Urban Experience Design

A Human-Centered Method Applied to University District in Seattle

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ABSTRACT

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This thesis explores how Human-Centered Method can be applied in urban experience design. By utilizing a Double Diamond Model approach and interdisciplinary theories, this design thesis examines the application of the Urban Experience Design Framework by both empowering design thinking and by guiding the creation of both a master plan and detailed site plan for the NE Campus Parkway spanning five blocks within the University District in Seattle. The design proposal highlights the application of different typologies that enlighten people's urban experiences. The framework is aiming to serve as a recommendation program with the potential to be implemented elsewhere.

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I want to give my big thanks to my committee chairs, family, fellow CBE students and my loved ones for their support when times got tough through this journey. Without their guidance, encouragement, advocation, and love this thesis would not have been possible. Also thanks for all of our lovely faculty's hard work for organizing remotely learning, meetings, meaningful events on this momentous occasion. I'd also like to echo my thanks to all of my surroundings for sharing their experience and ideas to me through these past three years in College of Built Environments.

Finishing up this cherished milestone, holding a healthy mental attitudes, a grateful spirit, a clear conscience, and a heart full of love from 2017 to 2020, also as my irreproducibly fruitful and significant three years during my quarter-life. I am going to take my energy, compassion, talents, and my education and put it to work building better communities, and taking care of one another. I am looking forward to next exploratory journey.

DEDICATION

I would like to dedicate my thesis to my beloved grandparents.

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INTRODUCTION

With the rise of consumer culture in society, the landscape has become central to how people experience the city. The city is not just an object, and people have a spiritual connection to place. Tourists always want to experience the beauty of the new city they arrive in, and locals also need some fresh "thrills" to discover missed wonders. What makes a city is not only its history or its planning, but people's real experiences and daily lives within it. There are a thousand Hamlets in a thousand people's eyes. People hold different views when they are experiencing urban areas. The urban experience is fragmented, uneven, exhilarating, and liberating; there are considerable differences in what people experience based on their identity, race, gender, sexual orientation, and other aspects of character and faith.

Kevin Lynch believes that environmental imagery is the result of the two-way interaction between the observer and the environment. In his book, he analyzes the visual quality of American cities by studying the impression of the city in the minds of citizens, mainly focusing on the clarity or "readability" of the urban landscape surface as well as the characteristics of easy cognition of various parts of the city and how it achieves a cohesive form. He marvels at the order of Manhattan's urban fabric and acknowledges the mystery and quirkiness of Boston's winding roads. For Lynch, "A readable city, its blocks, signs or roads, should be easy to identify and form a complete form" (Lynch, 1960)

URBAN EXPERIENCE (UE)

In recent years, with the rise of the experience mode of the commercial economy, many industries are now incorporating the "experience" concept, and the planning and design of the urban landscape are not exceptional. To create a memorable and meaningful urban experience, design has had to move past simple functionality and aesthetics and engage people in a different way. Designers are now tasked with bringing in multi-sensory experiences, shaping mental perception, fostering cultural resonance, and facilitating human-environment interactions.

The urban experience is diverse and dynamic. Yegor Korobeynikov and Mikhail Belyaev (2015) from Aventica, spoke on how to design new urban experiences. For them, a holistic urban experience entails personal interaction with the urban environment, people, and services, both physically and digitally. Korobeynikov and Belyaev (2015) outlined four layers for an urban experience: Social interactions, Information and data, Services, and Physical realm.

Urban Experience design focuses on the experience of participants on the site as well as on the relationship and interaction between people and the environment. Different from traditional urban design, which is only satisfied with simple functions and beautiful design forms, urban experience design pays more attention to people's participation, experience, and interaction in the environment. The essence of research and design is the relationships between people and the relationship between people and the environment. In addition to considering people's instinctive sensory level of experience, there is also a behavioral level of experience and a reflective memory level of experience design.

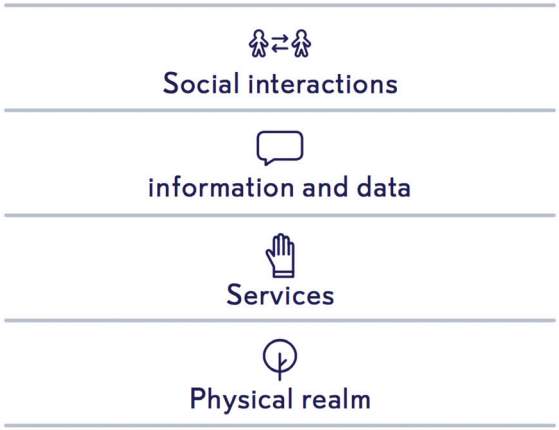


Figure 1.1 Four layers for an urban experience (source: Service Design Network)

Feminist philosopher Iris Marion Young (1990) analyzed our common understanding of urban relations from a more macro perspective, raising questions about justice and injustice to reveal how cities support equality through differences. Yang believed that city life offers better social space because it allows people to gather together according to different preferences and connect with people in different ways. She concisely

described city life as “strangers together” In this way, Young provides a way to conceptualize and imagine the urban as an environment of expression and diversity, dependent upon the connections between people and their participation in politics and civic life.

Just like the boundary between public space and private space, the urban experience is not fixed. The intensity of urban encounters may amplify our feelings about these spaces or cause us to miss them entirely. Cities are malleable, pliable, and continuously in flux, so our experience of urban area is always a negotiation between various forces and influences.

HUMAN-CENTERED DESIGN (HCD) METHOD

Through their human-centered innovation culture and processes, IDEO, one of the world’s leading design firms, developed what they call Human-Centered Design. It is a problem-solving method, which is usually used to design and manage the framework while developing solutions through considering the human perspective in all steps of the problem-solving process. What makes Human-Centered Design different from other problem-solving approaches is that it focuses on understanding the perspective of the people facing the problem, their needs, and whether the solution designed for them effectively meets their needs. Human-Centered Design is most effective when the most vulnerable people are an integral part of the design process and, where possible, part of the design team itself.

Jan Gehl is a Danish architect, urban planner, and designer with worldwide influence. In terms of the theory and method of urban public space design, he has made outstanding achievements with his unique “people-oriented” design philosophy and method. This method places people as the focus of urban public space design, taking people’s behavior and perception as the starting point and reference frame of the design. This approach emphasizes the understanding of people’s physiological and psychological desire for a sensory experience that incorporates specific vitality, safety, comfort, health, and other characteristics of public space.

RESEARCH DESIGN INTENT

There exists research about applying Human-Centered Design for the everyday urban experience. HCD works by observing and analyzing the lifestyles of a target group. It takes into consideration the group’s consumer values, opinions, and activities to form a comprehensive expression of their interest so that a corresponding population lifestyle model might be established.

The rapid development of society has accelerated the pace of people’s lives but has also brought heavy life pressures. As arduous urban life makes people’s demand for places of leisure and relaxation continue to grow, the importance of urban landscape also increases. The formalized landscape viewing mode is outdated. Instead, what is needed is the integration of experience design centered around humanism, which enhances people’s sense of their interaction with the environment, letting them touch, feel, and participate in nature authentically. This experience of a place can provide a space for relief from the pressures of work, school, and life while simultaneously creating memories and inspiring the imagination.

Even after a long time, the memory formed in mind will still exist, which will affect how people perceive and consider the city. Although the one-sided visual landscape may be impressive at that time, it will gradually lose the sense of image and fade away if one does not feel a personal connection. Thus, experience-centered design in urban landscape design is often more attractive.

For the site I chose to apply this method, I selected NE Campus Parkway in U District in Seattle. This is a linear site located on both West Campus at the University of Washington and an urban neighborhood’s context, it serves as one of the principal gateways for students’ commuting from

neighborhoods to the main campus. It is a convenient distance to the surrounding neighborhoods of Eastlake, Wallingford, Greenlake, and Ballard.

The initial research questions are:

1) How might we apply the human-centered design method to enlighten urban experience?

2) How might we establish a forward-looking framework to address social issues and meet human needs?

3) How might we design a new urban experience and provide an exemplary experience for multiple groups of people?

This thesis also serves:

1) The development of design principles for urban experience design by applying human-centered design method and interdisciplinary theories;

2) The demonstration of the application of the design principles and different typologies to the selected site design;

3) The synthesis and reflection of the research and design procedure as the recommendation for urban experience design.

LITERATURE REVIEW

One of the primary research design goals of this thesis is to develop a series of design principles that guide a new urban experience design by applying human-centered design methods. By examining the emotional and behavioral needs of modern urban people, and examining the many factors that affect their experience, I aim to understand and summarize the design principles needed to apply human-centered design to urban experience design. In this section, I will review the literature.

THEORETICAL FRAMING

Around 1950, the United States launched a movement against postmodernism. At that time, Jane Jacobs, a famous sociologist, argued that to create real vitality in urban life, must be able to experience the real-life of human beings in the city. The author of Life Between Buildings, Gehl (2011), also argued that to create a space full of vitality and human feelings, with people in the space at all times, researching things people can touch around with their surroundings, such as how to use streets, squares, parks, courtyards, etc..

According to John Ormsbee Simonds (1997), "People do not plan places, spaces, or forms, they plan experiences. During the design process, the first step is to determine the purpose or experience, then comes the second, which is to consciously design the form to achieve the desired effect".

He holds that through planning the environment, people are simultaneously shaping their own life and their way of life.

The term "experience" has been used in combination with architecture, planning and, landscape as well. Japanese architect Naoto Tanaka mentioned in his book Accessibility Design: The design method elevates all of the five senses, and integrates them into the architecture and urban experience using materiality, texture, color, and light, including the eco-design of the architectural form and the feeling of standing on the ground.

The pieces of literature mentioned in this chapter are key sources tthat support the design framework.

Jan Gehl's People-Oriented Strategies for City Planning

Gehl's philosophy of his people-oriented design theory and method are applied within the design of urban public space. Gehl saw the deep connection between public space and public life, and he explored ways to put people first throughout the public design process from both a psychological and physiological perspective. Based on pioneers such as Jane Jacobs, William Whyte, Oscar Newman, and Christopher Alexander, Gehl put forward the idea of people-oriented urbanism and integrated the principle of this concept into urban design. Gehl's ideas helped remodel the concept of an animated public space into a high-quality atmosphere, which will be actively cultivated through good design.

To put forward the principle of people-oriented urbanism, Gehl spent several months recording where people walk, stand, sit, and talk, defining what attributes of space contributed to this activity. Gehl found that the success of public space has a complicated relationship with the pedestrian flow and fixed activity level to promote social interaction. Gehl found that short distances between destinations, along with street furniture such as benches, encouraged people to stay. He found that "soft edges" between parks and public areas, mainly wherever people might sit down and face pedestrians, created some of the most dynamic areas of the city. These observations became his influential book Life Between Buildings published in 1971 (Gehl, 1971).

Environmental Behavior Theory and Environmental Psychology

The famous environmental psychologist professor Daniel Stokols from the University of

California, Irvine, proposed the human-environment interaction model. He expressed the interaction between people and the environment through this model. Basically, the model is divided into two dimensions: one is the cognitive form and behavioral forms of human-environment interaction; the second is the action and reaction phase of human-environment interaction. Pairing the classification of these two dimensions, he got four models of interaction between human and environment: interpretation model (cognition, action), evaluation model (cognition, reaction), operation model (behavior, action), and responsive model (behavior, reaction).

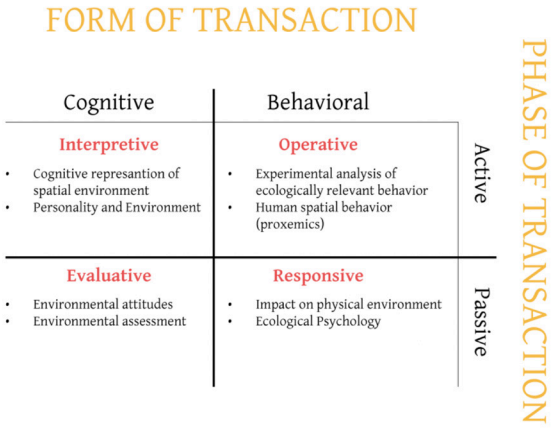


Figure 2.1 Human-environment interaction model (source: adapted from Daniel Stokols, Environmental psychology, 1978)

The interpretation model is composed of two parts: the cognitive representation of spatial environment and personality and environment. The evaluation model includes people evaluating the situation according to the predetermined property standard, including the attitudes towards the environment and an assessment of the environment. The operation model shows how individual activities pass through or directly affect the environment, including the experimental analysis of ecology-related behaviors and human spatial behaviors. Finally, the responsive model captures the influence of the environment on the behavior and happiness of individuals, including the impact of the physical environment of ecological psychology.

Within the realm of architecture and environmental psychology, the built environment serves as an environmental context. Stokol (1978) focuses on the interpretation model on the cognitive level and the operational model on the behavior level. By combining elements of psychological science analysis, the realm of architecture and environmental psychology could be divided into three levels: 1) Cognitive level: Explore the connection between the basis of individual psychological activities and the built environments. For instance, the psychological experience is shaped and altered by perception, color, light, material, form as well as different visual, auditory, and sensory systems; 2) Spirit and consciousness level: Explore the connection between a person's advanced psychological activities such as holding human values, their world view, preferred aesthetics, and so on, and the built environment. That is, to study the differences of an individual's understanding and pursuit of the built environments according to their different values, world view, and aesthetic standard; 3) Behavior level: Explore the relationships between human behavior and the built environment, to study the communication criterion and habitual behavior of human behavior within built environments. This also includes exploring the sense of belonging and privacy of the built environments and discusses the comfort of the built environments in combination with ergonomics.

The concept of Human-environment interaction model develops the landscape into a medium of two-way communication in the environment, rather than just having the value of viewing or using, thus replacing such single exhibition landscape space as open square, huge lawn or monotonous public facilities. The interaction between humans and environments brings a novelty and element of surprise and increases the variation of reactions and experiences to the space.

Campus Planning & Design and the Student Experience

Researchers at Stanford University recently discovered that time spent in "nature" could reduce negative thoughts and enhance people's well-being (Jordan, 2015). Given that many colleges and universities regard student health as a critical factor for academic success, the campus landscape is beginning to be considered as one of the key

elements that support student participation along with internal academic and student living spaces.

The prestigious interdisciplinary design firm Sasaki believes that a campus that fosters connections would encourage students to interact with both each other and the natural environment, improve student health, and promote social and academic success. From campus planning to building scale, their design practice instills a sense of cohesiveness to the overall campus experience.

The NE Campus Parkway site in the U District is located in an urban context and also acts as a vital gateway connecting one of the primary axies with the city grid. When alumni think about their university days, they often fondly recall the paths they walked to and from the campus, the open spaces where they studied or socialized, and the places to which they escaped with friends from a busy schedule. On the American university campus, some of the most influential and cherished moments are had in the outdoor spaces that connect surroundings together.

SECONDARY SOURCES

The secondary sources in this section include a series of significant planning and design documents produced in the past five years. The highlighted three reports provide some analysis regarding the U District context, Campus context, and West Campus context levels. Through summarizing and extracting from the relevant information, this section aims to frame the development of guiding principles and explore the potential typologies in urban experience design.

2016 U Distrcit Urban Design

This document was produced by the Office of Planning and Community Development (OPCD). It gives a clear overview of the growth and change of University District community planning proposes the question of “Why plan?” in the U district. In general, there are five essential reasons for this question: The University District is one of the Seattle’s six urban centers for the job and housing growth; light rail is arriving in 2021 which will bring in high-speed connections to downtown and beyond; a high number of new developments are now in the construction pipeline, and neighbors anticipate many more in next 20 years; the development of U District elicits a community interest -- in response to neighborhood growth, many want to stay ahead of developments and make strategic decisions about where and how to change; the final reason is a concern for balancing people’s needs as the U district is home to a diverse range of people and services. Planning and investment are needed to support all who live, work, and visit in the area.

2015 Campus Landscape Framework (CLF)

This document was produced by the Office of the University Architect (OUA) in 2015. The goal of the Campus Landscape Framework (CLF) is to promote the equality of campus landscape planning and investment. In the fall of 2013, the OUA launched a “University Architect” project - an interactive online tool supporting the campus landscape framework. This tool includes a campus landscape survey that determines the many ways that the UW community values its landscape. These results could be used as a window to better understand the broader importance of the campus landscape as an integral part of the UW function and identity.

From the survey, the “users” identified landscapes in need of improvement, such as places with underutilized opportunities, uninviting or stark spaces, unsafe areas, aesthetically challenges areas, neglected or unkempt areas, inaccessible spaces, and areas in need of additional lighting, seating, and activity. One of the places that individuals frequently identified is Campus Parkway. Specifically, regarding the campus parkway entrance, sentiments like “Lack of access across 15th into the campus,” “These stairs (for pedestrian bridge) are super awkward,” “The solid cement wall that greets visitors to campus is less than inviting,” and “the building [Schmitz] has a very drab feeling, and perhaps it could be livened up with more

inviting surroundings" reflected an uninviting, negative perception of the Campus Parkway entrance.

There were also comments regarding the Campus Parkway as a whole, such as, "This area is way underutilized. If it had better drainage and perhaps some covered tables, it could be used for lunches in both rain or shine," "Campus Parkway medians are ineffective," "Needs more greenery, communal places, and to have a different feel from the regular streets," "Should be an icon for our campus—an introduction to our values as a place," and "forge interesting interactive landscape elements here." Even though this survey was conducted and the feedback collected in 2013, seven years later in 2020, this is still a neglected space, and nothing says "hang out here."

As an important campus gateway, there are also issues with navigation and connection, including: "Needs signage, and the landscaping here is pretty brutal," "Need more wheelchair accessibility around this building," "I'm disabled and I can't use this overpass," and "This [pedestrian bridge] is a very small funnel for main campus/west campus travel." Altogether, the Campus Parkway has many areas for improvement, including improving accessibility, attractiveness, and creating a sense of place. The feedback from students, staff, faculty, alumni, neighbors, and visitors acts as a "mirror" for analysis and improvement in the following chapters.

2018 West Campus Public Realm Guidelines

CMG released UW West Campus Guide. The goal of NE Campus Parkway is to redesign it into a linear park with ecological functions and fun gardening activities. As an essential entrance experience, it provides a physical and visual connection on the regional scale and contributes to the image and identity of the whole campus. However, improvements can still be made to humanize the pedestrian experience, starting with the adjacent dormitory building (UW West Campus Guide, 2018). The 2019 SEATTLE CAMPUS MASTER PLAN (CMP) showcases a reduction in vehicle lanes to widen the median, accommodate central footpaths, and increase leisure facilities. Additionally, Central Park Road can be redesigned as a linear park while retaining its value as a major visual and transportation corridor (2019 Seattle Campus Master Plan, 2019).

The guide proposed detailed recommendations for ecological and social innovation. For instance, the center of the Campus Parkway should include spaces for planting and gardening, as well as other ecological improvements. General planting should be consistent with the median length to enhance the linear expression of the road. Placement of rainwater treatment facilities can be integrated into the middle planting. Besides, the transformation of Parkway's median from a single visual resource to a practical and valuable place for the surrounding communities will bolster West Campus as an Innovation Zone in terms of both identity and function. The design of this outdoor space creates a friendly, relaxing, and ecologically-integrated place which contributes to the achievement of the West Campus's well-targeted public domain aspirations.

This document expresses a clear guideline for this targeting site and context and serves as an important source to lead the design guiding principles proposed in later chapters.

METHODOLOGY

SITE ANALYSIS METHOD

The site analysis method in the site design process is critical to the final product in many design decisions. It is essential to understand the context and to know the site condition to generate concepts through this process. Demkin (2001) discussed that site analysis determined constraints and opportunities for the environment, planning, and development. A well-implemented site analysis is a necessary foundation for cost-effective, environmentally sensitive, and reasonable methods for project development (Demkin, 2001).

By conducting context analysis, a series of site conditions analysis, and SWOT analysis for the site, from research to analysis, then synthesis, this method would be adopted throughout the site design process. Furthermore, it plays a vital role in discovering and defining design solutions.

CASE STUDY METHOD

The case study method is an experiential teaching method created by Harvard Business School in the early 20th century. Initially, the purpose of this method is to enable students to think, analyze, and make appropriate decisions based on all of the current information, data, etc. (Ellet, 2007). Merriam-Webster provides this definition: A method of study, especially in sociology, by analyzing the history of accumulated cases to form general principles (Merriam-Webster, n.d.). The goal of conducting this method for my thesis is to summarize and generate the guiding principles for urban experience design as a part of the design framework. In the following section, I will describe and analyze several case studies that contributed to my design framework.

Seattle – Public Space Public Life (PSPL) Study by Gehl

Gehl Architects conducted a “Public Space Public Life” Study in Seattle for the International Sustainability Institute in 2009. There are three points regarding the integration of human senses into planning that I would like to highlight from this case study. First, he discussed what the keys to successful public life, such as long-term stays, a variation of places, many user groups, and planning for optional activities are. In combination, these characteristics help create lively cities. Second, targeting criteria should be inviting to all ages, from children to senior citizens, and should be legible, accessible, and ensure a sense of security during the day and at night. Third, through the analysis of the urban landscape, Gehl devised the original quality criteria, as represented in the figure below (Figure 3.1). These criteria include sensory experiences, emotions, behaviors, and everyday activities, which manifest his people-oriented strategies for city planning. Examples including protecting against traffic, accidents, and other unpleasant sensory experiences to create an environment that looks, feels and is safe. Furthermore, these criteria should be considered at a human scale, used to create personal encounters so that people can enjoy the positive aspects of a landscape.

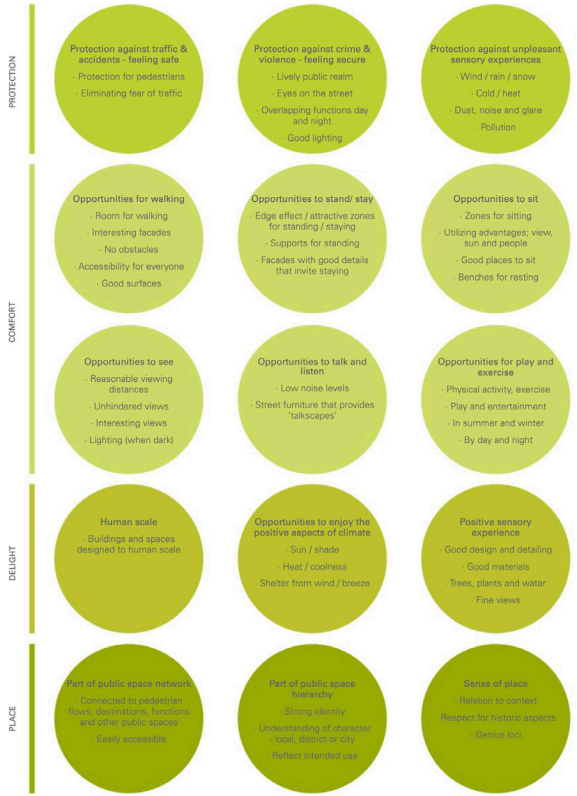


Figure 3.1 The quality criteria of urban landscape (source: PSPL by Gehl)

Finally, Gehl considers the humanistic value that integrates culture, diversity, activity, responsibility, innovation, and social integration. As people's understanding of their relationship with the environment has grown and evolved, humanistic care for sustainable development has become essential to urban experience design.

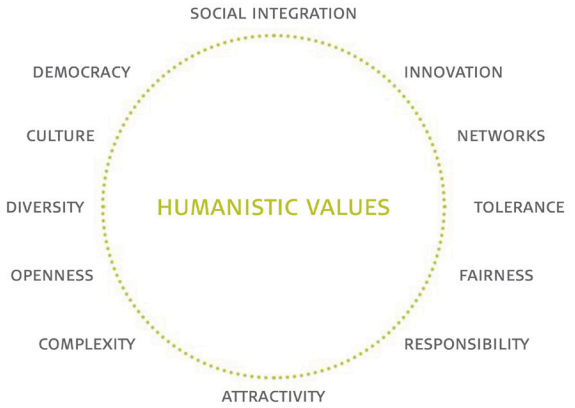


Figure 3.2 The quality criteria of humanistic values (source: PSPL by Gehl)

The top three guiding principles I extracted from the PSPL case study are Safety and Health Principle, Emotion and Spirit Principle, and Inclusive Innovation Principle.

Passeig de Gracia, Barcelona

Figure 3.3 Passeig de Gracia (source: ADRIÀ GOULA)

The second case is a linear area near a major avenue located in Barcelona, Spain, and designed by Lola Domènech. The new renovation plan sets two primary goals: giving priority to pedestrian use of the boulevard and turning it into a new urban green space, extending all the way to Ciutadella park. Through this new renovation proposal, the space has regained its social value. As an urban space, it provides a variety of required uses and functions while also addressing the critical aspects of biodiversity and sustainability. The urban transformation of this street allows for the revitalization of its commercial life and recreational use while restoring its historical value as the main avenue that extends to Ciutadella Park (Domenech, 2012).

From the purpose and summary of this design strategy of this linear urban site, the top three guiding principles I learned from this case are the Natural Aesthetics Principle, Safety and Health Principle, and Ecological Sustainability Principle.

Octavia Blvd, San Francisco

Figure 3.4 Patricia's Green (source: lonely planet)

An inviting walkable pocket garden near tree-lined Octavia Boulevard in San Francisco is seen as a hip social center called Patricia's Green. A standout, multipurpose sense of space is created by integrating temporary sculpture installations inspired by Burning Man, picnic tables, and playground. This vivid space also extends the east end; a parking lot has become an inspiring place for restaurant and shop owners, who have opened businesses in repurposed shipping containers. From spring to autumn, there will be free Friday night movies on the outdoor screen for individual entertainment and social gathering (Patricia's Green, (n.d)).

The highlighted characteristics for this case are apparent, and from it, I generated the guiding principles from this case are Natural Aesthetics Principle, Education and Connectivity Principle, and Inclusive Innovation Principle.

The Rail Park, Philadelphia

Figure 3.5 The Rail Park (source: The Philadelphia Inquirer

I was attracted to this case because of its vivid elevated park concept. This design solution could also serve as a good example of the redesigned pedestrian bridge proposed in a later chapter. Philadelphia has designed its own elevated railway park for the abandoned Reading Viaduct. A quarter-mile of the planned greenway in the city welcomes visitors to a spacious park with trees, plants, and places to relax and enjoy the scenery. The park maintains an industrial feel through steel platforms, benches, and guardrails. A simple winding path leads visitors through pristine vegetation and four massive wooden platforms, ending with a huge set of swings (Saffron, 2018).

Through this case, the refined guiding principles I developed are Emotion and Spirit Principle, Education and Connectivity, and Ecological Sustainability Principle.

URBAN EXPERIENCE DESIGN FRAMEWORK (UEDF)

In this section, I developed the Urban Experience Design Framework (UEDF) as a useful toolkit to lead my site design and for future design practice. Essentially, the framework consists of three parts: Urban Experience Design Guiding Principles, Urban Experience Design Typologies, and Urban Experience Design Approach.

Urban Experience Design Guiding Principles

The Urban Experience Guiding Principles that I generated through a summary and analysis of the above case studies and which also draw from my theoretical grounding are as follows:

1) Natural Aesthetics Principle

Preserving local natural resources and working in line with local aesthetics of the environments, while also emphasizing the local identity and culture.

2) Safety and Health Principle

Improving and enhancing public safety, health, culture, and natural therapy for all people.

3) Emotion and Spirit Principle

Enhancing more mindful recall and increasingly rich emotional experiences that produces a sense of intimacy and memory.

4) Education and Connectivity Principle

Creating an academically-oriented, peer-supported community and building a sharing platform with strong connections. Besides, education also happens through inspiration and enlightenment from the surrounding environment and also through human-environment interaction.

5) Ecological Sustainability Principle

Ensuring that social, economic, and ecological processes are maintained so that both the short and long-term quality of life and diversity of natural ecosystems are not compromised.

6) Inclusive Innovation Principle

Bringing an inclusive and inviting innovative district of entrepreneurs, major employers, talented workers, and diverse residents.

Urban Experience Design Typology

According to the case studies and theoretical grounding, I sum up three typologies in urban

experience design and analyze the relationship between the three typologies as follows.

1) Sensory Experience Typology

People's most direct sense of experience comes from the sensory system. The main form of sensory experience is to stimulate people's five senses -- vision, hearing, touch, smell, and taste. The five senses in the sensory experience design are affected by a variety of sensory stimuli created by the design site, such as the sensory garden. The sensory garden is a space that permeates people's spiritual feeling connected to nature. In addition to visual appreciation, the sensory garden encourages visitors to explore and experience nature in a comprehensive way through the use of all senses, physical and otherwise.

2) Emotional and Behavioral Experience Typology

Emotional experiences are various. For instance, visual beauty brings people spiritual pleasure, while retained experience creates in people memories and associations. Exploratory experience fosters a spiritual sense of surprise, and educational experience brings people the satisfaction of gaining knowledge through mental or spiritual enlightenment. The behavioral experience refers to the fact that people's emotions are influenced and restricted by the behavioral environment in their conscious or controllable environment. There are three main types of human behavior: spontaneous behavior (eating, sleeping, walking, basking in the sun); necessary activities (going to work, going off work, taking a bus, etc.); and social behaviors (contact with people, play, conversation, interactive communication).

3) Educational Reflection Experience Typology

Educational reflection experience means learning through participation, having fun with teaching and learning, and having fun through active participation. The realization of the pedagogical reflection of the landscape is a design method that combines landscape design practice with human psychology, environmental behavior, and ecological environment, which can make landscape design and play landscape a more significant role at the humanistic level. This has shaped the landscape and supporting facilities gradually become an essential place for the dissemination of scientific knowledge and the shaping of spiritual civilization.

4) Relationships between three Typologies

In various urban experience design, the experiences of these three typologies are not separate but complement each other. The hierarchy of these three typologies can be carefully distinguished. Sensory experience is at the top, as information is firstly gained through primary sensory organs or bodily movements. This is followed by Emotional and Behavioral Experience. The brain processes this information develops a degree of understanding while processing the emotions to guide behavior. Finally, the Educational Reflection Experience. Through an analysis of the experience, one can gain new knowledge and comprehension.

Urban Experience Design Approach

Creating moments that enable people to connect with nature within their otherwise busy and structured schedules is one goal of the design work. As part of my research, I ask, how can we apply powerful design approaches and corresponding phases?

Double Diamond is the name of a design process model developed by the British Design Council in 2005. It is divided into four phases: Discover, Define, Develop, and Deliver — it is probably the best known and the most popular design process visualization. By conducting the Double Diamond Model approach and utilizing interdisciplinary theories, the proposed Urban Experience Design Approach delineated as follows:

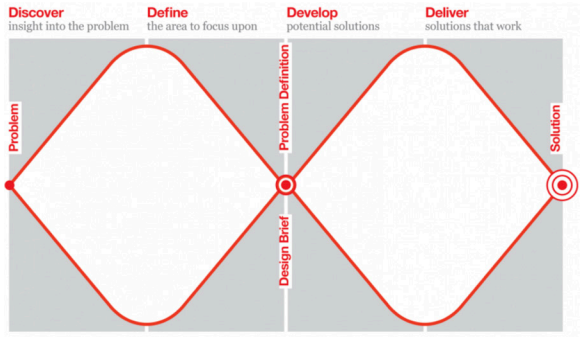


Figure 3.6 Double diamond model (source: Medium)

1) Discover

For the first phase, the primary methods I use are observational analysis from investigation and analysis of the problems, leading to valuable insights. Throughout fieldwork, I found both noticeable and inconspicuous issues in different senses: for hearing, there are negative sounds from bus stops beside the road; for the smell, the negative odors like garbage trucks and vehicle exhaust also contribute to an uninviting space; and for sight, there are unnecessary small sticker ads as well as the unsafe area of the bridge from the Eastlake direction. Overall, the experience of this area is lackluster, and the experience of the space could benefit from attractive, functional elements. People cross the Campus Parkway median area of the five blocks for the sole purpose of convenience commuting. I also gathered data from the people who use the site at different times in a day, which I present in the Site Analysis section.

2) Define

By evaluating opportunities and constraints, and then analyzing the outputs from site analysis, I synthesized the key insights and takeaways. The goal for this phase is to define the areas to focus upon. Later, I show a detailed representation in the Site Analysis section.

I also defined my curated research questions:

a) How might we create a place by applying a human-centered design method that brings out the unique identity of the site?

b) How might we establish a forward-looking framework to address present-day challenges and anticipate future needs?

c) How might we design a new urban experience and provide an exemplary experience for pedestrians, bicyclists, and transit riders, and enhance safety for all?

3) Develop

During this phase, the main task is to compose a series of conceptual solution strategies. Designers are to use their creations in their work, so that they can be in the user's shoes. It is crucial that all methods aim for the same outcome: to develop potential solutions and bring the solution to fruition. The development stage would be applied in the Design Proposal Overview in detail.

4) Deliver

This phase most closely linked with the design proposal section, which includes Site Design, Design Scenario Vignettes, and Recommendations. This fourth phase is delineated in the Site Design Section.

SITE

SITE SELECTION

Study Area: University District

As home to the University of Washington, the University District (also known as U District) attracts young, intelligent, and thoughtful leaders in the Pacific Northwest and serves as a cultural and economic hub. U District is becoming one of Seattle's six major urban centers, and is seen as the fastest-growing area for housing and employment and requires the highest level of public investment in the plan. Additionally, Sound Transit's U District light rail station will open on Brooklyn Avenue Northeast and Northeast 43rd Street in 2021, with substantial development is already underway (U District Livability Partnership, 2013).

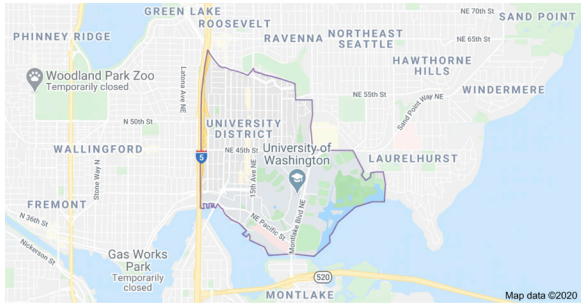


Figure 4.1 University District in Seattle, WA (source: Google Map)

Site Area: NE Campus Parkway

NE Campus Parkway is a minor arterial with moderate traffic and on-street parking. It has four intersections lining the street from 12th Ave NE to 15th Ave NE. The Campus Parkway Median is a city-owned, University-maintained area. Although there is less private car traffic, it is nevertheless busy due to the continuous flow of buses, pedestrians, and cyclists. The East-West directional characteristic of this street guides many vehicles to drive in these directions, but it is also common for vehicles to turn around on the North-South street. In addition to vehicular traffic, the pedestrian traffic in the area is also very intensive, mainly due to the intersection of more than a dozen bus routes, its location in the vicinity of the University of Washington, and the dense residential area around the street.

The goal of NE Campus Parkway is to create a street view that combines open spaces and highly transparent programmatic facilities, creating an active and desirable public domain. Newly built student apartments have improved the pedestrian area on the sidewalk outside the campus park. Other regions are still underdeveloped and more resilient. While the urban development around the traditional street grid is an iconic feature of the West Campus, but it is not accompanied by a completely open space.

The pedestrian bridge at the intersection of Campus Parkway and 15th Avenue NE connects Schmitz Hall with George Washington Square and is one of the primary western entries on to the campus.

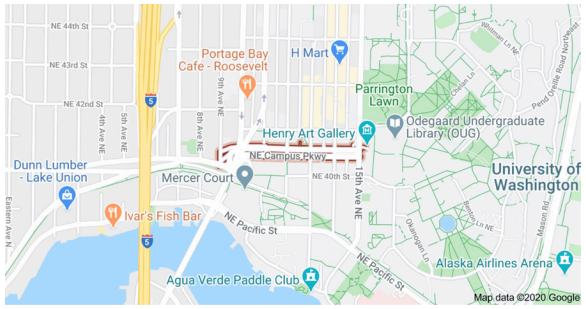


Figure 4.2 NE Campus Parkway in U District (source: Google Map)

SITE OVERVIEW

Regional Context

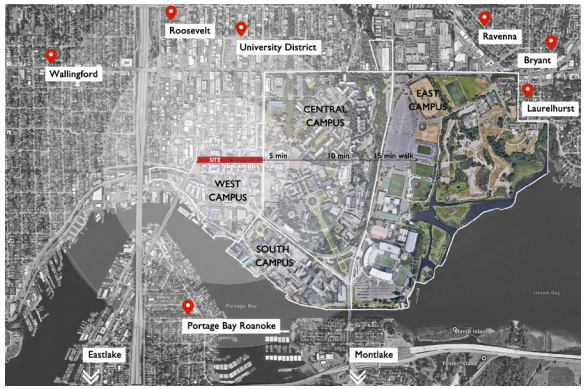


Figure 4.3 Urban & Campus Context Map

In this diagrammatic urban and campus context map, the selected site is not only a significant campus gateway in the West Campus area but also intertwines and extends the urban context north towards Roosevelt, west towards Wallingford, and south towards Eastlake.

Figure 4.4 Link Light Rail in 2021 Context Map (source: Sound Transit)

In the near future, the U District Station – a new light rail station being installed at 43rd and Brooklyn -- will act as a catalyst for change and is planned open in 2021. The expected 12,300 daily light rail users present an opportunity for growth and development around the U District Station. The station will serve the residential community, the business district, and the North University of Washington Campus (Sound Transit, 2013). In combination with the existing station near Husky Stadium, this new station will carry thousands of passengers daily to and from U District, downtown, and the surrounding region (Seattle DPD, 2015). Bus routes will change to build new capacity for light rail, while pedestrians and cyclists will be more concentrated in Brooklyn Avenue NE and NE 43rd Street, around the block. These infrastructural additions will change the relationship between the U District and the rest of the city (Seattle DPD, 2016).

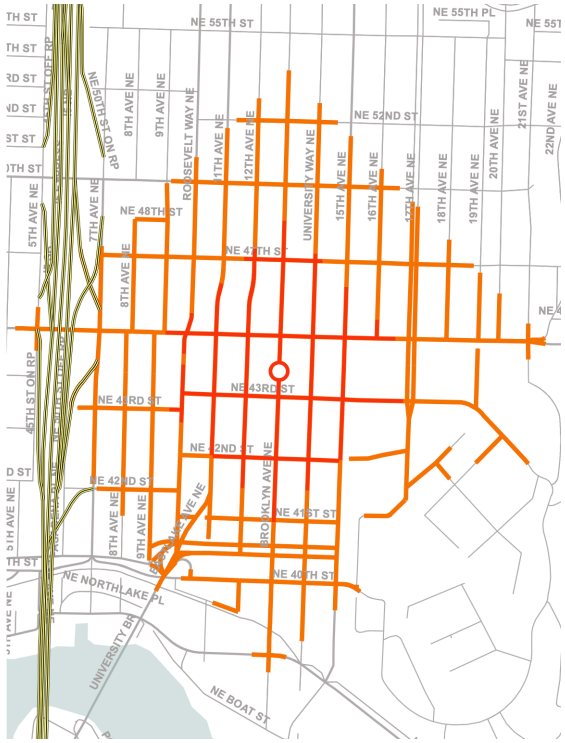


Figure 4.5 The half-mile "walkshed" surrounding the future light rail station (source: Seattle DPD)

The "walkshed" around the station site, shown above, encompasses a half-mile walk from the NE 45th St. freeway overpass to the UW's central campus and from NE 52nd St. to NE Pacific St. in the north. There is a particular interest from the community in the redevelopment of the area, and therefore it deserves special consideration in planning (Seattle DPD, 2015).

Neighborhood Context

Figure 4.6 Neighborhoods Conditions (source: The Stranger)

From a larger scale perspective, the U District area is situated south of Wallingford/Greenlake/Phinney Ridgeon neighborhoods. This trio of cozy North Seattle neighborhoods is home to flavorful food, offbeat boutiques, and plenty of ways to play outside. Ballard, a trendy neighborhood with maritime history, is located west of the U District. Fremont, a nearby bohemian neighborhood has it all: public art, stellar views of Seattle's skyline,

delicious food, and quirky shops. There are convenient bus options for commuters living in these neighborhoods to access the main campus. Given the projected 2021 completion of the Link Light Rail, thousands of commuters will now be plugged into this area via other link stations. This influx of transit users must be considered when developing design strategies.

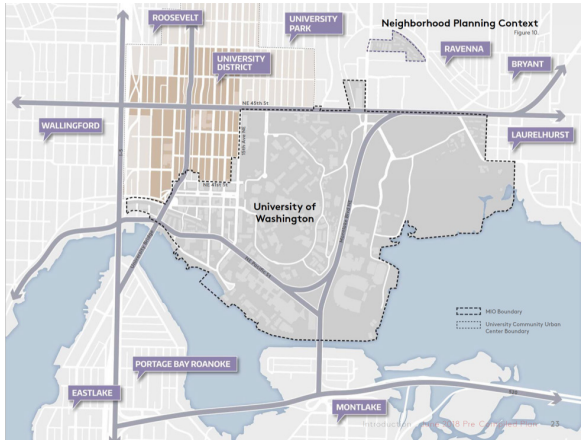


Figure 4.7 Neighborhood Planning Context Map (source: 2019 Seattle Campus Master Plan)

When considering the context of the UW Campus neighborhood, the surrounding environment of the site and University includes ten broader neighborhoods, all of which are within ten minutes' walking distance from the campus. The surrounding neighborhoods include Roosevelt, University District, Wallingford, Eastlake, Laurelhurst, Montlake, Portage Bay Roanoke, Ravenna, and Bryant. Off-campus student dormitories and Greek-style housings are concentrated in the University District.

Given this context, it is not hard to imagine how convenient this new station will be to commuters from the surrounding neighborhoods.

Community Context

Figure 4.8 Community Context Map with Accessible Route with Altitude (source: 2019 Seattle Campus Master Plan)

Above is the UW community-scale context map, explicitly targeting the West Campus. There is a sound circulation network, including universally accessible paths, bike lanes, pedestrian crosswalks within the community scale context. A large population of people are commuting around this region as well (Seattle Campus Master Plan, 2019).

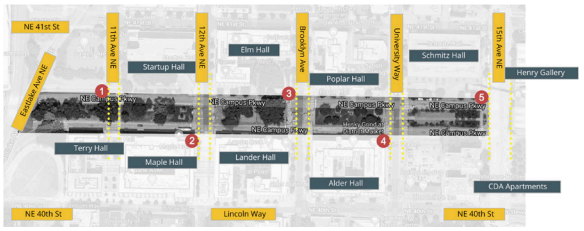


Figure 4.9 Community Context Map with investigation spots

This is the investigation field work site context, which is shown along the NE Campus Parkway. I walked through the Campus Parkway median from 15th Ave NE to Eastlake Ave NE. The above five spots, marked by red, numbered circles, are selected crossroad corners where I observed people's behaviors as per Behavior Analysis Method from Jan Gehl as the following (figure 4.10) shows.

Figure 4.10 Behavior Analysis Method (Jan Gehl, 2016)

From my investigation by conducting this behavior analysis method, there were seldom additional activities and service facilities appearing on the five areas spanning the five blocks. The most frequent activities were walking across the median area and jogging along the pedestrian crossing. In the first area, I found there were even a couple of people smoking there. Overall, this is not a place for people to feel cozy, inviting, and safe.

Olympic Vista / NE Campus Parkway

Figure 4.11 Primary Organizational Axes (source: 2019 Seattle Campus Master Plan)

The design concept of a strong connection between the urban/university boulevard and central campus originated in 1923 and was designed by Bebb & Gould, a campus planner at the University of Washington. In its current form, the Olympic Vista overlooks the Olympic mountain from the raised elevation of the main campus, providing a broad vision of the landscape below. This direct visual connection is supported by an indirect physical route between the Campus Parkway and pedestrians entering the campus. With the increasing density and usage of the West Campus, the Campus Parkway will need to be more closely connected with the Central Campus, especially the Red Square. The Campus Parkway Median, which is owned by the city and maintained by the university, can also be reconfigured to make it more effective as an open space for use by the broader U District community.

Figure 4.12 Existing pedestrian bridge connecting Schmitz Hall with George Washington Plaza (source: 2019 Seattle Campus Master Plan)

NE Campus Parkway is a wide connecting boulevard located on West Campus. The median area along the boulevard between 15th Avenue and the University Bridge is notable for its street trees and lawn grass, making this space stand out as a green area. One tree catches the eye - a stately American elm tree grows amongst lush native ground cover plants, established during the construction of the first phase of the West Campus in 2010. The ecological value of the green space on NE Campus Parkway is currently at a low to medium level, but there is great potential for noticeable improvement.

SITE ANALYSIS

Existing Conditions

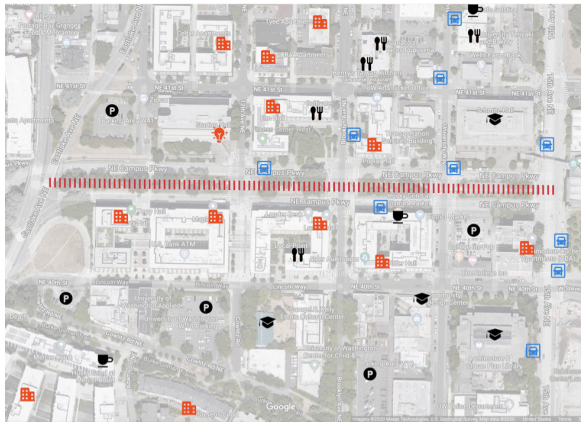


Figure 4.13 Public Facility Map

This public facility map (Figure 4.13) locates the site in a larger block context. The map illustrates more than ten student housings around this area, academic buildings used by faculty members, and catering facilities, which involve a number of

staff and might draw potential visitors. The bus stops are notable on the Campus Parkway and 15th Ave NE, ushering a more significant number of people to and from the area.

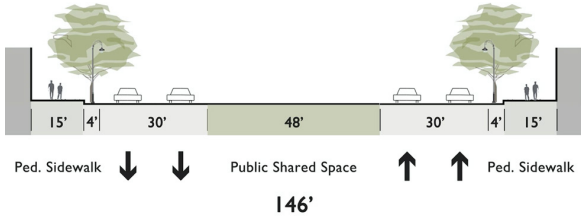


Figure 4.14 Typical Street Configuration (with Pkwy Median)

I made this typical street configuration (Figure 4.14) for NE Campus Parkway with Median, which is a public shared space spanning about 48 feet. Four intersection lanes take up around 60 feet in total. Sidewalk plantings with pedestrian sidewalks are located on both sides.

SAMPLE ECOLOGICAL VALUE RANKINGS

	LOCATION	TYPE	PATCH/CORR. SIZE	CONTEXT	HABITAT QUALITY	ECO STRESSORS	AVERAGE RANKING
CULTIVATED LANDSCAPES	Parrington Lawn	Introduced	2.0	1.5	1.0	1.0	1.4
	Sylvan Grove	Introduced	2.0	1.5	1.5	1.5	1.6
	Island Grove	Introduced	2.0	1.	2.0	2.5	2.0
	North Physics Lab Roof	Introduced	1.5	2.0	1.5	1.5	1.6
	Drumheller Rose Garden	Introduced	1.0	2.0	1.0	1.0	1.3
	Golf Driving Range	Introduced	2.0	2.5	1.0	1.0	1.6
	Whitman Court Woodland	Introduced	1.5	2.0	2.0	1.5	1.8
MIN. MANAGED LANDSCAPES	UBNA	Regenerated	3.0	2.0	3.0	2.0	2.5
	Kincaid Ravine	Remnant	2.0	2.0	2.0	1.0	1.8
	45th Street Wooded Edge	Introduced	2.0	3.0	1.5	1.0	1.9
	Ship Canal Edge	Regenerated	2.0	1.5	1.5	1.5	1.6
	Wetland Edge	Remnant	2.0	3.0	2.0	1.5	2.1
CAMPUS CORRIDORS	15th Ave NE	Introduced	1.0	2.0	1.0	1.0	1.3
	NE 45th Street	Introduced	2.0	3.0	1.5	1.0	1.9
	NE Campus Parkway	Introduced	2.0	1.0	1.0	1.0	1.3
	Burke Gilman Trail	Regenerated	2.0	3.0	1.5	1.5	2.0
	NE Stevens Way	Introduced	1.0	2.0	1.0	1.0	1.3
	Memorial Way	Introduced	1.0	2.0	1.0	1.0	1.3
	Rainier Vista	Introduced	2.0	2.0	1.0	1.5	1.6
	Pacific St / Montlake Blvd	Introduced	1.0	1.0	1.0	1.0	1.0
	Smaller Pedestrian Paths	Introduced	1.0	1.5	1.0	1.5	1.3
	Open Water - Terrestrial Edge	Regenerated	2.0	1.5	1.5	1.5	1.6
	University Slough	Regenerated	2.0	3.0	3.0	1.5	2.1

Figure 4.15 Campus Ecological Value Rankings (source: 2015 Campus Landscape Framework)

This table (Figure 4.15) shows ecological value rankings from CLF in 2015: 3 for good, 2 for moderate, and 1 for poor. NE Campus Parkway achieved an average ranking of 1.3, which is a low ranking, with 2.0 corridor size, 1.0 context, 1.0 habitat quality, and 1.0 eco stressors.

Figure 4.16 Potential urban ecological awareness map (source: 2015 Campus Landscape Framework)

Figure 4.16 shows a potential urban ecological awareness map from CLF. In its current form, the Median of NE Campus Parkway is planted with turf grass and interspersed with trees, including a couple of tree specimens with a heritage designation. The ecological viability of the corridor will be improved by converting this intermediate zone into a savanna habitat by adding meadow grasses, herbs, and selected shrubs. Besides, the proper selection of tree species in a strategic rain garden will greatly facilitate stormwater management as it flows through 11th avenue, 12th Avenue, Brooklyn Avenue, and University Avenue.

Furthermore, adequately selected species installed within strategically graded storm water catchment areas or rain gardens would promote beneficial storm water management of runoff flowing down 11th Ave., 12th Ave., Brooklyn Avenue, and University Avenue. The lower areas will be designed for collecting rainwater from the intersection. These steps will significantly increase the habitat choice of wildlife passing through the corridor, thereby enhancing its overall ecological value. On a larger scale, this change would significantly affect the potential ecological 'circulation' awareness.

Fieldwork Data Collection

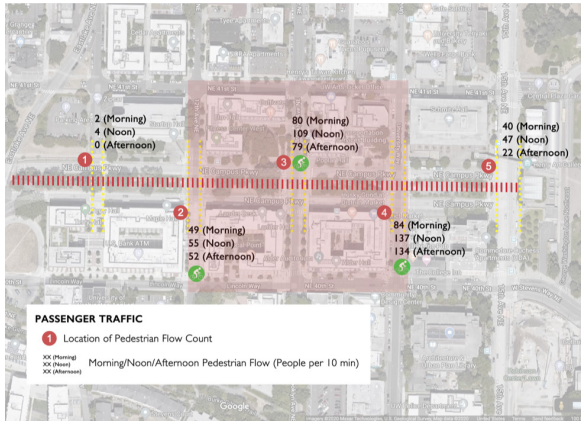


Figure 4.17 Passenger Traffic & Pedestrian Flow

Figure 4.17 shows the passenger traffic and pedestrian flow based on the data I collected during

fieldwork at the site. Five red numbered spots on the corner of the blocks were selected for investigating and recording information from each block. During field work, I spent ten minutes in each spot each to calculate the pedestrians crossing the crossroad and observe other behaviors. I collected data three times per day – during the morning, at noon, and in the afternoon. I found that the majority of pedestrians, bicyclists, and transit riders walk across the crosswalk for commuting purposes. Two smokers were present in the middle public space on the hardscape area, which is already designed. I also found that the two blocks between 12th Ave NE and University Way have reached the maximum flow of the walkway.

SWOT Analysis

SWOT Analysis is a strategic planning technique used to identify the Strengths, Weaknesses, Opportunities, and Threats to a system. Though typically used in business or project planning settings (Panagiotou, 2003), I synthesize the information from user surveys, fieldwork, and strategic planning documentations to form a SWOT Analysis matrix (Figure 4.18).

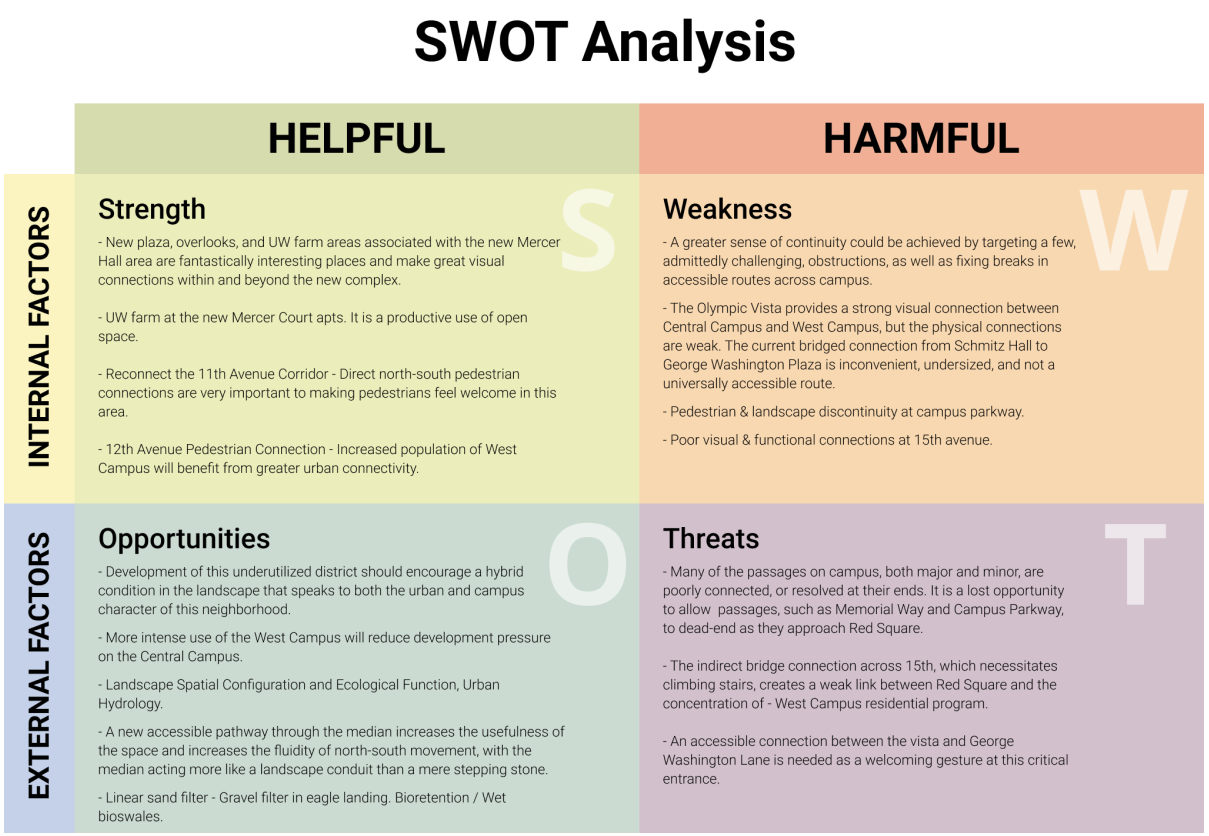


Figure 4.18 SWOT Analysis Matrix

DESIGN

DESIGN PROPOSAL OVERVIEW

Concept Plan Vision

The Concept Plan Vision is designed to comply with and integrate into the six Guiding Principles developed in the last chapter. Key elements of the concept plan design include the following visions:

1) Designing for Humanness
2) Celebrating Cross-cultural Collaboration
3) Bringing Educational Insights
4) Enhancing Emotional Experience
5) Improving Sense of Engagement
6) Creating Inclusive Environments

Conceptual Solutions and Diagram

I developed three conceptual solutions for the site design. The first solution is Concept Plan Vision shown above. The second solution is redesigning the pedestrian bridge to create a more accessible recreational and innovative physical journey and exploratory mental journey. It resolves the accessibility issue for all people of varying abilities. The third solution is the boulevard configuration. In detail, five areas are spanning the five blocks. By empowering area 1 and 2, an ecological and educational physical journey and curious mental journey period. Area 1 serves as a new inviting gateway. Area 2 serves social gatherings and inclusive education. As for area 3 and 4 are defined as a flexible and social physical journey, and comfortable mental journey through creating journey and experience center for outreach and engagement. The area 5, an area lacking safety and vigor least of all. The proposal for this area is establishing a partnership with UW Farm. An accessible and sustainable physical journey and participatory mental journey empowering this UW Farm extension.

Figure 5.1 mainly shows the second and third concept solution diagrammatically. The redesigned pedestrian bridge well connects the main campus to the interior site in the urban context. Boulevard configuration redefines these five blocks with notable themes and services. In next chapter, a detailed site design presents more information.

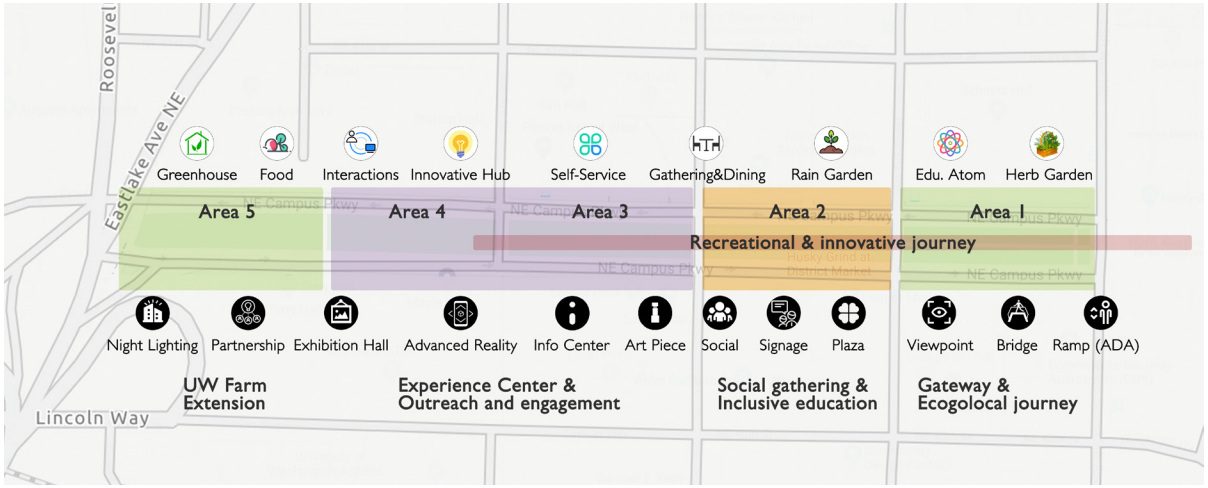


Figure 5.1 Concept Design Diagram

SITE DESIGN

Site Plan Overview

Figure 5.2 Master Plan

The site is designed as a gateway that welcomes people to the U District, its local ecosystems, and its diverse art and culture. Multiple vertical circulation towers located at both sides of the bridge welcome visitors and the UW Community to experience multiple levels rising above the Campus Parkway. This site will be named as a new Twin Line Park, which includes an elevated park and a green island park. With a nexus of green space and educational institutions in Seattle, the Twin Line Park will serve the community as a beacon of resiliency and discovery.

The overall framework of tree planting is optimized to create comfortable micro-climates that take wind studies into account. The site features clustered plantings of native white birch and western white pine at both the ground and elevated level. Sweeps of groundcover, herbaceous plants, seasonal bulbs, and ornamental grasses enhance the site's atmosphere with additional color and texture. The plan for this ground green island garden celebrates the systems that transform the site from season to season and creates a place for the community to learn about the ways landscape can impact the community ecologically and culturally.

I bring changes to this small parcel with both humanistic care in landscaping and specific social values. It is my hope that it will be a place where people from neighboring communities would like to visit rather than an enclosed space without any human-landscape interactions. A small scale of interaction space, convenient recreational areas, and elements of the garden, seats for lunch break gathering, and so on will all be included.

Site Plan for Pedestrian Bridge Redesign

Figure 5.3 Connection Vista Diagrammatic Map

The proposed pedestrian bridge itself will connect the Main Campus to the Campus Parkway, and its proposed parks at the ground floor level. Two-layers parks are anticipated to offer a variety of activities, including ecologically educational gardens and recreational areas with spaces for art and sports.


Figure 5.4 Existing Olympic Vista (Before)


Figure 5.5 New Olympic Vista (After)

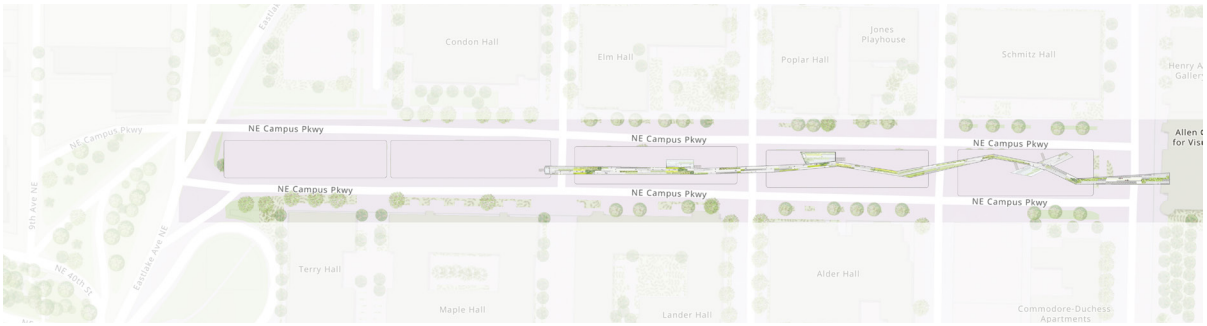


Figure 5.6 Site Plan of Redesigned Pedestrian Bridge

The walkways (Figure 5.6) are conceived of as a continuous three-dimensional landscape in which public space is activated in the form of a raised garden. This bold three-dimensional landscape opens up the campus, brings people together, gives us art and culture to absorb, nature to enjoy, and space to escape. Most importantly, it is a place for everyone.

At ground level, the swaying legs are the bridge supports shaped as portals and cafe pavilions. Above, the infrastructure is a place created for quiet space that overlook the garden below. In addition to the circular plant pots of varying sizes, a series of customizable activators such as tea cafés, LED floors, flower shops, augmented exhibitions, street libraries, sun decks, and observatories will provide a catalog of elements which will enliven the sky garden.

Section A Showing New Bridge

Figure 5.7 Section A showing New Bridge

Gives us art and culture to absorb, nature to enjoy, and space to escape.

Site Plan for Area 1+2

These two areas aim to realize aspects of Ecological and Educational Physical Journey and Curious Mental Journey. Meadow Walk is an accessible route that allows visitors of all abilities to experience a variety of native plant communities and the niche habitats they provide. Along the way, they will discover the smells, colors, texture, sights, and sounds of the sensory garden ecological context, creating a destination for visitors of all kinds, including wildlife. Migratory and resident bird populations were studied to guide a planting strategy that ensures a suitable habitat and plentiful nourishment. People looking to enjoy this area can sit along the edges or lounge on chairs placed among rain gardens and grass.

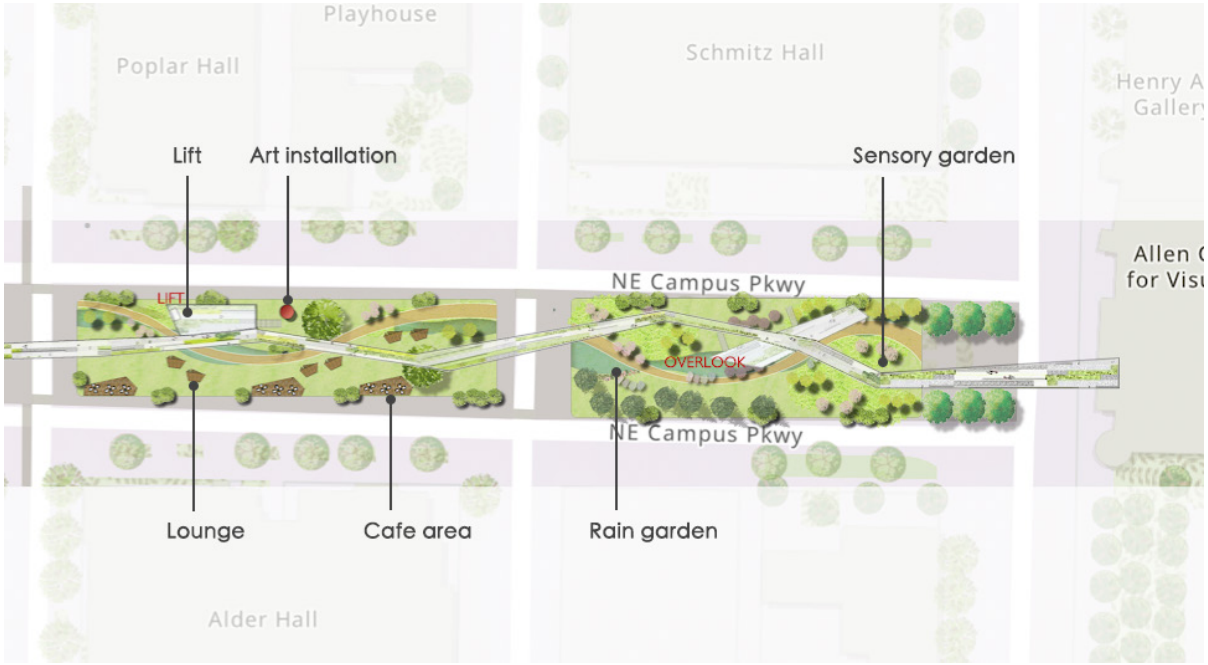


Figure 5.8 Site Plan of Area 1+2

Section B showing Area 1

Figure 5.9 Section B showing Area 1

Initiating Gateway & Ecological journey.

Section C showing Area 2

Figure 5.10 Section C showing Area 2

Initiating Social gathering & Inclusive education.

Site Plan for Area 3+4

Figure 5.11 illustrates a Flexible and Social Physical Journey and Comfortable and Relaxing Mental Journey. A flexible promenade acts as outreach, framing a small stage-like activity area that is home to an artistic interaction wall installation. It is my hope that this will be the most visited and used space around neighboring communities. The creative interaction wall is an intriguing, fun venue for college students and tourists alike. Home to a sunken courtyard garden with an amphitheater, this stepped landscape embraces the site's natural topography and hydrography and offers opportunities for learning, gathering, and playing. The deck has seats to rest and a stage for any number of possible activities.

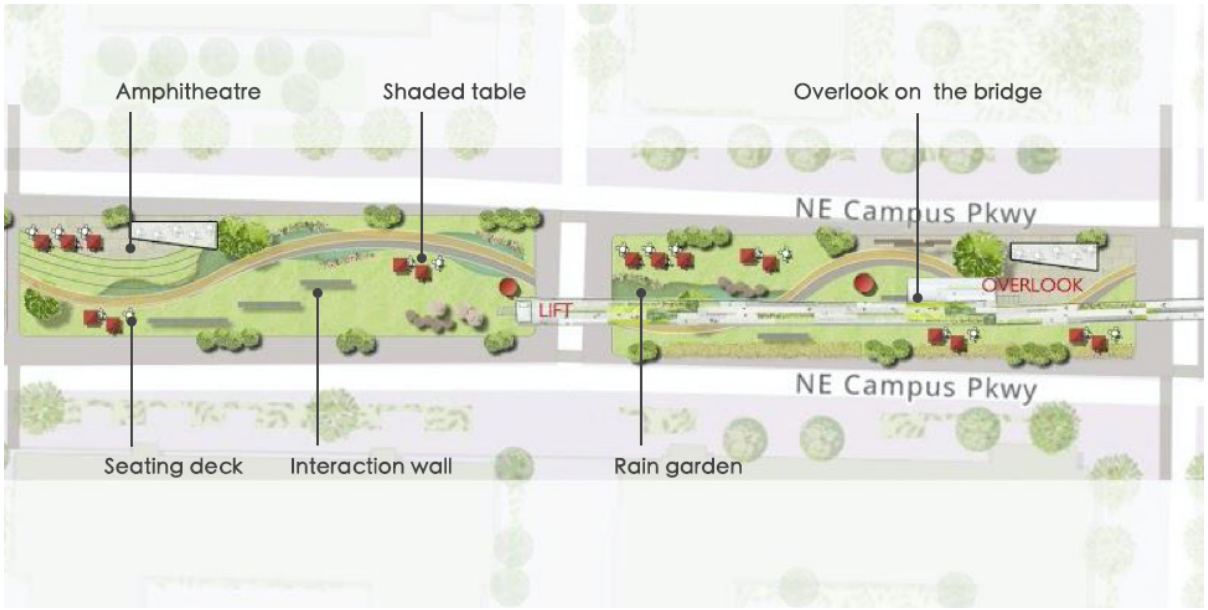
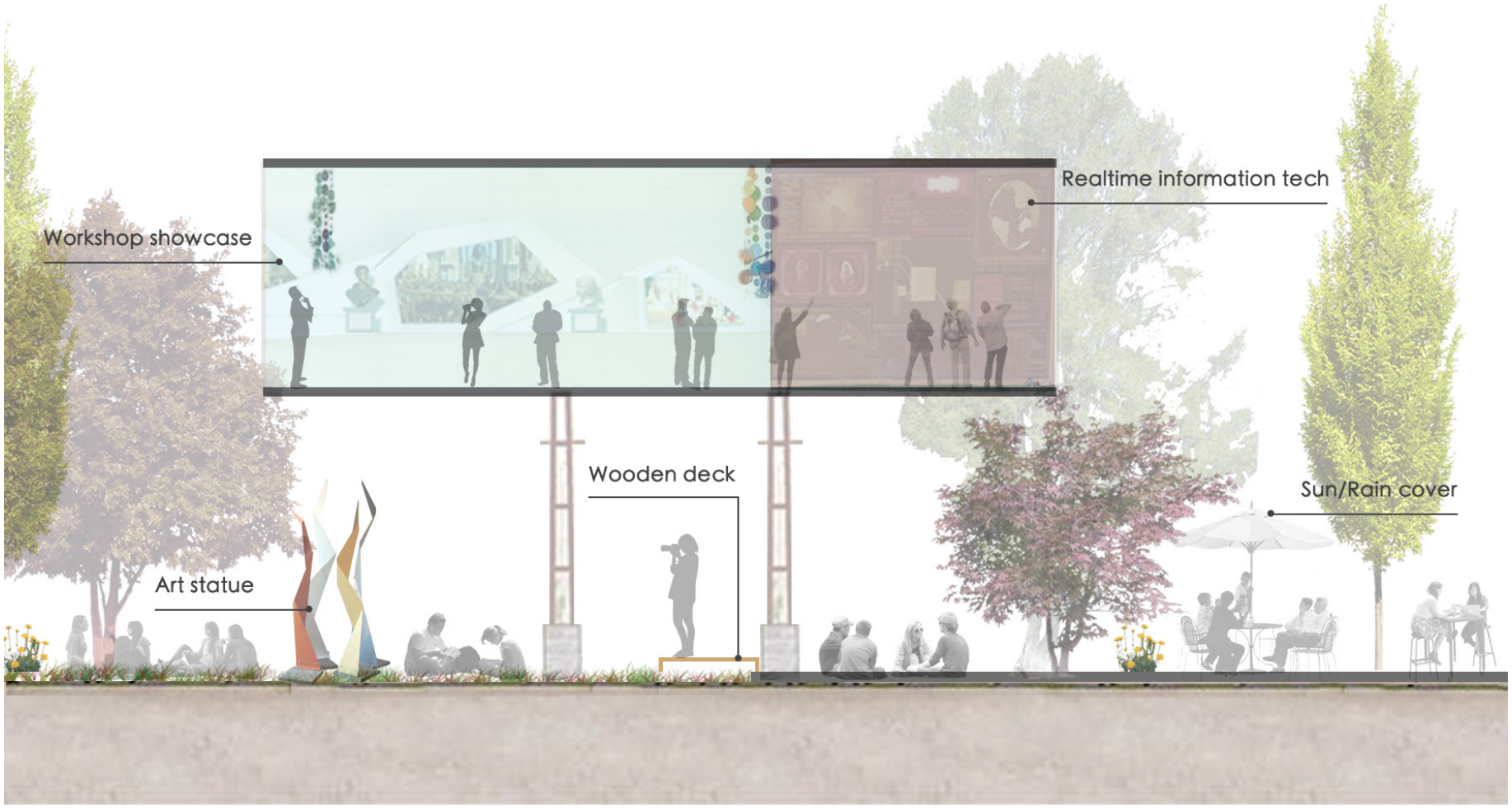


Figure 5.11 Site Plan of Area 3+4

Section D showing Area 3

Figure 5.12 Section D showing Area 3

Initiating Experience Center & Outreach and engagement.



Section E showing Area 4

Figure 5.13 Section E showing Area 4

Initiating Experience Center & Outreach and engagement.

Site Plan for Area 5

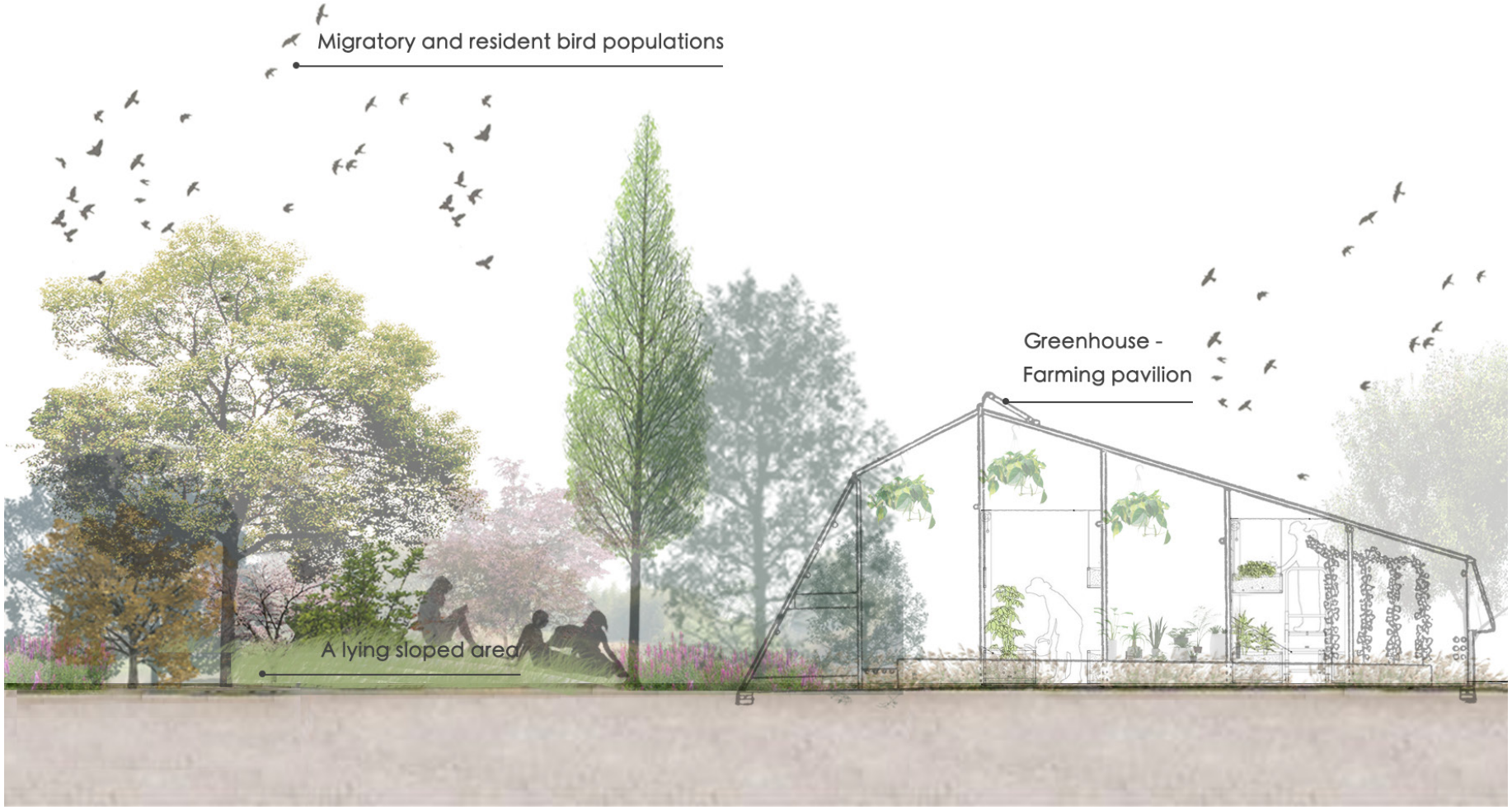
As they reach the end of the corridor, visitors will experience an Accessible and Sustainable Physical Journey and Participatory Mental Journey, a natural extension of their previous experiences. An interactive farming pavilion open to the public will serve surrounding communities in a variety of ways. As they journey through an immersive route, visitors will observe the progression of plant growth from seeds and sprouts at the entrance of the farm to fully developed plants after a few meters.

Figure 5.14 Site Plan of Area 5

Section F showing Area 5

Figure 5.15 Section F showing Area 5

Initiating UW Farm Extension.



DESIGN SCENARIO VIGNETTES

Redesigned Pedestrian Bridge

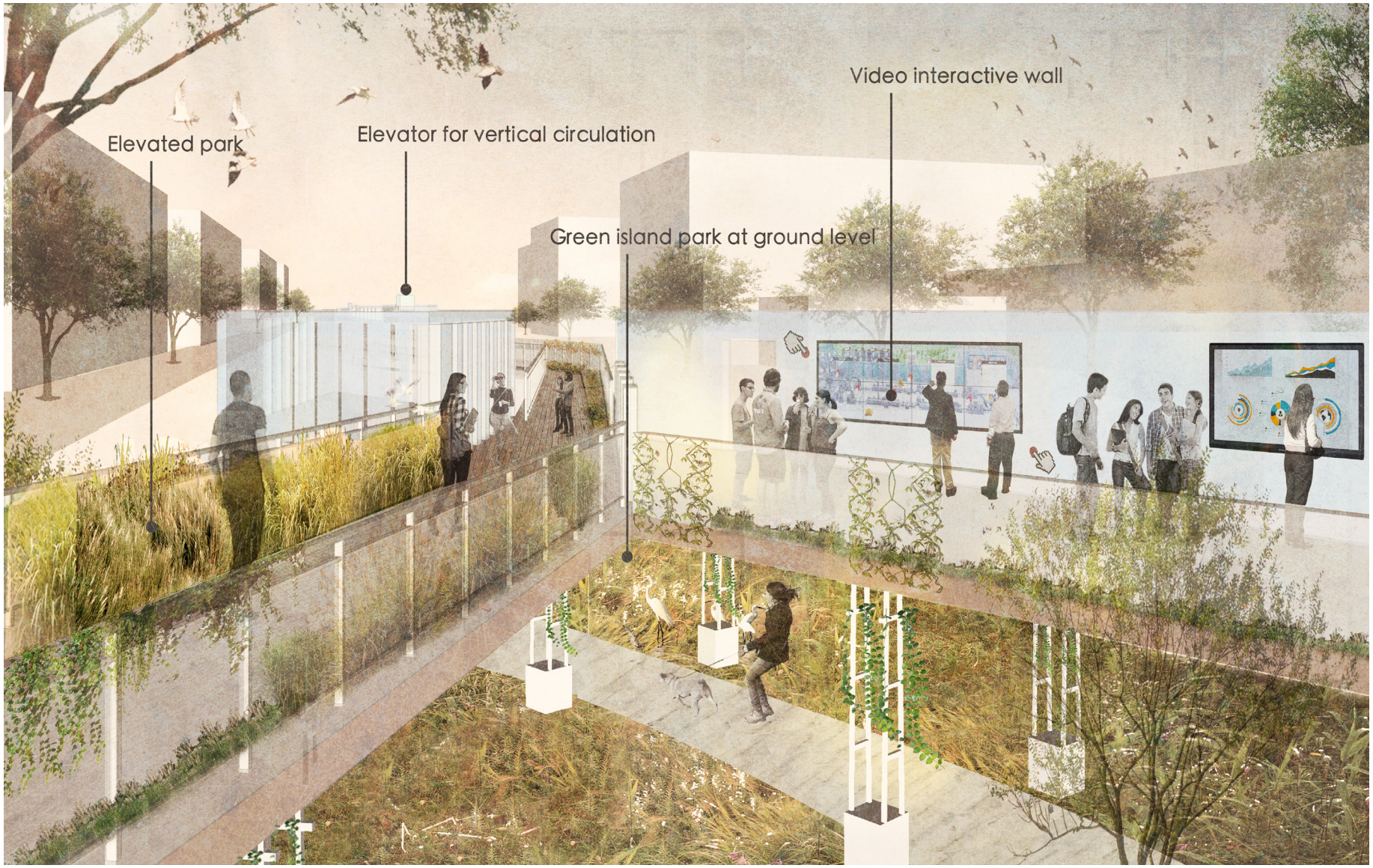
The design proposal conceives this bridge as a landmark, a meeting point, a new symbol for both campus and urban experience, which welcomes “inhabitants” in the UW community and visitors to cross over from here to surrounding neighborhoods. An extended distance will encourage tourists to walk, promoting urban activities on it. Anyone who comes here can use this bridge as a place to relax, lie in the sun, to sit down and see how people walk, or the cars and people using NE Campus Parkway, to watch the sunset. It is a small amphitheater to encourage a level of intimacy with it.

The bridge passes through the landscape belt planted with dense vegetation along with the Olympic Vista Median. Multiple views and changing atmospheric characters are interwoven throughout the design. Along the bridge, four separated “exploring boxes” located close to the main route, there are also separation and reunion of watchers, walkers and joggers. Above and below the bridge, there are dynamic and serene spaces, with the upper part is an active flow space, and the lower “courtyard” is a quiet staying space.

This new bridge extends to the entrance of area 4, near the Startup Hall -- a coworking space. Innovative exhibitions and installations will engage both students and startup professionals. Four elevators offer opportunities for people to access and exit the bridge from different median blocks. Besides integrating the innovative ideas in cultural and ecological ideas, I also respect the original characteristics of the site at the same time. I aim to create an innovative art ecology park experience, thus changing people’s awareness of the outdoor park lifestyle, bringing a new city living room experience.

Perspective looking west on New Bridge

Figure 5.16 Perspective looking west on New Bridge



DESIGN SCENARIO VIGNETTES

Newly Olympic Vista Median - Area 1

In area 1, large masonry clad buildings on both sides convey a very drab feeling. Creating a park offers relief from its hard-edged urban surroundings; it can be livened with these proposed inviting surroundings. In the heart of the West Campus, outdoor space provides people with the opportunity to interact with nature and create a new microecological environment with the established urban environment.

With a hope to create a space to have a sense of staying, experience emotionally and behaviorally. It is also designed to provide engaging through an ever-changing mix of activities for the broadest possible audience. For instance, biology classes can visit and experience horticultural healing therapy or an art connoisseur can enjoy to touch, taste, admire, and listen in the sensory garden, and so on. From the very youngest guests to senior citizens, visitors of all ages will find all kinds of reasons to come back again and again.

Perspective looking west on Area 1

Figure 5.17 Perspective looking west on Area 1

DESIGN SCENARIO VIGNETTES

Newly Olympic Vista Median - Area 2

The walking area 2, it is seamlessly connected to the surrounding services like Husky Grind at District Market and Local Point. Within this area, extensive informal and customized leisure seats are distributed, attracting people to come and engage in different activities from lively parties to quiet contemplation, allowing people to blend in with the environment. The bike facilities are provided for the bikers from further afield an additional utility and that reinforces the sustainability initiatives of the site.

With the intent to introduce social infrastructure, this design solution shows how humane and thoughtful design can connect people and accommodate shifting patterns of use, thereby strengthening the social and recreational fabric of the city and creating an authentic destination within the establishing community.

Perspective looking west on Area 2

Figure 5.18 Perspective looking west on Area 2

DESIGN SCENARIO VIGNETTES

Newly Olympic Vista Median - Area 3&4

The most vivid spaces in area 3 and area 4, were designed to draw people through and attract them to linger, and create places of relaxation, social connection, and recreation. The small public space takes advantage of the shape and topography of the site. Figure 5.19 shows a stepped landscape with a sunken courtyard and mini-amphitheater that acts as a central gathering space and focus point. The steps between the fields are available for resting and sitting. In addition, a fringe of seats with planting pots surrounding the central event lawns saturates the site with life, creating a responsive microclimate that mitigates the surrounding urban condition.

Furthermore, there are several campus residence halls around these two areas, with some service facilities like food order kiosks and cafe tables that are available for college students and visitors from both dormitories and on and off campus. Contrasting the existing linear area with no facilities or public offering beyond its open grass area, it functions as a transitional place with most people merely passing through or around it. The proposal empowers each area designed to offer a unique experience, intending to create a useable and inspired park experience to encourage greater interaction with the surrounding communities.

Perspective looking west on Area 3+4

Figure 5.19 Perspective looking west on Area 3+4

DESIGN SCENARIO VIGNETTES

Newly Olympic Vista Median - Area 5

Area 5 serves as a UW Farm extension and also an educational sanctuary where people naturally participate in learning, planting, cultivating, and harvesting food in public space. Furthermore, learning about the food system and experiencing the changing seasons here. Considering the University of Washington Center for Child & Family Well-being is located near this area. This geometric garden is a strong attraction for children. Blackberries, sunflowers, and a colorful maze of small planting pots. These planting pots of different heights give children easy access to plants. Information about the plants, from color, texture, smell to form, can be marked at the edge of the pot.

This urban agricultural landscape garden enhances the urban experience and establishes a model for the interrelationship between landscape, food, and environment. It strives to integrate beauty, sustainability, and efficiency into the city. Considering aesthetics, environment, productivity, economy, and other issues, I hope to reduce the lack of unsafety for this area and integrate this urban agricultural garden into the complex context, becoming a public green social space and a multi-functional community garden.

To tie the above all experiences together in five areas, a series of thematic approaches are strategically integrated into the site. An east-west spine binds those approaches across the site, acting as a touchpoint along the way.

Perspective looking west on Area 5

Figure 5.20 Perspective looking west on Area 5

RECOMMENDATIONS - URBAN EXPERIENCE DESIGN PROGRAM

The focus of this design is to explore the application of different typologies that enlighten people's urban experiences. I developed a design framework based on the scholarship from the case studies and guiding principles. The remaining recommendation section addresses how my framework could serve as an urban experience design program to be implemented beyond the confined site I selected.

Senses, Emotions, and Behaviors

This category makes a preliminary judgment on the environment through the sensory level, such as whether the landscape is beautiful, whether the layout is suitable, whether the facilities are perfect, and so on. The second is the experience during the process of use, such as whether the plant configuration is suitable for the site type, whether the facilities are placed in line with the function of the site, and so on. Finally, the behavioral scene is formed through the gathering of residents with similar interests, and gradually deepens the understanding of the place.

Identity and Belonging

The place is the whole of the interaction of the physical and spiritual dimensions. On a physical level, space is a physical form, and human participation is necessary to bring it to life. Space can only become a place if it acquires a unique character or story from its historical background, geographical conditions, socio-cultural and personal behavior changes, thus providing a basis for dialogue between people and places, enabling people to shape and enhance the spirit of the place in mutual communication.

Links and Connections

The essence of the experience is to create scenes on a sensory level, using the site as a stage to connect the city and users and create a space for immigration and dialogue about the future of life. Given the site's locality, it is also important to make close spatial and psychological connections between people and the site.

Human Interaction with the Urban Environment

This human interaction enables people to actively participate and draw satisfaction and pleasure from the dialectical process. The subject's spontaneous yearning and exploration is focused on not the landscape itself, but on the landscape as a linkage between themselves and the environment as they interact with and are influenced by the surrounding people and scenery. The diversity of human-environment interactions creates different spaces and opportunities for community interaction, and so establishing a symbiotic relationship between people and the urban environment.

CONCLUSION

OVERVIEW OF THE LEARNING

Understanding the Human Condition

Design exists to meet people's needs in life. The environment is built for humans, and the person in the environment is the user of the urban environment. The environment provides a variety of places for people to experience, meets a variety of their needs, and affects the psychology and behavior of people in the landscape. In this way, the suitability of landscape is judged by people's feelings and evaluations.

In addition, there is a constant two-way, dialectical relationship between people and landscape. Landscape, as an object of visual aesthetics is separated from the characters in space. The landscape form expresses the relationship between humans and nature, people's attitude towards land and city, and people's ideas and desires. Landscape, as the habitat in which people live, is the space of experience. Landscape influences people's behavior, their positioning in the space, and their identity to the place, so with this understanding, human beings and their circumstances constitute a whole world.

Evolving Understanding by Design

Through the embodiment of human concerns in design as a whole, the findings are as follows: First is the satisfaction of physical needs. The landscape should provide a variety of places for people's life to meet different physiological needs throughout life, such as movement, rest, communication, etc. In this environmental design, designers should pay attention to make people feel comfortable using a variety of physical indicators: such as light, temperature, humidity, noise, ventilation, as well as the reasonable use of physiological and behavioral scale. In particular, more attention should be given to the use of landscape sites by the disabled, so that their needs are more than met. Second is the satisfaction of security needs. Landscape environment should avoid causing threat and harm to people. It should allow users to maintain their security and personal privacy, and use design to enhance people's orientation and cognitive ability to the environment. The third and last is the satisfaction of the need for association and belonging. People are social, and society is composed of mutual relationships formed through mutual communication and shared activities. The landscape environment provides not only a place for people's activities, but also the space for communication. Therefore, landscape design should provide a variety of communication spaces for different people to meet various social needs. The design should avoid causing alienation and strangeness among people so that people gain a sense of belonging through communication and connection in the landscape.

The satisfaction of humanity's highest spiritual needs is not always achieved through the design of objects but is approached from the main space of human existence – landscape. Its role in meeting human superior spiritual needs, coordination, and emotional balance is indisputable.

CRITIQUE AND CHALLENGES

Human-Centered Design and Ecologically Sustainable Future

It is clear that currently, human life is unsustainable. We are dependent on our planet's limited resources and are endangering its well-being (Acosta & Romeva, 2010). This raises new questions: Have HCD practices hindered an ecologically sustainable future? How might we imagine new paradigms by which to create more sustainable solutions not only for people but for all life on the planet?

The recent rollout of a fifth generation of wireless communication technologies, including computer vision, mixed reality, artificial intelligence, points to significant trends for the future. Landscape design is also shifting into a new era as artificial intelligence will change our way of life, providing potential opportunities for designers to create an ideal living environment. Industrial machinery and

gray infrastructures such as large parking lots, huge drainage pipes, energy supplies, and storage systems must change to consider ecological sustainability. For example, intelligent stormwater management systems can transform a large number of redundant drainage pipes into water storage space, making the use of water resources more efficient and sustainable (Yu, 2018). The landscape is the foundation of a better life, and through innovative technology and the value of sustainable development, it can stimulate life, inspire life, create a better urban experience design.

REFLECTIONS

LIMITATION

Community Input and Iterative Testing

This thesis applies interdisciplinary theory to move landscape design theory in a new direction, contributing to the broader concept of a human-centered design through a unique Urban Experience Design Study. While reading a large amount of literature and relevant resources, I faced limitations of the actual research cycle and the isolated environment at home. At the research level, I also encountered iterative testing challenges in the process of research design. If time and situation were ideal, collecting the expectations and ideas of the communities for the site, including documenting the community's preferences for the landscape, as well as brainstorming sessions to gather planting design ideas. In addition, through community engagement, different criteria would be established to balance the role of plants in sustainability, and a more detailed planning framework for activities in the park would be developed. This aspect needs to be further improved and supplemented.

NEXT PHASE

From NE Campus Parkway to Other Sites

This project aims to reshape the meaning of urban experience design through human-centered design methods. From urban context to campus-scale, it helps build connections with a larger environment while respecting its current context. The Urban Experience Design Framework (UEDF) I established is further refined into six design guiding principles and three typical typologies. In the design process, I used these to understand how designing urban experience can involve Human-Centered Design Methods. The answers to my research questions are also be illustrated through the design practices.

Looking beyond this design exercise into the next stage to further promote research design further, the next logical step is to understand how this framework can apply to different urban environments, and how different contexts would contribute to its meaning in an urban setting.

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APPENDIX

A. SITE PHOTOS

Figure A.1 Existing pedestrian bridge

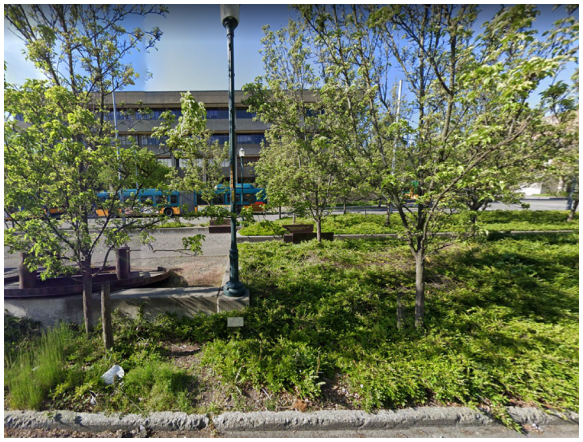

Figure A.2 Area 1

Figure A.3 Area 2

Figure A.4 Area 3

Figure A.5 Area 4

Figure A.6 Area 5

APPENDIX

B. FIELD WORK RECORD

Figure B.1 Fieldwork draft 1

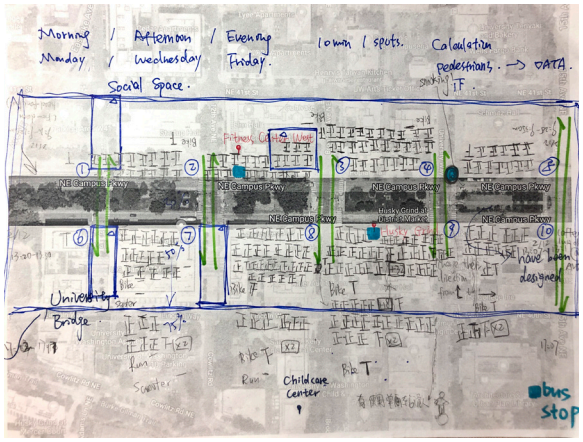

Figure B.2 Fieldwork draft 2