers and free merchandise, such as stickers and candies. The information table was away from their social area, but directly in front of the entrance. Curious students walked past the table and asked questions. Specific students who expressed interest in attending the workshops were approached and were given the opportunity to sign up for the workshops. In total, twelve teens signed up, but only one of those who expressed interest attended the later workshops.

Workshop Series

Informed by the literature review and case studies, a series of six workshops and a final celebration day was created as the methodology for this thesis. The theme of the workshops was to explore the salutogenic design component of meaningfulness. The framing of the workshops was strictly based on emphasizing a positive approach to exploring what is meaningful for the participants. Every week, teens shared their design preferences through a series of design activities that focused on elements that promoted their sense of self and belonging. The lessons learned from these community engagement workshops are shared in this methodology. The findings are summarized later in this thesis. Lessons learned from the coordination of the workshops, both in terms of the coordination of management and execution and in the concepts/tactics that informed the activities, are critical to providing guidelines for future efforts in workshop planning for designing with well-being in mind.

The author sought to create a space for sharing and engagement that reflected the aims towards positive outcomes in the re-imagine and co-design of a physical space with JBLM-affiliated teens. The workshops were set up as round table activities rather than as a lecture type arrangement. The informal structure was a way to offer flexibility in the time of participation as many teens' schedules were different. During the workshops, the author made many pivots and provided alternatives either to maximize time with working groups, give the teens agency on what activities they preferred, work with fewer teens, or explain the workshops to newcomers, during the series. Every workshop followed a sequence of introduction, icebreaker, activity, and close out reflection.

Workshop One. My spaces, my activities

Participants: 10-15

Duration: 30-45 minutes

The author designed the first workshop activity with the intent of providing the participants with an opportunity to learn about the author and their peers. The engagement gave teens a glimpse of future activities to encourage awareness of their spatial environments. The teens were invited to share their experiences and observations about nature before taking part in a physical activity involving building on a defined site. The intent was to explore the link between words and shapes as forms of expression through physical objects. The author wanted to explore what the teens would associate the specific design or activity words with, and where they would place them spatially. The author also wanted to introduce how their design decisions can impact future goes to space by incorporating an element specific to military life, which was moving.

The workshop started with an introduction of the author. Then the teens were divided into small groups and conducted an icebreaker inquiring about the teens' access and contact with nature. While 75% of them agreed nature is beneficial to health, 25% of them were not sure, and even questioned its validity. The teens shared that hiking and going to the park were two activities from their memories that they enjoyed about nature.

After the icebreakers, the teens used waffle blocks to organize their preferences for spaces and activities (Figure 3.5). Each color of the waffle blocks corresponded to a specific noun or verb such as recharge, nature, move, gather, and free play. The instruction was for the teens to pick the waffle blocks that they found most important in their own spaces. Then



Figure 3.5. Waffle blocks activity. Image by author.

they were asked to negotiate with each other which block would fit within the site boundary provided to them. The goal was to create a space that all team members agreed was important for everyone. Then they were asked to choose and write down the activities or meanings they would associate with each waffle block. Teams compromised with each other as each block were strategically and agreeably placed in the spaces they ended up in. One team shared how they wanted places to do outside games and gather with their friends (Figure 3.6).

The second part of the activity was given to the teens as a surprise. They were asked, “What was the one thing all military-affiliated teens shared?” Altogether, the room erupted and shouted, “Moving!” They were then asked to switch their creations with the team next to them and discuss what they would keep or change. Most of the teams did not choose to change their peers’ design. One of the teams wondered if the “move” waffle block

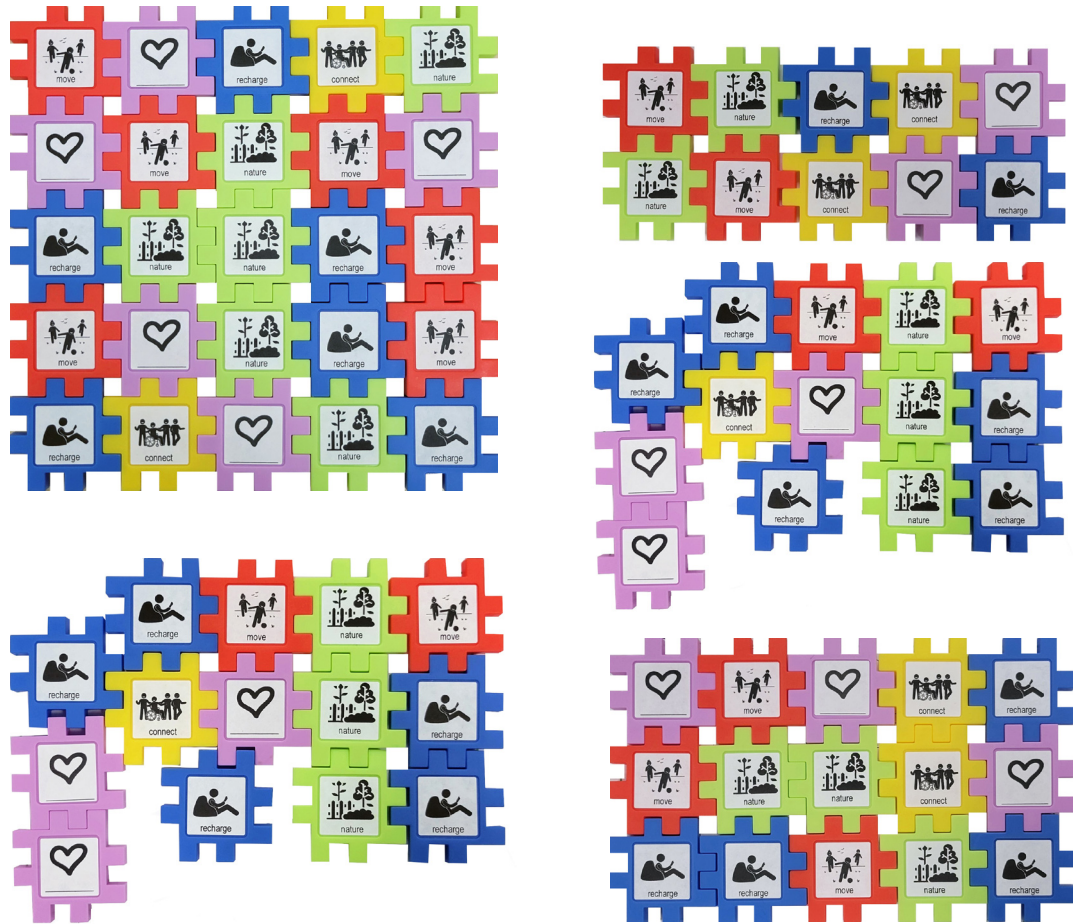


Figure 3.6. Waffle blocks organization. Image by author.

should be between spaces so there was a “path”, but the designer of the original design argued that the path can be represented by the borders.

After the activity, teens were asked if they thought the spaces they had created were indoor or outdoor. Almost half of the room assumed they were indoors, while the other half assumed they were outdoors. One teen continued to address the question by saying it could be both because nature could also be indoors. The teens were then introduced to the topics of future workshops, which would begin with a reimagining of their existing outdoor space in their youth center. The majority were very enthusiastic about this topic, expressing the need for this kind of space.

Some teens debated their presented choices for locations of their future project based on their own experiences and preferences. When the author explained that it would be next to the new park, teens questioned the design for the new park because it was currently not programmed for a gathering space. The current design proposal did not include seating or canopy, which the teens envisioned as trees with fairy lights. As the author packed up for the day, one of the teens submitted their own waffle blocks creation that went beyond the boundaries given, in its scale and complexity, showing their personal wants for the space using more waffle blocks.

Workshop Two. Home to me, to us

Participants: 10-15 teens

Duration: 30-45 minutes

For the second workshop, the teens participated in an icebreaker, which was the recap of the previous workshop. The author revealed to the teens that the most popular waffle block used the week prior was the “recharge” block. The teens restated their need for rest and break, with many sharing that their time at school can be exhausting. The teens were then introduced to the activity of the day where they were asked to describe home.

The teens were instructed to describe home by determining if home was a place, feeling, people, music, objects, or something else? Teens were given instructions to describe them on individual sticky notes. The teens wrote down their definitions of home and shared them with each other.

The results varied between descriptions related to expressions of personal emotions, social relationships with others, actions, places, and objects that were associated with a sense of safety and comfort (Figure 3.7).

During the second workshop, the author introduced the teens to how site analysis is conducted. To provide a framework for future design exercises, teens made note of existing features of their surroundings, including the activities in the neighborhood. The teens were excited to be outdoors and spread out within the site in teams or small groups. Although their task was to determine what already existed in space, some conversations were about their day at school. Some shared that they have not been outside to use the space and wished they were able to do it more often.

Once finished and inside the center, the teens divided their tasks by choosing between two roles, builders or storytellers. The builders were tasked to recreate their existing outdoor space visually through physical cardboard models and clay, or via digital versions, using a simulation game. The storytellers were tasked to interview their peers about what elements of their homes and unique subculture they would want in their designs. The storytellers produced a collage of outdoor scenes with nature, people, shoes, phrases like “be yourself” and “bread” to represent their collective story (Figure 3.8). Although the excitement to build was initially there, the attention to building the site, which was mostly flat lands, quickly disengaged the students who chose the role of site builders.

Workshop Three. Design your outdoor space focusing on strength

Participants: 5-10 teens

Duration: 30-45 minutes

Workshop three began with an icebreaker activity in which the teens were asked to share their favorite songs. A list was passed around to add songs they would like to be in the queue for a playlist that would be played during work time. The teens were singing along with the songs they knew as they

worked during the workshop. During this activity, teens were instructed to incorporate what they knew about their center, peers, personal strength,



Figure 3.7. Home to me activity. Image by author.



Figure 3.8. Teens collective story. Image by author.

and definitions of home into the design of their outdoor space. Their ideas were then translated to digital (Minecraft, n.d.) or physical models using a variety of materials to include clay, cardboard, strings, pipe cleaners, sticks and paper (Figure 3.9).

During Workshop 3, many teens expressed that making connections with other people was important for their well-being. When asked to describe a space that fulfilled this desire for connection, many of them described the Teen Room in the Hillside Youth Center as the ideal place for meeting their friends. Spatially the room is separated from the main space where everyone congregates, but it is visible through windows, like the pockets of space described by Mclaughlan (2023). The space is much quieter compared to all the other spaces in the Center that surround it. The walls also hold artwork from past teens, as well as many article clippings about previous teens who won awards for leadership.

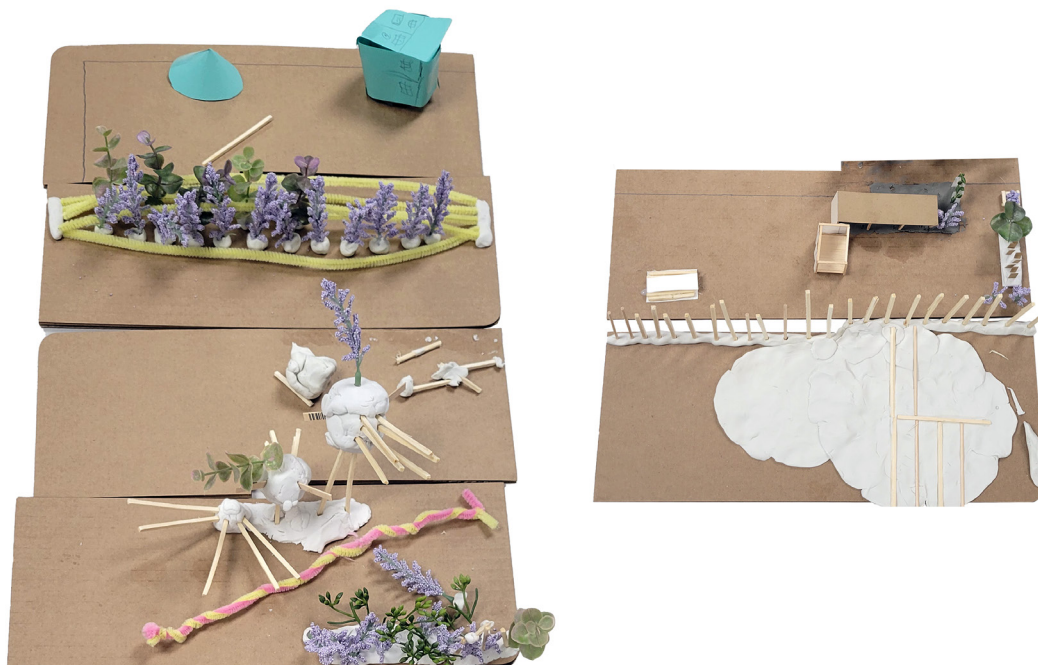


Figure 3.9. Teens' outdoor space design. Models by JBLM teens. Image by author.

Workshop Four. Lead the way

Participants: 5-10 teens

Duration: 30-45 minutes

Workshop four began with an icebreaker exercise in which teens were asked to list their strengths and compile them into a deconstructed poem (Figure 3.10). Many teens shared, being able to adapt and making friends, were two main strengths they held and valued. When asked why, the teens explained that as military-affiliated teens their constant relocation required them to be. The main activity included using a paracord. Many JBLM-affiliated teens were familiar with paracords because it is a relatable object that is part of their service member's military gear. In this activity the teens used the paracord to design pathways in the teen spaces they designed. The teens preferred to describe their walkthrough one-on-one with the author, within earshot of their peers and caregivers (Figure 3.11).

The teens who did not finish designing, quickly drew, wrote in words, or spoke about what they imagined their spaces to be. Collectively, they wanted their spaces to be "safe and peaceful", "relaxing and chill", and "comfortable". Many of them imagined spaces for people to gather around tables of varying sizes to eat and talk, under canopies of trees with fairy lights hanging from them. Most of them created screening of bushes and plants to separate the space from the road, as well as lining the walking paths with trees. One teen chose to create their own paracord by braiding a set of pipe cleaners. The teen explained that it represented not just their individual walk, but a walk with their friends.

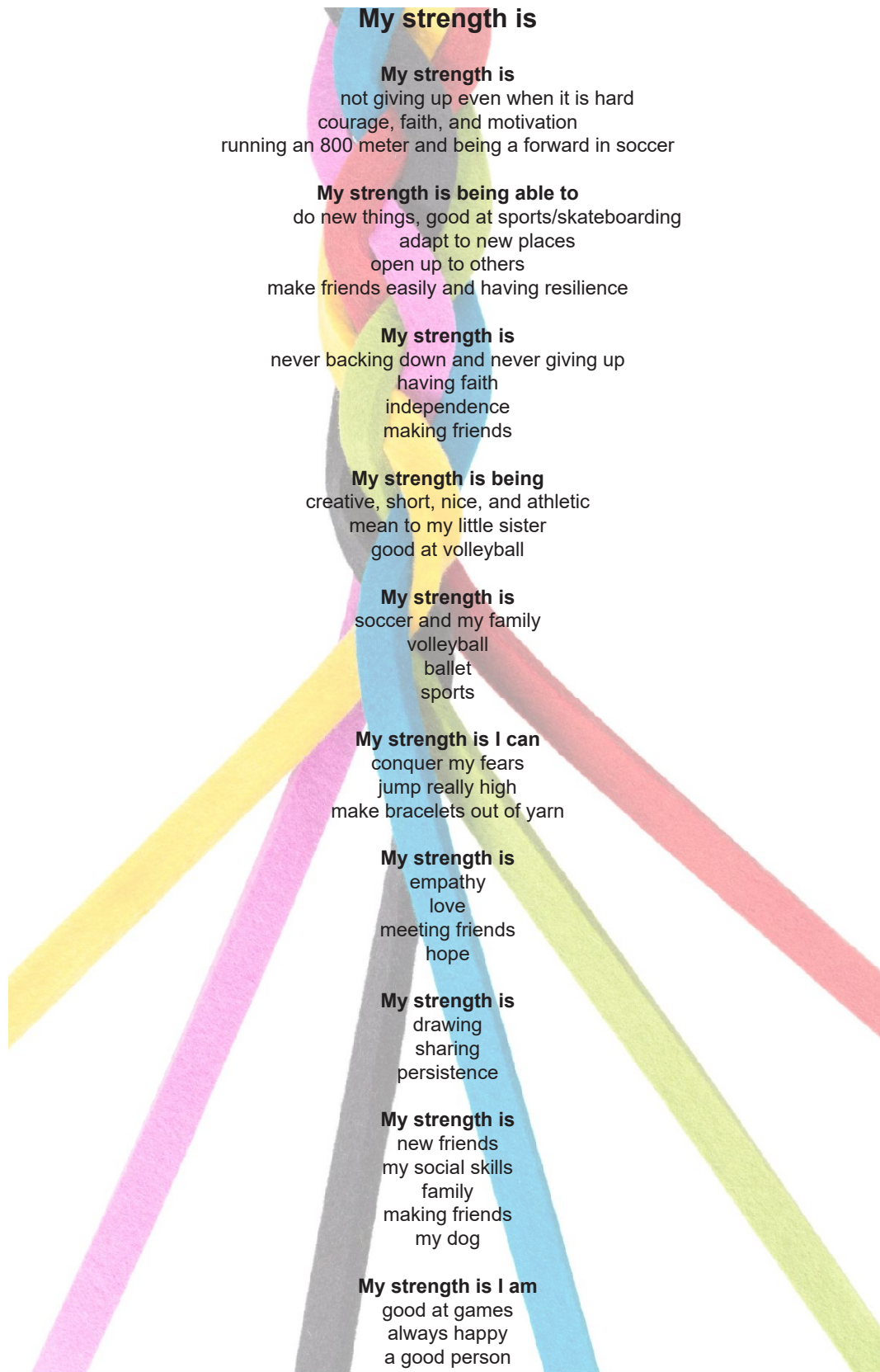


Figure 3.10. Poem on JBLM teens' strengths. Words by JBLM teens. Image by author.



Figure 3.11. “Lead the way” activity. Work by JBLM teens. Image by author.

Workshop Five. Design in the city center

Participants: less than 5 teens

Duration: 30 minutes

Since most of the teens in the fifth workshop were either new or not present in the last few workshops, the icebreakers for workshops five and six returned to deeper descriptions of home and definitions of their personal strengths. When asked if the group thought that military kids were strong, teens answered with, “not me” or “depends”. Many shared that they felt sad with every move because it would mean they “would have to let things go”, such as friends, teachers, and belongings.

During the fifth workshop, the teens were introduced to the project site (Figure 3.3). It is a vacant lot between two service businesses, adjacent to the new community park, and faces the direction of Mt. Rainier. To facilitate the activities in this workshop, the author created a digital world using Minecraft for teens who wanted to present their ideas graphically. The first prompt was simple: design a space for teens. The author emphasized that the teens would decide the program if their strengths and definitions of home were incorporated in their ideas. The teens used the work time to plan and brainstorm on how they wanted their spaces to feel and look.

One teen imagined a retail mall that included rooms designated for security, controls, restaurant, shopping, and socializing. Other teens teamed up to design a restaurant café, with a generous spiral staircase in the middle of the space that led up to a teen room, exclusively for them on the second floor. They included bean bags, hammocks and outdoor seating with a bonfire, and food because, according to them, it would be appropriate to recharge and rest in. All the teens used bricks as façade, mimicking many

of the historical buildings built on JBLM without suggestion from the author. The teens also imagined the spaces to be accessible for everyone, and therefore included people with mobility issues. All the teens shared their goals to have spaces dedicated only to them and other teens like them. Some of the conversations during the workshops were about their day at school, with many topics on their likes and dislikes in music, food, and places, as they represented them in their designs. (Figures 3.12-13).



Figure 3.12. Teen center imagined 1. Work by JBLM teen. Image by author.



Figure 3.13. Teen center imagined 2. Work by JBLM teen. Image by author.

Workshop Six. View from my window

Participants: less than 5 teens

Duration: 30 minutes

The prompt for workshop 6 originated from a list of “military connected” things that the author compiled with people with knowledge of the transient military lifestyle. The list included moving boxes, yellow stickers for the moving boxes, luggage, combat boots, dog tags, letters home, care package, and windows. While the list included objects that were easily understood, the inclusion of a window as an object was further explored because it was something that many JBLM-affiliated teens mentioned they shared (Figure 3.14-15). For as many times they have moved, windows were always part of their lives whether they noticed it before or not. With every move, the military teens looked out of windows, car windows, airplane windows, moving truck windows, and windows in their new homes, school, teen centers, and many other places.

The prompt for the sixth workshop asked the teens, if someone were looking into a space designed by them, what would others see? The teens were supplied with magazines, materials to make collage, and a window cutout to frame their finished collage. Many of the teens were initially reluctant to join in the collage activity, but as they flipped through the magazines, they found scenes of what they would include in their own collage and became interested. One of the teens even volunteered to explain the instructions to others who arrived late. The teens gathered around two tables and started flipping through the magazines and books, cut and ripped the pages, and glued them onto their sheet of cardstock paper. At the same time, those using digital means were forming imagined worlds including spaces to eat, shop, relax and be themselves.

Figure 3.16 shows the different scenes teens imagined their spaces to hold. Many teens included nature scenes and aesthetic qualities of spaces they preferred. Their vision of how self and objects related to spaces were captured in both the activity and the conversations while they worked. As they looked for images that represented their vision, the teens would sometimes laugh together and bring back memories from their past and told stories to the group. The chatter filled the room and when someone suggested music to be added to the noise, many disagreed. The teens discussed their experiences while living overseas, places they wished to visit, sports and fun activities they liked to do, food they liked, spaces they enjoyed, and how they wanted to feel in the spaces they would design.



Figure 3.14. "My window" activity. Work by JBLM teen. Image by author.

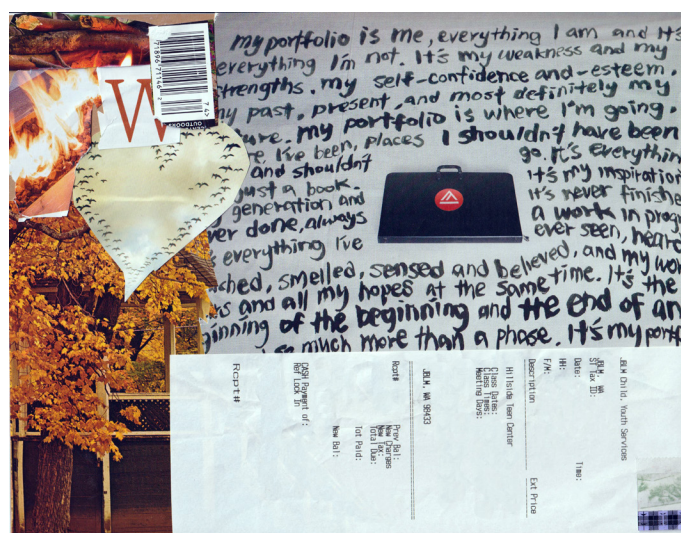
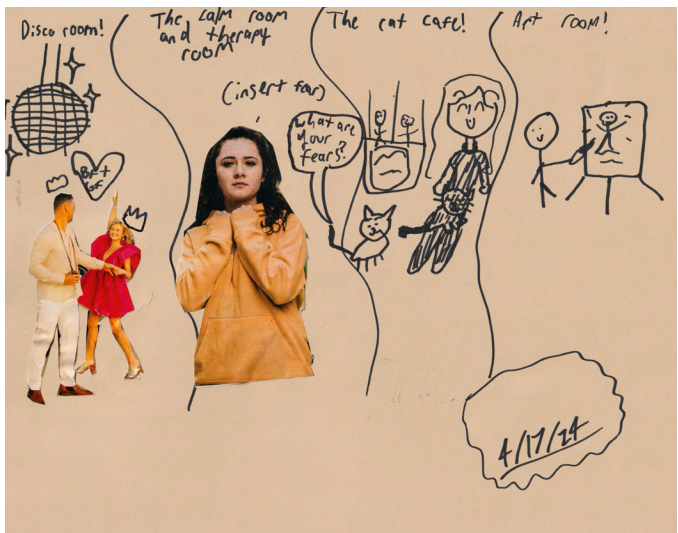


Figure 3.15. "My window" activity. Individual work by JBLM teens. Scan by author.



Post Workshop. Celebration Day

Participants: 10-15 teens

Duration: 30 – 45 minutes

To celebrate the teens' participation in the program, they were invited to a pizza party, organized by their Center. While waiting for pizza, the teen group participated in one last icebreaker. A simple light box held their window scenes and the teens' definition of strengths (Figure 3.16). The teens were then prompted to respond to two questions. The first was, what they hoped future teens would feel at the teen center? The second was, how did they want their service members to feel when approaching the center they designed? One of the teens decided to give the instruction to the group. Rather than giving both instructions at once, the teen gave the first prompt, timed the teens, then moved on to the next prompt. (Figure 3.17).

When the pizza arrived, many teens shared conversations about their time together at the workshop. Some teens expressed their desires to explore architecture more. Others shared that they now notice the spaces they are in more. When asked what they would change or keep about the workshops, teens expressed interest in having more older teens participate. When asked if they would like to be invited in the conversations about spaces being designed for them, many teens answered yes. They would want the leaders of their communities to hear their ideas of what spaces should include. As the event ended, some teens shared interest in future workshops and were interested in helping lead them.



Figure 3.16. My hope and empathy activity imagined. Image by author.

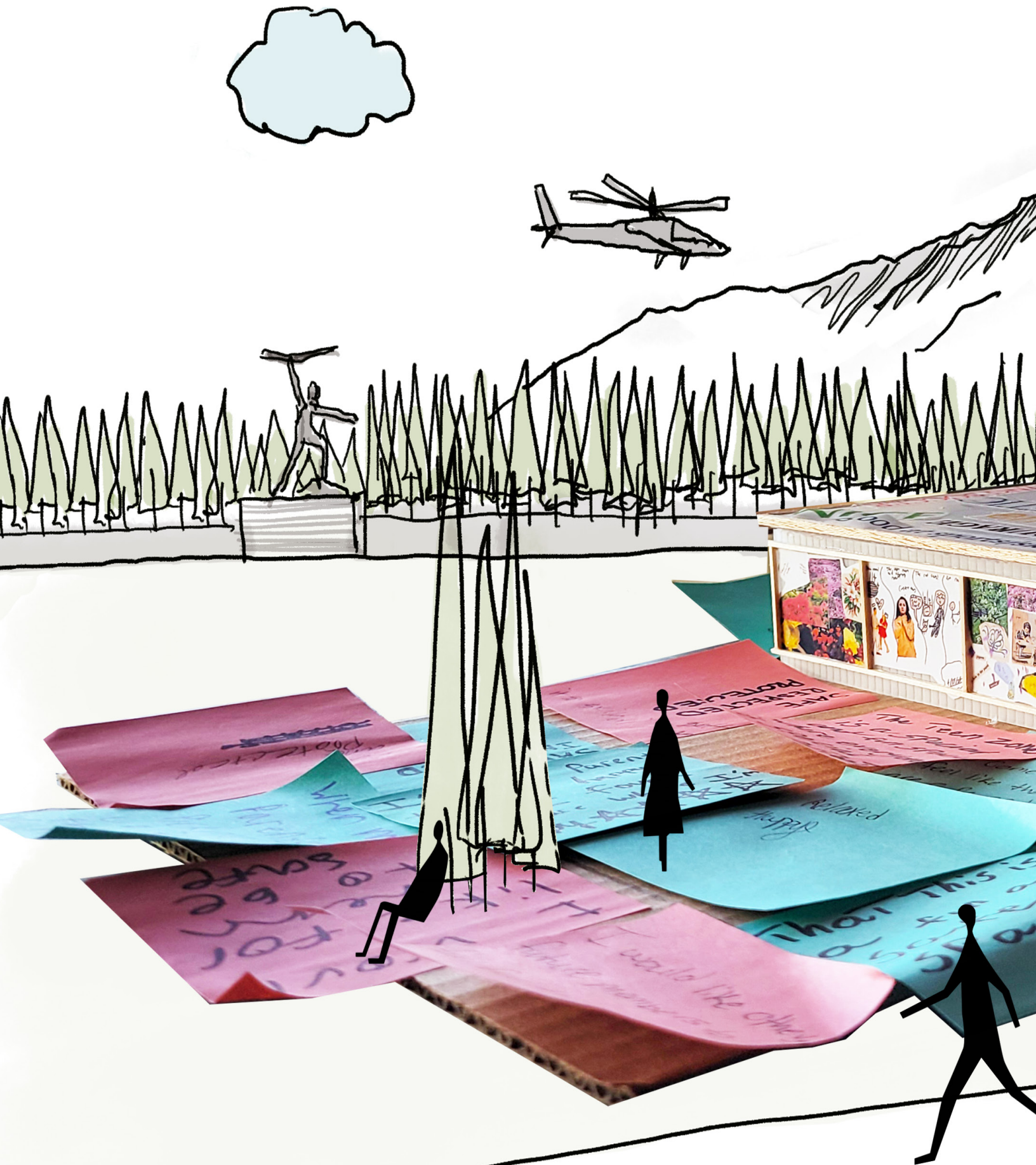


Figure 3.17. My hope and empathy activity imagined. Image by author.



Supplementary Event. Community-wide celebration

As a supplement to the series of workshops, the author participated in a community-wide celebration. This event featured interactive games, various activities, and music set up by different community organizations and businesses. The author requested to participate in the event to understand the differences between workshop settings with community-event environments, in regard to capturing what is meaningful for the teens. After being granted permission to be involved in the event, the author and the community ambassador generated ideas to find ways to capture teens' strength through an interactive and intuitive activity. Several ideas were developed, with the map activity being chosen as the preferred activity to conduct with the teens who attended the event (Figure 3.18).

In this "Pin the Map" activity, teens were prompted to pin the various places where they have lived, connect them with a string, then hang a tag at the end with their strengths written on them. A JBLM-affiliated teen led the activity during the event and helped invite event goers to participate. While stringing the places they have been to, youths and their parents shared stories about their memories and experiences from those places. Some teens were surprised to find out from their parents the journey they've led so far, as well as their parents' journey prior to theirs. The activity drew participants from all ages, especially the teens, who were excited to see which pins they have shared with their peers, as well as which color others chose.

Thesis Goals and Objectives

The aim of this thesis was to consider ways that meaningfulness, a component of salutogenic design, can be explored during design workshops with the JBLM community. Since meaning is associated with the people that experience the space, co-designing with communities sets the stage for design to represent their preferences. By establishing the goals and objectives for each workshop, the methodologies served as a rich source for structure of a graphical toolkit that incorporates strengths and lessons learned from the creation and facilitation of the workshops.



Figure 3.18. Pin the map activity. Image by author.

To answer these initial thesis questions, (1) how to apply salutogenic design in JBLM teen spaces, (2) how community engagement workshops could help JBLM-affiliated teens articulate preferences for meaningful spaces, and (3) what are the best practices to engage with JBLM-affiliated teens, objectives were specifically focused on the richness of information captured from activities and conversations. In addition, details of the challenges that the teens faced and how the author responded to them enhanced the best practices included in the toolkit developed as findings. Lastly, by synthesizing the teens' design preferences, common themes and trends surfaced up and served as validation that the activities can produce elements of what the teens preferred for places to look and feel like.

Conclusion

Witnessing the teens' thoughtful responses and reflective discussions amongst each other in the workshops, it was evident that teens had a lot to express beyond the graphical depictions of their built environments. Teens' participation and engagement were important because the inquiries about what made places meaningful for them were abstract. The activities to capture their responses required tailoring to optimize the results they produced. They brought imagination and sensitivity to the design of their spaces and provided quantifiable information that can be translated into design features in their built environment. The information they shared was important to ensure the spaces they experience support their needs for comfort and people connection. This thesis explicitly explores the creation of a graphical toolkit that serves as a streamlined process for essential tasks that can help promote the need for community engagement to be part of the design process.

Initial Concept Sketches

The following sketches are from the observations of the author during the community engagement workshops. Figure 3.19 depicts the kinds of activities the teens enjoy in their built environments. They are based on information from the different workshops, gathered in their physical graphical work, as well as, the conversations among them. Synthesizing both methods of representation of what is meaningful for them created a richer picture of the program that would promote their preferences and the design elements of their spaces.

Figure 3.20 are ideas of the different activities, refined from the series of workshops. Each diagram shows the activities that will be part of a graphical toolkit, which is part of the findings for this thesis. Many parts of the initial and inquiry phases of design are basic, but can lead to successful community engagement workshops. One of the objectives of the toolkit would be to provide a streamlined process for those basic requirements. The two-tiered process include what would be known as “essentials” and the “menu of workshop activities”. Essentials are required activities to optimize the results the toolkit would produce, such as partnering with a community representative and empowering teens. The menu of workshop activities will provide tools needed to conduct them.

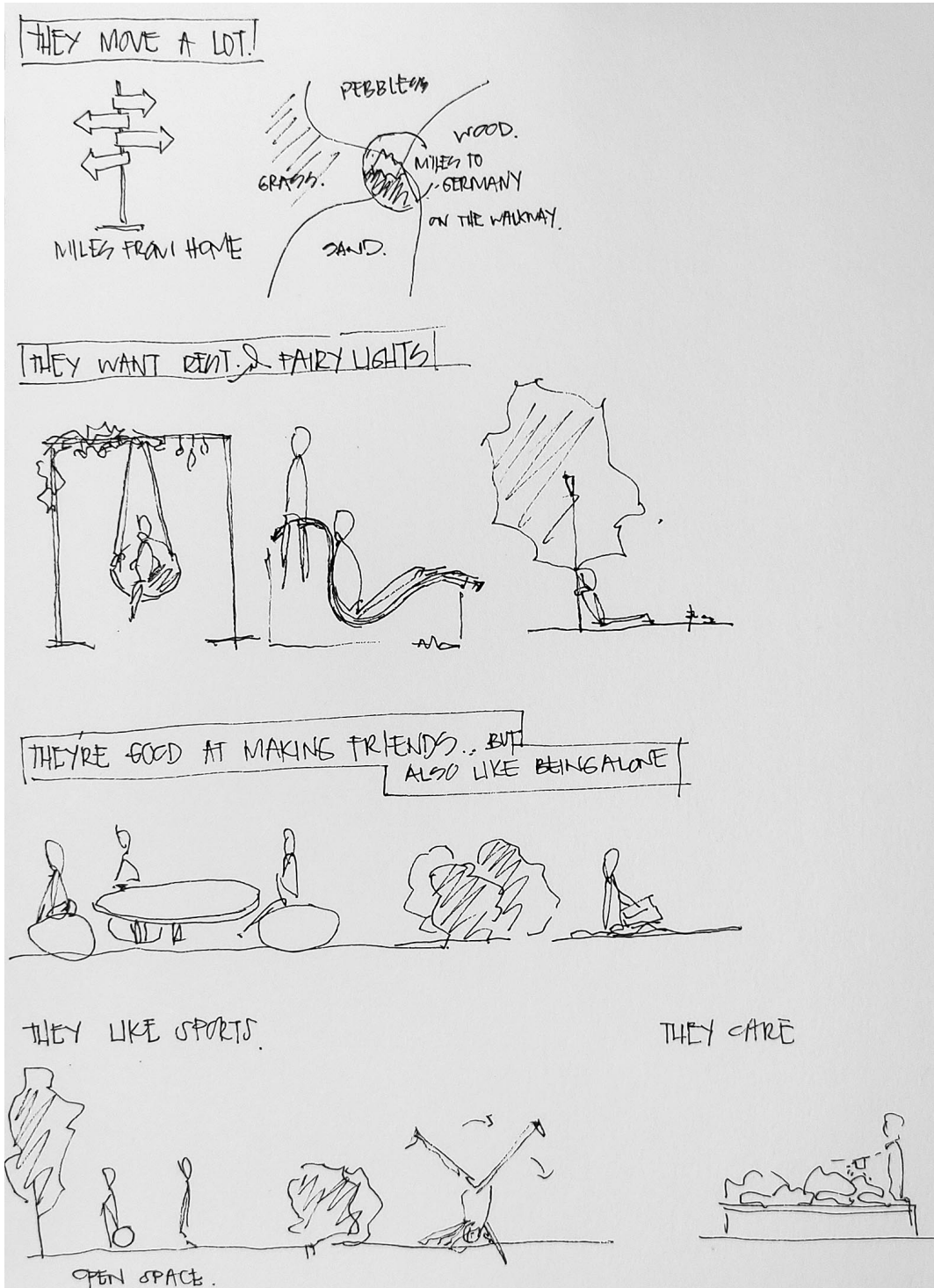


Figure 3.19. Workshop observations. Image by author.

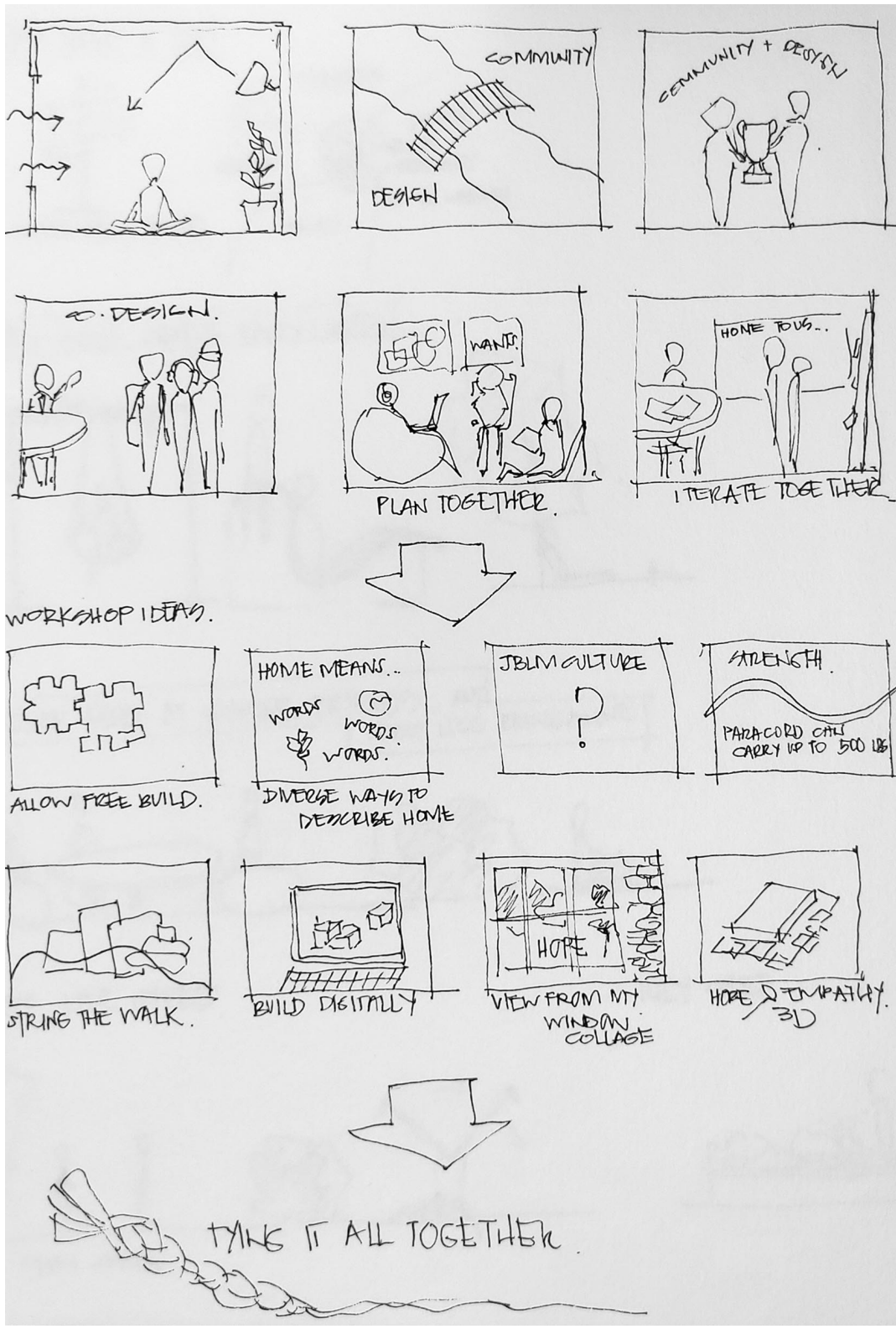


Figure 3.20. Toolkit initial concept. Image by author.

Approaches from the [neighborhood] up are not only a moral imperative, nor simply a 'nice to have' or a way to consult on decisions that have already been made. Our [neighborhoods] are a fundamental unity of change that we need to understand, without which we will render ourselves unable to meet the challenges of this century. (Civic Square, 2022, p.4)

PART FOUR. FINDINGS

The findings of this thesis are informed from the lessons learned from every activity outlined below: (1) Findings on Pre-workshop activities: Inquiry, Planning, and Tabling, (2) Findings on Workshops 1-4 (Existing Teen Center Reimagined), (3) Findings on Workshops 5-6 and Celebration Day (Conceptualizing Space in City Center), and (4) Findings on Community Wide Event. These findings inform a graphical toolkit that the author created to capture best practices in conducting design workshops focused on capturing meaningfulness with teens. The objective is to simplify and develop a process for the essential elements needed to conduct workshops, so that its inclusion in the design phases is more feasible and efficient. By streamlining the initial steps, community engagement can efficiently be incorporated when it comes to designing around meaningfulness.

Findings on Pre-workshop activities: Inquiry, Planning, and Tabling

The findings from the pre-workshop activities highlighted initial rules of design community engagement that are necessary. Initially, the author sought out different community representatives to help define the community culture. Soon, the author found the different barriers that existed in the community, like access and the difficulty to organize workshops without existing groups. With every setback though, the author asked each representative for advice and connection with another contact that might be able to help.

Once the author succeeded in finding a community representative who had the resources to participate in the workshops, they met several times to discuss alignment of goals and mutually beneficial outcomes.

The community representatives wanted their teens to re-imagine their existing outdoors spaces, so the author tailored the workshops to create opportunities for their goals. The workshops were planned in conjunction with the community ambassadors who have knowledge of their community and existing objectives aligned with the author's workshop proposals (Figure 4.0). In the end, protocols, schedules, and expectations were established, to include an invitation to table at one of their existing recurring events to invite the teens to join the future workshops, outlined in the methodologies and concluded here in the findings.

Attending the event to set up an information table for teens gave the author a glimpse of what to expect in future workshops. It also introduced the



Figure 4.0. Workshop workbooks. Image by author.

teens to a new series of events they could potentially participate in. The tabling event revealed that teens enjoy being in informal social settings where they can play and talk in small groups. It familiarized the author with the spatial and aesthetic qualities of the teen center, as well as how different spaces were utilized by teens. This valuable information helped influence the arrangements of the workshops to encourage participants to socially engage with one another.

Findings on Workshops 1-4 (Existing Teen Center Reimagined)

The activities for the first four workshops focused on re-imagining the existing teen center's outdoor space. Choosing a space that was familiar to the teens grounded their preferences to elements that were tangible and comprehensible. The initial stage was to elicit reflections from the teens about their concept of home - as a concept and place - and about themselves in their strength and lived experiences. Using the concept of home was intended to introduce the participants to exploring a space that was familiar and particularly meaningful to JBLM-affiliated teens because of the itinerant lifestyle imposed on them. As the title of this thesis suggested, homes for them were uniquely created through their transient lifestyle.

Drawing on their self-evaluated strengths, the activities in these four workshops asked the teens to focus on imagining and designing spaces to promote their fortitude, like how salutogenesis focuses on origins of health. The icebreakers in these workshops raised questions that led to a wide range of answers, as well as other topics that converged with them. The icebreakers fostered quick connections with the workshop participants. Tailoring the icebreakers as segues to activities bridged participants to the

activities with personal bonds and associations. The icebreakers always prompted the participants to inquire about their personal experiences and preferences. Including possessive determiners such as “my”, “to me”, or “our”, etc. to the icebreaker inquiries established the participants’ ownership for their likes and dislikes. The five to ten minutes allocated for the icebreakers each workshop helped enrich the conversations for the main activities planned for the workshops as the teens revealed preferences in their spaces, hobbies, and personal lives.

The main activities of each workshop were presented with an introduction to explain the reasoning, goals, and objectives associated with them. The first four workshops of the series followed a sequence that incrementally built upon each other. This layered process presented challenges for when attendance and excitement of participants changed. Responding to the shifts, the author pivoted discussions and activities to topics that made the most sense, but still rooted in how spaces can promote their health. For example, the fourth workshop was supposed to be the iteration of the third activity in which participants designed their outdoor spaces with physical materials like clay and sticks. The participants’ turnout on the fourth workshop was different and prompted the author to allow storytelling as an expression of the design in addition to the physical models. Through storytelling, teens were able to imagine elements of space that were meaningful to them beyond the materials and prompts prescribed for them by the author.

During the activities, parallel conversations occurred concurrently with prompt responses. Teens talked about their day, sometimes veering away from the activities at hand. Such interactions were encouraged because the author discovered that embedded in their conversations were issues

that built environment designs can respond to. For example, some teens mentioned their tiredness in the day and wished they had swings to sit on or places to rest and relax. Another example was when teens described friendships that were important to them, sparking conversations on their spatial and aesthetic preferences in their built environments to foster those relationships, like the waffle block activity during the first workshop (Figure 4.1). This significant discovery strongly suggested that in community engagements, conversations that extend beyond prescribed topics hold valuable insights to the teens' culture and preferences. After every workshop, the author reflected in journals the highlights and lessons learned from events. Since interactions were neither actively transcribed nor recorded during these first four workshops, remembering the verbatim conversations posed challenges.

The following recommendations are from lessons learned and best practices from the first four workshops with JBLM-affiliated teens. First, having a variety of activities can help during shifts in the logistics of the workshops. Having materials that can serve multiple activities and prompts help with last minute shifts in attendance or engagement. Having the ability to pivot can still lead to informative conclusions on how built environments can foster their mental health and well-being if more activities were planned.

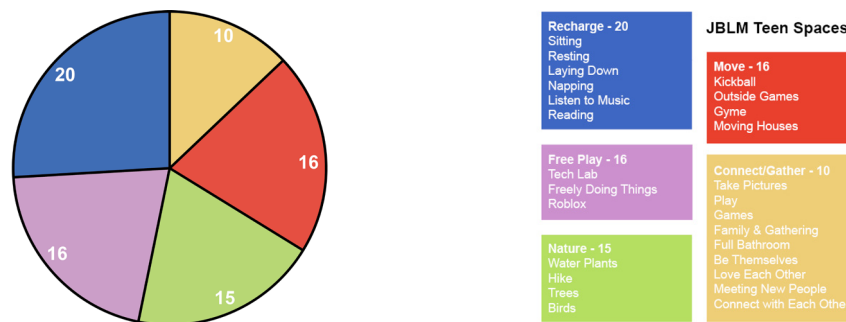


Figure 4.1. Synthesis of waffle blocks activity. Image by author.

Second, icebreakers are simple methods that can be about anything that require no additional materials but are an excellent way to explore the teens' preferences and values. Even if limited in time, icebreakers are one of the more important tasks during community engagement workshops. Third, language is fundamental. Choosing the right words for prompts can make a difference in how teens respond. Adding words and phrases like, "my", "to me", or "in my opinion", give them connections to the questions, generating more personal and insightful answers. Lastly, all conversations, including responses to prompts or indirectly related to activities offer insights worth transcribing as they hold information on what was meaningful to the teens. Capturing the dialogues during the workshops, supported with graphical outcomes from the activities, provides a comprehensive overview of meaningful elements that can be translated into design.

Findings on Workshops 5-6 and Celebration Day

The second half of the workshop series consisted of two activities and a celebration event for the teens. The three engagements focused on imagining a new space for JBLM-affiliated teens located at the center of their neighborhood. Like the first part of the series, the workshops always began with icebreakers. However, this time, since many of the teens had participated previously, the icebreaker prompts were tailored specifically to previous findings such as how their transient culture impacted their ways to connect with others. By incorporating the addition of asking for the type of spaces that can help them promote their preferences, teens easily connected their preferences to ideas for future designs. The icebreakers also morphed into activities using 3D physical objects such as paracords, popular to the community's culture, to complement the stories they were

sharing. Since conversations also produced valuable insights on what was meaningful for the participants, teens were provided more time for the ice-breakers. During this latter part of the series, a transcriber also joined the workshops to capture the conversation.

The transcriber was another teen who is affiliated with JBLM and was introduced to the group as someone who would be taking notes for the events. Including the transcriber was a helpful strategy to capture meaning. Since the transcriber belonged to the community and was in the same age group as the participants, transcripts of the workshops contained current anecdotes that would have been easily missed by someone not familiar with the youths' specific language and tone. The transcriber also participated in some of the events and conversations during the workshops.

Since the transcriber was introduced, other teens assumed leadership roles during group activities and discussions by giving instructions to new participants or providing clarifying answers to questions about the activity prompts to their peers. The involvement of several teens in leadership tasks brought renewed energy to the group and enriched the conversations amongst them. This suggests that giving teen participants some say over the direction of the workshop content and process can increase a sense of ownership and the relevancy of the activities.

The window activity was the most popular among the participants with some expressing how much they enjoyed picking the most appropriate image to match their personalities, identities, and design preferences. This activity was originally supposed to be conducted earlier in the series but needed to be shifted to accommodate short notice logistical changes of

the workshops. Since the inspiration for the window activity originated from the JBLM-affiliated teens' transient lifestyle and constant changes of views from their windows, participants found it relatable and this connection to their personal experiences made it especially meaningful. Many understood the prompt easily because they agreed that windows have played a big part in their lives. During the activity, teens discussed their motivations for selecting specific photos and sometimes shared relatable experiences from the past and preferences in their built environments. (Figure 4.2)

The icebreaker for the celebration day was for teens to look at design as hope and empathy. The lightbox the author made for the event showed views from their window activity images, with their definitions of strengths glued on the roof. The teens wrote down what they hoped other teens would feel and how they would enjoy if a new teen center was built in the



Figure 4.2. "My window" activity layered. Work by JBLM teens. Image by author.

middle of town. Then, they wrote down how they wished their parents would feel when they come to pick the teens up. The prompt for hope and empathy revealed many different ways the participants appreciated or wished for in the spaces. For their hopes for other teens, participants wanted other teens to feel safe and comfortable in the space. The word safe not only meant the physical aspect of not physically getting hurt, but being comfortable to be themselves. For their wishes for their parents, the participants wanted their parents to feel happy and know that in this imagined space, that their teens were safe (Figure 4.3).

The following recommendations are from lessons learned and best practices from the latter part of the workshop series with JBLM-affiliated teens. First, typical conversation-style icebreakers can be enhanced with physical objects to convey the prompts and make them more engaging. It can



Figure 4.3. Teens' hopes and wishes for their peers and parents. Words by JBLM teens. Image by author.

be further enhanced if the objects used are unique and relatable to the community's culture. Second, transcribing or recording workshop events enables the facilitator to revisit specific conversations or actions with detailed comprehension. Third, by offering alternative ways for teens to represent their design choices, like digital 3D models or storytelling, everyone can feel more welcomed and included to express their preferences in the means that are most comfortable to them. Fourth, tailoring an activity with elements of their culture and traditions set the stage for teens to express their reflections and desires that are meaningful to them. Lastly, carving time to celebrate the teen's achievements is vital to acknowledging not just their hard work, but their importance in the design process of their built environments.

Findings on Community-Wide Event

The community-wide event provided insights into the differences between the planned workshops conducted with a known group and events with an informal setting and open to casual passersby. In informal settings, engagements require activities with clear instructions that are easily understood. The "Pin the Map" activity conducted for this thesis was straightforward and simple to grasp. During the event, teens took less than five minutes to participate in the activity, with some teens lingered longer to discuss their experiences with moving or their reasons for their chosen strengths. In this event, the probe into their views of their individual strengths revealed that many of them could identify them rather quickly. This activity confirms how a simple activity, when infused with elements that represent the community's culture, can produce outcomes that are meaningful.

The following recommendations are from lessons learned and best practices from the supplementary community-wide event (Figure 4.4).

First, community engagements in informal settings also offer valuable insights to investigating a community culture. It can help challenge the workshop facilitator to think outside of the box to create experiences that require the least effort from the participants, while producing meaningful outcomes that can be translated into design elements. Second, easily understood and fun activities attract participants to confidently answer the prompts. Lastly, appointing a teen facilitator to engage with their peers created an environment where the teens participated in the activities more openly.



Figure 4.4. JBLM teens' strength from the hanging tags. Image by author.

Graphical Toolkit (Figure 4.5)

The creation of this toolkit was informed by the need for a streamlined process for basic, but essential best practices when it comes to launching community design engagements. This toolkit is rooted in the salutogenic design's component of meaningfulness, where design elements that increase perceptions of it can promote health and well-being. Meaningfulness in the built environments is informed by the community's culture and identities. This toolkit includes revised versions of the activities from the workshops conducted for this thesis based on the lessons learned, strengths, and results.

They are separated into four parts: introduction, instructions, essentials, and workshops. Each part consists of components that begin as guidelines and conclude with versatile activity options that can be tailored according to workshop logistics and needs. Its purpose is to simplify the planning of several activities for community engagement so that efforts are mostly focused on executing the workshops and synthesizing outcomes for design.

essentials



synthesis



Figure 4.5. Graphical toolkit. Image by author. Complete toolkit found in Appendix.

workshops



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CHAPTER FIVE. CONCLUSION

Engaging teens in design workshops make it possible for them to explore what makes a space meaningful for them in action. By providing opportunities for them to become co-designers and collaborators, they become agents for the changes and improvements in the built environments of their communities (United Nations, 2018; Collins et al., 2024; Botchwey et al., 2022). At a crucial developmental phase in their lives, a model like salutogenic design (Yeang and Dilani, 2022) can be used to focus on the promotion of the JBLM-affiliated teens' mental health and social well-being.

This model highlights certain elements in design that can promote a person's sense of coherence. All components of the salutogenic design model are vital to be explored and can be interpreted in many ways. This thesis focuses on the component of meaningfulness and argues that enabling a community of teens to participate in the design of their own spaces allows them to feel represented in their environment. In this way, opportunities are provided for achieving the goal of meaningfulness in salutogenic design.

Rooting the thesis' methodologies in salutogenic design guided the decisions to create activities that promoted health. The extensive literature review proved that an interdisciplinary approach is based on the idea that architecture can promote teens' mental health and social well-being through community engagement. Creative activities adapted from the analysis of case studies informed the structure of the workshops the teens participated in. The workshops provided JBLM-affiliated teens opportunities to engage in creative activities to share personal reflections and stories on their definitions of home and strength. The graphical toolkit developed in this thesis

seeks to provide a streamlined guide for community engagement activities with youths, as well as with insight for further academic study.

The author of this thesis had the opportunity to be both facilitator and collaborator entrusted with the honor of sharing the meaningful discussions. Co-designing with teens creates opportunities for their creativity and care for their community to be revealed and included in the design of their spaces. Their views on how to maintain their feelings of home and belonging differ from their younger and older counterparts, which means engaging with them should be tailored as well. The toolkit was developed to share what the author learned from the rare opportunity to engage with this community around the shared goal of thinking about their built environments. When observation notes, transcripts, and graphical outcomes from workshops are analyzed together, they provide a holistic perspective of how meaningfulness in the built environment can be fostered.

Future

The findings have spurred the author to continue to explore the opportunities that design workshops with communities like this can offer- that is, how they can: (1) create opportunities for teens to take leadership roles as facilitators of conversations about how spaces can provide meaningfulness when they spend time in it, (2) bring other community groups together, and (3) be shared with decision makers in the community. The community representative of the JBLM community has expressed interest in using the findings of this thesis to develop a program to continue to foster the teens' excitement towards making their outdoor spaces more inviting, nature-focused, and therapeutic.

REFERENCES

PART ONE. INTRODUCTION

American Academy of Pediatrics. (2021, October 19). *AAP-AACAP-CHA Declaration of a national emergency in child and adolescent mental health*. <https://www.aap.org/en/advocacy/child-and-adolescent-healthy-mental-development/aap-aacap-cha-declaration-of-a-national-emergency-in-child-and-adolescent-mental-health/>

Antonovsky, A. (1996). The salutogenic model as a theory to guide health promotion. *Health Promotion International*, 11(1), 11-18. <https://doi.org/10.1093/heapro/11.1.11>

Barach, P. & Parker, D. (2021). Designing Salutogenic Healthcare Facilities For Safety and Quality. In K. Yeang & A. Dilani (Eds.), *Ecological and Salutogenic Design: For a Sustainable Healthy Global Society* (pp.67-84). Cambridge Scholars Publishing.

Brick, S. (2022). Improving health in the military and beyond using salutogenic design. *Facilities*, 40(15/16), 54-71. <https://doi.org/10.1108/F-06-2021-0058>

Gattupalli, A. (2022, July 11). *What is Salutogenic Architecture?* Arch Daily. <https://www.archdaily.com/985115/what-is-salutogenic-architecture>

Golembiewski, J. A. (2022). Salutogenic Architecture. In M. B. Mittelmark, G. F. Bauer, L. Vaandrager, J. M. Pelikan, S. Sagy, M. Eriksson, B. Lindström, & C. M. Magistretti (Eds.), *The Handbook of Salutogenesis* (2nd ed.) (pp. 259-274). Springer International Publishing. https://doi.org/10.1007/978-3-030-79515-3_26

Green Schoolyards America. (n.d.). *National COVID-19 Outdoor Learning Initiative: Introduction*. <https://www.greenschoolyards.org/introduction>

Haugan, G., & Eriksson, M. (2021). An introduction to the health promotion perspective in the health care services. In *Health Promotion in Health Care - Vital Theories and Research*. Springer. <https://www.ncbi.nlm.nih.gov/books/NBK585681/> doi: 10.1007/978-3-030-63135-2_1

Healthy People 2030. (n.d.). *Neighborhood and Built Environment*. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/neighborhood-and-built-environment>

Lindström, B., & Eriksson, M. (2005). Salutogenesis. *Journal of Epidemiology and Community Health*, 59(6), 440–442. <https://doi.org/10.1136/jech.2005.034777>

Rickard-Bridgeau, C. (2015). *What's the Next Big Step in Building? Salutogenic Design*. Metropolis. <https://metropolismag.com/viewpoints/whats-the-next-big-step-in-building-salutogenic-design/>

The White House. (2022, March 1). *Fact Sheet: President Biden to Announce Strategy to Address Our National Mental Health Crisis, As Part of Unity Agenda in his First State of the Union*. <https://www.whitehouse.gov/>

briefing-room/statements-releases/2022/03/01/fact-sheet-president-biden-to-announce-strategy-to-address-our-national-mental-health-crisis-as-part-of-unity-agenda-in-his-first-state-of-the-union/

United Nations Children’s Fund (UNICEF). (2018). *UNICEF Programme Guidance for the Second Decade: Programming With and for Adolescents*. UNICEF. <https://www.unicef.org/media/57336/file>

World Health Organization. (n.d.). *Social determinants of health: Overview*. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1

Yeang, K., & Dilani, A. (Eds.). (2022). Ecological and salutogenic design for a sustainable healthy global society. In K. Yeang & A. Dilani (Eds.), *Ecological and Salutogenic Design: For a Sustainable Healthy Global Society* (pp. 2-42). Cambridge Scholars Press.

PART 2. FRAMEWORK

Introduction

Berry, W. (1969). *The long-legged house* (1st ed.). Harcourt, Brace & World.

de la Peña, D. & Allen, D. J. (2017). *Design as Democracy: Techniques for Collective Creativity* (1st ed.). Island Press.

Farrow, T. (2018). The Ultimate Test for Design: Does It Cause Health? In T. Beatley, C. Jones & R. Rainey, *Healthy Environments, Healing Spaces: Practices and Directions in Health, Planning, and Design* (pp. 143-). University of Virginia Press. https://muse.jhu.edu/pub/191/edited_volume/book/63106 ER

Francis Kéré, “The Pritzker Architecture Prize”, MPEG-4, 00:06, March 16, 2022, <https://www.dezeen.com/2022/03/16/pritzker-architecture-prize-diebedo-francis-kere-video/>

Golembiewski, J. A. (2016). The Designed Environment and How it Affects Brain Morphology and Mental Health. *HERD*, 9(2), 161–171. <https://doi.org/10.1177/1937586715609562>

Golembiewski, J. A., & Zeisel, J. (2022). Salutogenic Approaches to Dementia Care. In M. B. Mittelmark, G. F. Bauer, L. Vaandrager, J. M. Pelikan, S. Sagy, M. Eriksson, B. Lindström, & C. M. Magistretti (Eds.), *The Handbook of Salutogenesis* (2nd ed.) (pp. 513-532). Springer International Publishing. https://doi.org/10.1007/978-3-030-79515-3_48

Kaplan, R., & Kaplan, S. (1989). *The Experience of Nature: A Psychological Perspective*. CUP Archive.

Latané, C. (2021). *Schools that Heal: Design with Mental Health in Mind*. Island Press.

Minhas, P. & Chahal, K. S. (2021). Salutogenic Design Guidelines for School Environments and Health Outcomes. In K. Yeang & A. Dilani (Eds.), *Ecological and Salutogenic Design: For a Sustainable Healthy Global Society* (pp. 202-221). Cambridge Scholars Publishing.

Murphy, M., Ricks, A., & Baan, I. (2019). *Justice is beauty*. The Monacelli Press.

Shah, N. (2019). Every System is Perfectly Designed to Get the Results it Gets. In M. Murphy, A. Ricks & Baan, I (Eds.), *Justice is Beauty* (pp. 150-151). The Monacelli Press.

Ulrich, R. S. (1991). Effects of interior design on wellness: theory and recent scientific research. *Journal of Health Care Interior Design : Proceedings from the ... Symposium on Health Care Interior Design. Symposium on Health Care Interior Design*, 3, pp. 97-109.

United Nations Children's Fund (UNICEF). (2018). *UNICEF Programme Guidance for the Second Decade: Programming With and for Adolescents*. UNICEF. <https://www.unicef.org/media/57336/file>

Wagenfeld, A. & Kennedy, C. (2024). *The Nature of Inclusive Play: A guide for Designers, Educators, and Therapists*. Routledge.

Wilkinson, R., & Marmot, M. (2003). *Social Determinants of Health - The Solid Facts* (2nd ed.). WHO Regional Office for Europe.

Literature Review Sources

Antonovsky, A. (1979). *Health, Stress, and Coping*. Jossey-Bass.

Antonovsky, A. (1996). The salutogenic model as a theory to guide health promotion. *Health Promotion International*, 11(1), 11-18. <https://doi.org/10.1093/heapro/11.1.11>

Barach, P. & Parker, D. (2021). Designing Salutogenic Healthcare Facilities For Safety and Quality. In K. Yeang & A. Dilani (Eds.), *Ecological and Salutogenic Design: For a Sustainable Healthy Global Society* (pp.67-84). Cambridge Scholars Publishing.

Berry, W. (1969). *The long-legged house* (1st ed.). Harcourt, Brace & World.

Botchwey, N., Dannenberg, A. L., & Frumkin, H. (2022). *Making Healthy Places: Designing and Building for Well-Being, Equity, and Sustainability*. Island Press.

Botchwey, N. D., Johnson, N., O'Connell, L. K., & Kim, A. J. (2019). Including Youth in the Ladder of Citizen Participation: Adding Rungs of Consent, Advocacy, and Incorporation. *Journal of the American Planning Association*, 85(3), 255–270. <https://doi.org/10.1080/01944363.2019.1616319>

Braun-Lewensohn, O., Idan, O., Lindström, B., & Margalit, M. (2022). Salutogenesis and the Sense of Coherence During the Adolescent Years. In M. B. Mittelmark, G. F. Bauer, L. Vaandrager, J. M. Pelikan, S. Sagy, M. Eriksson, B. Lindström, & C. M. Magistretti (Eds.), *The Handbook of Salutogenesis* (2nd ed.) (pp. 139-150). Springer International Publishing. https://doi.org/10.1007/978-3-030-79515-3_16

Brick, S. (2022). Improving health in the military and beyond using salutogenic design. *Facilities*, 40(15/16), 54-71. <https://doi.org/10.1108/F-06-2021-0058>

Cleckley, E. (2024). *Empathic Design: Perspectives on Creating Inclusive Spaces*. Island Press.

Collins, P. Y., Sinha, M., Concepcion, T., Patton, G., Way, T., McCay, L., Mensa-Kwao, A., Herrman, H., de Leeuw, E., Anand, N., Atwoli, L., Bardikoff, N., Booyesen, C., Bustamante, I., Chen, Y., Davis, K., Dua, T., Foote, N., Hughsam, M., ... Zeitz, L. (2024). Making cities mental health friendly for adolescents and young adults. *Nature*, 627 (8002), 137-142. <https://doi.org/10.1038/s41586-023-07005-4>

de la Peña, D. & Allen, D. J. (2017). *Design as Democracy: Techniques for Collective Creativity* (1st ed.). Island Press.

Eriksson, M., & Contu, P. (2022). The Sense of Coherence: Measurement Issues. In M. B. Mittelmark, G. F. Bauer, L. Vaandrager, J. M. Pelikan, S. Sagy, M. Eriksson, B. Lindström, & C. M. Magistretti (Eds.), *The Handbook of Salutogenesis* (2nd ed.) (pp. 79-91). Springer International Publishing. https://doi.org/10.1007/978-3-030-79515-3_11

Fokschaner, S. (2022). *What teenagers can teach us about creating better places to live*. Financial Times. <https://www.ft.com/content/ddf3ee88-6489-40c9-ab82-1649f41457bf>

Gattupalli, A. (2022, July 11). *What is Salutogenic Architecture?* Arch Daily. <https://www.archdaily.com/985115/what-is-salutogenic-architecture>

Généreux, M., Roy, M., O'Sullivan, T., & Maltais, D. (2022). Salutogenesis as a Framework for Social Recovery After Disaster. In M. B. Mittelmark, G. F. Bauer, L. Vaandrager, J. M. Pelikan, S. Sagy, M. Eriksson, B. Lindström, & C. M. Magistretti (Eds.), *The Handbook of Salutogenesis* (2nd ed.) (pp. 533-542). Springer International Publishing. https://doi.org/10.1007/978-3-030-79515-3_49

Golembiewski, J. A. (2016). The Designed Environment and How it Affects Brain Morphology and Mental Health. *HERD*, 9(2), 161–171. <https://doi.org/10.1177/1937586715609562>

Haugan, G., & Eriksson, M. (2021). An introduction to the health promotion perspective in the health care services. In *Health Promotion in Health Care - Vital Theories and Research*. Springer. <https://www.ncbi.nlm.nih.gov/books/NBK585681/> doi: 10.1007/978-3-030-63135-2_1

Kellert, S. R., & Heerwagen, J. (2008). *Biophilic design : the theory, science, and practice of bringing buildings to life* (M. Mador, Ed.). Wiley.

Latané, C. (2021). *Schools that Heal: Design with Mental Health in Mind*. Island Press.

Lindern E. V., Lymeus, F., & Hartig, T. (2022). The Restorative Environment and Salutogenesis: Complementary Concepts Revisited. In M. B. Mittelmark, G. F. Bauer, L. Vaandrager, J. M. Pelikan, S. Sagy, M. Eriksson, B. Lindström, & C. M. Magistretti (Eds.), *The Handbook of Salutogenesis* (2nd ed.) (pp. 371-385). Springer International Publishing. https://doi.org/10.1007/978-3-030-79515-3_35

- Lindström, B., & Eriksson, M. (2005). Salutogenesis. *Journal of Epidemiology and Community Health*, 59(6), 440–442. <https://doi.org/10.1136/jech.2005.034777>
- Mace, R. L. (1998). Universal Design in Housing. *Assistive Technology*, 10(1), 21–28. <https://doi.org/10.1080/10400435.1998.10131957>
- MacQueen, K. M., McLellan, E., Metzger, D. S., Kegeles, S., Strauss, R. P., Scotti, R., Blanchard, L., & Trotter, R. T., 2nd (2001). What is community? An evidence-based definition for participatory public health. *American Journal of Public Health*, 91(12), 1929–1938. <https://doi.org/10.2105/ajph.91.12.1929>
- Magistretti, C. M. (2022). The Sense of Coherence in the Life Course. In M. B. Mittelmark, G. F. Bauer, L. Vaandrager, J. M. Pelikan, S. Sagy, M. Eriksson, B. Lindström, & C. M. Magistretti (Eds.), *The Handbook of Salutogenesis* (2nd ed.) (pp. 117-121). Springer International Publishing. https://doi.org/10.1007/978-3-030-79515-3_14
- Marmot, M., & Wilkinson, R. G. (1999). *Social determinants of health*. Oxford University Press.
- McLaughlan, R. (2023). Engaging young people in architectural research: three visual methods for understanding the impact of the built environment on children’s wellbeing. *Visual Studies*, 1–14. <https://doi.org/10.1080/1472586X.2023.2284984>
- Minhas, P. (2022). *The Design of Learning Environments to Promote Holistic Health and Well-Being of Children*. [Unpublished doctoral dissertation]. Guru Nanak Dev University]
- Mittelmark, M. B. and Bauer, G. F. (2022). Salutogenesis as a Theory, as an Orientation and as the Sense of Coherence. In M. B. Mittelmark, G. F. Bauer, L. Vaandrager, J. M. Pelikan, S. Sagy, M. Eriksson, B. Lindström, & C. M. Magistretti (Eds.), *The Handbook of Salutogenesis* (2nd ed.) (pp. 11-17). Springer International Publishing. https://doi.org/10.1007/978-3-030-79515-3_3
- Owen, C., & Crane, J. (2022). Trauma-Informed Design of Supported Housing: A Scoping Review through the Lens of Neuroscience. *International Journal of Environmental Research and Public Health*, 19(21), 14279-. <https://doi.org/10.3390/ijerph192114279>
- Sanoff, H. (2000). *Community participation methods in design and planning*. Wiley.
- Sandercock, L. (2003). Out of the Closet: The Importance of Stories and Storytelling in Planning Practice. *Planning Theory & Practice*, 4(1), 11–28. <https://doi.org/10.1080/1464935032000057209>
- Toews, B. (2016). This backyard is my serenity place: learning from incarcerated women about the architecture and design of restorative justice. *Restorative Justice*. *Hart Publishing*, 4(2), 214–236. <https://doi.org/10.1080/20504721.2016.1197528>

Vinje, H. F., Langeland, E., and Bull, T. (2022). Aaron Antonovsky's Development of Salutogenesis, 1979-1994. In M. B. Mittelmark, G. F. Bauer, L. Vaandrager, J. M. Pelikan, S. Sagy, M. Eriksson, B. Lindström, & C. M. Magistretti (Eds.), *The Handbook of Salutogenesis* (2nd ed.) (pp. 28-44). Springer International Publishing. https://doi.org/10.1007/978-3-030-79515-3_5

Wagenfeld, A. & Kennedy, C. (2024). *The Nature of Inclusive Play: A guide for Designers, Educators, and Therapists*. Routledge.

Yeang, K., & Dilani, A. (Eds.). (2022). Ecological and salutogenic design for a sustainable healthy global society. In K. Yeang & A. Dilani (Eds.), *Ecological and Salutogenic Design: For a Sustainable Healthy Global Society* (pp. 2-42). Cambridge Scholars Press.

Case Studies

Yeah! (n.d.). About YEAH!. <https://yeah.gatech.edu/>

Botchwey, N. D., Johnson, N., O'Connell, L. K., & Kim, A. J. (2019). Including Youth in the Ladder of Citizen Participation: Adding Rungs of Consent, Advocacy, and Incorporation. *Journal of the American Planning Association*, 85(3), 255–270. <https://doi.org/10.1080/01944363.2019.1616319>

Growing Up Boulder. (n.d.). *Growing Up Boulder: Boulder's Child- and Youth-Friendly City Initiative*. <https://www.growingupboulder.org/about-us.html>

Growing Up Boulder. (2010). *Community Survey*. <https://www.growingupboulder.org/community-survey.html>

Growing Up Boulder. (2014). *Resilience with Boulder's Youth*. <https://www.growingupboulder.org/resilience-with-boulder-youth.html>

Center for Cities + Schools. (n.d.). What is Y-Plan? <https://citiesandschools.berkeley.edu/major-initiatives/y-plan/>

PART 3. METHODOLOGY

American Academy of Pediatrics. (2021, October 19). *AAP-AACAP-CHA Declaration of a national emergency in child and adolescent mental health*. <https://www.aap.org/en/advocacy/child-and-adolescent-healthy-mental-development/aap-aacap-cha-declaration-of-a-national-emergency-in-child-and-adolescent-mental-health/>

Blue Star Families. (2022). *Military Family Lifestyle Survey – 2022 Comprehensive Report*. https://bluestarfam.org/wp-content/uploads/2023/03/BSF_MFLS_Spring23_Full_Report_Digital.pdf

CBS. (2011, May 27). *Unique challenges military kids face* [Video]. YouTube. <https://youtu.be/HJTqLFLBRjQ?feature=shared>

Cozza, S. J. & Lerner, R. M. (2013). Military Children and Families: Introducing the Issue. *The Future of Children*, 23(2), 3-11. <https://www.jstor.org/stable/23595617>

- Comfort Crew for Military Kids. (n.d.). *Statement of Purpose*. <https://www.comfortcrew.org/mission.html>
- DoDEA Communications. (2018, Apr 6). *What it's like being a military child* [Video]. Youtube. <https://youtu.be/oz2TvU-lk60?feature=shared>
- Fokschaner, S. (2022). What teenagers can teach us about creating better places to live. *Financial Times*. <https://www.ft.com/content/ddf3ee88-6489-40c9-ab82-1649f41457bf>
- Growing Up Boulder. (2014). *Resilience with Boulder's Youth*. <https://www.growingupboulder.org/resilience-with-boulder-youth.html>
- Hidden Helpers. (n.d.). *Kids, Youth, and Families*. <https://hiddenheroes.org/resources/hiddenhelpers/>
- Hidden Heroes. (n.d.). *Standing with our Hidden Heroes*. <https://hiddenheroes.org/>
- Lewis, C., Bergmann, A., & Farnsworth, M. (2022). The Military Teen Experience Survey 2022 Findings and Insights – The Current State of Military Teens, America's Future Force. *National Military Family Association*. <https://www.militaryfamily.org/wp-content/uploads/The-Military-Teen-Experience-Survey-2022-Findings-and-Insights.pdf>
- McLaughlan, R. (2023). Engaging young people in architectural research: three visual methods for understanding the impact of the built environment on children's wellbeing. *Visual Studies*, 1–14. <https://doi.org/10.1080/1472586X.2023.2284984>
- Military One Source. (n.d.). *Joint Base Lewis-McChord: Installation Details*. <https://installations.militaryonesource.mil/in-depth-overview/joint-base-lewis-mchord>
- Military One Source. (2022). *Military Community Demographics*. <https://www.militaryonesource.mil/data-research-and-statistics/military-community-demographics/>
- Minecraft. (n.d.). *About Minecraft*. <https://www.minecraft.net/en-us/about-minecraft>
- National Military Family Association. (2022). *Military Teen Hidden Helpers – 2022 Military Teen Experience Survey*. <https://www.militaryfamily.org/the-military-teen-experience-2022/>
- Rossiter, A. G., & Ling, C. G. (2022). Building resilience in US military families: why it matters. *BMJ Military Health*, 168(1), 91–94. <https://doi.org/10.1136/bmjmilitary-2020-001735>
- TEDx Talks. (2012). *TEDxStellenbosch - Marika Shioiri-Clark - Empathic Architecture* [Video]. Youtube. <https://www.youtube.com/watch?v=KTXq-J2fZ0gA>
- TEDx Talks. (2023). *What is friendship to military children?/Amber AUBAS/TEDxYouth@LakeOlmstead* [Video]. Youtube. <https://youtu.be/VO4ohBQ615Y?feature=shared>

PART 4. FINDINGS

Civic Square (2022). *Neighbourhood Doughnut*, <https://civicsquare.notion.site/A-Neighbourhood-Doughnut-Portrait-ba4c928726ad4e619e41a45d-9a4b9e64>

Cleckley, E. (2024). *Empathic Design: Perspectives on Creating Inclusive Spaces*. Island Press.

Minhas, P. & Chahal, K. S. (2021). Salutogenic Design Guidelines for School Environments and Health Outcomes. In K. Yeang & A. Dilani (Eds.), *Ecological and Salutogenic Design: For a Sustainable Healthy Global Society* (pp.202-221). Cambridge Scholars Publishing.

United Nations Children's Fund (UNICEF). (2018). *UNICEF Programme Guidance for the Second Decade: Programming With and for Adolescents*. UNICEF. <https://www.unicef.org/media/57336/file>

PART 5. CONCLUSION

American Academy of Pediatrics. (2021, October 19). *AAP-AACAP-CHA Declaration of a national emergency in child and adolescent mental health*. <https://www.aap.org/en/advocacy/child-and-adolescent-healthy-mental-development/aap-aacap-cha-declaration-of-a-national-emergency-in-child-and-adolescent-mental-health/>

Botchwey, N., Dannenberg, A. L., & Frumkin, H. (2022). *Making Healthy Places: Designing and Building for Well-Being, Equity, and Sustainability*. Island Press.

Collins, P. Y., Sinha, M., Concepcion, T., Patton, G., Way, T., McCay, L., Mensa-Kwao, A., Herrman, H., de Leeuw, E., Anand, N., Atwoli, L., Bardikoff, N., Booyesen, C., Bustamante, I., Chen, Y., Davis, K., Dua, T., Foote, N., Hughsam, M., ... Zeitz, L. (2024). Making cities mental health friendly for adolescents and young adults. *Nature*, 627 (8002), 137-142. <https://doi.org/10.1038/s41586-023-07005-4>

United Nations Children's Fund (UNICEF). (2018). *UNICEF Programme Guidance for the Second Decade: Programming With and for Adolescents*. UNICEF. <https://www.unicef.org/media/57336/file>

Yeang, K., & Dilani, A. (Eds.). (2022). Ecological and salutogenic design for a sustainable healthy global society. In K. Yeang & A. Dilani (Eds.), *Ecological and Salutogenic Design: For a Sustainable Healthy Global Society* (pp. 2-42). Cambridge Scholars Press.

IMAGE CREDITS

Cover Page

Figure 0: [Framed image of the world map]. (2021). Globe Turner, LLC.

Figure 0.1: Map with hanging tags. Image by author.

Part 1. Introduction

Part 2. Framework

Figure 2.1: Ease/Dis-ease Continuum. Image by author.

Figure 2.2: Salutogenic Design. Image by author.

Figure 2.3: Design Factors using Sense of Coherence components as tactics. Image by author.

Part 3. Methodology

Figure 3.0: JBLM on Washington State map. Image by author.

Figure 3.1: JBLM zoomed in. Image by author.

Figure 3.2: Hillside Youth Center site. Image by author.

Figure 3.3: JBLM city center site. Image by author.

Figure 3.4: Youth Design Activity Proposal. Image by Author. Slide template retrieved from Canva. <https://www.canva.com/>

Figure 3.5: Waffle blocks activity. Image by author.

Figure 3.6: Waffle blocks organization. Image by author.

Figure 3.7: Home to me activity. Image by author.

Figure 3.8: Teens collective story. Image by author.

Figure 3.9: Teens outdoor space design. Image by author.

Figure 3.10: Poem on JBLM teens' strength. Image by author
Braid photo retrieved from Microsoft Office Stock Photo.

Figure 3.11: "Lead the way" activity. Image by author.

Figure 3.12: Teen center imagined 1. Image by author.

Figure 3.13: Teen center imagined 2. Image by author.

Figure 3.14: "My window" activity. Image by author.

Figure 3.15: “My window” activity. Image by JBLM teens. Scans by author.

Figure 3.16: My hope and empathy activity imagined. Image by author.

Figure 3.17: My hope and empathy activity. Image by author.
People figures retrieved from Toffu. <https://toffu.co/>

Figure 3.18: Pin the map activity. Image by author.
[Framed image of the world map]. (2021). Globe Turner, LLC.

Figure 3.19: Workshop observations. Image by author.

Figure 3.20: Toolkit initial concept. Image by author.

Part 4. Findings

Figure 4.0: Workshop workbooks. Image by author.

Figure 4.1: Synthesis of waffle blocks activity. Image by author.

Figure 4.2: “My window” activity layered. Image by author. Window template retrieved from Canva. <https://www.canva.com/>

Figure 4.3: Teens’ hopes and wishes for peers and parents. Image by author.

Figure 4.4: JBLM teens’ strength from the hanging tags. Image by author.

Figure 4.5: Graphical Toolkit. Image by author. Icons retrieved from Canva. <https://www.canva.com/>

Conclusion

Appendix

Figure 6.0: Scan copy of UW IRB determination. Scan by author.

Figure 6.1: Cover Photo of Graphical Toolkit. Image by author. Image by author. Icons retrieved from Canva. <https://www.canva.com/>

Graphical Toolkit

Figures not labeled, but used in toolkit.

Toolkit Icons. Icons retrieved from Canva.

Dandelion with three stems. Icon retrieved from Canva.

Dandelion pappus. Icon retrieved from Canva.

City center map. Image by author.

Cover and end pages: Community engagement activity. Image by author.

Page 2: Teen's project for "lead the way" activity. Image by author.

Page 5: Adapted diagram of the processes of health and disease by Konarski and Dilani. Image by author.

Page 10: Workshop Activity Workbook. Image by author.

Page 12: Teen's project for "my spaces, my activities" activity. Image by author.

Page 28: Teen's project for "my build" activity. Image by author.

Page 34: Waffle blocks template. Icons retrieved from Microsoft Office Stock Images and Flat Icon website:

Move Icon. <https://www.flaticon.com/free-icons/playing>

Nature Icon. <https://www.flaticon.com/free-icons/garden>

Free Play Icon. Microsoft Stock Icon.

Connect Icon. <https://www.flaticon.com/free-icons/community>

Recharge Icon. <https://www.flaticon.com/free-icons/beanbag-sitting>

Page 36: Tags template retrieved from Canva. <https://www.canva.com/>

Page 37: Window Template. Image from Canva.

Page 38: Salutogenic Design. Image by author.

01 Appendix. IRB Process and APS 10.13*



NOT RESEARCH

March 14, 2024

Dear Bernadette Labuguen:

On 3/14/2024, the University of Washington Human Subjects Division (HSD) reviewed the following application:

| | |
|-----------------|---|
| Type of Review: | Initial Study |
| Title of Study: | Community Engagement with JBLM-Affiliated Teens Designing their Built Environments |
| Investigator: | Bernadette Labuguen |
| IRB ID: | STUDY00020004 |
| Funding: | None |

HSD determined that the proposed activity is not research, as defined by federal and state regulations. Therefore, review and approval by the University of Washington IRB is not required.

This determination applies only to the activities described in this application. **Depending on the nature of your study, you may need to obtain other approvals or permissions to conduct your activity. For example, you might need to apply for access to data or specimens (e.g., to obtain UW student data). Or, you might need to obtain permission from facilities managers to conduct activities in the facilities (e.g., Seattle School District; the Harborview Emergency Department).**

HSD does not make determinations on behalf of other institutions. If other institutions are involved in the proposed activity, they may need to make their own determination or they may decide to be guided by our determination.

If you need to make changes in the future that may affect this determination or are not sure, contact us or submit a new request for a determination. You can create a modification by clicking Create Modification within the study.

We wish you great success.

Sincerely,

Shawn Query, CIP
Senior Administrator, Committee B
squery@uw.edu
206.221.0265

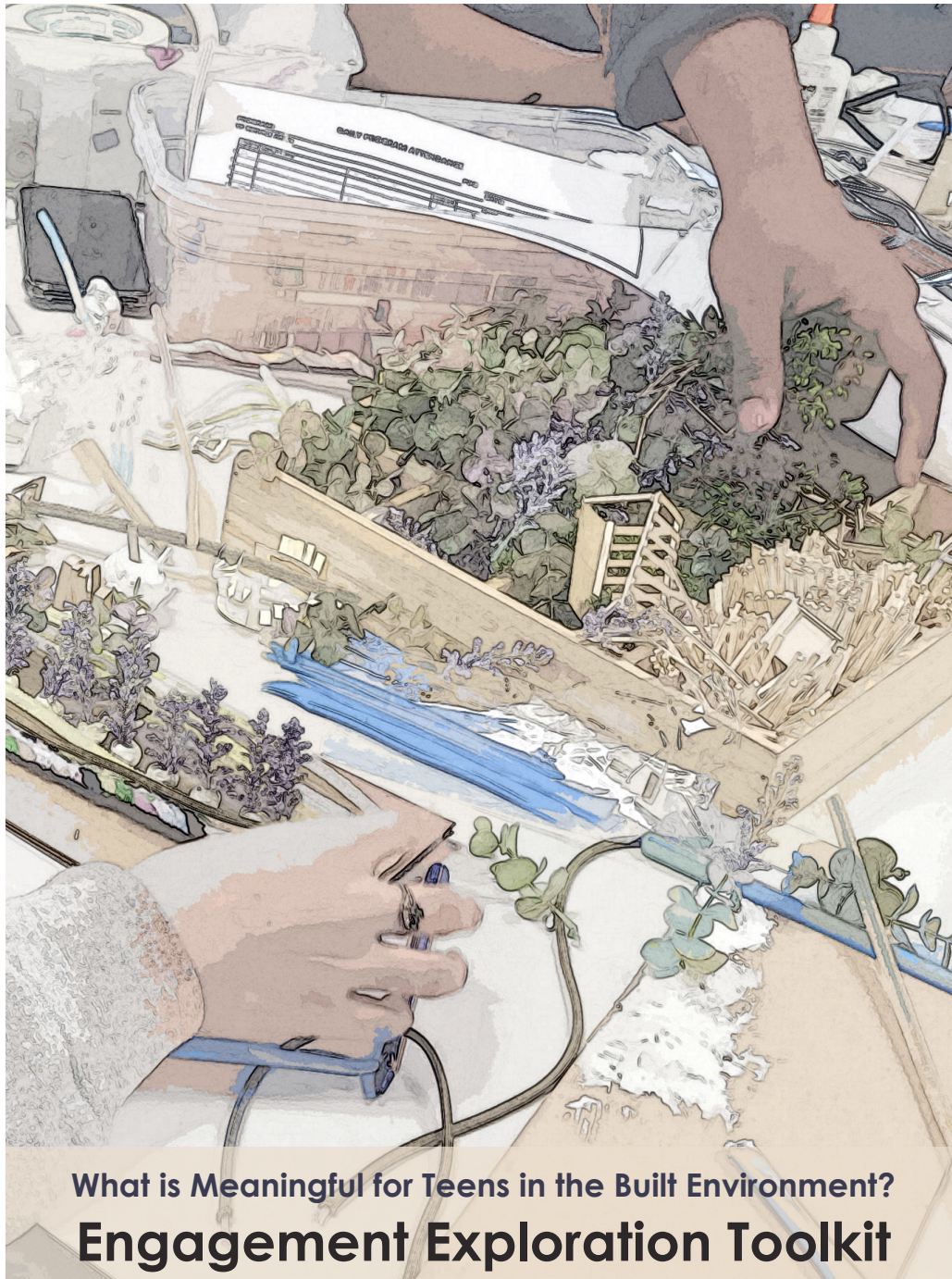
4333 Brooklyn Ave. NE, Box 359470 Seattle, WA 98195-9470
main 206.543.0098 fax 206.543.9218 hsdinfo@u.washington.edu www.washington.edu/research/hsd
Implemented 01/21/2021 – Version 1.10 - Page 1 of 1

* Office of the Youth Protection for APS 10.13

Email Inquiry: 2/15/2024 and Online Meeting: 5/8/2024

This is out of scope for APS 10.13. Meetings and consultations were conducted with UW Office of the Youth Protection Office. Process does not fit the criteria as workshops were not one-on-one meetings and were supervised by authorized personnel for the existing program. Author completed all of the training requirements if it was within scope.

Figure 6.0. Scan copy of UW IRB determination for thesis.



**What is Meaningful for Teens in the Built Environment?
Engagement Exploration Toolkit**

Figure 6.1. Cover photo of graphical toolkit.



**What is Meaningful for Teens in the Built Environment?
Engagement Exploration Toolkit**

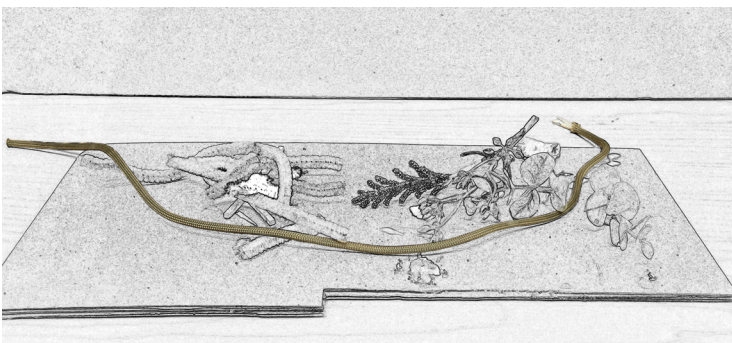
Recognition and gratitude to thesis committee chair, Louisa Iarocci, and members, Lynne C. Manzo and Jason C. Yip for their support and brilliance in guiding the creation of a thesis that informs this toolkit.

Many thanks to all of the consultants, peers, and Hillside Youth Center's teens and leaders that helped guide and manifest the creation of this toolkit.

Toolkit was created in pursuit of the author's Master of Architecture degree from University of Washington.

This toolkit consists of suggestions and can be changed, adapted, edited, and tailored according to the needs of the workshop facilitators.

© Bernadette Labuguen
June 2024



Community engagement activity. Image by author.
Teen's project for "lead the way" activity. Image by author.

Introduction
Purpose
Salutogenic Design

04 welcome

How to Use the Toolkit
Limitations

06 directions

Determine if Toolkit is Appropriate
Community Ambassadors
Win-Win Situation

08 essentials

Menu of Activities
Sequence
Topic Summaries
Activity Worksheets

10 workshops

Empower Teens
Organize Data
Analyze Data
Feedback from Teens

26 synthesis

Summary of Findings
Workshop Script Template
Workshop Checklist
Activity Documents

28 supplementary
files

Next
Bibliography
Photo Credits

38 not a conclusion

table of contents

Introduction

Looking over maps and gathering existing local media information to paint a picture of the community's culture can be the initial step in designing what might be meaningful for the community. To enhance its quality, on-the-ground community engagement could add valuable insights that supplement the design because local people hold meaningful memories of their local places. The fundamental objective of this Engagement Exploration Toolkit is to provide a set of instructions when facilitating design workshops with adolescents of a community. Rooted in the salutogenic design model of focusing on origins of health and ways to increase sense of coherence in the built environments, this technical toolkit expands on ways "meaningfulness" can be captured. Meaningfulness in the built environments can be informed by the community's culture or identities. The methods included in this toolkit are refined by the lessons learned and best practices by a series of workshops previously conducted.

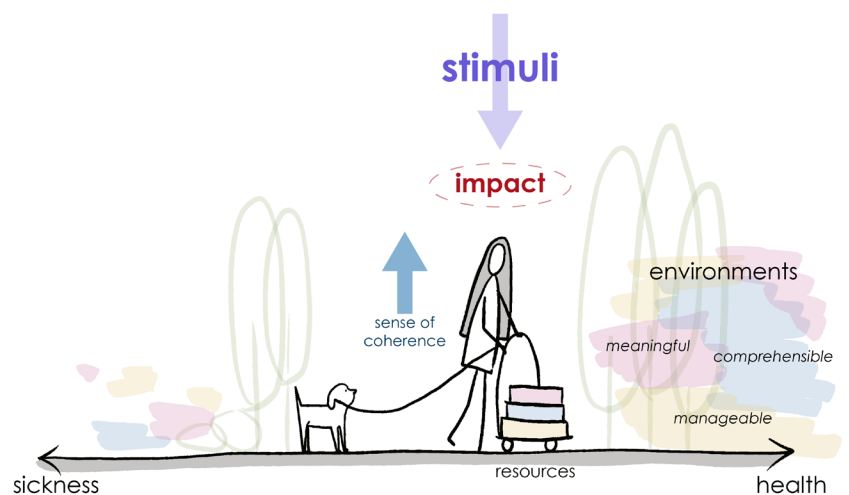
Purpose

The creation of this toolkit was informed by the need for a streamlined process for essential best practices when it comes to community design engagements. Its core aim is to enhance the quality of community engagement outcomes by establishing baseline methods that foster a more descriptive and inclusive process of public participation. Its purpose is to simplify the planning of several activities for community engagement so that efforts are mostly focused on executing the workshops and their synthesis for design.

What is salutogenic design

Salutogenesis is a model for health promotion and is based on the idea that a person constantly moves between poles of health and sickness, depending on how sufficient coping resources a person has compared to the stimuli that exists in the environments.

Salutogenic design is an emerging field adapted from salutogenesis research dedicated to designing built environments with an orientation towards the promotion of health through spatial and aesthetic qualities of the spaces. Design presents visual and sensorial complexities that can impact health. Salutogenic design focuses on spatial and social strategies for built environments to provide people with resources to nurture and promote sense of coherence. Sense of coherence is a person's perceived ability to cope in the environments and is impacted by how comprehensible, manageable, and meaningful the experience is. This toolkit focuses on the abstract component meaningfulness and is a compilation of best practices from workshops investigating how to capture its elements in the most optimal way.



Adapted diagram of the processes of health and disease by Konarski and Dilani (Yeang & Dilani, 2022). Image by author.

welcome

essentials



workshops



synthesis



Follow the “essentials” prior to conducting the workshops*

These “essentials” are required tasks to successfully use this toolkit as they serve as guiding principles that inform the activities and the teens' participation in the workshops.

01

Ascertain which activities to use

The activities listed are categorized by color and icons to quickly identify the most feasible options. Since logistics may vary, the activities can be implemented in three different formats: 6-part sequential, 3-part sequential, and arbitrary. Certain activities complement one another and are recommended to be facilitated together.

02

Synthesis

The toolkit provides spaces for observations and reflections that supplement the graphical outcomes from activities. This portion of the toolkit is open-ended and serves only as an introductory process, which can serve as essential tasks to translate data into design elements.

03

Limitations

Though the workshop activities are encouraged to be used in many different ways, the essentials listed in this toolkit are considered foundational. The toolkit is heavily informed by the notion that meaningful spaces can be further enhanced by representing the community's culture. The design workshop activities are set up so that the outcomes may be abstract and open to various interpretations. Since this toolkit is exclusively focused on capturing the community's culture to promote meaningfulness in a space, it does not prescribe specific design outcomes.



In addition, working with youths and certain communities require several vetting and safety measures. Some pursuits might require approvals from several entities for their involvement. These approvals must be addressed and approved prior to advancing to the “workshop” portion of this toolkit. Allowing time to apply for these measures may be necessary.

directions

essentials



Determine if Toolkit is Appropriate

This toolkit is based on the understanding that architecture is an active participant in people's health, specifically towards the promotion of mental health and well-being. Determining if this is the proper toolkit for specific goals, one must decide to focus on origins of health, rather than management of disease. Origins of health consist of resources acquired in various ways, to include positive experiences in the built environments.



Community Ambassadors

Community ambassadors are community leaders and representatives that are actively engaged in serving their neighborhoods. They have established trust and relationships among the local people and can represent their common interests and concerns on their behalf. Partnering with a community ambassador is highly recommended as they can pinpoint barriers to community engagement. Community ambassadors can be the bridge effectively communicate all parties' goals and objectives. In this toolkit, partnering with a community ambassador can create a more inclusive and equitable activities, as well as environment during workshops. One important reminder for partnering with community ambassadors is that it can take time to foster the relationship. *The following barriers can exist during community engagements and can be guided by the community ambassador during the planning stages: language, cultural norms, access to information, limited resources, logistical demands, lack of trust, and impact over intent.*



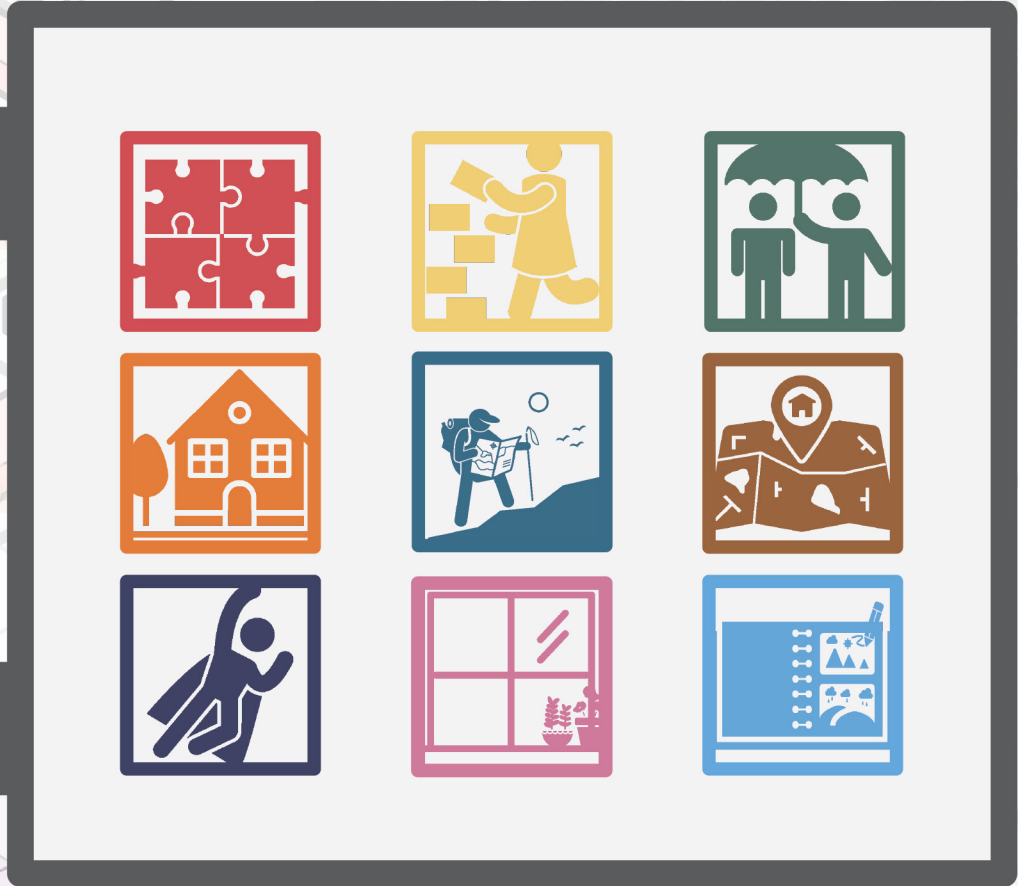
Create Win-Win Situations

The win/win situation described for this is not the mutual benefits that are hoped for once a building is constructed. The win/win situation within this thesis' scope are fruitions of differing goals between the designer and the community during the design process. Most design workshops are formed for designers to engage with the community to get ideas, respond to their needs, and be informed of unknown factors that could impact the building of the environment. The community's win can include civic participation for their youths, community activities to promote social capital, and leadership opportunities for the participants. This important step in suggests that for resources of both parties to be preserved and purposely utilized, end results must be mutually beneficial.



essentials

workshops



Empower Teens

Empowering teens continues beyond the preparation and planning phase of community engagements and can be manifested through an agreement that is established prior to the workshops. This agreement can change for every workshop and must be agreed upon by all of the participants. It can include communication styles, established norms, and creating a safe space for diverse ideas. Inclusion of teens in drafting this agreement and allowing leadership roles during the workshops are paramount to the success of the interaction and outcomes. Each activity will have a section on how to give them meaningful roles, without taking away the experience for them.



workshops

Workshop Sequence




























6-part sequential - To the right are suggested pairings and order for workshops that complements both the materials and accumulation of information to inform the next activity. This sequence is used when participants and time remain the same throughout the duration of the series.

3-part sequential - They are suggested pairings and order for shorter frequencies of engagements. This sequence is used when participants and time remain the same throughout the duration of the series.

Arbitrary - The suggested pairings or order do not have to follow one another. This is best if frequencies, participant count, or logistics shift during part or the entire workshop series.

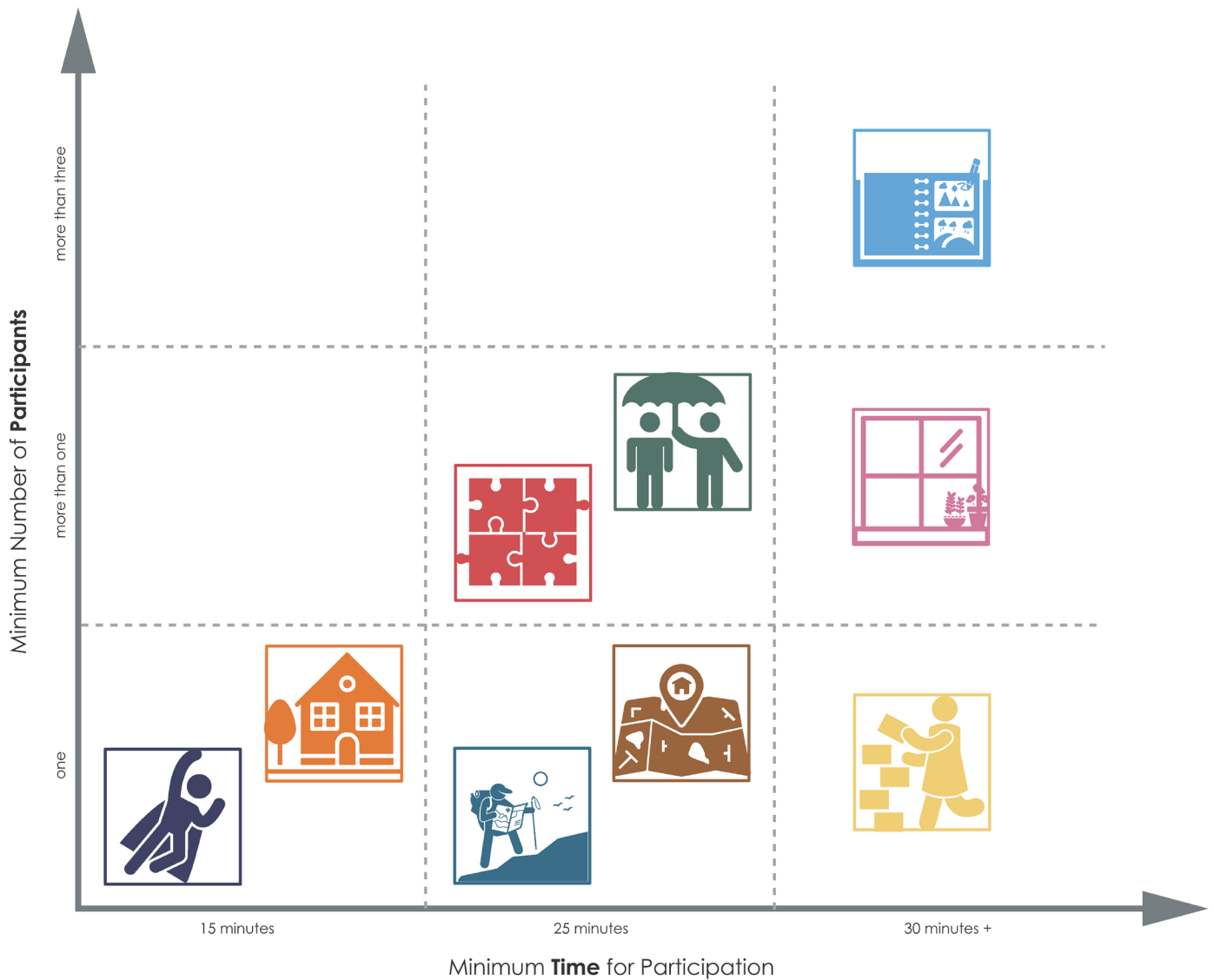
The following pages have guides that can help facilitators determine which workshops to use depending on various reasons.






























| | | | |
|---|-------------------------------------|---|---|
|  | <p>my spaces, my activities</p> |  25  2 | <p>Using waffle blocks, teens are able to express the ideas on what spaces matter to them, why, and how they envision themselves in them in an easy to understand activity. Whether the version of the activity is tactile or printed, many sensories work together to help the teen express their desires.</p> |
|  | <p>my home</p> |  15  1 | <p>Definitions of home vary for every person. Home can bring ease, comfort, and hope for teens. Their descriptions of home are not merely statements, but also something tangible they have been part of that they can always pull from memory.</p> |
|  | <p>my strength</p> |  15  1 | <p>Strength can mean many things. They can be physical attributes or ways for teens to cope in their environments. Asking for them to name their strength, their designs can incorporate ways to promote them. The use of string allows demonstration of how their collective strengths can intertwine with one another through braiding.</p> |
|  | <p>my build</p> |  30  1 | <p>This activity asks teens to create physical models or designs of spaces they prefer, feels like home, or where they feel strong. By using physical materials like clay, cardboard, magazines, and other model materials, teens can name these objects to represent elements of space that can be experienced and enjoyed.</p> |
|  | <p>lead the way</p> |  25  1 | <p>This activity asks the teens to pretend to take a walk within spaces they designed. By showing the entry to the space and the different stops during this walk, teens tell stories about how they prefer to enjoy the spaces, what they look like, and why.</p> |
|  | <p>my window</p> |  30  2 | <p>This activity invites the participants to recreate scenes and elements of the lives that are important to them through a collage. With a window template placed on top of their designs, others are able to have a view of who their peers are, as well as what are meaningful for them.</p> |
|  | <p>my hope and empathy</p> |  25  2 | <p>This activity reveals the their own personal preferences in the form of hoping it for others. Using simple materials, asking the teens to imagine how they want others to feel in the spaces they either design or already part of, the activity reveals meaningful elements of spaces.</p> |
|  | <p>my journey</p> |  25  1 | <p>Everyone has a journey. It can be places they have been to, experiences that lead them to have preferences, or even their daily routines. This journey creates memories in spaces that are important to the teens. This activity asks the participants to describe the journey and meaningful memories from them.</p> |
|  | <p>our story</p> |  30  3 | <p>Storytelling is a powerful way to describe how people experience their environments. This activity asks the teens to take one roles to cohesively represent a story of their group through collage and storyboard. This activity can summarize their preferences.</p> |


Workshop Guide Depending on Time and Participants


Below is a quick overview of activities that acts as a guide to help ascertain which activities to conduct depending on number of participants and time.





Complementary Workshops

| | | | |
|---|-------------------------------------|---|---|
|  | <p>my spaces, my activities</p> |  25  2 | <p>Using waffle blocks, teens are able to express their ideas on what spaces matter to them, why, and how they envision themselves in them in an easy to understand activity. Whether the version of the activity is tactile or printed, many sensories work together to help the teen express their desires.</p> |
|  | <p>my home</p> |  15  1 | <p>Definitions of home vary for every person. Home can bring ease, comfort, and hope for teens. Their descriptions of home are not merely statements, but also definitions that can be pulled from memory.</p> |
|  | <p>my strength</p> |  15  1 | <p>Strength can mean many things. They can be physical attributes or ways for teens to cope in their environments. Asking teens to name their strengths, their designs can incorporate ways to promote them. The use of string allows demonstration of how their collective strengths can intertwine with one another through braiding.</p> |
|  | <p>my build</p> |  30  1 | <p>This activity asks teens to create physical models or designs of spaces they prefer, feels like home, or where they feel strong. By using physical materials like clay, cardboard, magazines, and other model materials, teens can name these objects to represent elements of space that can be experienced and enjoyed.</p> |
|  | <p>lead the way</p> |  25  1 | <p>This activity asks the teens to pretend to take a walk within spaces they design. By showing the entries to the spaces and the different stops during the walk, teens tell stories about how they prefer to enjoy the spaces, what they look like, and why.</p> |
|  | <p>my window</p> |  30  2 | <p>This activity invites the participants to recreate scenes and elements of their lives that are important to them through a collage. With a window template placed on top of their designs, others are able to have a view of who their peers are, as well as what are meaningful for them.</p> |
|  | <p>my hope and empathy</p> |  25  2 | <p>This activity reveals the teens' personal preferences in the form of hoping it for others. Using simple materials, asking the teens to imagine how they want others to feel in the spaces produce designs to promote meaningfulness in spaces.</p> |
|  | <p>my journey</p> |  25  1 | <p>Everyone has a journey. It can be places they have been to, experiences that lead them to have preferences, or even their daily routines. This journey creates memories in spaces that are important to the teens. This activity asks the participants to describe the journey and meaningful memories from them.</p> |
|  | <p>our story</p> |  30  3 | <p>Storytelling is a powerful way to describe how people experience their environments. This activity asks the teens to take on roles to cohesively represent a story of their group through collage and storyboard. This activity can summarize their preferences.</p> |

Min. # of Participants
 **2**

Min. Amount of Time
 **25 minutes**

  complimentary activities

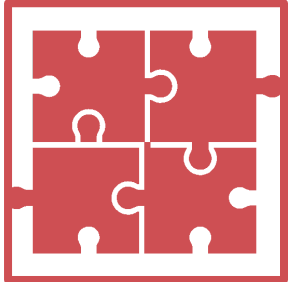
Prompt for the Activity

My spaces, my activities are...

Using waffle blocks, teens are able to express their ideas on what spaces matter to them, why, and how they envision themselves in them in an easy to understand activity. Whether the version of the activity is tactile or printed, many sensories work together to help the teen express their desires.

Materials Needed

- Several sets of 3D waffle blocks or printouts (see supplementary documents).
- Printouts or stickers of activity/place icons
- Printout of handout for the site (see supplementary documents)
- Pens and markers



Prep Instructions

1. Prepare the waffle blocks by affixing the icons on to them. The idea is to have each activity or place to be represented on the blocks.
2. If using the printouts, what is provided in the supplementary documents can be used or tailored to what is needed.
3. Print out the handouts to be given to the teens that show the site and spaces for them to write to describe the block in their own words.
4. Create script to include the instructions for students. Script idea can be found in the supplementary files.
5. Pack workshop materials, by using checklist found in the supplementary files.

Day-of Activity Instructions

1. Script Intro (see supplementary documents)
2. Explain the icons, without prescribing too much of what each icon means. It's preferable for teens to describe them in their own words.
3. Demonstrate how to connect the waffle blocks together. Show how to place the waffle blocks within the boundaries of the handout.
4. Discuss why their preferences in the spaces they experience are important in design.
5. Give the prompt.
6. Pass the materials around.
7. After five minutes, ask the teens to list down their own meaning for the place and activity.
8. Once everyone is finished, ask if anyone would like to share their creation, opening the discussion to any part of the activity.




Enhancing the Activity


- Allow the blocks to be stacked or oriented differently.
- After discussion, ask the teens to swap their creations and ask them to add on or replace elements of the design. Discuss how built environments evolve and also can be experienced differently by people. (Additional time required)




Empowering Teens

- Each team/group to have a lead that can summarize and discuss with the group the collective design choices.
- Team/group lead to ensure members are on task and schedule.
- Team lead to facilitate everyone's ideas so they are heard and included.

 Min. # of Participants
1

 Min. Amount of Time
15 minutes

 complimentary activities

Prompt for the Activity

My home is...

Definitions of home vary for every person. Home can bring ease, comfort, and hope for teens. Their descriptions of home are not merely statements, but also definitions that can be pulled from memory.

Materials Needed

- Sticky Notes
- Pens and markers
- Poster Board or Whiteboard



Prep Instructions

1. Prep the poster board to have the title of the prompt
2. Determine if specific categories or groupings for home (emotion, place, people, etc) will have specific color for the sticky notes
3. Create script to include the instructions for students. Script idea can be found in the supplementary files.
4. Pack workshop materials, by using checklist found in the supplementary files.

Day-of Activity Instructions

1. Script Intro (see supplementary documents)
2. Discuss what home can be. It can be a place, feeling, people, sound, etc. Remind them that it can be different everyone, but what's most important is how they, themselves, define home.
3. Give teens the prompt and let them know that they can describe home as many ways as they want, but use one sticky note for each.
4. Pass the materials around.
5. After five minutes, ask the teens to put their sticky notes onto the board .
6. Once everyone is finished, have a discussion about what people have added.




Enhancing the Activity


- Ask the teens to group the board in categories together.
- Ask the teens to describe spaces that hold their descriptions of home.
- Break the group into smaller teams to categorize and discuss everyone's descriptions.





Empowering Teens

- Teens to lead the discussions of home.
- Teens to ask each other about specific themes highlighted after they are categorized.

Min. # of Participants
 **1**

Min. Amount of Time
 **15 minutes**

  **complimentary activities**

Prompt for the Activity
My strength is...

Strength can mean many things. They can be physical attributes or ways for teens to cope in their environments. Asking teens to name their strengths, their designs can incorporate ways to promote them. The use of string allows demonstration of how their collective strengths can intertwine with one another through braiding.

Materials Needed

- Yarn (assorted colors)
- Tags
- Safety Scissors
- Pens and markers



Prep Instructions

1. Cut the yarn the same length (length to be enough to hang the tag on it, as well as be braided with others)
2. Hang the tag
3. Create script to include the instructions for students. Script idea can be found in the supplementary files.
4. Pack workshop materials, by using checklist found in the supplementary files.

Day-of Activity Instructions

1. Script Intro (see supplementary documents)
2. Start by showing the teens the materials.
3. Discuss why designing around their strength can create meaningful spaces. Describe strengths that might not be typical (physical strength) and explain that everyone's strength is different.
4. Give the teens the prompt.
5. Demonstrate how the teens would write their strength on the tags.
6. Pass the materials around and ask them to pick a yarn with they preferred most.
7. After five minutes, ask the teens to share their strengths with the group.
8. Discuss as a group how certain strengths were learned and how they can grow them.
9. To conclude, braid their strengths together and explain how, together with their ideas, the places they can design can create a stronger community



Enhancing the Activity

- Categorize the strengths and discuss the themes that surface up for the group.
- Create a poem out of the teens' definition of strength.



Empowering Teens

- Teens to lead the discussions of strength
- Teens to braid the yarn together
- Teens to summarize the collective strength into a collage that incorporates everyone's definitions.

Min. # of Participants
1

Min. Amount of Time
30 minutes

complimentary activities

Prompt for the Activity
My build is...

This activity asks teens to create physical models or designs of spaces they prefer, feels like home, or where they feel strong. By using physical materials like clay, cardboard, magazines, and other model materials, teens can name these objects to represent elements of space that can be experienced and enjoyed.

- Materials Needed**
- Cake Board (size varies, see craft stores) – will be used as boards for design.
 - Random assortment of model materials (can be anything: clay, cardboard, sticks, branches, candy wrappers, boxes, pipe cleaners, etc.)
 - magazines
 - Glue
 - Safety Scissors
 - Pens and markers



- Prep Instructions**
1. If not using a cake board, cut cardboard to size.
 2. Prepare materials (trees, bushes, etc) that can help the teens focus on design.
 3. Create script to include the instructions for students. Script idea can be found in the supplementary files.
 4. Pack workshop materials, by using checklist found in the supplementary files.

- Day-of Activity Instructions**
1. Script Intro (see supplementary documents)
 2. Start by showing the teens the materials.
 3. Discuss how designing with 3D materials can help visualize spaces they value and prefer. Remind them that their design choices should incorporate what's meaningful for them, remind them of home, and make them stronger.
 4. Give the teens the prompt.
 5. Pass the materials around.
 7. After 20 minutes, ask the teens to present their design with the group, by highlighting where the points of entries were, activities people can do in their spaces, and other design elements they wanted to add.



- Enhancing the Activity**
- Iterate this activity (this would require more days)
 - Start with a parti- or bubble diagram or use the outcomes of the waffle blocks activity to help the teens with a plan view of spaces they can design around
 - Conduct this activity with "Lead the Way"
 - Create a 3D site that each design can sit on so that teens can connect their design to existing neighborhood/space
 - Allow for use of digital software like Minecraft or TinkerCAD



- Empowering Teens**
- Teens initiate discussions or questions like, why are you using that material, how would one feel in the space, or why are you designing _____
 - If working in small teams, appoint a project manager.
 - Teens to summarize the group's design decisions



Min. # of Participants

1



Min. Amount of Time

25 minutes



complimentary activities

Prompt for the Activity

I will lead the way...

This activity asks the teens to pretend to take a walk within spaces they design. By showing the entries to the spaces and the different stops during the walk, teens tell stories about how they prefer to enjoy the spaces, what they look like, and why.

Materials Needed

- String (yarn, thread, pipe cleaner, paracord, etc)
- Previous activity designs that show spatial decisions (waffle blocks, 3D designs, etc)
- Comic strips (see supplementary documents) printed on paper
- Safety scissors
- Paper
- Small sticky notes
- Pens and markers



Prep Instructions

1. Print comic strips handout (see supplementary documents).
2. Organize previous work from participants
3. Create script to include the instructions for students. Script idea can be found in the supplementary files.
4. Pack workshop materials, by using checklist found in the supplementary files.

Day-of Activity Instructions



1. Script Intro (see supplementary documents)
2. Explain that the string will be used on 3D designs to show how one would walk the spaces they designed. Demonstrate how this is done. The handout will be used to tell a story at stops during that walk.
3. Discuss how storytelling is a powerful way to describe how meaningful spaces are. Sometimes, ideas can be represented with simple figures or objects.
4. Determine who has designs to string the walk or would need to create parti or bubble diagrams first.
 - 4a. For those with existing designs, give the prompt and hand the materials to them.
 - 4b. For those without existing designs, they can spend 5 minutes doing a parti/bubble diagram. Hand them paper, pens and markers. The prompt to give them can be places that can feel like home or places where they feel strong and courageous. Once they finish, they can be given the other prompt
5. After 15 minutes, ask the teens to create a title for their story.
6. Pass their comic strips around.
7. Pass the smaller sticky note and give them a new prompt.
8. Spend a minute or two reading everyone's story and leave a thoughtful note about their space and how they would use/enjoy the space. Pass the comic around until everyone was able to comment (think of the comment sections in social media post).
9. Once everyone has commented, ask if anyone wants to share their stories or their favorite stories.

Enhancing the Activity



- Have teens string new paths with how they would spend time in the space
- Using small sticky notes, ask teens to continue the story as if they are new to the space and experiencing their peers' design for the first time (their own walk)
- Find recurring themes together and discuss why many picked certain elements the same way

Empowering Teens

- Teens to summarize the group's design decisions
- Teens to connect everyone's design to create a longer "walk" and highlight specific points that are meaningful during their "walk"



Min. # of Participants

2



Min. Amount of Time

30 minutes



complimentary activities

Prompt for the Activity

My window...

This activity invites the participants to recreate scenes and elements of their lives that are important to them through a collage. With a window template placed on top of their designs, others are able to have a view of who their peers are, as well as what are meaningful for them.

Materials Needed

- Cardstock Paper (sized to fit within window template)
- Window Template
- Magazines (make sure they are age appropriate)
- Safety scissors
- Glue
- Sticky notes (optional)
- Pens and markers



Prep Instructions

1. Print and cutout window template (see supplementary documents)
2. Print a building on a large paper and cutout window template or create a box that will hold their views (optional)
3. Create script to include the instructions for students. Script idea can be found in the supplementary files.
4. Pack workshop materials, by using checklist found in the supplementary files.

Day-of Activity Instructions

1. Script Intro (see supplementary documents)
2. Start by showing the teens the materials.
3. Discuss how windows provide views to look in or out to spaces. Everyone has experienced looking in or out of window and sometimes that experience can be memorable.
4. Give the prompt.
5. Pass the materials around.
6. Play music (optional).
7. After 20 minutes, ask teens to share their window views.




Enhancing the Activity


- Ask them the songs they want played and add to a songlist to be played during their work time. Make sure that the songs are the clean (profanity-free) versions.
- Ask the teens to leave encouraging notes on their peers' window views using sticky notes (think of comment section in social media post).
- Create a box that can fit the size of their view with windows, so when they do the shareout, it's in a 3D model.




Empowering Teens

- Teens to lead the instructions on how to create the window scene
- Teens to lead small group discussions on everyone's creation

Min. # of Participants
 **2**

Min. Amount of Time
 **25 minutes**

 complimentary activities

Prompt for the Activity

My hope and empathy...

This activity reveals the teens' personal preferences in the form of hoping it for others. Using simple materials, asking the teens to imagine how they want others to feel in the spaces produce designs to promote meaningfulness in spaces.

Materials Needed

- Sticky notes
- Photo of their space or future design
- Pens and markers



Prep Instructions

1. Print and cutout window template (see supplementary documents)
2. Print a building on a large paper and cutout window template or create a box that will hold their views (optional)
3. Create script to include the instructions for students. Script idea can be found in the supplementary files.
4. Pack workshop materials, by using checklist found in the supplementary files.

Day-of Activity Instructions



1. Script Intro (see supplementary documents)
2. Present the space they are going to use as the place they can hope for others in the future. If an actual space doesn't exist, use designs they have done before or create a box to represent a space that will be made for them. Explain that the space is for other teens like them.
3. Pass one color of the sticky note and give the first prompt: What do you hope and wish for other teens that will experience this space?
4. Ask them to affix it on the board or design.
5. Then, pass another color of the sticky note and give the second prompt: What do you hope for your parents and your loved ones to feel in this space?
6. Ask them to affix it on the board or design.
7. Discuss recurring themes.


Enhancing the Activity






- Create a 3D version of their space (lightbox or simple box with depictions of spaces they designed in the other activities, if already done)
- Ask teens to write a letter to future teens that would visit the reimagined space

Empowering Teens

- Teens to lead the instructions
- Teens to lead small group discussions on their answers
- Teens to categorize the recurring themes and initiate discussions about them

 Min. # of Participants
1

 Min. Amount of Time
25 minutes

  complimentary activities

Prompt for the Activity

My journey...

Everyone has a journey. It can be places they have been to, experiences that lead them to have preferences, or even their daily routines. This journey creates memories in spaces that are important to the teens. This activity asks the participants to describe the journey and meaningful memories from them.

Materials Needed

- Sticky Notes
- Printout of Maps (world, city, neighborhood, etc) (optional)
- Pens and markers



Prep Instructions

1. Determine the journey you want to map and print that specific graphic element.
2. Printout the specific graphic element.
3. Create script to include the instructions for students. Script idea can be found in the supplementary files.
4. Pack workshop materials, by using checklist found in the supplementary files.

Day-of Activity Instructions

1. Script Intro (see supplementary documents)
2. Discuss how in everything, a journey was made. It can be a journey through many different places for people who move a lot, or a journey of the day, from home to school, to other places then home, or a journey of emotions, from refreshed to happy to sad to happy. The purpose of this activity is to recreate the places that helped shape their strength or coping skills.
3. Give the prompt.
4. Pass the materials around.
5. Ask the teens to map their journey and figure out where in their journey were their stops.
6. Ask them to describe those stops and list down what the space looks and feels like.
7. After 15 minutes, ask teens to share their journey.




Enhancing the Activity


- Ask others to add sticky notes on others' journey where they were also there or have been there.
- If using a map, print it big and place it on a big corkboard. Using pins and strings, ask the teens to map their journey there.





Empowering Teens

- Teens to lead the instructions on how map the journey, possibly giving examples
- Teens to create small groups to map journeys together

Min. # of Participants
 **3**

Min. Amount of Time
 **30 minutes**

  complimentary activities

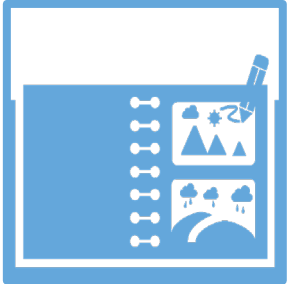
Prompt for the Activity

Our story is...

Storytelling is a powerful way to describe how people experience their environments. This activity asks the teens to take on roles to cohesively represent a story of their group through collage and storyboard. This activity can summarize their preferences.

Materials Needed

- Magazines
- Poster Board
- Glue
- Safety Scissors
- Pens and markers



Prep Instructions

1. Prepare interview questions for teens to ask each other
2. Prep the poster board (add the title or create a big storyboard within it)
3. Create script to include the instructions for students. Script idea can be found in the supplementary files.
4. Pack workshop materials, by using checklist found in the supplementary files.

Day-of Activity Instructions



1. Script Intro (see supplementary documents)
2. Discuss how storytelling is a powerful way to describe how meaningful spaces are. Sometimes, ideas can be represented with simple figures or objects. Telling a story for the group requires transparency and conversations. This activity asks, what is your community's story?
3. Give the prompt and divide the group into roles, (1) interviewers, (2) collage makers/storyboard artists, and (3) presenter.
4. Give the interviewers instructions and handouts for examples of questions they can ask.
5. Provide the collage makers/storyboard artists the materials to create the graphical representation of their stories
6. After 20 minutes, presenter will tell the collective story of the group.


Enhancing the Activity




- Allow the teens to create their own interview questions
- Allow for small group stories if there are enough participants for it.
- Another way to ask this prompt is, what would you like others to know about your community?

Empowering Teens

- Teens to create the interview questions
- Teens to assign the roles among themselves
- Teens to initiate the discussion portion of the workshop and help translate certain elements that might only be understood by them


 Min. # of Participants
#


 Min. Amount of Time
#

complimentary activities

Prompt for the Activity

Materials Needed

Prep Instructions

Day-of Activity Instructions

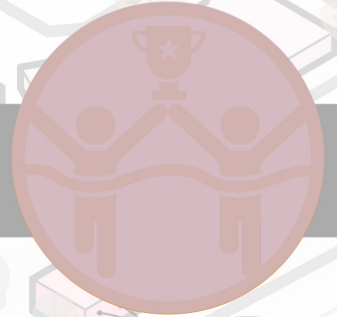
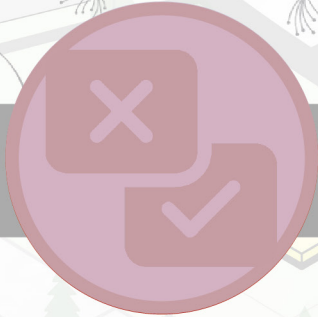


Enhancing the Activity

Empowering Teens



synthesis



Empower Teens

Many of the outcomes would need translation because teens have a unique way of conversing with one another and representing their ideas. In this portion of the toolkit, synthesizing the data from all of the workshops can be enriched by empowering teens to be part of it. The teens not only are able to translate the outcomes from the workshops, but they also learn more about their communities and can be advocates for their preferences.



Organize Data

The simplest way to organize data at a glance is by dividing the data between conversations, graphical outcomes, and overall observations. By dividing the data in these three categories, they could easily then be matched to create a cohesive story. Since the goal for using this toolkit is capturing what is meaningful for the teens, create subcategories that are towards that. For example, subcategories can include spatial, aesthetic, or design. More layers or subcategories can then be created so that analysis can be done looking at the data through many different lenses.



Analyze Data

Data analysis can be as simple as putting the teens preferences (through conversations and outcomes) into categories that are easily discernable. For example, with the waffle activities, one can look at recurring themes of how many similar activities were mentioned or how many specific icons were favored by the participants. Another way to analyze the data is to look at the transcript of conversations that might not be about the activity altogether, but reveals elements of meaning that can be translated to design.



Feedback From Teens

Empowering teens can continue in this portion of the toolkit. Their feedback on how the data is organized, categorized, and analyzed can enrich the outcomes of the design. Teens can bridge what might have been understood as disconnected elements or fill in gaps for missed information. Their involvement in this process also gives them the opportunity to be the voices for their peers, making them community ambassadors in their own right.



The toolkit is only the beginning, now it's up to you to design around what these activities produced.



synthesis



Teen's project for "my build" activity. Image by author

What are these files for?


These supplementary files are provided to help simplify tasks needed to conduct the workshops and prep documents for data analysis.

The following documents are included in this section.

- Summary of Findings** A
- Workshop Script Template** B
- Workshop Prep Checklist** C
- documents and handouts “**My space, my activities**” D
- workshop document “**My strength is**” E

supplementary files

Actual # of Participants



Community Group's Name:

Date of Activity:

Title of Prompt:

Paste the
logo of the
activity here

Facilitators: _____

Photographer: _____

Transcriber: _____

Each section has a main point to be said and suggested supplementary subtopics to choose from (feel free to make your own).

1. Thank you for the invitation to conduct design workshops with you.
2. My name is / Our names are _____. I am / We are from _____.
 - a. It's great to work with all of you today.
 - b. We are excited to design with you.
 - c. I can't wait to see the designs that you come up with!
3. I am / We are here today because we believe your ideas are _____ (be transparent, honest, and clear about your actual reason there). Make this sentence empowering for the teens.
 - We are designing ___ and we need your help.
 - I am researching ___ and I believe your ideas can make it better.
 - We are working on ___ and we need your ideas to make it more meaningful.
4. Ask the participants questions that are related to the specific activity they are about to participate in. Ensure that the questions are relatable and current. End with thanking them for sharing.
 - (activities with waffle blocks and 3D models) How many of you have designed spaces before? In your homes, in a game, or Minecraft?
 - (activities about storytelling) How many of you enjoy reading comic books?
 - (window activity) Imagine your most favorite scene from or into a window recently...
5. Create a transitory statement from their answers to the next part of the script:
 - For those of you that have been designing with Minecraft, you all have great ideas on what spaces are important to you...
 - For those of you who have played with building blocks, you already have a special way in grouping what's important to you...
 - For those of you who have read comic books, it is a fun way to tell a story, right?
6. We would like to learn about your design preferences of spaces.
 - a. You know this community better than us.
 - b. You understand your friends' and your preferences and how you use the spaces.
 - c. Your great ideas can help ensure that we design a space that promotes sense of belonging.
7. Show the teens the materials. Do not pass the materials out until later. This is to introduce them to what kind of materials they will be using and why. Once the prompt is explained (much later), the materials can then be passed out.
8. Follow the Day of Activity Instructions (in the toolkit)

*Prompts to always include words that asks them to pull from their memories.

Workshop Name: _____
 Date of Activity: _____
 Time of Event: _____
 Location of Event: _____
 # of Participants: _____
 Point of Contact: _____



Set Up

- o Connect with community representative and plan workshops
- o Create Flyer and sign-up list
- o Add QR Code to the flyer
- o Create documents that might be needed
- o Media release required?
 - Photos Audio
- o Consent forms required?

Two Weeks Prior

- o Market through email or wall pin-up
- o Determine # of participants from sign-up
- o Prepare activities
- o Email to partner agency

Week Prior

- o Reminder emails to
 - Partner Agency Volunteers
- o Logistical setting
 - How is the room set up?
 - Is there technology available?
 - Projector Screen Extension Cord
 - Speakers Camera
 - USB/Type-C/HDMI connection
 - Recorder
 - Other:
- o Audience Setting
 - classroom based informal (3) hybrid
- o Potential Participant Count _____
- o Time Allowed: _____

Additional Notes:

Workshop Name: _____
 Date of Activity: _____
 Time of Event: _____
 Location of Event: _____
 # of Participants: _____
 Point of Contact: _____



o Gather Supplies

Core Supplies

- Sketchbook
- Glue
- Tape
- Pens
- Sharpie
- Markers
- Scissors
- Trace Paper
- Pencils with Erasers
- Snacks

Additional Supplies – Mark as needed

- Magazines
- Construction Paper
- Clay
- Other:
- Hot Glue Gun
- Cardboard
- Other:
- Other:

Day Prior

- o Supplies and technology put in cart and secure for transport
- o Music Playlist – Find clean versions of the songs

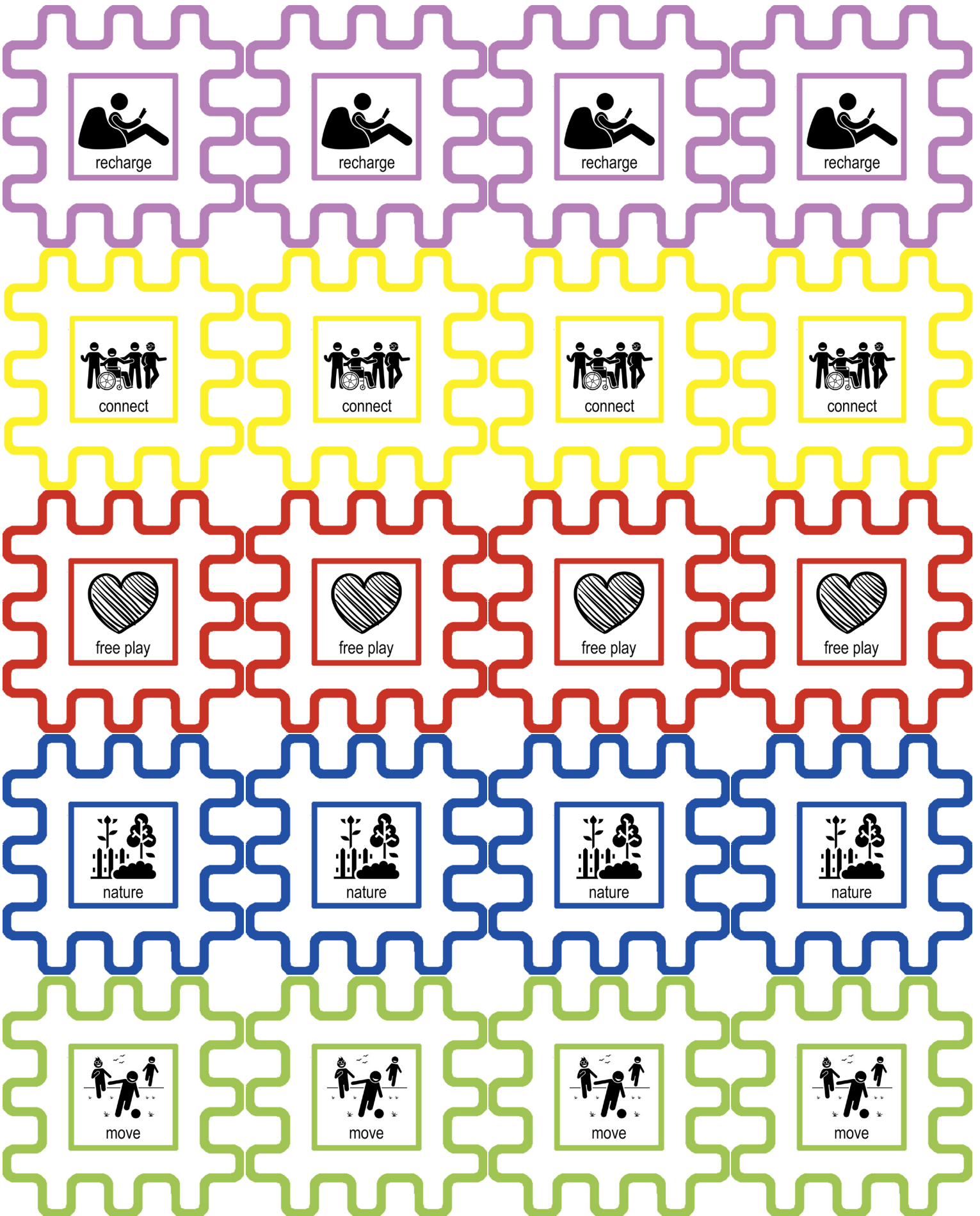
Day Of

- o Set up supplies in advance
- o Welcome participants
- o Thank them for the invitation
- o Share the reason for being there
- o Participants to sign-in
- o Take photos

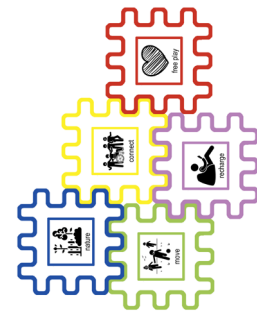
Post Workshop

- o Send thank you note
- o Return participant's graphical work

Additional Notes:



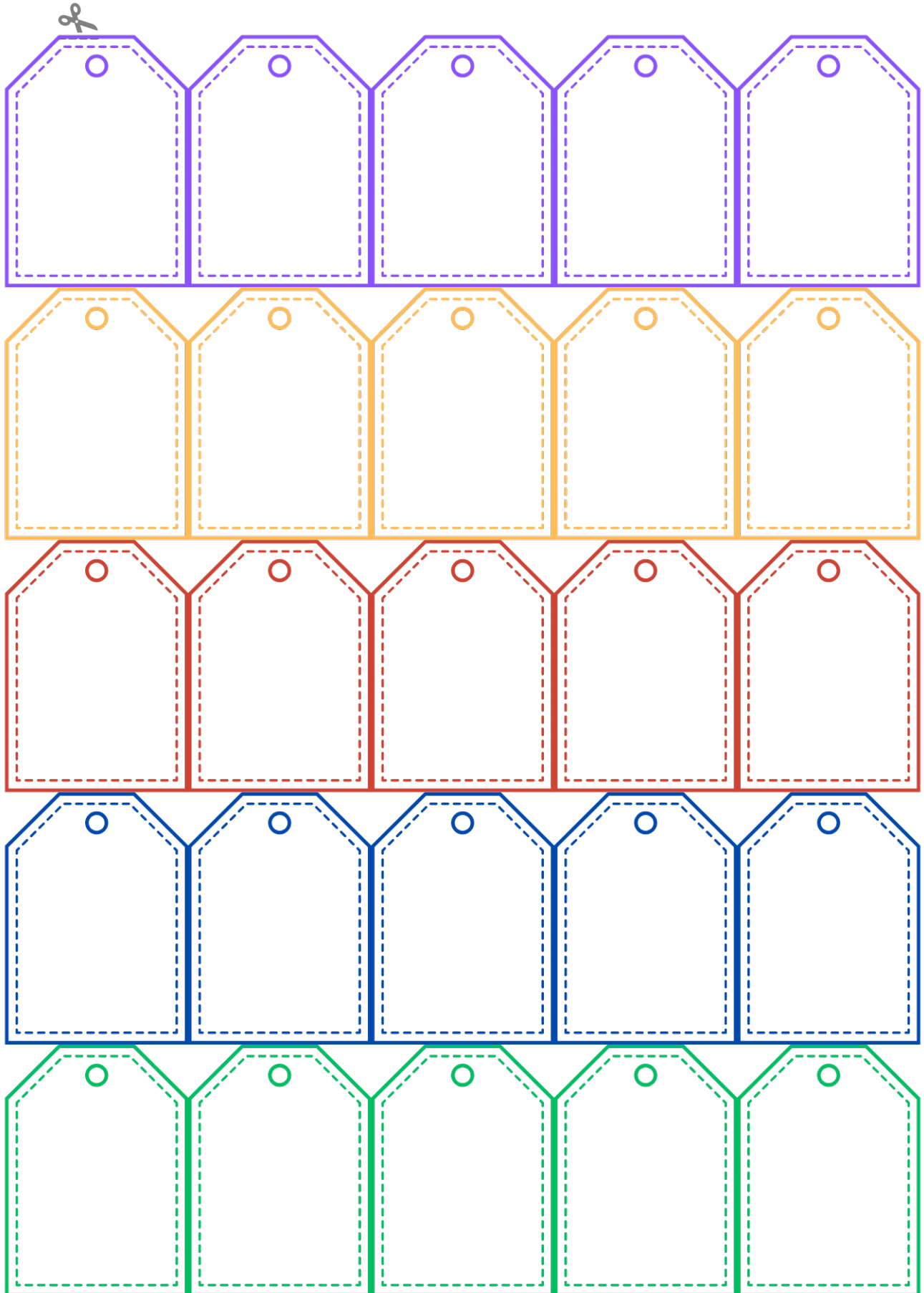
Waffle blocks template. Icons from Flaticon.com. Image by author

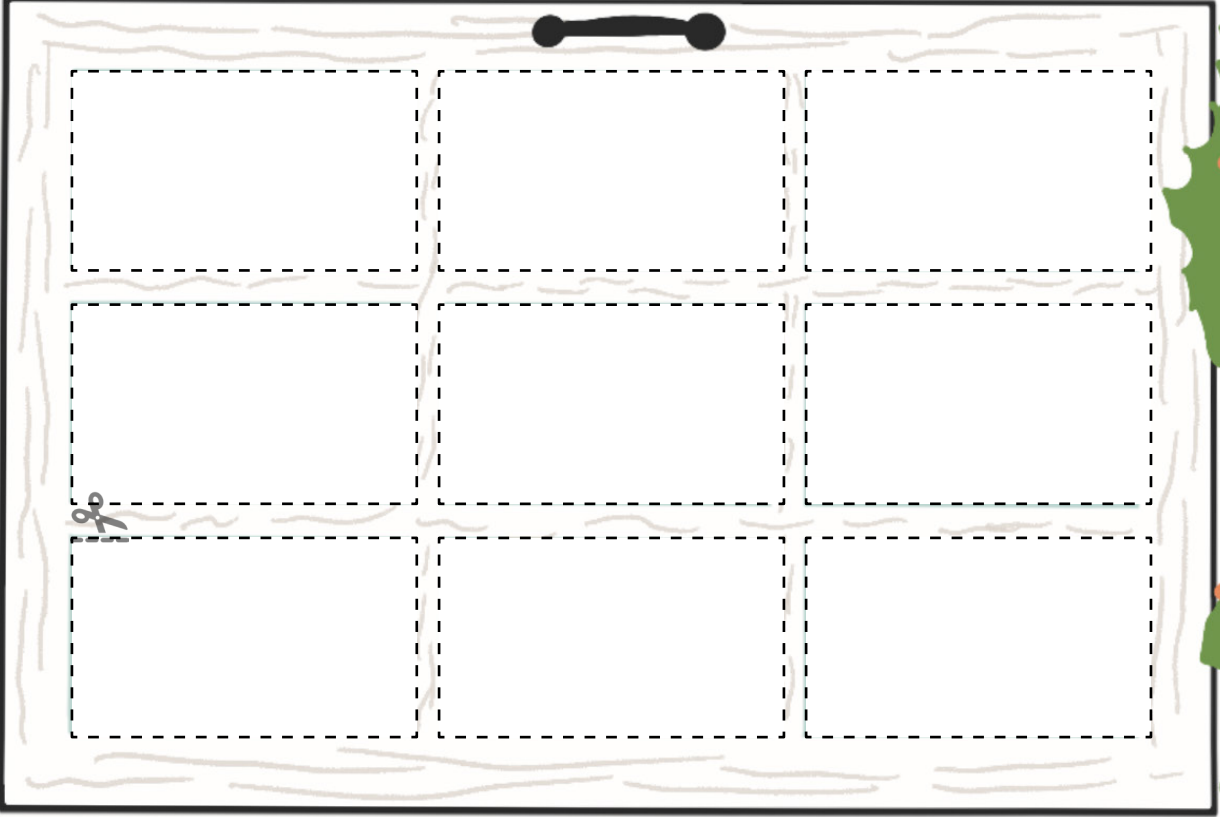
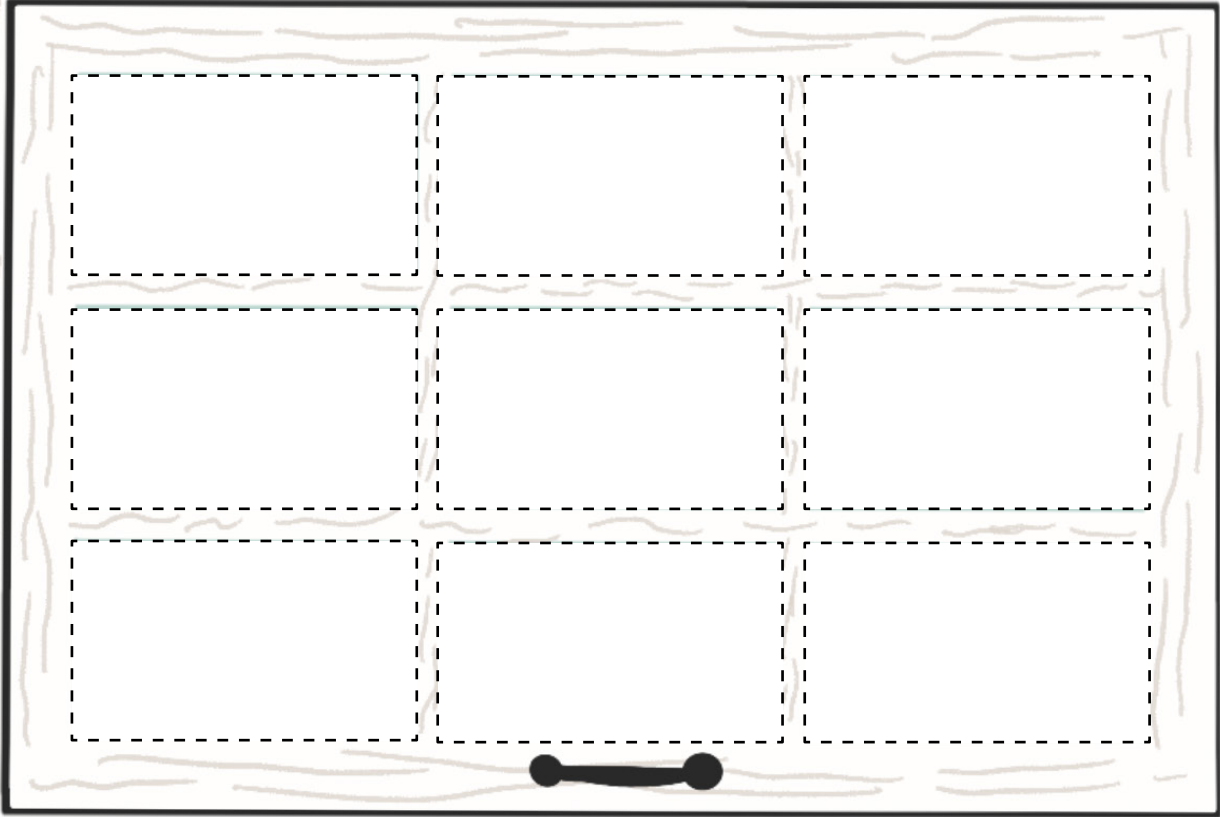


Describe the activities, feel, or look of each waffle block:

- Nature: _____
- Connect: _____
- Move: _____
- Recharge: _____
- Freeplay: _____

What you want in your spaces matter!



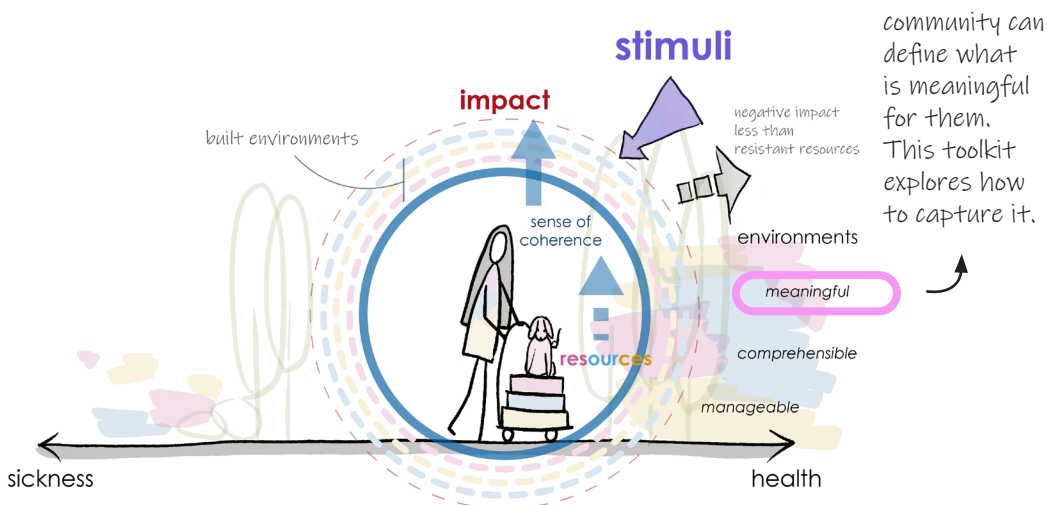


Next...

Just like how many of the prompts ended with three dots, prompting for continuation of thoughts, ideas, or a much needed thought for reflections, this toolkit ends with the same. Just like the three parts of this toolkit, these three dots call for the facilitators of the workshops to continue capturing meaningfulness in the built environments. This toolkit is rooted in the question of “what keeps people healthy,” concluding with the phrase, “in the built environment?”.

What keeps people healthy in the built environment?

This toolkit proposes that one of the ways to promote health is creating meaningful spaces. Heightened meaningfulness in spaces can increase sense of coherence. The fundamental objective of this toolkit was to provide a simplified, streamlined, and efficient process to conduct workshops to investigate meaningful preferences of teens. Many of the basic parts of conducting workshops don't receive as much planning, compared to the rest of the deliverables projects require. This toolkit is an attempt to create an efficient process so that these community engagements can be incorporated in the design of built environments with teens.



Bibliography

(extensive list will be found in accompanying thesis):

- Antonovsky, A.** (1979). *Health, Stress, and Coping*. Jossey-Bass. / **Antonovsky, A.** (1996). The salutogenic model as a theory to guide health promotion. *Health Promotion International*, 11(1), 11-18. <https://doi.org/10.1093/heapro/11.1.11> / **Botchwey, N., Dannenberg, A. L., & Frumkin, H.** (2022). *Making Healthy Places: Designing and Building for Well-Being, Equity, and Sustainability*. Island Press. / **Botchwey, N. D., Johnson, N., O'Connell, L. K., & Kim, A. J.** (2019). Including Youth in the Ladder of Citizen Participation: Adding Rungs of Consent, Advocacy, and Incorporation. *Journal of the American Planning Association*, 85(3), 255-270. <https://doi.org/10.1080/01944363.2019.1616319> / **Civic Square** (2022). *Neighbourhood Doughnut*, <https://civicsquare.notion.site/A-Neighbourhood-Doughnut-Portrait-ba4c928726ad4e619e41a45d9a4b9e64> / **de la Peña, D. & Allen, D. J.** (2017). *Design as Democracy: Techniques for Collective Creativity* (1st ed.). Island Press. / **Latané, C.** (2021). *Schools that Heal: Design with Mental Health in Mind*. Island Press. / **McLaughlan, R.** (2023). Engaging young people in architectural research: three visual methods for understanding the impact of the built environment on children's wellbeing. *Visual Studies*, 1-14. <https://doi.org/10.1080/1472586X.2023.2284984>

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(created by the author of this toolkit) **Diagrams**

(taken by author of this toolkit) **Activity Images**

this is not a conclusion

