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MEMPHIS LOW LINE AND COMMUNITY HUB:CREATING A PLACE FOR REFUGE

by
Andrea D. Jimenez

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Architecture
Major: Architecture

The University of Memphis
May 2019

Memphis Low Line and Community Hub

Creating a Place for Refuge

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Figure 1 El Colambo

DEDICATION

This thesis is dedicated to my grandparents, Lola Leon and Juan Jimenez, who have always pushed me to achieve my biggest dreams and inspired me to imagine. This book is especially dedicated to my grandfather (who I lost during this thesis project), a literature professor and author of many books, for whom I was inspired to create a narrative that gratefully honors his legacy.

This description of the picture "el Colambo" (figure 1), is written below by Juan Jimenez.

From your vivifying entrails, great Colambo, you boosted the light of the new day, to the beautiful land of Gonzanama; you gave her warmth, you shared your life with the nascent sovereign, you fortified her and with the flame of your majesty, you turned her into a goddess, in a city that on stellar nights and on holidays, lights dressed in flowers and charmfulness; seeing you so distinguished, your people acclaim you: oh princess of Colambo! You are my guide, my luminous torch, my heart surrendered with passion, greeting you forever.

ACKNOWLEDGEMENTS

First and foremost, I would like to give thanks to God for guiding me throughout my architecture studies as well as this thesis project, and without His guidance nothing would have been possible. I am deeply grateful for all of the opportunities, talents, and abilities I have been given in my life, and can only hope that this book is the start of what I can give back to society. I want to thank my parents, Alberto and Sonia, for their words of motivation, immense support, and encouragement. Thank you for helping me become a better person and student. I also want to thank my fiancé, Patricio, for all of his love and patience, and for continually cheering me on during this journey. I also want to thank my siblings, Paola, Patty, Juan, and my sister-in-law, Kira, for their enormous support.

I want to thank the Department of Architecture, especially Michael Hagge and Sherry Bryan, for providing the opportunity to join this diverse and unique program that has helped me fulfill my goals and gain a diverse knowledge.

A special thanks goes to my thesis chair, Michael Chisamore, and my committee members, Pam Hurley and Jacob Davis, for their involvement in this thesis. I would like to thank Tim Michael, Jennifer Barker, and Andrew Parks, who also contributed to the process of my thesis.

This experience would not have been possible without my closest friends from Ecuador, especially two of my closest architecture friends, Ana and Fabian. I also want to thank all of my peers who contributed in this process in one way or another.

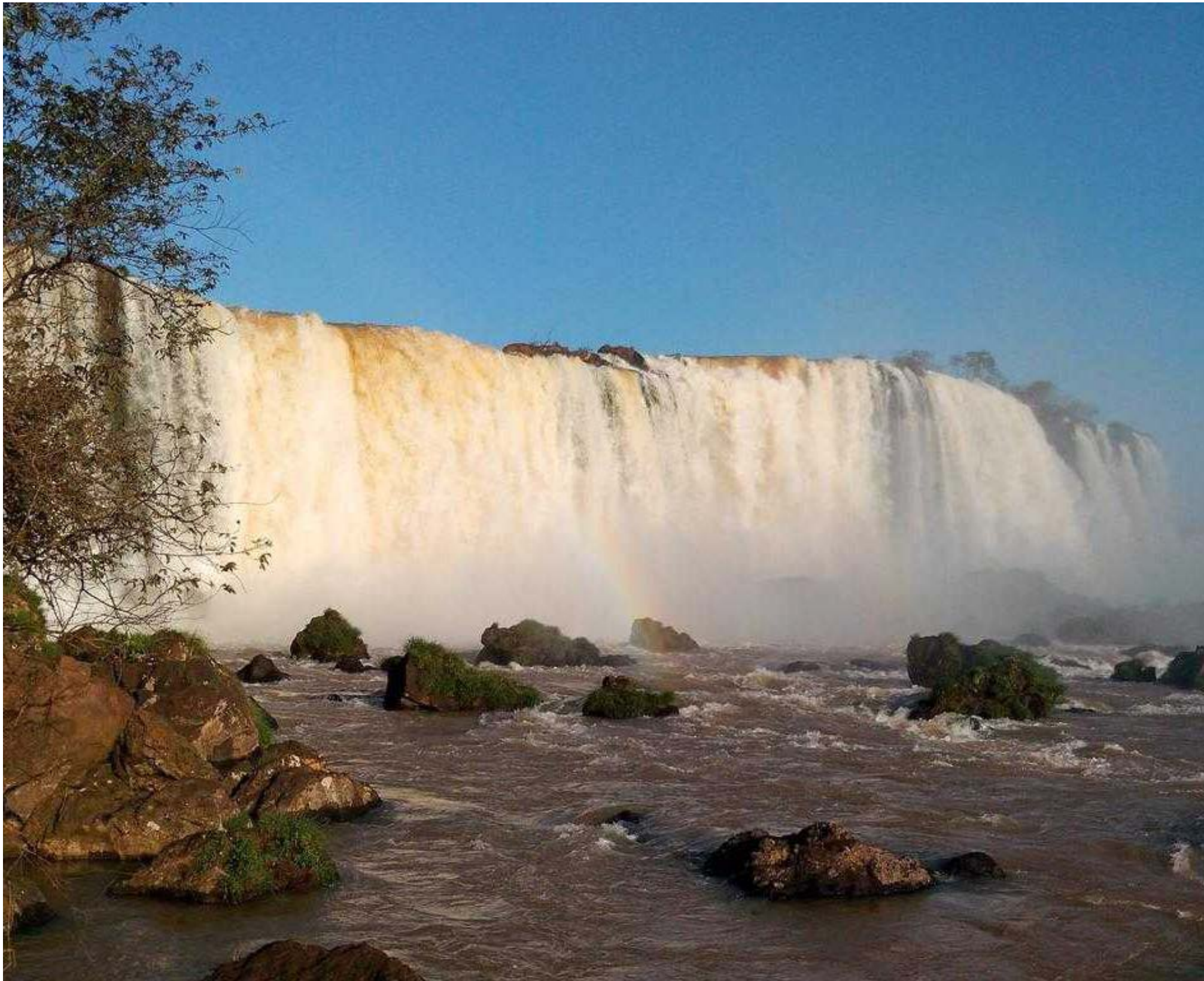


Figure 2 Foz de Iguacu Waterfalls

PREFACE

When I was nine years old, my family and I moved to the United States because my father was studying for his master's degree. Moving to a new place was exciting and at the same time frightening. Once I arrived at my new home, a video camera was my first friend; I used it to capture moments around my new house, creating stories. The equipment I used helped me to be more aware of the space I was in: to explore it, learn from it, and feel an attachment to it. It was as if the lens of the camera was the mediator between myself and my new home. When I was older, I studied architecture abroad in Brazil. Once again, the video camera helped me explore new places and create an attachment to them.

When people travel to an unfamiliar city, they tend to miss home and want to find a place of withdrawal, or retreat, to find the safety similar to what they experienced when they were in their own home and community. People desire a place of refuge and, at the same time, a gathering place to establish a connection with the city as well as each other, no matter their age, gender, ethnicity, or historical background. People long for places that help establish an identity based on both the new people who inherit the space as well as by those who live there permanently.

Certain spaces create a greater sense of attachment with individuals than others based on the ambience, or atmosphere, these places have. Some of the best memories that I have had in certain places I have visited have been based on how I felt in these spaces as well as how my surroundings have influenced me. For example, water is one of the elements that makes me feel secure and at home. While I was at the Iguacu Waterfalls in Brazil (figure 2), I experienced the sound of the water, the way the moisture raised around my body, and how the tiny drops of water hit my face from an angle causing a slight pain on my skin. All of these experiences helped connect me to the place and feel secure.

In this globalized world, it can be difficult to find or create new spaces. However, once a place with an atmosphere of security is created, whether in large or intimate settings, I believe that it can bring people together. It is in this atmosphere of security that people can enjoy various

activities offered by the place while also being aware of their surroundings. Furthermore, the gathering of people benefits the city, the community, and the individual's being.

My personal experiences have led me to investigate an architectural project that creates places of refuge, where users can gather with others or be alone, all while encountering an attachment to a specific place. A place of refuge is very significant to a person who is foreign to that place.

ABSTRACT

In today's society, when people migrate to a new setting, it can either be a welcoming or neglecting experience. It affects one's sense of place, his or her relationship to the community and, therefore, his or her being. The challenge is to work toward the restoration of the site and respect the old, while still embedding a sense of refuge and identity to the place.

The intent of this thesis is to create intimate and social gathering spaces with multi-sensory experiences that produce a meaningful attachment to place, community, and one's self. The design process of this thesis demonstrates that the key to design thinking is integration of both the poetic image and the rational. This is explored through the adaptive reuse of an existing building and a ravine located in the Edge District of Memphis, Tennessee. Additionally, a new building is designed as transitional residences.

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Figure 3 Light in Darkness



Figure 4 Terrace, 360 Degrees

MANIFESTO

As I wake up, darkness embraces me. I find myself in a place out of time; a place that intrigues me and relaxes my soul. I am immobile; a beam of light shines upon me (figure 3). As my head looks upward, my eyes are disturbed by the glare. I observe the source of light: it is a round skylight. I have a feeling of being submerged and so I say out loud: "Is anyone here?" But all I hear back are the echoes of my own voice.

As I wait to come out of the room, I feel the textures of the walls around me; I sit down on a hard, cold surface. I walk around and the walls give me a sensation of closeness, as if they are tilted inwards. From the low reflectance of the light, I can see a mixture of rock and dove gray brick on the walls, which somehow have been illuminated by fire. Above me there is a leak of water coming down and hitting my shoulder. A sense of familiarity has embedded in my unconscious and I start reminiscing about my childhood. It awakens in me the desire for adventure. I discover a type of stair that leads me to another level; I call it "the courtyard."

Standing in a cloister around the courtyard, I can see a vast and infinite blue blended with the sun's light. This creates an overwhelming sensation, as if viewing a painting. In the courtyard, the sky meets the top of the building's structure, creating a juxtaposition. Suddenly, a cool breeze approaches from the east and makes my body tremble. I smell the waxed wooden floors and it transports me: I find myself sitting down in a wooden pine chair with a book by my side. The tranquility of the space makes me want to embed myself in new narratives, beyond my imagination. The walls that were made of rock and brick are now of wood mahogany, as is the floor. I can see the joints between each floor board and the head of the nails. Abruptly, a similar image appears in my mind, reminding me of my grandmother's living room where I spent most of my childhood.

This moment is interrupted by a melody of low and high pitched voices; it sounds like a choir. I walk out of the room, led by the voices. Suddenly, I see myself in front of a solid wooden double door. I open it. The room has white walls and in the center there are walls that create the shape of a cross. Light filters in, and the speckles of the light disperse through the room. The memory of a holistic and healing space comes to my mind. As I continue my exploration

through the building, I find stairs that take me to a higher level outside. The terrace I am on has a 360 degree view of the forest; I see that I am surrounded by it (figure 4). The sun sets rapidly and the horizon line merges with the foliage of the trees. In the distance, I see a spellbinding lake. It reminds me of my safe place. I feel like I am in a capsule where time and space become one, where my being connects to the surroundings, and where my body feels like warm water is running slowly from the top to the bottom part of my back.

I decide to return to the courtyard. Just as I am moving that way, I hear a door handle turning. When the door opens, there is a glow of yellow, red, and orange colors from the inside. There is a man calling to me, and I follow him. Unexpectedly, I am back in the courtyard, but this time there are more people in the center; here they are sharing their life stories and playing games. This is the first time I truly see the building. After this long exploration of the space and memories that the building evoked in my conscious, I feel a sense of shelter. I feel like I have experienced atmosphere; the textures, contrast of light and shadow, and multi-sensory experience have all created an emotional response in my being.

Just as time and space are relative to the state of movement of the observer, one can capture a moment in time; moments that are generated by narratives of imagination and embodied experiences transcend place, creating an atmosphere. Thus, experiencing space in dreams or imagination can transform into a built story that intrigues the being and shelters the soul.

People travel to places and see various buildings, but the places that are embedded into their memory are the ones that also captivate their being. Figure 5 is a response to a place that is embedded in my memory—the desire for exploration and the beauty found in the complete construction of a Roman Arc. In the preceding narrative of people engaging place, the building connects to the user through context, materiality, culture, and other people. This makes the user feel connected to the inner spaces and takes the user's mind to a place of shelter. The building creates an evident appreciation of light and the form and function of spaces. This highlights the correlation between a rational observation by the mind as well as an experiential observation by the soul; there is a fusion between the object and the subject. As a result, the body creates an attachment to a place and "insideness," which is what people experience when they are in their own home or community.

This embodied experience engages the senses and the self connecting to place, as well as human nature. Architecture should capture a balance between body and mind, light and shadow, movement and stasis, structure and material, and individual and community.

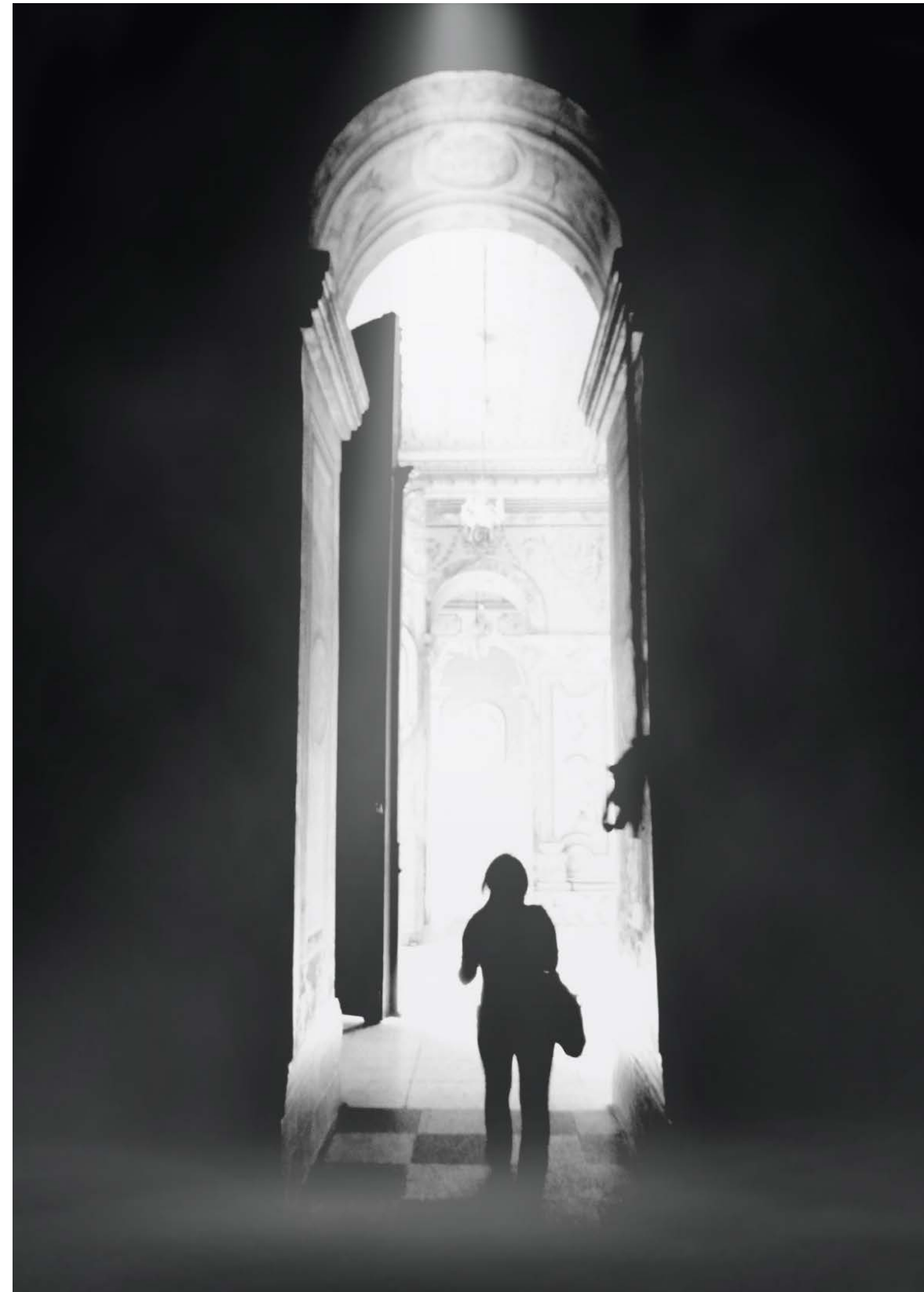


Figure 5 Author in Santo Domingo Church

INTRODUCTION

In cities, a sense of place is developed from history, culture, the impact of migration, and the physicality of the natural and built environments.¹ The sense of place in the urban context is incomplete when there is no consideration of social factors by people both living in the city and those that migrate to it. Every place is unique in cultural context, and its tangible physical aspects (districts, edges, paths, landmarks, and nodes).² Thus, migration history and the real physical components of the place influence "place making," giving meaningful identity to the environment. Identity is defined through existential "insideness," which is an experienced sense of place or refuge, similar to when one is at home or in one's own community.³ Therefore, the purpose of this thesis is to create an environment of refuge for people interacting with each other, both those who migrated to, and those already living in, the city of Memphis.

Refuge is defined as an inner world of comfort and relief.⁴ To reinforce the concept of refuge, this project uses a process of design that integrates poetic image⁵ and rational design.⁶ To establish an environment of refuge there is a series of explorations required. The first phase is to consider the physical setting, this includes the exploration of the boundaries and history of the site.⁷ The second phase is to create various levels of intimacy, using communal and more intimate spaces.⁸ The third phase is to generate multi-sensorial experiences through individual or group experiences. The project that will be used to explore these ideas includes a community center that provides social interaction, a residential building to facilitate entry to an existing society, and a series of public spaces designed to generate an atmosphere of refuge that engages the landscape.

1. Adams et al., "Sense of Place."
2. Mohammed, "Spatial Conditions for Sustainable Communities."
3. Seamon and Sowers, "Place and Placelessness."
4. Dosen and Ostwald "Prospect and Refuge Theory."
5. Pallasmaa, *The Embodied Image*.
6. Grafton Architects, *Inspiration and Process in Architecture*.
7. Najafi and Shariff, "The Concept of Place."
8. Havik, Teerds, and Tielens, "Building Atmosphere."

The process of design considers both existing features of the site as artifacts of the city, as well as the "new" features created on the site. The integration of existing and new, using a process that is both rational and intuitive, generates social spaces that use multi-sensory experience as a means to develop a sense of refuge or "insideness."

The proposed site for this project is in the Edge District in Memphis, Tennessee. This area has been an intersection of industry and culture since the earliest days of Memphis. The specific site, an existing building on Union Avenue and an abandoned railroad bed excavation (resembling a shallow ravine), presents opportunities in terms of materials and experience. The site also allows the design to explore adaptive reuse coupled with new construction (the residential building).

The intended user group for the project includes new residents, those who are in need of transitional housing, and people who have come to the city for business or cultural exchange. Both the community center and the residential building are semi-public in nature. The space created through the revisioning of the abandoned railroad bed is public in nature, but explores the notion of how to find refuge in public spaces.

DESIGN SOLUTION

To create a sense of "insideness" it is essential to create an embodied experience that can connect inhabitants to their new physical settings. Therefore, it is necessary to design social gathering spaces with various levels of intimacy where different people can engage in a variety of activities. It is through engaging an environment—its materials, light, shadow, and a degree of concealment—that users have an atmospheric multi-sensory experience.

In this design process, both the rational and the intuitive are essential, working hand-in-hand to create a place for refuge. It is important to understand that the intertwining of these design processes work to enhance the site and city, for both the long term resident, and the new. A first step is to analytically approach the program and the site to define the needs of the project and to determine what opportunities the site and urban fabric present. The project needs shared spaces for a new diversity of small or large groups to withdraw, gather, relax, stay, and connect to the immediate surroundings and site history.

RATIONAL PROCESS

Program

The program focuses on providing social, physical, and other support spaces for people new to the city and former residents. For the new user group arriving in the city, a residential building is designed with internal shared spaces that contribute to choreographed meetings. An adaptive reuse building found on the site is used as a community center embedding activities that can connect the new user group to the history of Memphis. External plaza spaces are incorporated for the new and resident user groups where they can withdrawal, gather, relax, and connect with the built environment, history, and natural elements.

Community Center

The program spaces of the Community Center vary from public to private. The public aspects of the program engage and face Union Avenue. The project operates

as a community-oriented information space where new inhabitants to Memphis, and permanent residents, share and impart knowledge about the city.

The program includes a multi-functional space that can serve as an exhibit area, cafeteria, and conference room. The semi-private spaces include classrooms, meeting spaces for small groups, and spaces where new inhabitants can have video phone calls with their families.

Residential Building

The Residential Building is intended as a space for home and rest from the outside world. The program includes rentable living units (3-6 months) for new inhabitants to Memphis. It includes various zones for relaxation, reading, and meeting in small groups. The program includes studio, one bedroom, two bedroom and three bedroom apartments. This building is physically connected to the community center, though it is more private.

Plaza

The outside space of the site will be used for events and large scale activities including performances and large group gatherings. The plaza also includes spaces for small scale activities, including small group gatherings.

The intention is for these three components to act together, providing places of refuge and engagement in the city.

Urban Analysis of the Edge District

Mobility

The Edge District acts as an east-west connector between Downtown and Midtown Memphis. The district also connects Uptown and Washington Heights by Danny Thomas Avenue (figure 6).

Mobility and connectedness are essential to the sustainability and viability of the project. The program components of community center, residential building, and public plaza regenerate unused elements of the existing urban fabric due to their placement at a connection point in the city. The project enhances recreational opportunities and leverages employment already existing in the area. Connection to public transportation and proximity to major circulation arteries of the city provide the potential for users to easily access the city. Most of these existing amenities are within walking distance of the site. The first railroad operated the first train in 1842. The first depot was destroyed by a fire in 1853.

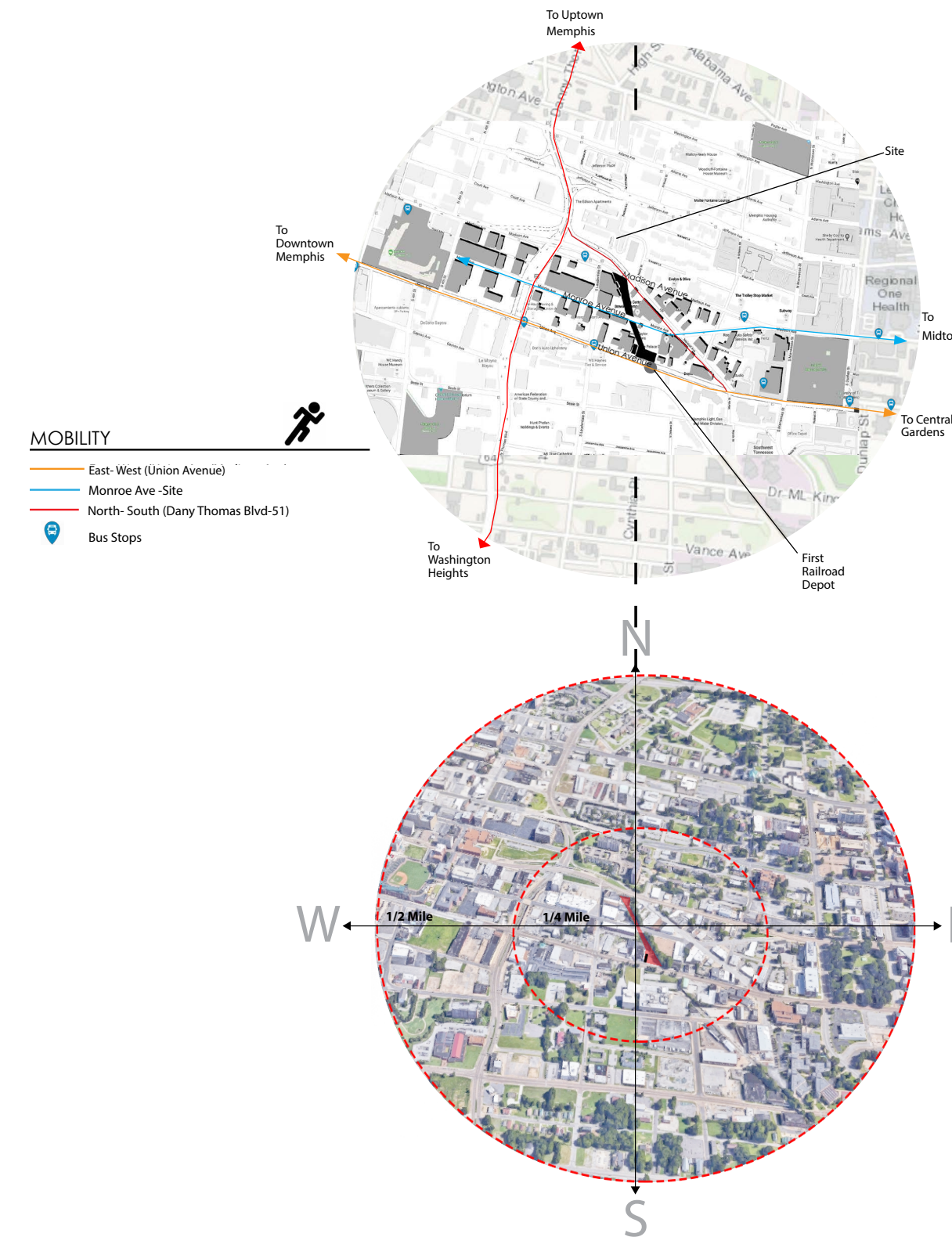


Figure 6 Context Analysis: Location—Mobility

Cultural Connections

The site also affords many cultural connections useful in creating an environment conducive to building a sense of place common to new inhabitants and the established community. Various cultural institutions such as AutoZone Park, Sun Studio, Health Sciences Park, and Robert Church Park, encourage a sense of involvement in the city (figure 7).

Living Amenities

Living amenities such as hospitals, local shops, parks, cultural and communal facilities are located within a walkable distance from the Edge District and facilitate employment opportunities for the new inhabitants staying in the residential building. Furthermore, the residential and communal building will generate employment and social infrastructure, and will increase connectivity in the site (figure 7).



Figure 7 Workday Amenities and Cultural Connections

Brief History of the Edge District

The proposed site for this project is situated on Union Avenue with connections north to Monroe and Madison Avenues. The Edge District has significant historic importance in the city of Memphis.¹ It is known for its intertwining of industry and culture, and began as a railroad hub (figure 8) that later developed as a place of diverse activities and businesses. The composition of the streets, and “odd or zig-zag” alleys (laid out to accommodate railroads in the 1800s), were lined with industrial buildings.²

Site selection is important in the design process, so the users, people new to the city, can develop meaningful attachments to their new place, and see the project as a place of refuge. The intent is that users have an experience similar to when they are in their own home or community, while feeling they are part of the built environment and part of the community of the city. This is a project that requires a full understanding of the site's history and its impact and change over the years.

Brief Historical Evolution

Part of the sense of place in this district is due to its historic evolution as part of Memphis (figures 9 and 10). From its railroad and industrial beginnings, the area has seen the incremental expansion of the Medial District. This, along with increases of housing opportunities, strengthened the commercial corridors and enhanced the district's financial security.

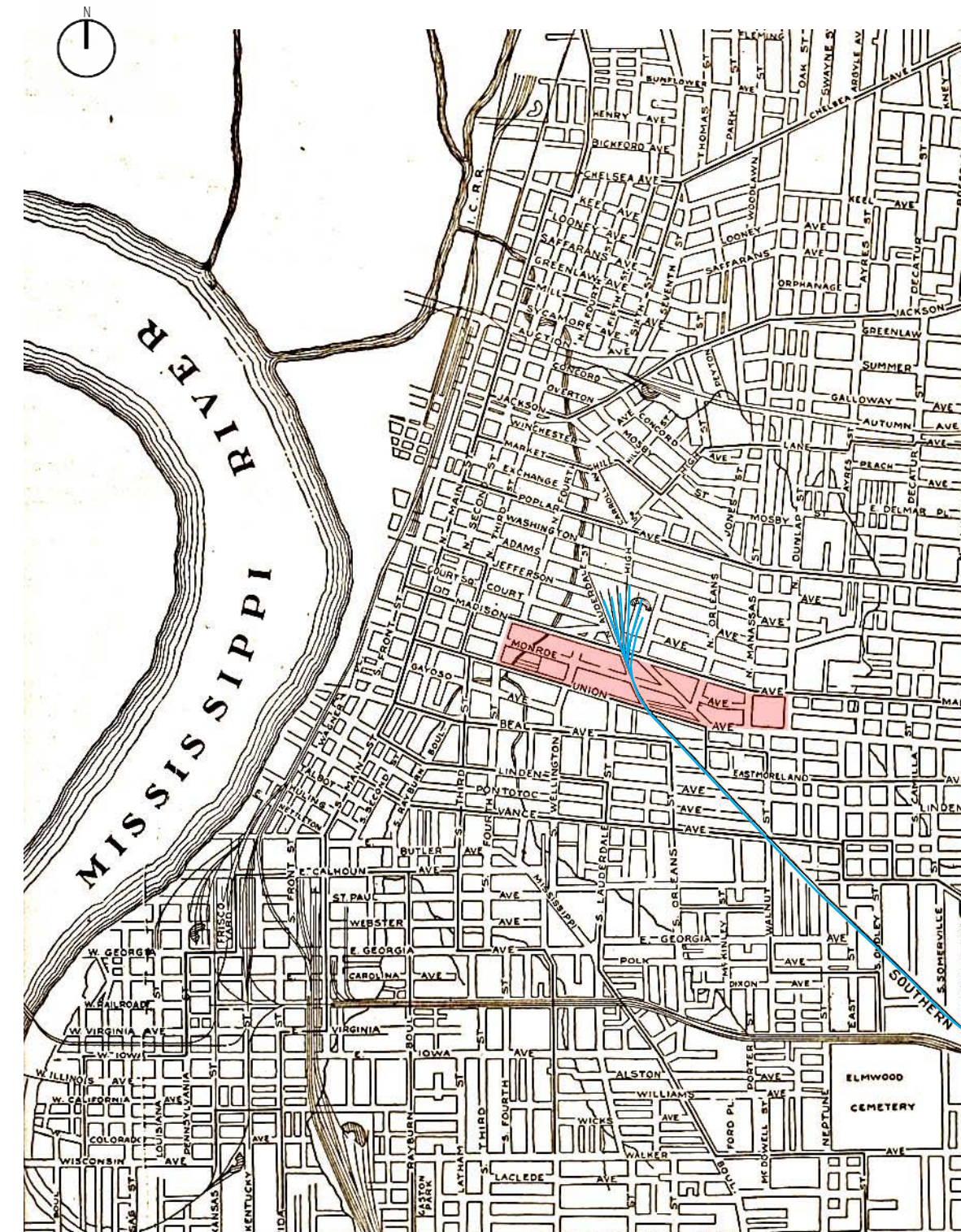


Figure 8 1911 District Map. The blue lines show the Railroad Hub, located in the Edge District. The Edge is highlighted in red.

1. Najafi and Shariff, “The Concept of Place.”
2. “The Edge.”



Figure 9 The Edge District, September 1997. Before the Medical District intervention, the Edge District was a forgotten neighborhood.



Figure 10 The Edge District, 2017. The cancer research buildings helped develop housing supply, strengthened commercial corridors, and enhanced the district's safety and security.

Urban Considerations

The project site plays a pivotal role in the architectural and landscape development of the design. The site has an existing two-story masonry building on Union Avenue, an existing abandoned railroad bed or ravine running from Union Avenue, under a viaduct at Monroe Avenue, and terminating at Madison Avenue. The ravine includes sloped wooded areas on both the east and west sides connecting to the surrounding lots occupied by existing masonry buildings. The natural landscape is contrasted by a concrete path along the length of the ravine. Visually, there is a clear distinction between the built environment and nature (figure 11). One great advantage of the site is that it can serve as a physical connector and foster the creation of atmospheric experience for the inhabitants.

As Kevin Lynch mentions, the city represents the relationship between the cognition of the user and the physical environment. The components of the sense of the city are the observer and his or her environment and this sense is broken into six elements: identity, structure, meaning, congruence, transparency, and legibility. In this project, meaning is implied in the mental image of the inhabitants, creating congruence between the physical form and activity. For congruence, the important aspect is the relationship of the whole form to the function of the project. Transparency refers to the visibility that the users have around them. A multi-sensory experience is needed to reinforce legibility (the quality which makes a space understood and attached). Therefore, legibility is physical and spatial (motion, smell, touch, sound) and it can enhance the identity, structure, and meaning of the surroundings.³

3. Mohammed, "Spatial Conditions for Sustainable Communities."

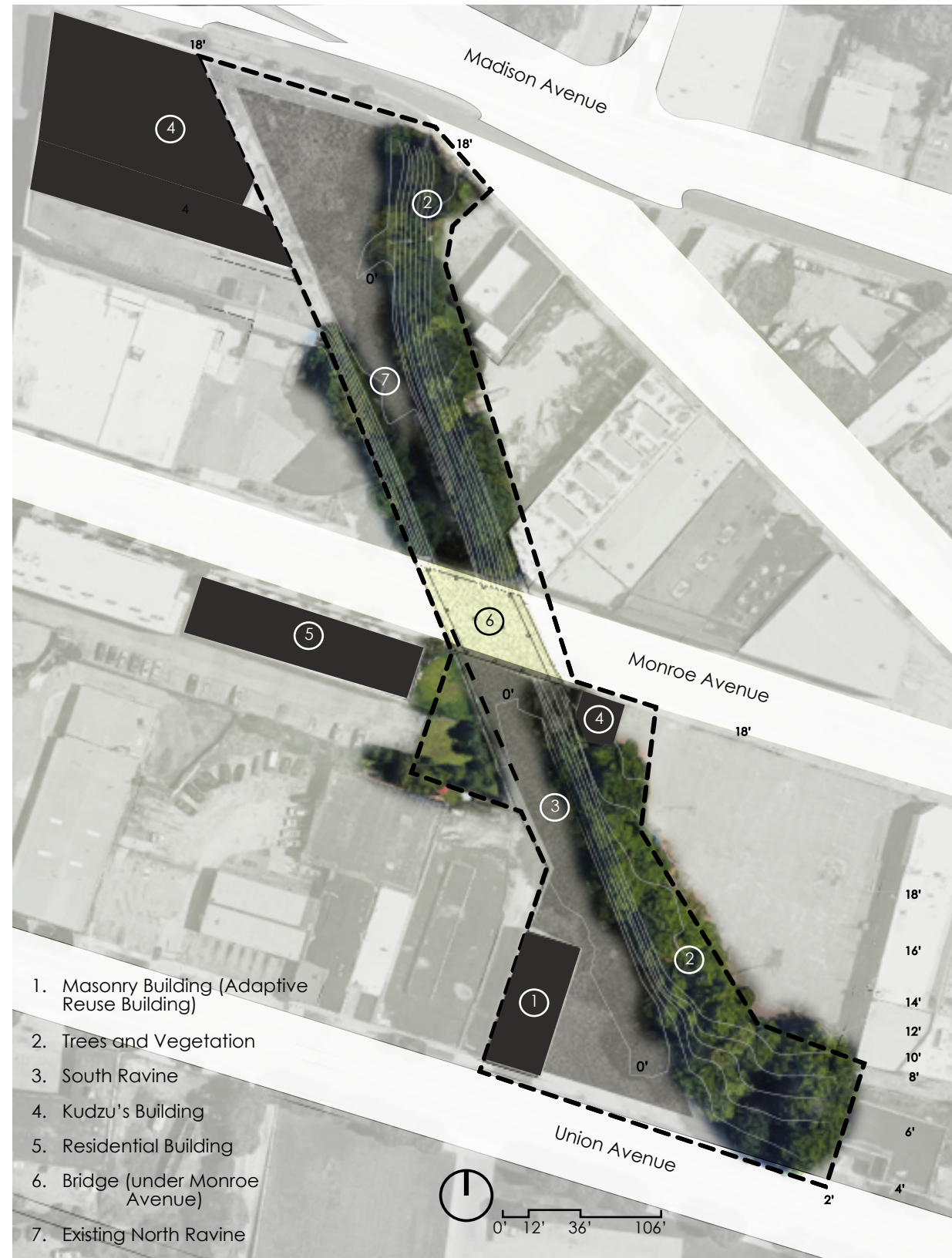


Figure 11 Existing Site Plan and Site Images



1. Masonry Building on Union Avenue



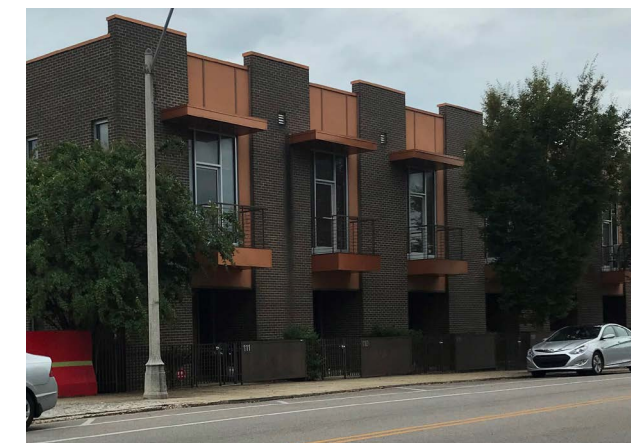
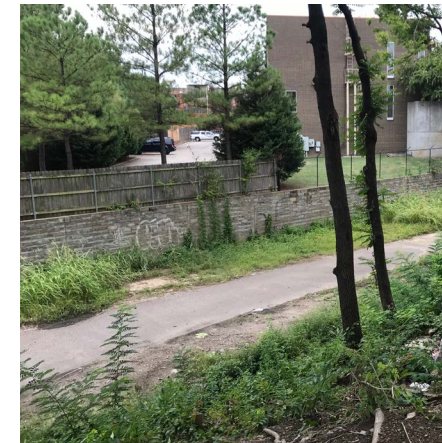
2. Trees and Vegetation on East Slope of the Ravine



3. Southern End of the Ravine Looking North towards Monroe Avenue



4. Kudzu's Building at Top of Slope on Monroe Avenue



5. Rear and Front Facade, Residential Building on Monroe Avenue



6. Bridge at Monroe Avenue



7. North Ravine Looking North towards Madison Avenue

Nodes, Paths, Edges and Landmarks

Nodes, paths, edges, and landmarks are used to develop the initial rational approach to the design project.

Nodes

The site offers possibilities for connecting the existing ravine with Union, Madison, and Monroe Avenues. Each entry has a different character, but they all have the potential to be points of encounter between individuals occupying the site and those entering. These chance encounters can create social bonds between people.

These nodes (figure 12) act as punctuation points of the ravine. Each addresses the site differently and provides a different means of entry to the site. Characteristics of these spaces include a change in the ground, material change in topography levels, new and different building forms, lighting, and a change in activities. The nodes benefit the design process because they are used as a way to establish identity.

Node 1: off Union Avenue; starts with a wide entrance from the street, narrows towards the north providing opportunities for gathering at Union and an entry point for the ravine

Node 2: presents a vertical relationship between Monroe Avenue bridge and the narrow middle of ravine

Node 3: a terminus point for the ravine providing another vertical relationship between ravine and roadway, but with a more open aspect to the city

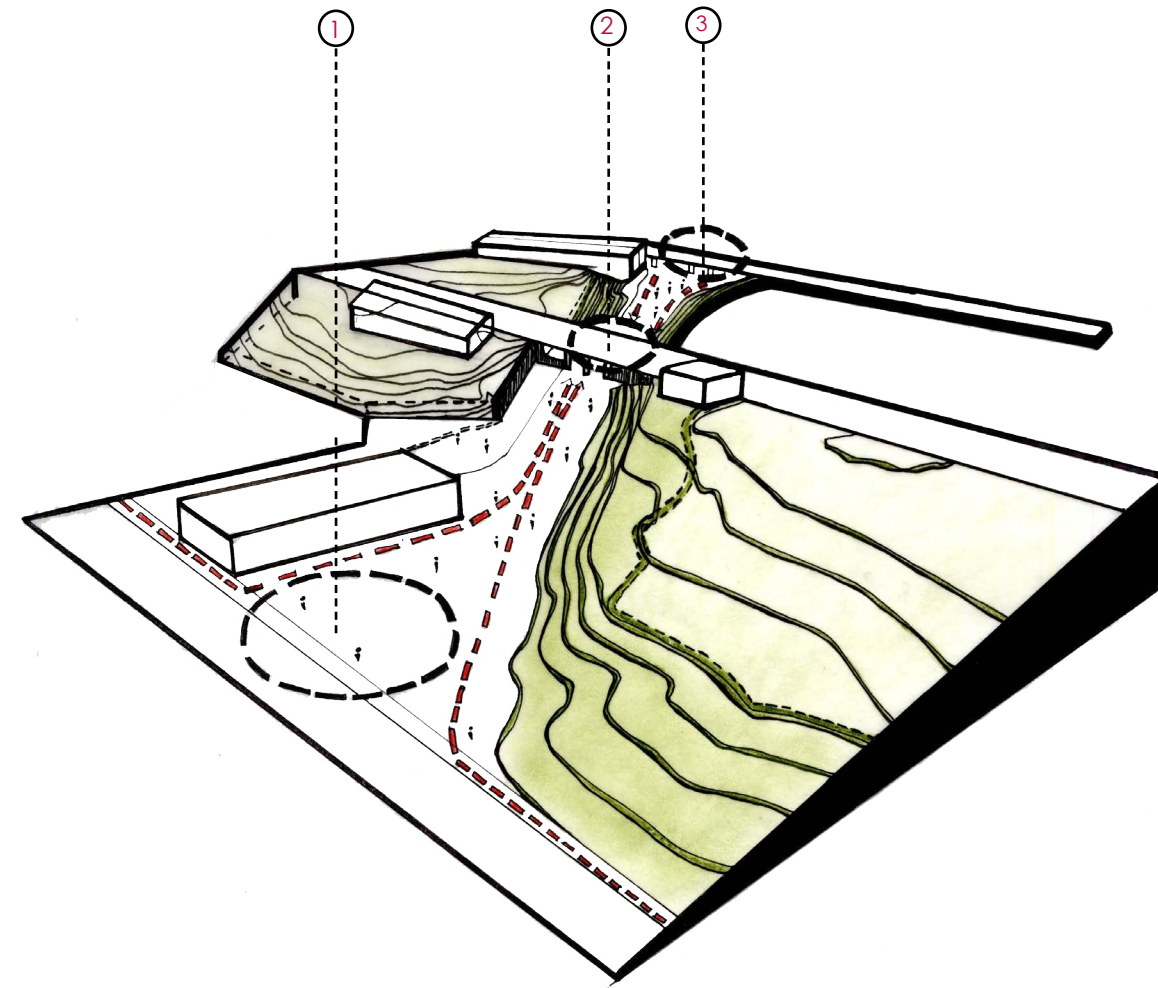


Figure 12 Nodes

Axis 4: This axis runs north-south, the length of the site, and connects all three avenues. It aligns with the edges of the existing columns underneath the bridge at Monroe Avenue, and establishes the central circulation of the ravine.

Axis 5: This path runs perpendicular to the facade of the existing building on the site; centered on an existing door the path connects east-west areas across the largest part of the site.

Axis 6: This is an existing visual connection between the existing buildings on Union and Monroe Avenues. This visual connection suggests a means of circulation down the slope that capitalizes on its wooded nature.

Axis 7: This is an existing visual connection from Union Avenue across the site to the existing building on Monroe Avenue. It presents a possible circulation path for the proposed residential building on Union Avenue back into the site. The intention is that with the new residential building, the spaces in the ravine can function 24 hours a day.

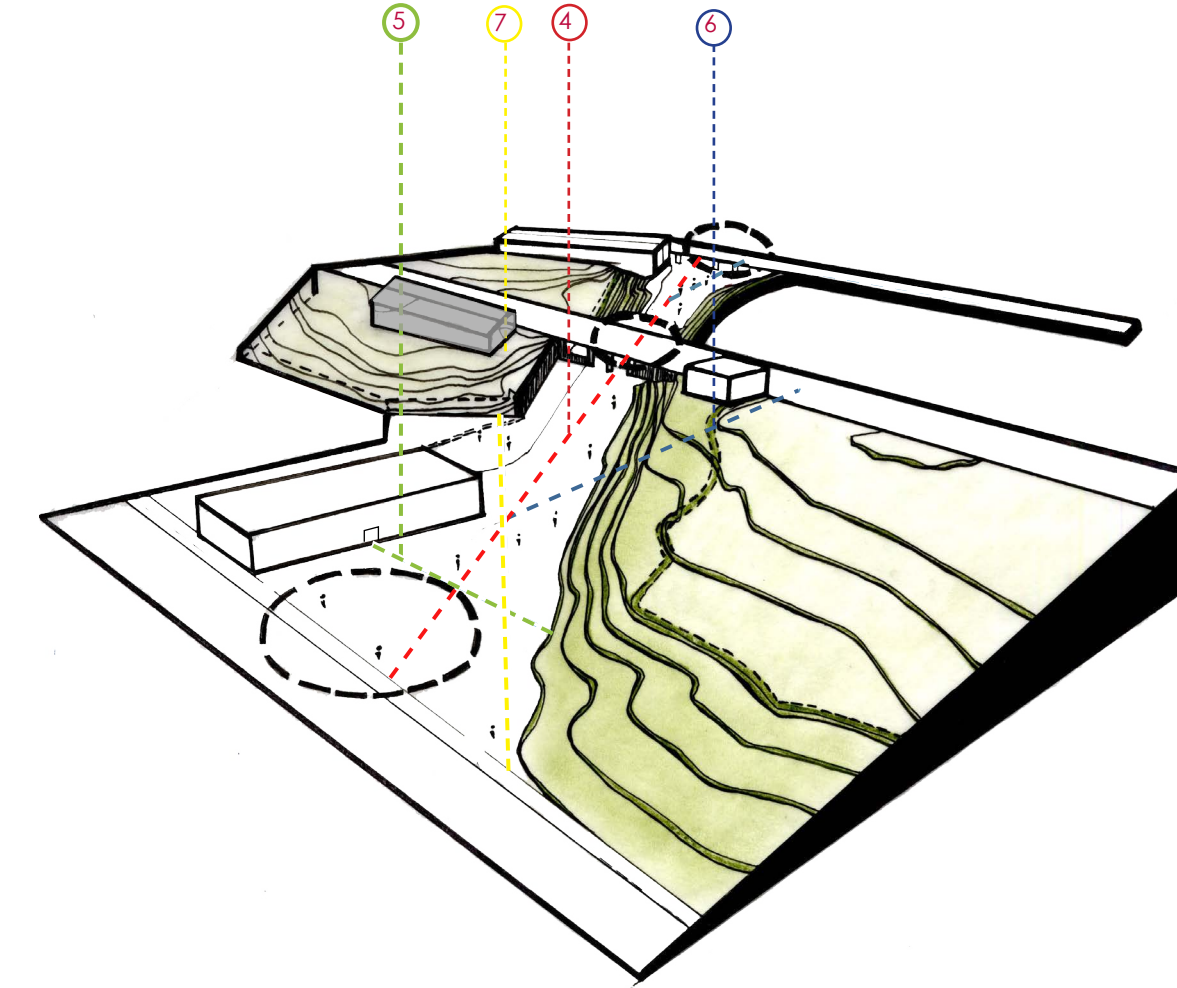


Figure 13 Circulation Axes of User in Project

Paths

Circulation axes across the site are a key part of the rational organization of the project. The axes shown in figure 13 are specific paths suggested by the site and program to connect the ravine to the larger city. According to Lynch, paths need to have continuity, identity, and directional quality. Continuity is when there is a concentration or variation of activities along the paths, and the user is oriented by following the mainstream of traffic. Other features that define paths are plants, pavement textures, and a spatial quality of width or narrowness.⁴ Axes are developed by aligning with the edge of existing structures and current circulation while suggesting possible future circulation.

4. Mohammed, "Spatial Conditions for Sustainable Communities."

Edges

In the analysis phase of the site, there needs to be a distinction made between natural elements (trees and plants) and those that are human-made (building, bridge, and floor). The intention is for the natural and the built to be integrated in the design development phase. There are three main edges to consider (figure 14). Each represents different boundary possibilities allowing or discouraging human movement and interaction.

Edge 8: shows a wall separating the ravine from the other lots

Edge 9: separates the internal ravine from the city by a natural shallow slope

Edge 10: on the northern end of the site separates the ravine from the city by a steep slope and a retaining wall

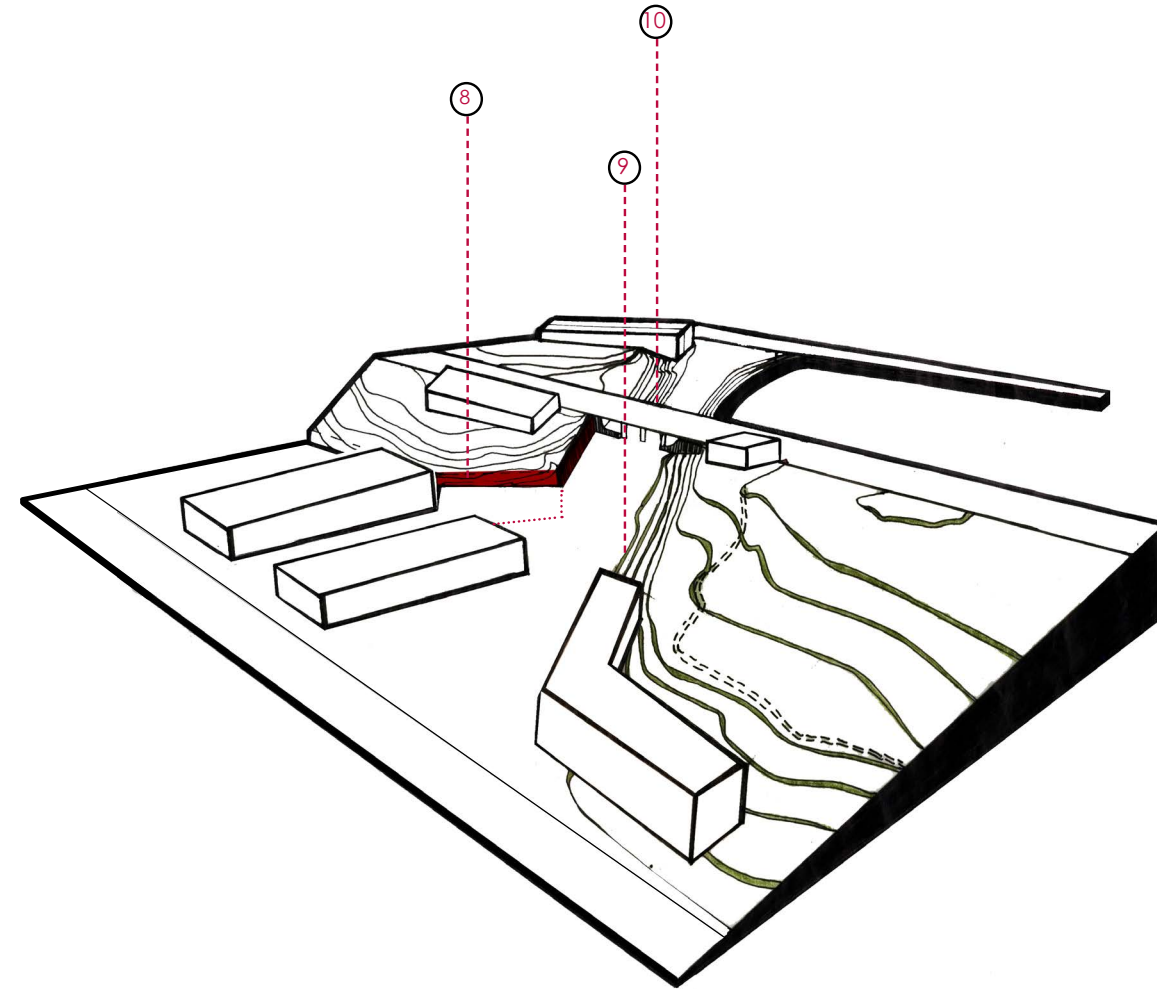


Figure 14 Edges

Landmark

Landmarks are distinguished by their dominance, singularity of shape, height, visibility, and contrast with the surrounding site. The buildings on the site will become a type of landmark for the new inhabitants coming to Memphis, in comparison to the surrounding buildings in the Edge District, because of their increased importance, also due to the three dimensional composition of intended design.

The configuration of the node on Union Avenue and the two axes connecting Union with the site presents an opportunity to highlight the southern end of the site. This provides the buildings with visibility and importance in the urban fabric so they will act as landmarks.

Landmark 11: The potential building site, intended to frame the view along the existing axes, creates a broad public plaza and dramatic framing for the southern entry to the ravine.

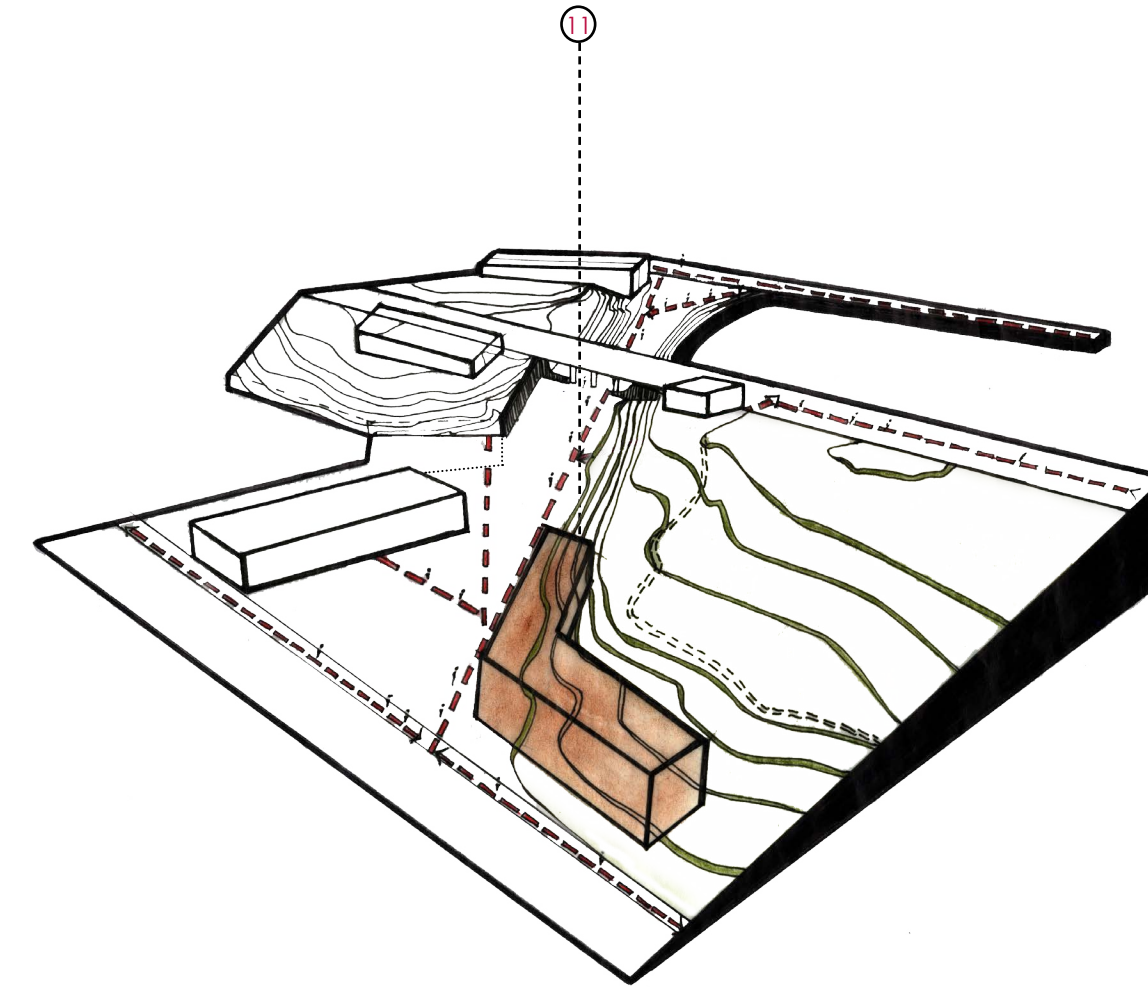


Figure 15 Landmark—Layout of New Residential Building

INTUITIVE PROCESS

The beginning of the design process involved visiting the site to experience the "spirit of the place." The main elements that inspired me were the rich ground surface textures and the contrast between the built and natural environments (figures 16-17). Another aspect was the areas of darkness and light that the site offered. As one got closer to the existing Monroe Avenue bridge, the site narrowed and grew darker. These characteristics of the site created a sense of uneasiness, but at the same time, the surrounding natural elements provided a feeling of tranquility and connection to nature. Overall, the first visit to the site brought a sense of mystery and exploration.

The journey to the site inspired sketches exploring conceptual ideas for the project (figures 20-22). These three sketches were beginning points in the design process, inspired by the imagination. Later, these first impressions were considered in the decisions made to restore the ravine.

Qualities experienced during the initial visit to the site and the intuitive process of design suggested that an application of prospect and refuge theory would develop spaces across the site providing varying degrees of intimacy and respite.



Figure 16 The Edge District, Front Facade of Masonry Building



Figure 17 The Edge District, Rear Facade of Masonry Building

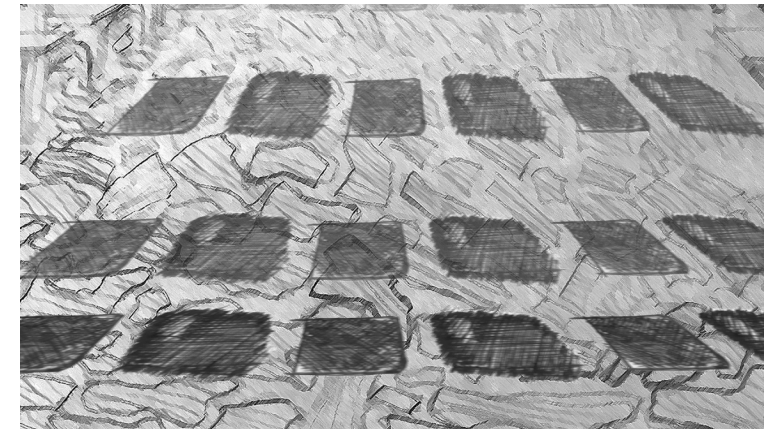


Figure 18 Textures and Sound

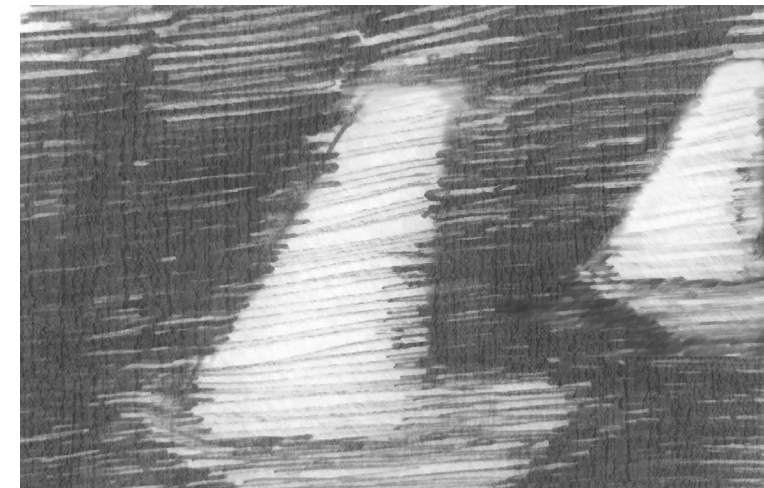


Figure 19 Light, Shadow, and Silence

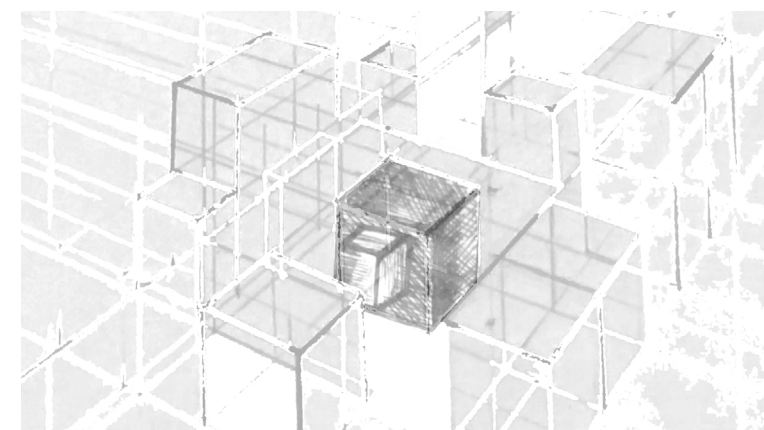


Figure 20 Frames, Space, and Volumes

UNDERSTANDING PROSPECT AND REFUGE

The theory of prospect and refuge is fundamental for understanding the design process. By creating a sense of refuge in the project, new inhabitants can identify with the project and feel as if they belong to this city, despite their outsider status. Additionally, residents of Memphis can regain a new space for gathering that enhances the city and creates connection.

Background

It was not until the 1960s that Christian Norberg-Schulz linked the philosophical tradition of phenomenology to architectural theory, asserting that humans perceive their environment only to such a degree as it appears as a structured whole, not as random sequences of personal views. In subsequent publications, Norberg-Schulz developed this idea to describe the "spirit of a place" as being a result of accepting a site's natural resources and of being in harmony with it.⁵

Since Norberg-Schulz's initial development of architectural phenomenology, various scholars have expanded his ideas. For instance, David Leatherbarrow argues for the existence of a set of fundamental principles of form, space, and materiality, which, he suggests, are shown in the designs of Steven Holl and Peter Zumthor. According to Leatherbarrow and Mohsen, materials, light, sound, and temperature are the "language of architecture," which, while often unconsciously experienced, influence the observer's perception of space.⁶

It is against this humanist, philosophical backdrop of phenomenology and Cartesian rationalism that prospect and refuge theory is placed. This theory posits a similar causal relationship between environmental stimuli and bodily reactions. Even though the theory of prospect and refuge evokes a more primal condition associated with safety, more recent architectural references have shown a tendency to conflate a sense of being safe with a sense of being fulfilled.⁷

5. Dosen and Ostwald, "Prospect and Refuge Theory."

6. Ibid.

7. Ibid.

Frank Lloyd Wright's approach to the theory echoes these issues. According to Pallasmaa, Wright's architecture was an orchestration where Wright considered context, architectural and interior design creating a space of refuge for the user, not only a place of safety.⁸ Additionally, it is necessary to consider the phenomenological aspect of being fulfilled emotionally, because this will create an impact on the inhabitants and it will be a way to create "insideness" or identification with place. Phenomenology relates the human body, including its emotional and physical reactions, to the environment.

Defining Prospect and Refuge

Currently, there is not a precise definition for the theory of refuge and prospect; nevertheless, there are characteristics that help to reach a workable definition. Refuge can be defined as a sense of comfort and relief, withdrawal from environmental conditions, in which the individual is protected from overhead and behind. Refuge provides a sense of rest with an awareness of collectivity within a place. On the other hand, the concept of prospect involves visual connection on the part of the user. The designer can control how open and bright spaces are framed spatially.⁹ The idea of prospect and refuge is that the attributes of a space—volume, configuration, and access to natural light and outlook—can influence a person's emotional response to that particular space.¹⁰ This is shown in figure 21.

Kaplan maintains that an enclosed space will evoke a feeling of safety while a view from that space can add levels of stimulation and excitement. Another scholar, Hildebrand, argues that a specific combination of spatial and formal complexity and order is required in the theory of prospect and refuge. Jay Appleton originally proposed this refuge and prospect theory in 1975, suggesting it be defined as: "an allegedly universal, human behavioral and psychological need for places that allow a person to see, but without being seen"¹¹ (figure 22).

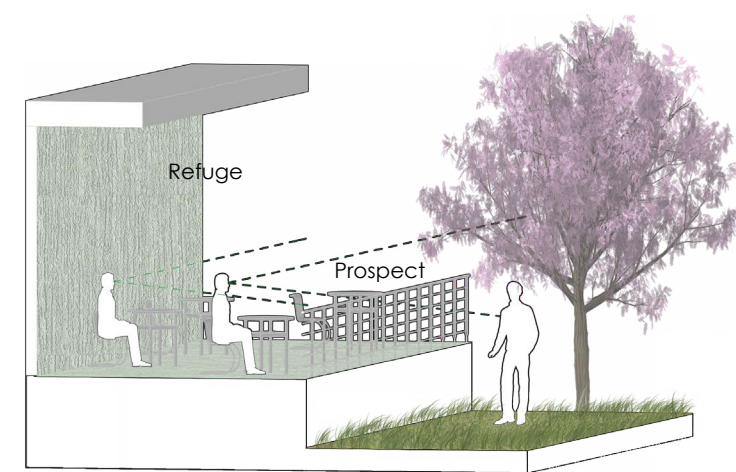


Figure 21 Diagram 1 Refuge—Prospect. Refuge spaces provide protection from external dangers and a place from which to plan how to move forward. The user in the refuge area can not be seen fully by the prospect.

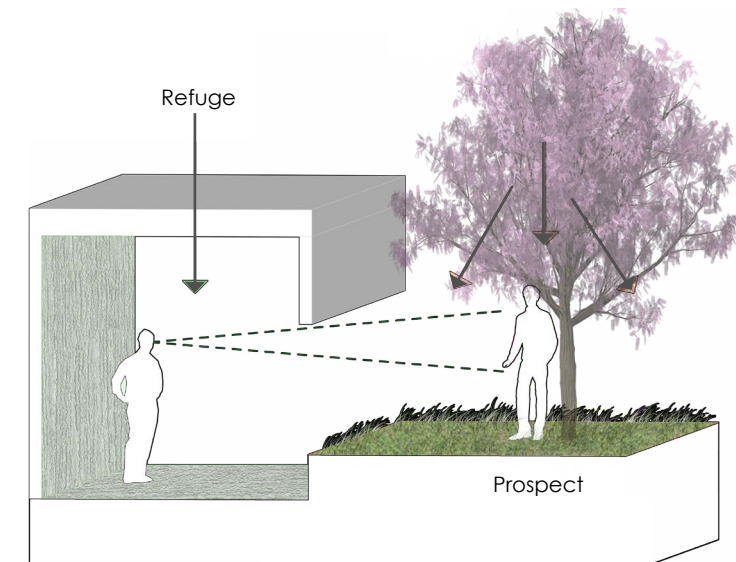


Figure 22 Diagram 2 Refuge—Prospect. Adequate enclosure and screening to provide a sense of refuge.

8. Pallasmaa, "Orchestrating Architecture."
 9. Dosen and Ostwald, "Prospect and Refuge Theory."
 10. Pallasmaa, "Orchestrating Architecture."
 11. Dosen and Ostwald, "Prospect and Refuge Theory," 12.



Figure 23 Diagram 3 Not Refuge—Not Prospect. It shows a not refuge and a not prospect situation because it blocks a full view of the place and there is not any protective element.

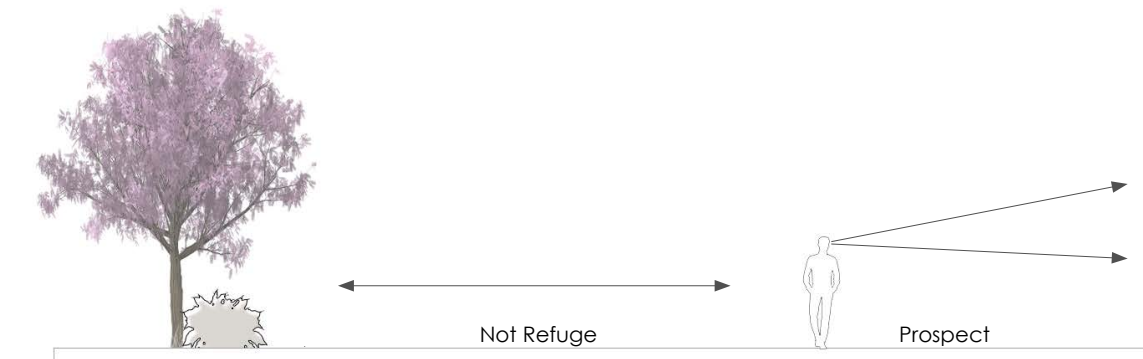


Figure 24 Diagram 4 Not Refuge—Prospect. It shows a prospect but not a refuge situation, where a full view of the place can be enjoyed but there is not any protective element (refuge) near the user.

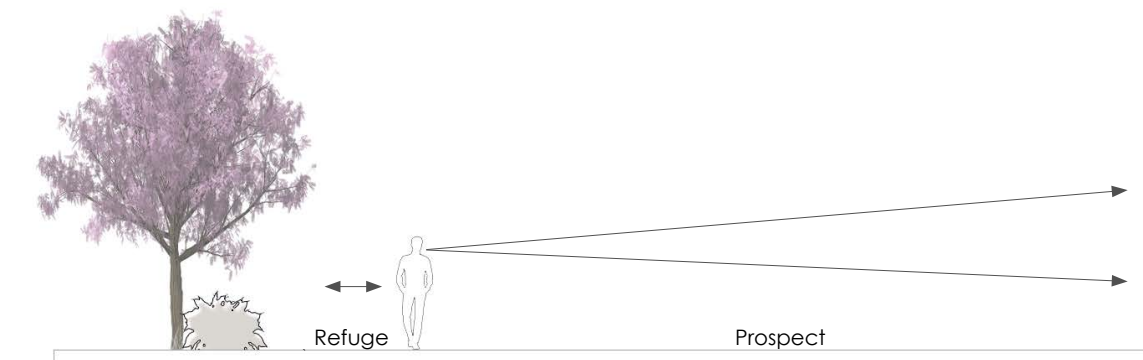


Figure 25 Diagram 5 Refuge—Prospect. It shows a prospect-refuge situation, where the view and the protection are both guaranteed; the user stands near some trees (refuge) and enjoys a full view of the open space (prospect).

Prospect and Refuge Theory in Landscape and Urban Design

Appleton's theory of prospect and refuge is based on experience, behavior, and strategic relationships, rather than on form, order, or pattern. According to Appleton, what influences the human perception of a landscape is the spatial arrangement of various components that support seeing and hiding, the opportunity for movement and exploration, as well as the impact of shadow and sun. Scale in the spatial arrangement is used to distinguish behavioral from aesthetic experience. He believes that prospect and refuge are important strategic concepts and thus they shape one's sense of environmental aesthetics.

Appleton adds hazard to this theory, referring to real or imagined dangers or risks that have an impact on environmental preferences. He considers that a perceived risk that is observed from a secure position might be tempting and exciting. In other words, prospect, refuge, and hazard, limited by scale, influence the behavioral experience by encouraging the body to misjudge distance. Appleton argues that an equal proportion of prospect, refuge, and hazard symbols may establish "balance" in a landscape. However, the effectiveness of the symbols depends on how each designer interprets them.

Figures 23-25 show that a user's perception of place is a fundamental element in designing public open spaces. Another consideration is the different scales of green spaces allowing relationships between people.¹²

Prospect and Refuge Theory in Architecture

Two decades later, the architectural historian Hildebrand adopted the concept of prospect and refuge to analyze various houses of Frank Lloyd Wright, in which he identified elements that evoke a sense of prospect and refuge. These elements include: variation of ceiling heights, location and size of terraces, and openings between adjacent interior and exterior spaces.

To these necessarily spatial relations, Hildebrand adds what he calls "complexity and order" to describe the unique quality of Wright's domestic architecture.

12. Toccolini, Felisari, and Ferrario, "Design of Green Spaces."

Norberg-Schulz affirmed that Wright “created an inner world of protection and comfort.”¹³ For Hildebrand, prospect-refuge theory suggests that there is an intrinsic pleasure in the act of observing from a safe place. He then defines the following spatial characteristics as being central to the pleasure: complexity and order, prospect and refuge, hazard, and mystery. Hildebrand states that an environment that is rated as very high in aesthetic quality is related to high levels of complexity and order. Some of Frank Lloyd Wright’s houses may appear overloaded with detail; however, this detail has very high levels of ordered or controlled complexity.

Furthermore, Hildebrand explains that when we move “from darker to lighter, we will again be able to see without being seen, and so will ensure for ourselves relative safety during exploration.”¹⁴ The desire to explore is called enticement. Additionally, movement through space allows a choice of degrees of prospect and refuge so the architecture can suit the user’s mood. Hildebrand maintains that refuge and prospect spatial conditions are “keys to our appropriate habitation” and that “human pleasure is a legitimate architectural purpose.”¹⁵

Elements of an Inclusive Definition of Prospect-Refuge Theory

The following four points are key elements for prospect-refuge theory summarized from the previous section.

1. An outlook, vista or view; the prospect around. There are many ways of differentiating types of view or outlook, but without this feature, the theory does not exist.
2. A setting, context of frame; the refuge, which contains or houses the viewer or person experiencing the prospect. It is only by providing such a frame to the view that the theory can work. There needs to be the right balance, or relationship, between the setting and the view the user has.
3. A sense, either real, implied, or imagined, that safety is required. The sense of comfort provided by the right balance of view and frame operates to provide psychological comfort.

13. Dosen and Ostwald, “Prospect and Refuge Theory,” 16.
14. Ibid., 18.
15. Ibid.

4. A degree of visual and experiential richness and complexity. There is little agreement on where this quality must take place, but a general sense agrees that it is part of the larger, prospect-refuge equation. For example, some argue that the approach path taken to the refuge site must entail a sense of discovery. However, others argue that the mystery should be implied in the relationship between the view and frame, insisting that indirect views evoke this property. The prospect-refuge theory could, therefore, be described as a particular environmental pattern, with spatial and formal relations creating a feeling of safety and well-being. The environmental pattern is achieved through a balance between vista and frame which evokes a sense of the unknown. Additionally, the aesthetic experience and pleasure, which a person has from observing an environment, are based on a combination of openness and enclosure.¹⁶

Design Considerations for a Quality Refuge Condition:

The text, “14 Patterns of Biophilic Design,” presents a series of tools for understanding design opportunities, strategies, and considerations for how to use the concepts of refuge and prospect.¹⁷ A functional refuge space can either feel separate or unique to its surroundings; its spatial characteristics can feel embracing and protective without being unnecessarily disengaging. In larger parks, the spaces of refuge are preferred under trees and in vegetation bordering open space. Sometimes the balance and view quality between prospect and refuge can be more important than size or frequency of experience.

To provide an accessible context, the visibility should be limited, but still provide a visual contact for surveillance. The initial condition is for the user to be protected from overhead and one side. Refuge follows the conditions of rest and relaxation, visual privacy, and protection from danger. There are endless combinations of design elements that can create a quality refuge space. Examples of traditional lean-to spaces are the cozy kitchen seats in a bay window or a fireside corner.¹⁸

16. Dosen and Ostwald, “Prospect and Refuge Theory.”
17. Browning, Ryan, and Clancy, “14 Patterns of Biophilic Design.”
18. Ibid.

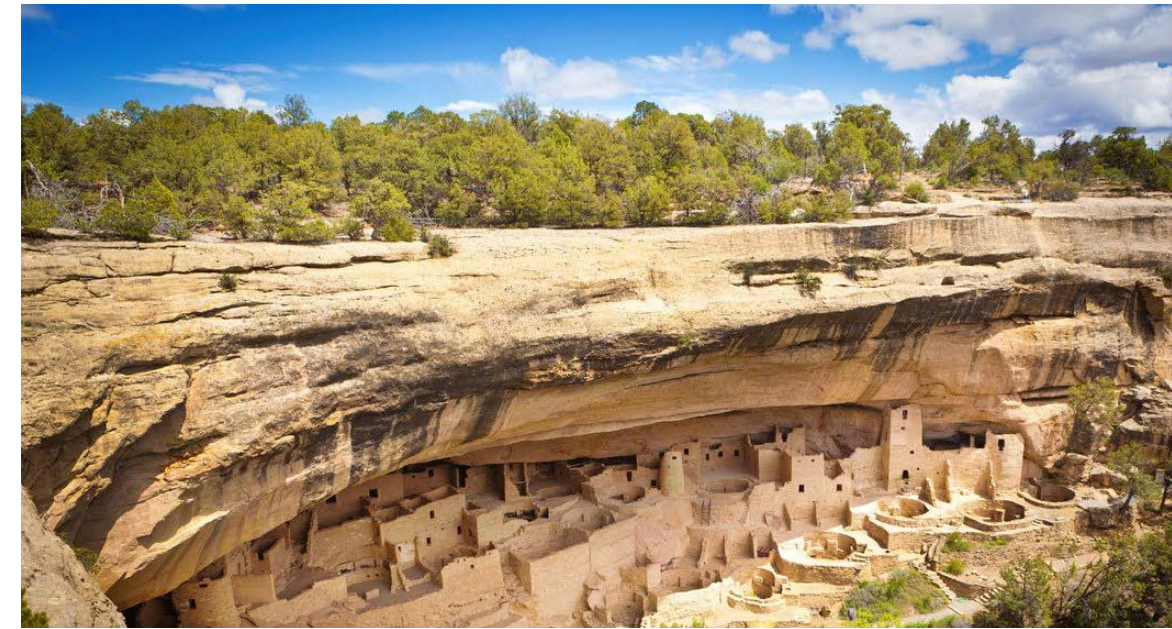


Figure 26 Cliff Palace in Mesa Verde, Colorado. This is one of the best historic examples of refuge (A.D.1200s). The settlement provides a feeling of protection from the climate and surroundings; prospect is used through its elevated views over the canyon. Another aspect to recall from the Cliff Palace is that the gathering spaces are circular and have a central firepit.



Figure 27 The Salk Institute for Biological Studies, La Jolla, California

Indoor refuge spaces are characterized by a lowered ceiling, similar to how Peter Zumthor defines the aspects of atmosphere by using various levels of intimacy.¹⁹ In spaces with high ceilings mezzanines (or freestanding alcoves) are typically used to provoke intimacy. Various refuge spaces are needed when designing for a larger group of people with multiple activity types. These spaces need to consider spatial dimension, lighting, and a degree of concealment.²⁰ Examples of refuge spaces are sitting with one’s back against the trunk of a prominent shade tree, a wraparound porch, and the Cliff Palace in Mesa Verde, Colorado (figure 26).

Design Considerations for a Quality Prospect Condition

In urban spaces, prospect is the ability to see from one space to another and is strengthened when there is the opportunity to see through many spaces. The orientation of the building helps optimize visual entrée to outdoor and indoor vistas, and activities. Designing with an existing ecosystem and human activity or habitation helps inform the view of prospect. When space is deep enough, spatial properties can be leveraged to enhance the experience. Partition heights should be 42 inches in order to provide seated occupants a view across any obstacle. The vegetation used should be high, but this depends on the terrain and how the spaces are experienced. The location of vertical circulation (stairs) at the perimeter of the building with a glass façade can form a prospect condition.

The central courtyard of the Salk Institute (figure 27), designed by Louis Kahn, is an example of a prospect condition. This elevated space is surrounded by the angled fins of the research offices framing a view of the Pacific Ocean. The space has a small stream flowing through the center towards this view.

19. Böhme, “Encountering Atmospheres.”
20. Browning, Ryan, and Clancy, “14 Patterns of Biophilic Design.”

PRECEDENTS

Once the theory is understood, one can begin to study many precedents that manifest aspects of either prospect, refuge, or both. Certain characteristics influence a project to accomplish spaces of refuge and prospect. The characteristics that a project requires in the spaces are a sense of discovery and exploration from the user, order, and the perspective or framing of the space. These factors create an atmospheric experience for either large or intimate groups in a place.

Fountain Place, 1985, Dallas, Texas

The project, designed by Dan Kiley and Peter Ker Walker, is a six-acre site on the edge of the city's Arts District. There is water set beneath a shady canopy of native bald cypress trees (figure 28). Round concrete planters that hold the trees are positioned at fifteen-foot intervals within a grid. Landscape architect, Gary Hilderbrand, describes it as a "forested lagoon" that "glimmers with reflected light."²¹ Kiley envisioned the plaza as an urban swamp, which would transport visitors out of their surroundings. The structure of the plaza is laid out on a strict grid broken only by the footprint of the office tower. The design takes advantage of a natural 12-foot grade change between Ross Avenue and Field Street, which border the plaza to the east and west. Dark pools of water, which occupy 70% of the site, surround the building and a central plaza located to the north. Where steps accommodate the grade change the pools of water are terraced, creating a series of flowing waterfalls that, along with low bubbler jets, activate the space. As Sasaki observed: "Only the sound of water can be heard. Among the trees, our urban sense of time is gently altered. Even in Dallas, a city covered with asphalt, we discover a place where we can be at home with ourselves."²²

Thesis Application

The two main aspects to consider in this precedent are the rational and intuitive approach to problem solving. The rational approach organizes the alley of trees by a grid system that establishes proximity. The alley of trees and sound of water evoke a sense of home to the user.

21. "Fountain Place," para. 2.

22. Ibid., para. 4.

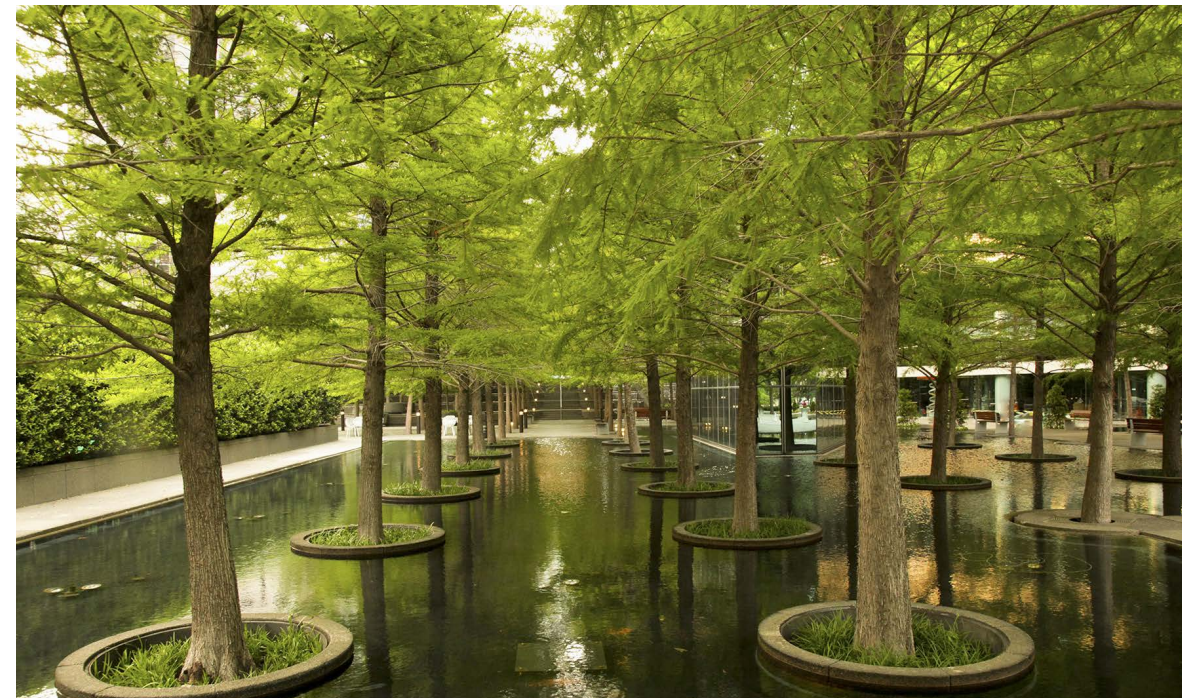


Figure 28 Water Element and Alley of Trees

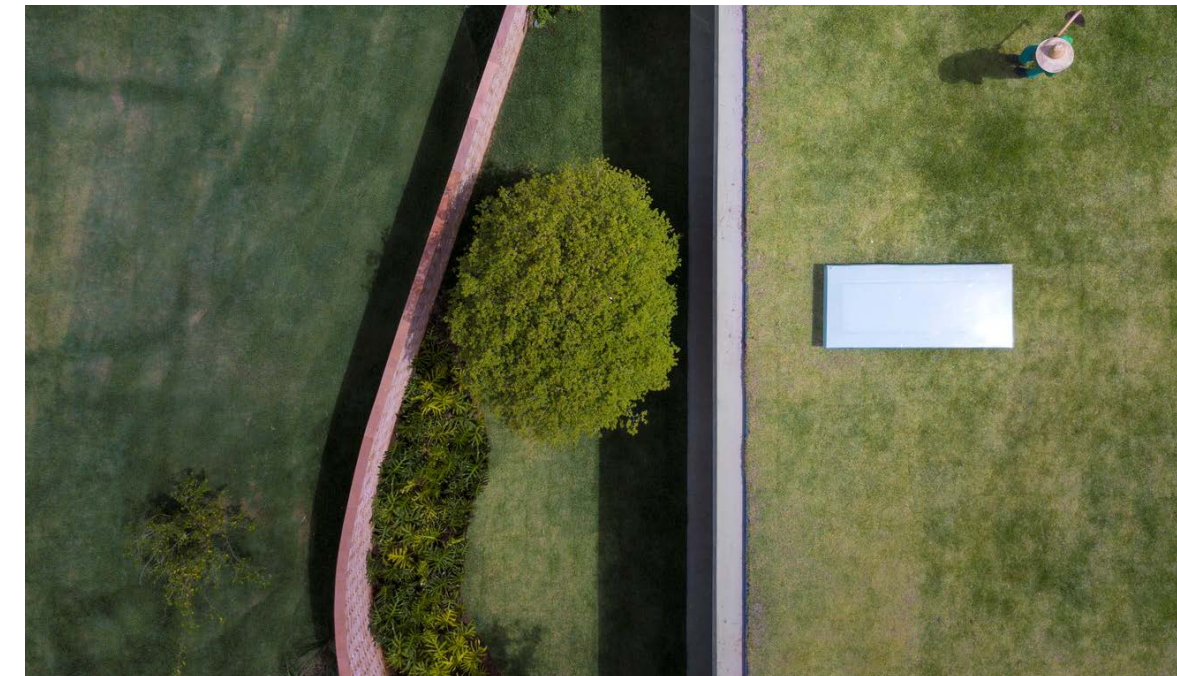


Figure 29 Planar House, Top View



Figure 30 Planar House, Full View

Water features used in this thesis project allow the user to disconnect from the rest of the city creating a place of refuge. The shade provided by the alley of trees can be highly desirable, providing a cool respite from hot summer sun. The trees are placed in a strategic space that allow the user to have a view of what is coming forward (prospect), but at the same time feel protection from above (refuge). Additionally, the intent is to create the effects of shadow and reflection of trees on the water.

Planar House, 2018, Porto Feliz, Brazil

The Planar house, designed by Lair Reis and Marcio Kogan of Mk27, is discreetly inserted in the highest point of the site favoring the existing topography. This type of insertion demands care with the design of the rooftop, which ended up being the fifth facade of the building (figure 29). The green roof mimics the surrounding lawn as well as contributes to the thermal comfort inside the house. The design proposes two programmatic boxes: the first one contains the service areas, gym, television and playrooms, and the second one houses the five en-suite bedrooms. The living rooms are located at the extremities and can be completely opened or closed by sliding glass doors. There is a winding wall of brick arranged in solids and voids that are convex and concave, defining different relationships between internal and external spaces. The wall embraces the entrance garden and creates transparencies, offering protection from the street. The house's brick texture contributes to a cozy atmosphere and creates light filters with kinetic effects as the day passes (figure 30).²³

Thesis Application

The thesis project uses a similar undulating wall with the intention of creating interior spaces like those at Mesa Verde Cliff, for more intimate places of refuge. This is one way of defining interior and exterior spaces while at the same time having the wall be part of the site. A green roof system is used in this thesis project as an opportunity to create indoor-outdoor spaces. The roof is also used as another space for gathering, unifying the surrounding vegetation with the building itself.

23. Vada, "Planar House."

Ward Willits House, 1902, Highland Park, Illinois

In this design by Frank Lloyd Wright, the hearth of the project lies in the core of the plan. The hierarchy of places between the public realm and the private includes, in this case, the motor car. The transition from public to private in this home begins at the road, leads up the drive to the porch, up some steps, in through the front door, and diagonally across the hall. The hearth of the project is actually behind a screen that is hidden from the entrance (figure 31). In the living room of the Willits House, bands of floor-to-ceiling leaded glass windows open to a veranda and the yard, allowing nature to penetrate the interior. Traditional divisions like doorways are eliminated, and the rooms are oriented along the perpendicular axis of a cruciform plan, where the heights and floor levels create a sense of continuous expansion and compression.²⁴ Screens made of vertically-oriented wooden slats, as well as low built-in bookshelves and seating, carefully delineate rooms. The resulting harmony of discrete natural, architectural, utilitarian, and decorative components are "organic architecture," according to Wright. Wright conceived of architecture as a living organism in which "part is to part as a part is to the whole."²⁵ Following this principle are the plan, structure, furnishings, leaded glass, and interior and exterior spaces (figure 32).

Thesis Application

Wright's work is essential to the understanding of refuge since he is one of the pioneers in applying refuge to design. Two major points are used from this reference. The first point is a sequence of experiences, instead of having one direct experience. This is when transitional spaces are considered to guide the user from one space to another.²⁶ The intent is to create spaces where the user can be led through a progressive sequence of experiences. The house also creates a sense of compression and expansion, which can be used to create a different ambiance in the gathering spaces required. Wright uses the strategy of incorporating nature as a part of architecture through the use of windows that connect the interior from the exterior. This specific approach is used in the residence space where there are spaces of outlook to the exterior.

24. "Ward W. Willits House," para. 2.

25. Ibid.

26. Unwin, *Analyzing Architecture*.



Figure 31 Ward Willits House, Front View

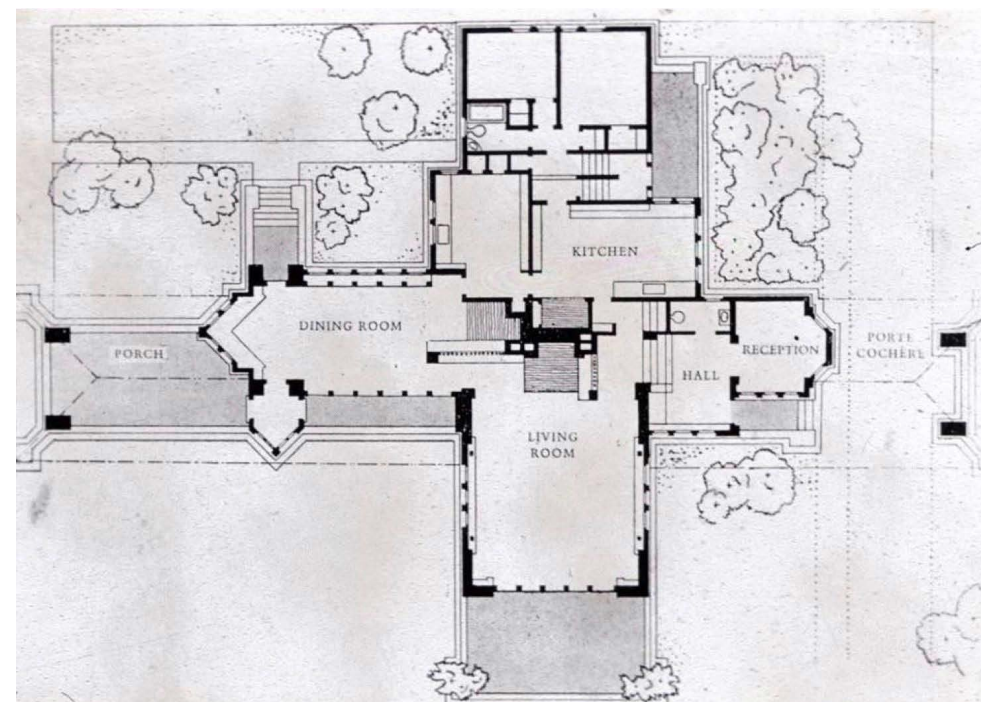


Figure 32 Ward Willits House, Floor Plan



Figure 33 House N, Outer Shell

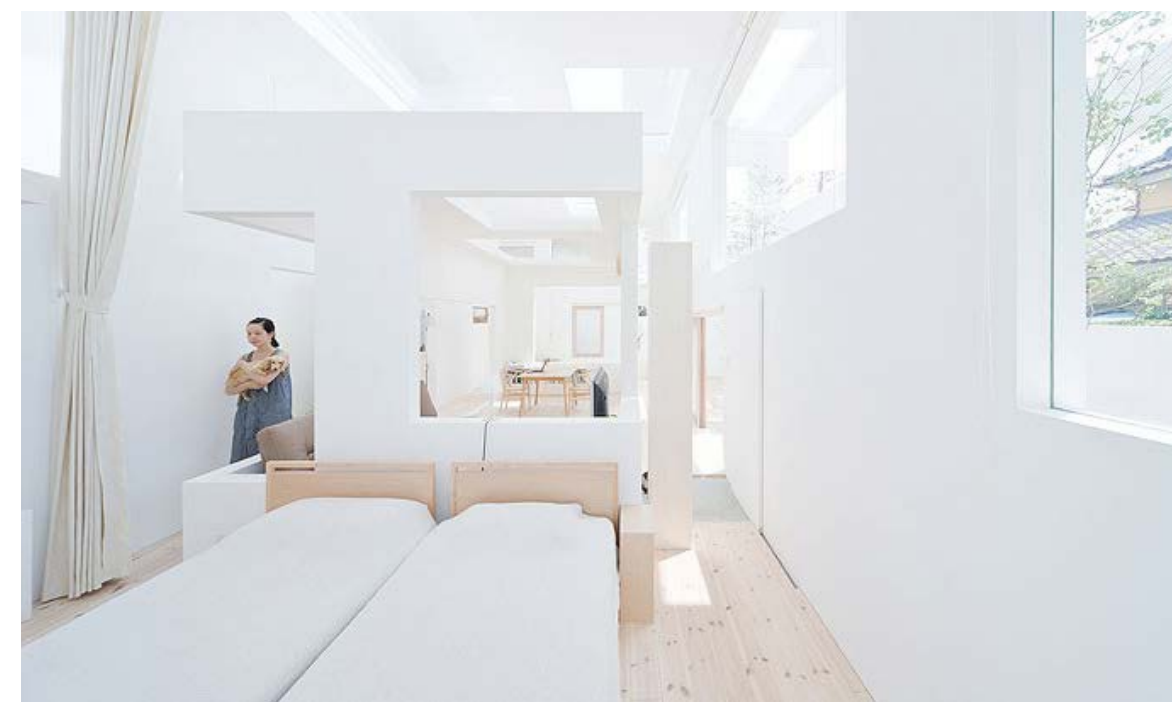


Figure 34 House N, Second and Third Shells

House N, 2008, Oita, Japan

House N, designed by Sou Fujimoto Architects, contains three shells nested inside one another. The outer shell covers the entire site, creating a covered, semi-indoor garden (figure 33). The second shell encloses a limited space inside the covered outdoor space. The third shell creates a smaller interior space (figure 34). The users build their life inside this type of gradation of domain. In a nested structure, the inside is invariably the outside and vice versa. The architect intended to express the richness of "between" house and the use of creating a journey through the space or following street, not an architecture that is about space or form. His opinion about the city and house is that they are not that different from one another.²⁷

Thesis Application

The use of nested areas and shells covering one another are interpretations of refuge by way of creating various frames of vista. They also define more intimate settings that generate outlook in a way that does not affect privacy. The expression, of the "between" of the house and street generates another parameter for the new residential building: this "between" space can be used as a semi-public space or a transitional place that generates a multi-sensory experience. Between spaces are useful for the residential and community center buildings because they provide more privacy and differentiate semi-private and private spaces.

27. "House N."

The New York High Line, 2003, New York City, USA

The High Line, designed by James Corner Field Operations and Diller Scofidio + Renfro, was a former West Side industrial railway. It is an elevated steel structure built in the 1930s for freight trains. It stretches across the west side of the city, running from the Meatpacking District through West Chelsea Gallery and ends at 34th Street, next to the Jacob Javits Convention Center. There are over a dozen access points to the elevated park (figure 35). These entrances attract the user to spend time and explore the entire park. One entry has a sundeck and water feature, while another one is an open lawn and seating steps. The inspiration for the park design arose from the wild seeded landscape left after the rail line had been abandoned. The design team created a new paving system that allowed the natural growth of plants resulting in a "pathless" view (figure 36). The aspect of prospect is also carried across the project since the inhabitants have views of the city skyline. This team focused on restoring the long standing rail line and enhancing this space, to create a natural park for the inhabitants of New York.²⁸

Thesis Application

This project is an essential precedent used in the thesis design solution. The project has aspects of refuge-prospect and various parameters that help establish the connection from the city to the project with multiple entrees. This is optimal for the thesis design since various points of entry to the project facilitate a thorough understanding of the site from various perspectives, creating more encounters between inhabitants. The same intention of restoration is used for the ravine, restoring and enhancing the space to provide encounters for the inhabitants and the outsiders to Memphis

The treatment created for the ground surface represents an intertwining of nature and human-made, instead of a separation. Additionally, the "pathless" view is intended to be used in the ravine by incorporating natural elements within the pathways breaking the existing concrete paving. Prospect is used similarly to the precedent in the way of incorporating different views from different levels to the existing ravine.²⁹

28. Cilento, "The New York High Line."
29. Toccolini, Felisario, and Ferrario, "Design of Green Spaces."



Figure 35 Aerial View of High Line



Figure 36 Ground Pavement System of High Line

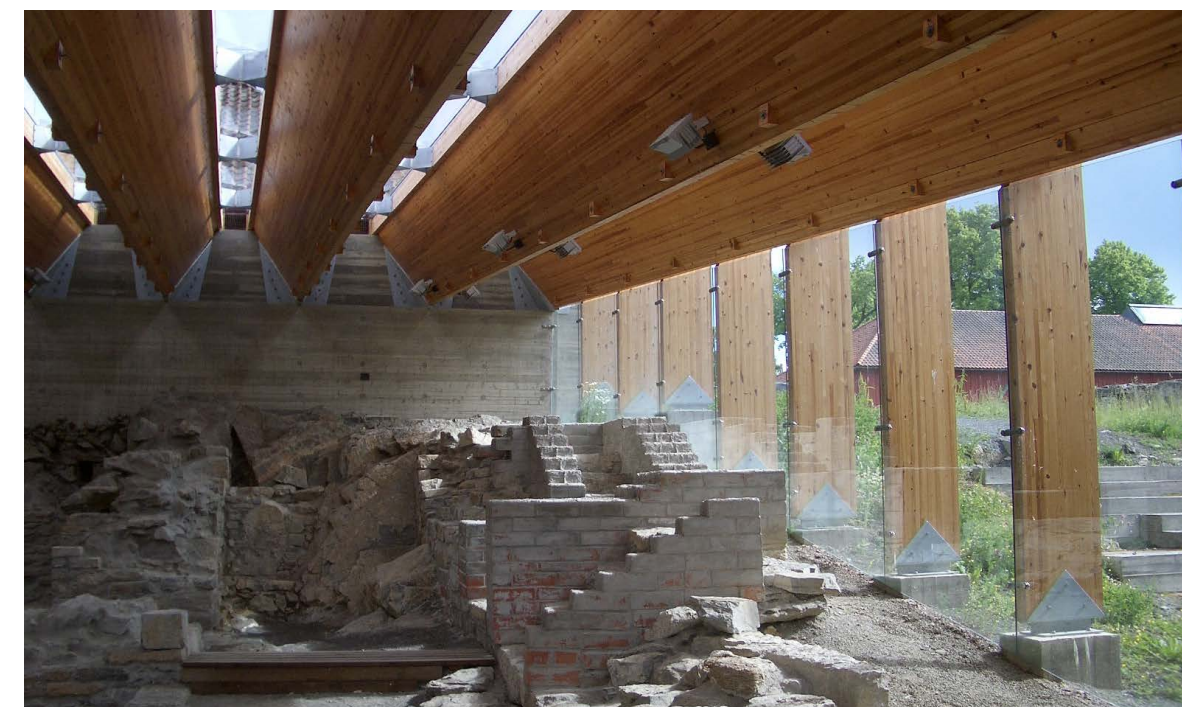


Figure 37 Hedmark Museum

Various spaces used as sitting areas are ways to incorporate refuge spaces along the entire ravine. The intention is to create a balance between prospect and refuge spaces.

Hedmark Museum, 1969, Hamar, Norway

This project, designed by Sverre Fehn, was a former barn from the farm Storhamar. This barn was built in the 18th and 19th centuries, using the ruins of the medieval bishop's palace for the walls. The architect inserted new elements, but respectfully allowed the old parts to be seen while providing an opportunity for more archeological excavations (figure 37).³⁰

The way the architect uses materiality to represent the new elements in the project versus the already existing is useful to the understanding of material selection. The long wooden beams with a V-shaped cross-section have narrow glass skylights that filter light down through the depth of the beams, creating an integrated design with light and structure. In the same way, there are glass windows that permit views out to the landscape. The architect provides spaces of discovery and exploration, incorporating the theory of refuge and prospect.³¹

Thesis Application

This project can be used for the more intimate areas where there is a frame created by the structure for an outlook. The ceilings are lowered in the precedent, which creates a sensation of intimacy useful in the design of refuge-prospect spaces. The integration of light and structure is useful in the design of spaces of the ravine.

30. "Vernebygg—Ruin Protection Structures."
31. Dosen and Ostwald, "Prospect and Refuge Theory."

Gando School Library, 2001, Hamar, Norway

This project, designed by Kere Architecture, is an addition to an existing school. The same palette colors of the earth blocks are used to create a language with the old. The geometry of the library is reminiscent of the traditional

vernacular housing in the region. The circular openings in the ceiling create a playful pattern and introduce natural light and passive ventilation inside the library halls (figure 38).³²

Thesis Application

The contrast of light and shadow is imperative to create an effect of sensorial experience as one is walking through this hallway. The same intention is considered when the user is walking through various spaces in the ravine, especially under Monroe Avenue's bridge. Here there is an opportunity to enhance an existing space and create a sensorial experience through light and the shadow it casts on the ground.



Figure 38 Gando School Library

32. "School Library Gando."

Naman Retreat Pure Spa, 2015, Da Nang, Vietnam

This spa, designed by MIA Design Studio, is an oasis of tranquility; the retreat rooms are surrounded by lush open-air gardens. Yoga sessions are held at the open lounge garden. The intention is that through natural ventilation the building can remain fresh. The composition of the facade is created by alternating a lattice pattern with vertical plants filtering the tropical sunlight into a play of light and shadow on the textured walls (figure 39). The plants, located in a specific position, become part of the architectural screens. According to the designers, the spa is "a space where all senses are touched, and the mind comes to peace."³³

Thesis Application

The way the embodied experience is created through the contrast of light and shadow and the use of natural elements strengthens a project. The connection to nature creates tranquility and, therefore, creates an aspect of refuge. The natural elements are ivy plants, which in the thesis design are used in the transitional zones where the sun can hit them and create shadows. As the sun moves, and as the plants grow and change during the seasons, the shadows will give life to the space.



Figure 39 Naman Retreat Pure Spa

33. "Naman Retreat," para.1.

DESIGN DEVELOPMENT

The Plan

The nature of the plan drawing is that it brings order to the project. The plan holds in itself the essence of experience. In the design process, the plan is used as an organizational tool; each zone has a different intimacy level, and rhythm is created through transitional spaces. The plan is overlaid with new elements overlapping existing elements in an attempt to enhance the site and create a connection with the city (figure 40).

There are four main entries to the ravine from the Edge District. The first entry is off Union Avenue to a public plaza (3). Once the user enters the ravine, a new ground texture differentiates the sidewalk from the entry plaza. Planters located across the mouth of the plaza serve as a boundary element as well as a buffer against car traffic. There is also a bridge connector component that unifies access at a higher level between the existing adaptive reuse building and the new residential building.

The second entry is through a ramp located on the east side of Monroe Avenue. The ramp acts as a long, leisurely way of entering through the existing group of trees. The necessary switchback on the ramp allows the user multiple views to the site from different vantage points.

The third entry point is from the west side, down a wooded slope intended to be used by residents in the existing residential building (10). This entry to the site is semi-public and is for the residents to encounter users of the ravine.

The fourth entry point is at Madison Avenue (9), where the ravine expands in a more open and dramatic urban context. At this termination point for the ravine, a ramp—stair orchestrates the visual and circulation connection between street and site. All of these points of access are created to foster a sense of discovery upon entering the site and, at the same time, an aspect of mystery and complexity.



Figure 40 Site Plan

Connectivity Components

In figure 41, the components marked in red are used to create access from the city to the ravine.

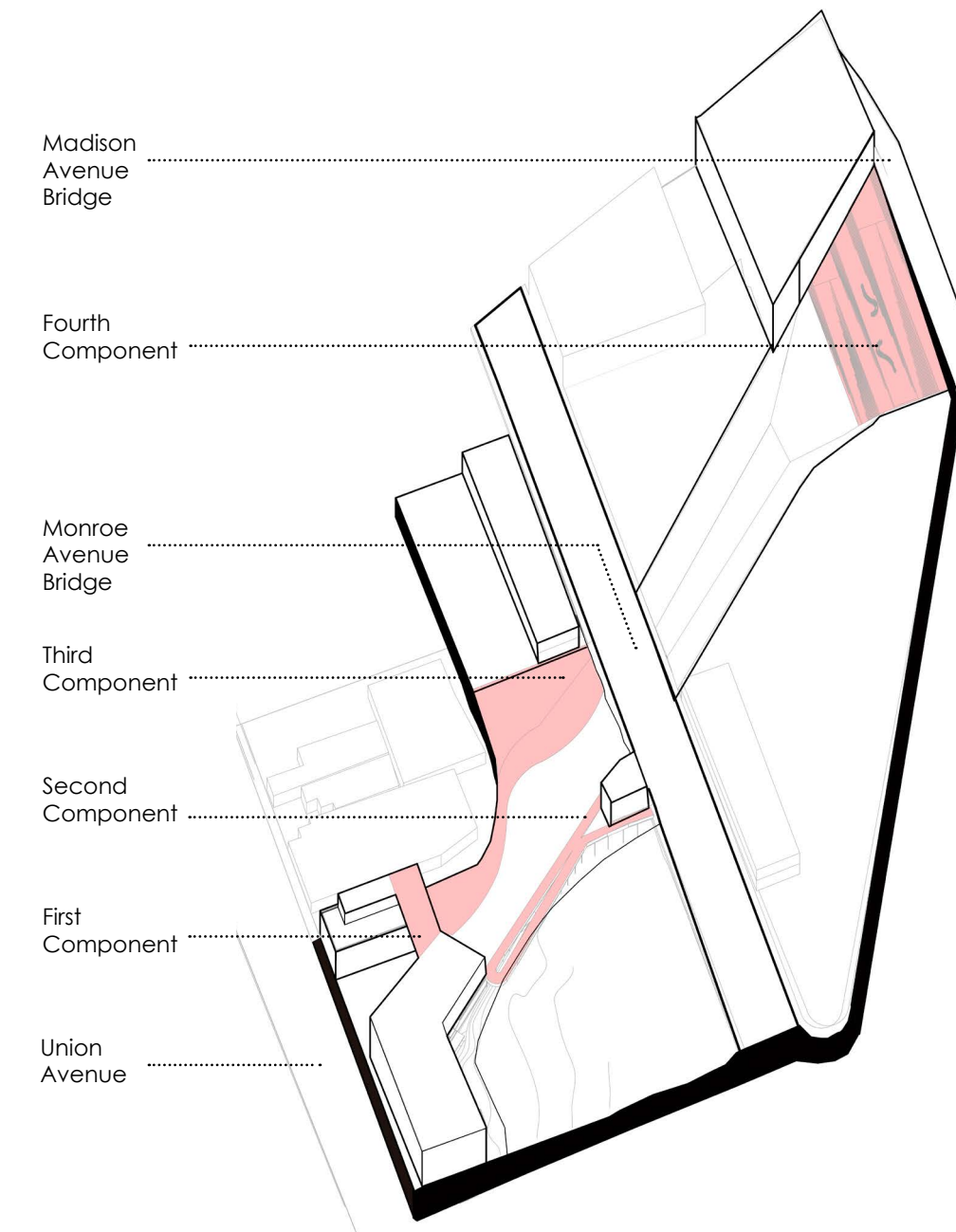


Figure 41 Connectivity Components

Zones

One goal of the project is to alter the site as little as possible while celebrating and refining existing instances of prospect and refuge. The various zones in the project are designed to create a multi-sensory experience through materiality, light, shadow, contrast, and sound, that the user will apprehend haptically. Each zone has a different level of intimacy. The varying levels are designed to create different atmospheric ideas. Activities occurring in every zone and the physical characteristics of the space will foster a sense of "insideness" for the inhabitants as they explore the site.

Each zone is intended for a different activity. The red zones in figure 42 are open areas for public gatherings while the more intimate areas are shown in green, and suggest a closer physical environment and a different social introduction. These zones were assigned according to the relationship the edge had with the exterior of the site. For instance, the zones where public events will occur are on the edges off Union and Madison Avenues.

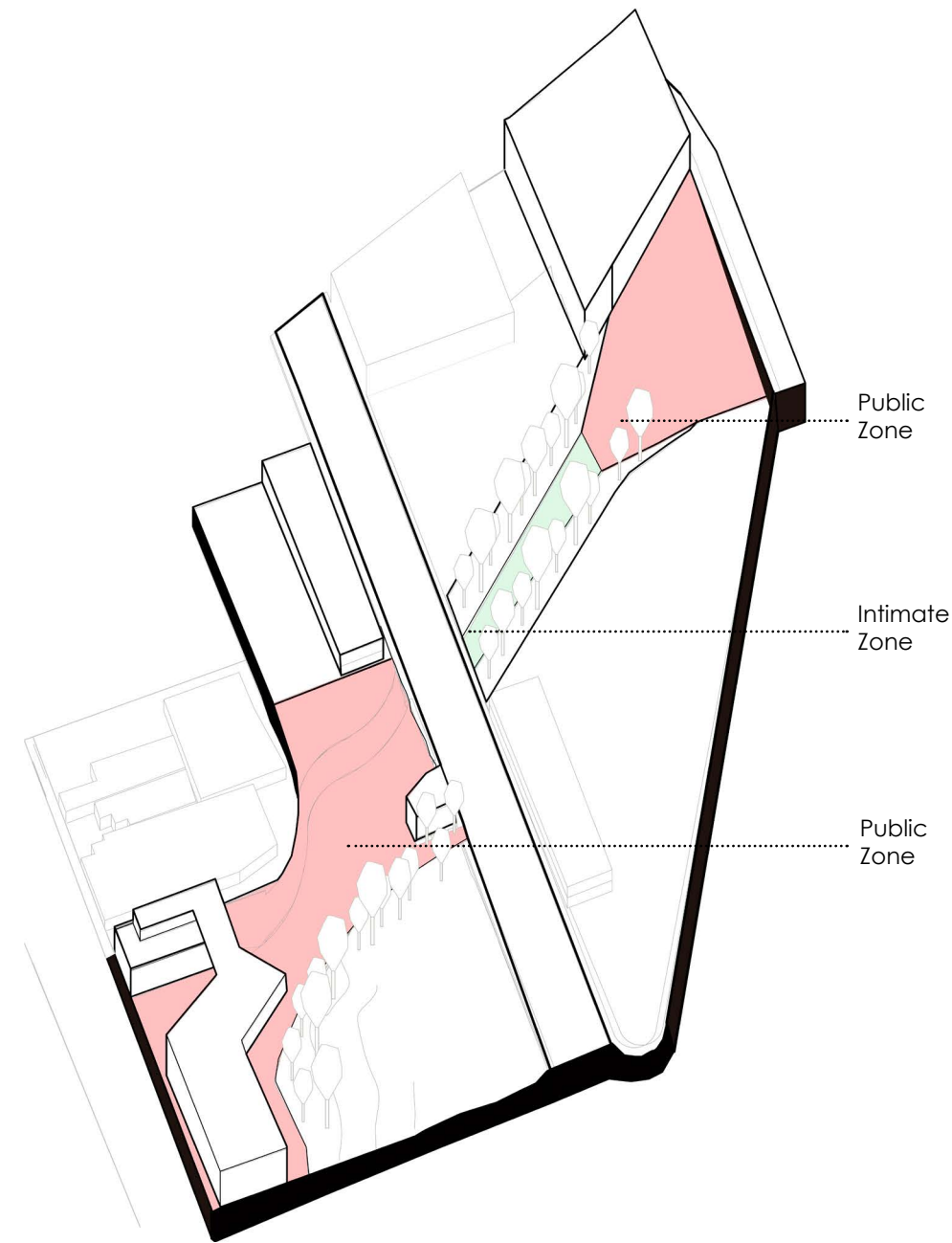


Figure 42 Zones

Transitional Spaces

Transitional moments are created to connect different zones. These spaces play an essential part in the conceptual organization of the ravine. Transition spaces are referred to as dynamic spaces, while the other spaces are referred to as static places. Transition spaces are dynamic because there is a high traffic level passing constantly. These spaces are essential, playing a part in the relationship between the context and place, and providing a buffer between exterior and interior. The intention is that there is a continuous sequence of experience choreographed for the user.³⁴

The character of a static place may be affected by that of the dynamic or transitional place. For example, the experience of the burial chamber at the heart of one of the ancient Egyptian pyramids is affected by the nature of the route by which one reaches it. One's awareness of the place to which one space leads affects the experience. Transitional spaces are places themselves. This is important since these spaces should also be designed to create an embodied experience.

Three main transitional spaces occur in the project (figures 43 and 44):

1. This is a framing component similar to a gateway that pulls people from the public plaza off Union Avenue into the expanded communal space beyond. The transitional space serves as a type of gateway, dividing the public zone of Union Avenue from the more enclosed area of the ravine.

2. The existing Monroe Avenue bridge is transformed in the design to create an embodied experience of compression. This transitional space moves the user from the expanded space (public zone) to the more compressed space (intimate zone). The space created by the Monroe Avenue bridge has a different scale and texture compared to the organic areas surrounding it. The experience of walking under Monroe Avenue is one of contrasting dark and light, enhancing a sense of mystery.

3. This transitional space is between the external plaza and the intimate space and is an alley of trees. It provides shadow as the user is passing underneath. Another function is to soften the transition from the exterior plaza, off Madison Avenue, to the more intimate setting space of refuge.

³⁴. Unwin, *Analyzing Architecture*.

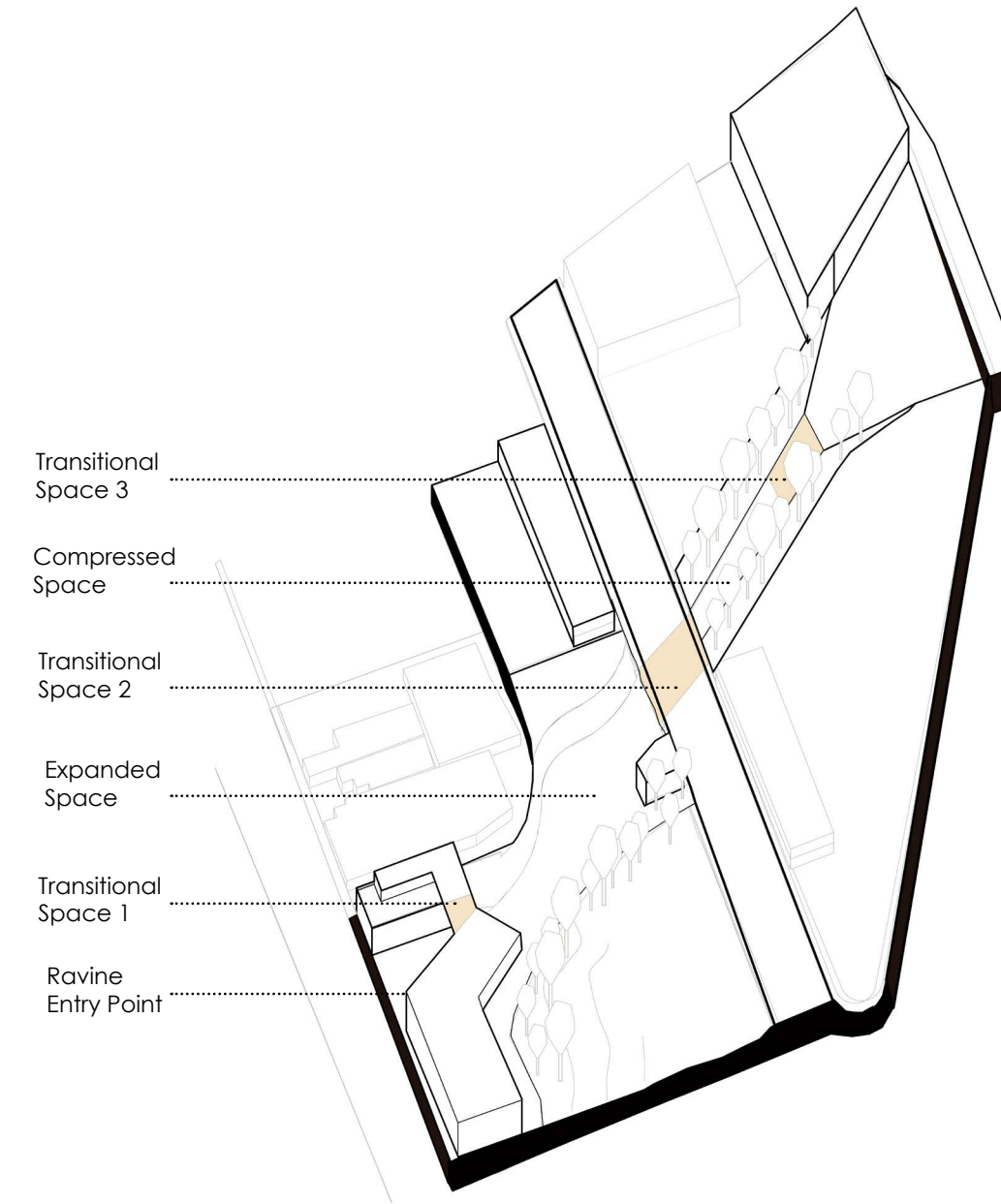


Figure 43 Transitional Spaces

This differs from the other two in that there is no built cover to create the shadow. Instead, the shadow is provided by an allée, arranged along the edges of the narrow pathway.

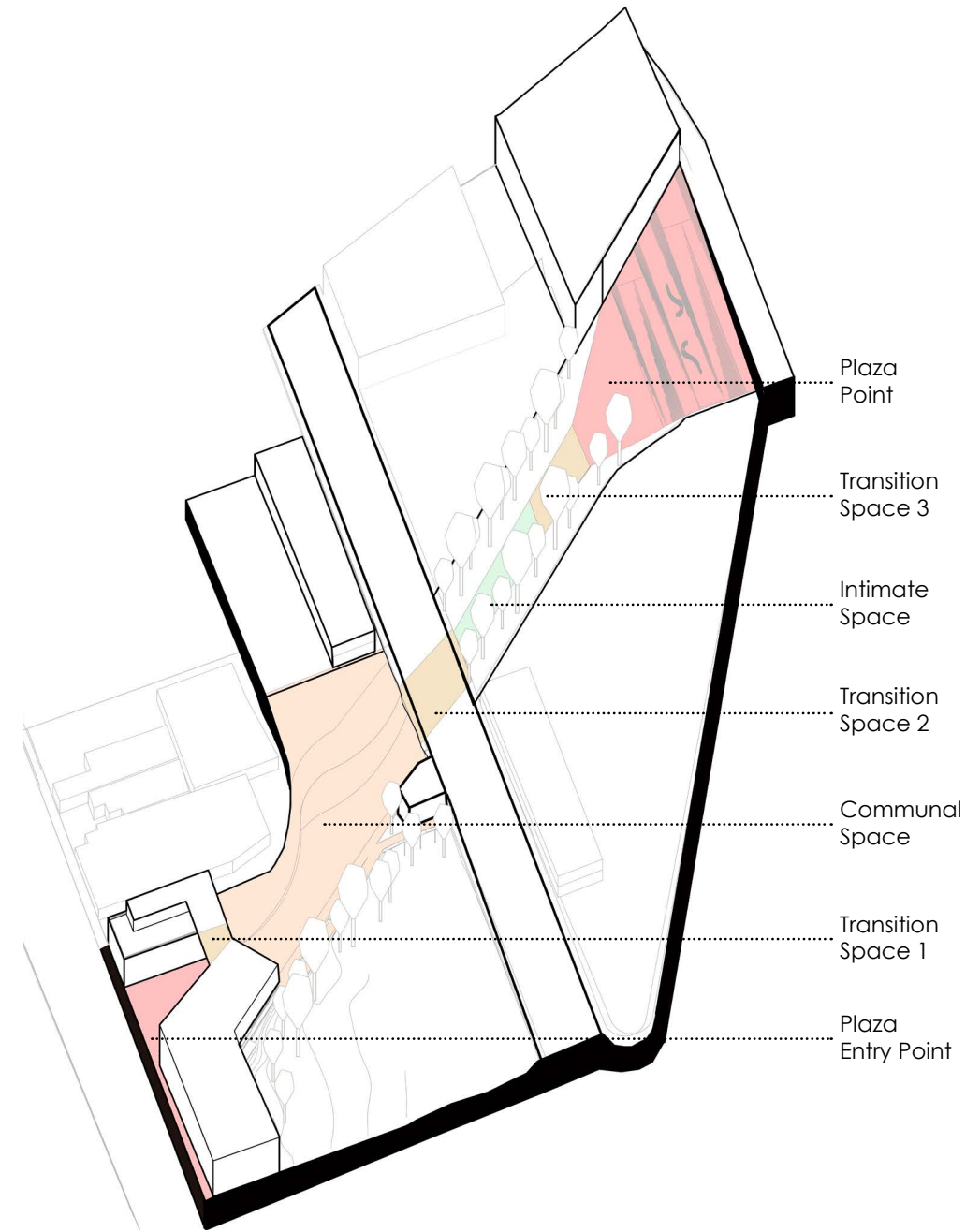


Figure 44 Zones and Transitional Spaces

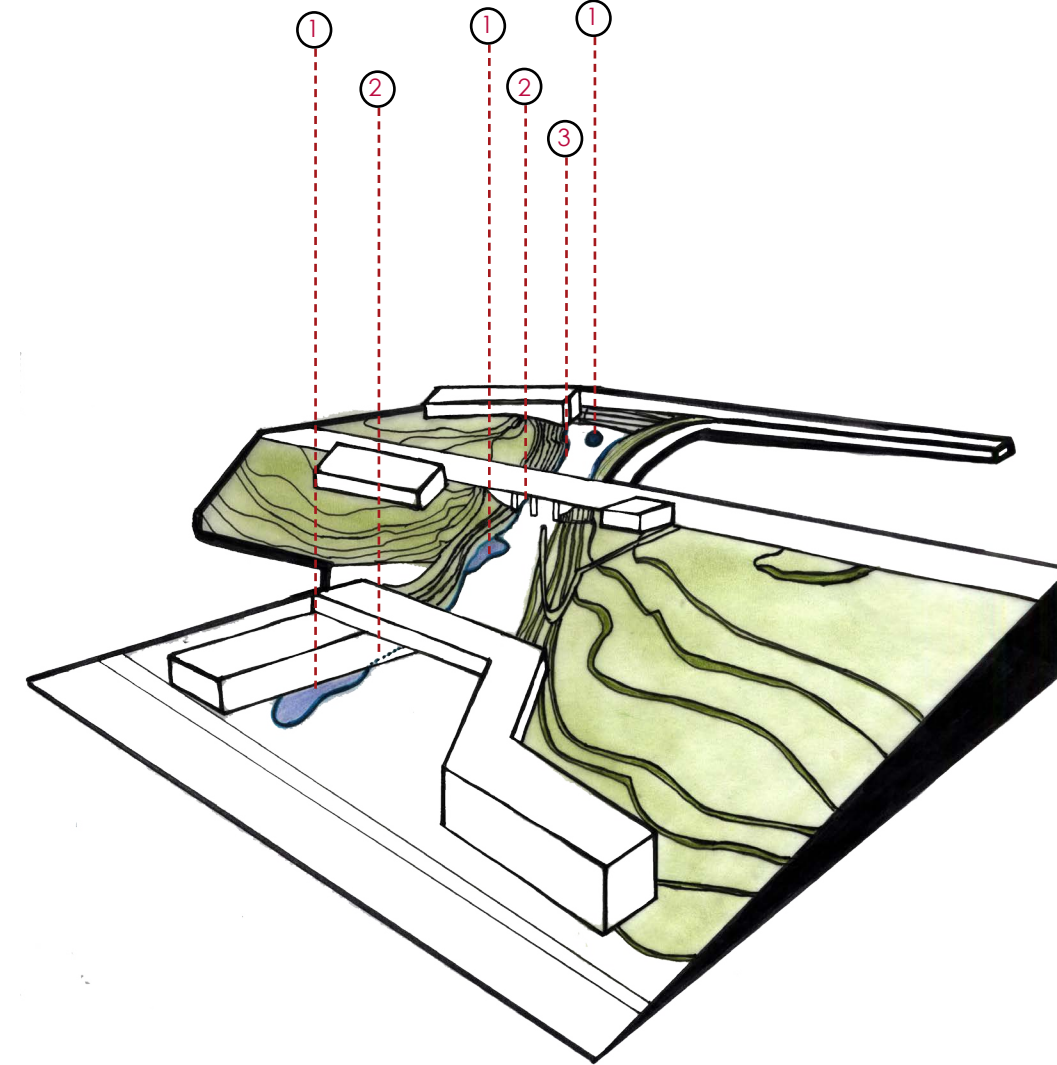


Figure 45 Unifying Components—Water

Water

Water is used in various ways in the project as an embodied experience for the user to have a closer connection to place. Frank Lloyd Wright used water as a stimulant for imagination and as a poetizing substance.³⁵ Therefore, another reason why water is used is to awake the imagination in the user. The sound of water is used to transport the inhabitants out of the urban surroundings and into a new space in the ravine, similar to what happens in the precedent Fountain Place by Kiley and Walker.³⁶

There is a different water feature applied to each zone. In the outer plazas, the water is more tranquil, intended for the user to touch the water and connect physically. This tranquil running water pond (1 in figure 45) is placed in the southern and northern plazas at the extents of the ravine. The same qualities of water are used in the feature in the communal gathering zone at the entry from the hill behind the existing residential building. A stream of water connects various features in each zone and provides a linear path for users. In the intimate space, the water appears also as a tranquil element that slowly fades away into the transitional space.

In the transitional spaces, the water is expressed in its moving or falling nature (2 in figure 45). This is used in the first and second transitional spaces in the third transitional space the water shoots up from the ground on the sides. There is a difference between the transitional spaces because the first two transitional spaces are built elements and have walls on the sides to facilitate the waterfall effect; the third transitional space is intended to be a natural space where walls are not used.

35. Pallasmaa, "Orchestrating Architecture."

36. "Fountain Place."

Ground Texture

The ground plane textures serve as a unifying element through the entire ravine. The horizontal dynamic pattern on the ground surface is directed along the B axis (shown in figure 46). The ground surface is altered according to the functions or activities occurring in each zone. The main materials used for the ground are the existing concrete paving, new grass, and granite pavers. Each material is used for a specific function. For example, in the communal areas there are more grass pavers; in the pathway running north to south there are more concrete pavers.

A solution to unify the rectilinear lines and the curved lines belonging to the new hill on the west side is to add more curved patterns in the layout of the site. The curvilinear landscape designs (1 in figure 46) are placed only in main entry points. This curved landscape pattern is composed of small grass and concrete pavers. By reusing the existing concrete and adding grass surfaces, there is a closer intertwining between nature and the built environment.

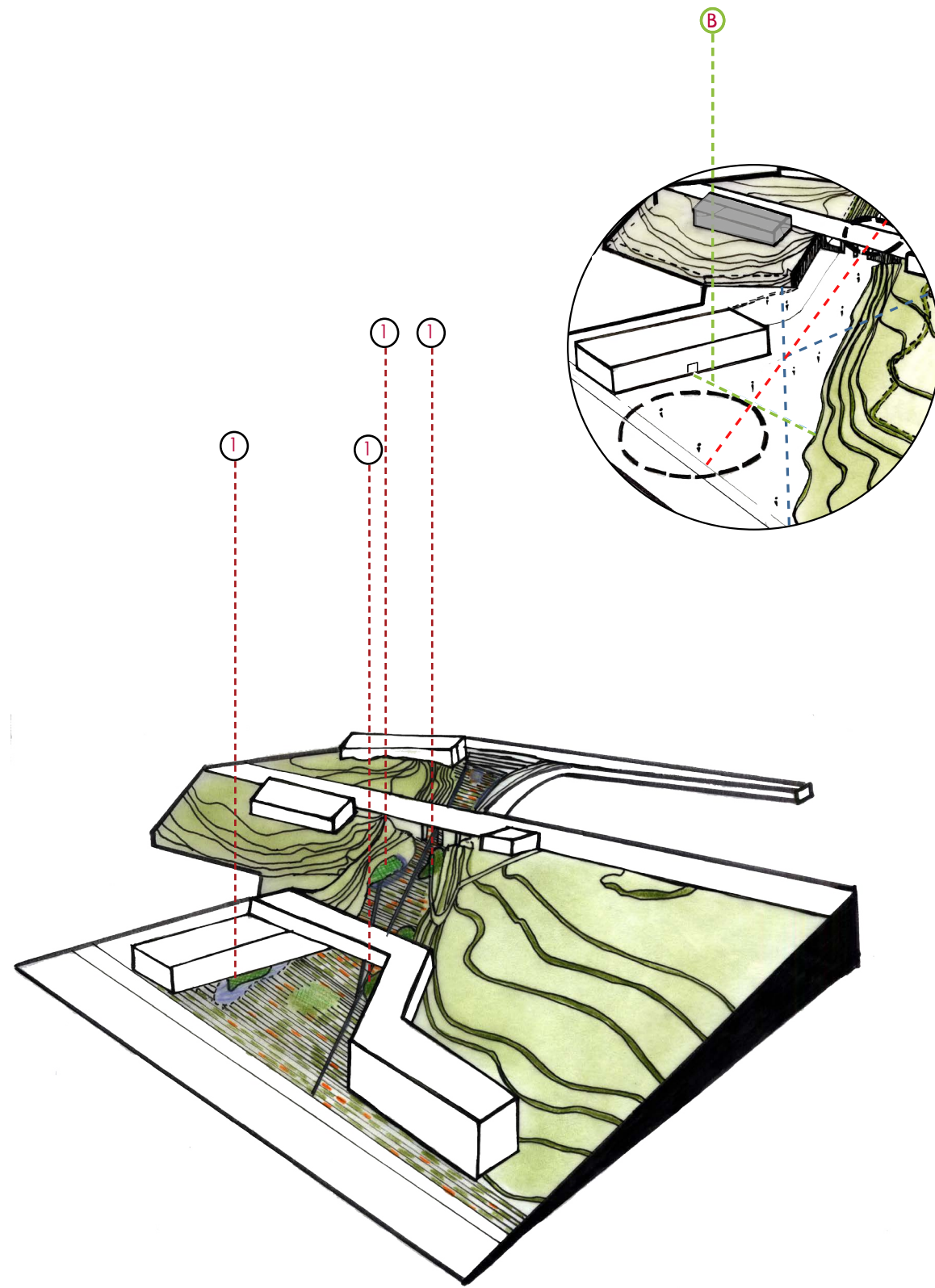


Figure 46 Unifying Components—Floor Texture

PROSPECT-REFUGE THEORY AND RATIONAL PROCESS

Once the site is visited and analyzed, the next step is to consider the prospect-refuge theory concept applied to the ravine. According to Appleton, human perception of a landscape is influenced by the spatial arrangement of various components that support seeing and hiding, the opportunity for movement and exploration, as well as the impact of shadow and sun.³⁷ Therefore shape, order, scale of space and materials are used to develop the user's relationship with place. Additionally, these places have to develop an embodied experience where "insiderness" is experienced.

The first intention is focused on the overall landscape elements that can strengthen the qualities of the ravine and provide conditions of prospect-refuge. These elements in some cases are natural and in others would be constructed elements.

The specifics depend on the activity in each zone. Hildebrand expanded the theory to add several additional spatial dimensions to the concept of prospect, including a love of complexity, exploration, and opportunity. Hildebrand explains that "refuge and prospect are opposites: refuge is small and dark; the prospect is expansive and bright."³⁸ However, they are interrelated, and both are needed together.

This project explores several different applications of prospect and refuge, and each application has multiple versions at different locations on the site. These are site suggested applications of general rules of prospect and refuge as put forward by Appleton and Hildebrand.

Application 1

One application of the prospect and refuge concept includes the use of tree canopies and incorporates single or multiple trees at different parts of the site. To be more effective the tree canopy must be wide enough to protect the user. The canopy also needs to be low enough (sometimes lower than existing adjacent trees) to allow

37. Dosen and Ostwald, "Prospect and Refuge Theory."

38. Ibid., 17.

the user to feel "within" a space. Concepts of different size and configuration can be used to accommodate different groups and activities.

The theory of prospect and refuge seeks to describe why specific environments feel secure and thereby meet basic human psychological needs. Environments that meet such needs will often provide people with the capacity to observe (prospect) without being seen (refuge). The new trees in the ravine are placed in strategic areas so that the person can have a broader view of what is happening around him or her. Examples of this application are shown in figures 47 and 48. These instances are not mutually exclusive; they could be a combination of single or multiple applications.

Application 2

This is applied in the ravine and building when the user requires more intimate, lower-scale spaces. The intent is to generate an area of outlook and a more intimate but communal setting. The circle is used in this case because it is a symbol of self. The circle focuses both perception and energy in a centripetal manner, and it emanates energy centrifugally. This shape has a host of symbolic meanings throughout history in various cultures.³⁹ In the Cliff Palace precedent, the act of gathering for more intimate encounters was a round space. When the concept of prospect or outlook is applied the circle is broken into a semicircular space to allow visibility out (shown in figure 49). The key point is that the qualities and attributes of space, including volume, configuration, and outlook can influence a person's emotional response to space. These areas, because they are more intimate, suggest they are spaces for reflection, meditation, rest, or reading. A place for complex and cognitive tasks, while providing protection from physical danger and weather protection.

Application 3

Prospect and refuge could be described in general terms as a particular environmental pattern, with spatial and formal relations. This pattern is achieved through a balance of vista and frame.⁴⁰ Openings between adjacent interior and exterior spaces can evoke a sense of prospect and refuge.

39. Pallasmaa, *The Embodied Image*.

40. Dosen and Ostwald, "Prospect and Refuge Theory."

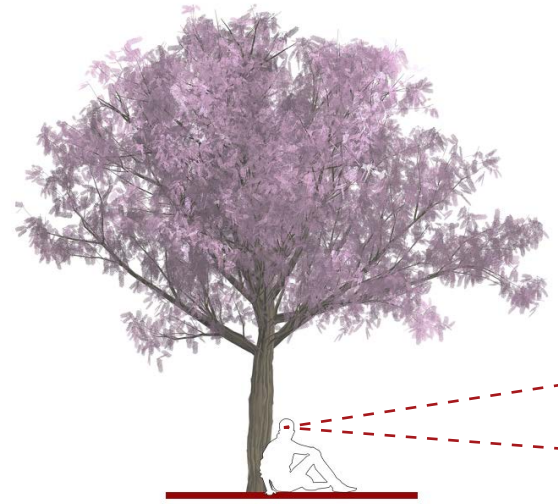


Figure 47 Application 1—Natural Approach. Natural form of coverage from behind and overhead. Aspect of shade from canopies to individuals and groups creating an aspect of prospect and refuge.

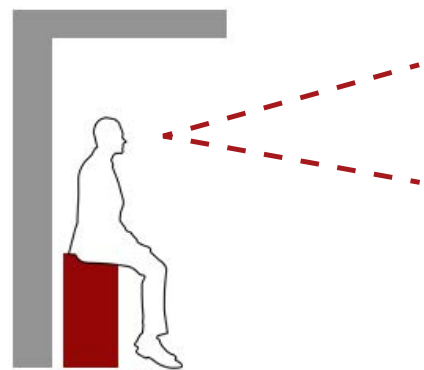
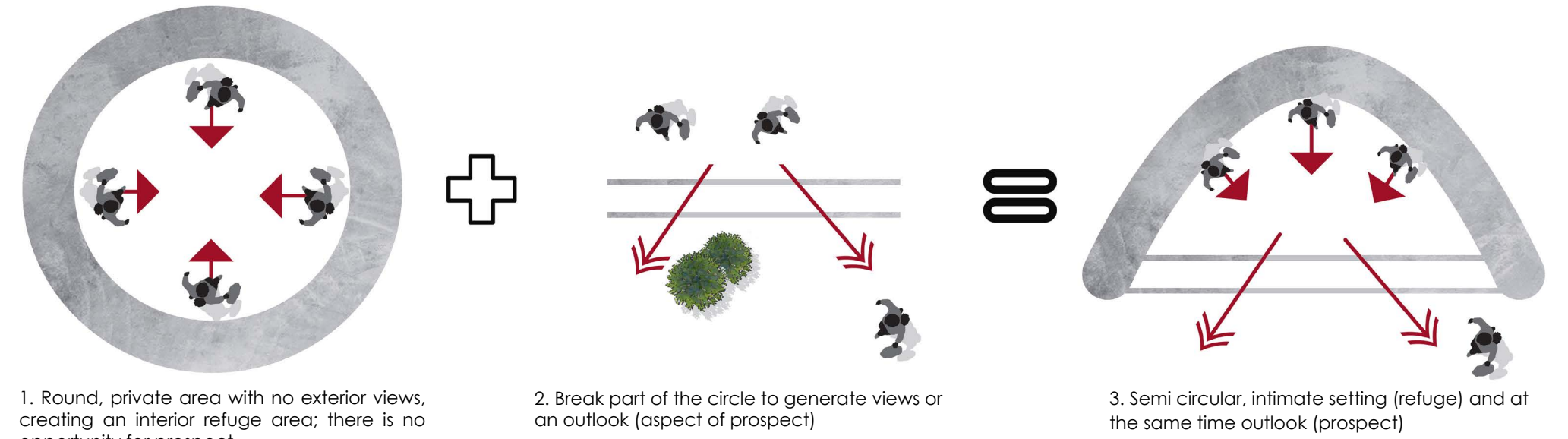


Figure 48 Application 1—Built. Built form of coverage from behind and overhead. Aspect of shade from constructed planes to individuals and groups creating an aspect of prospect and refuge.

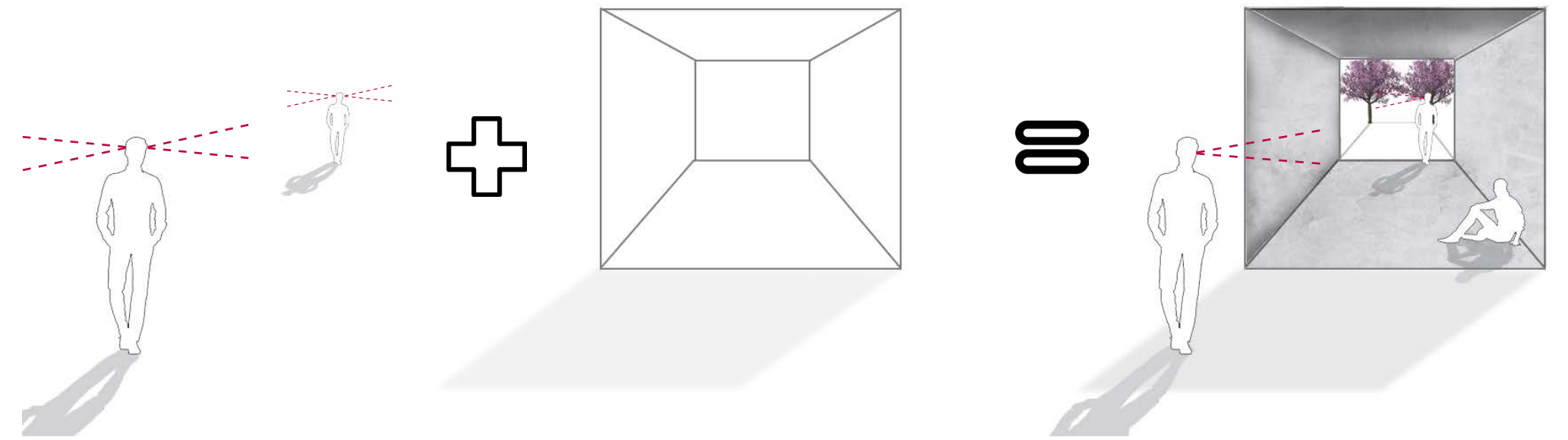


1. Round, private area with no exterior views, creating an interior refuge area; there is no opportunity for prospect

2. Break part of the circle to generate views or an outlook (aspect of prospect)

3. Semi circular, intimate setting (refuge) and at the same time outlook (prospect)

Figure 49 Application 2—Nest Area



1. No frame to generate a controlled vista

2. Frame area to determine open and closed spaces and generate a vista

3. Transitional framing space

Figure 50 Application 3—Transitional Spaces

Thus, refuge and prospect in an interior depend on a combination of spatial dimensions, light quantity, and view. According to Hildebrand, a low ceiling plane is the most crucial dimension for creating a sense of containment.⁴¹

This is applied in the transitional areas of the project. The intention is that when the person is passing through space, there should be a specific structure that is protecting the user, without enclosing all sides (figure 50). A lowered ceiling plane can be achieved in an interior refuge space through a suspended ceiling system or fabric, and soffits. This concept is applied in both the ravine and the architectural aspects of the project.

Refuge Concept across the Ravine

By understanding the concepts and identity of place, productive cognitive relationships are established through "insiderness," and refuge is manifested as a result.

Providing different levels of intimacy throughout the site encourages encounters between people. The refuge-prospect conceptual diagrams are incorporated across each zone in the site and are strengthened by further designing a multi-sensory experience for the user.

Transitional moments are created to enhance the connection as the individual passes from one zone or level to another.⁴² Therefore, all the transitional spaces in the project have an outlook to the next space and are surrounded by either a structure or natural elements (trees).

Entry Plaza from the City

In figure 51, when arriving from Union Avenue, the entry plaza is partially enclosed by the community and new transitional buildings. The plaza has the characteristics of application 1. A centralized tree allows the user to have views on both sides of the plaza while being protected from above and behind. This plaza serves as a connector from the site to the urban fabric, and it is an area of arrival and departure to the city. Application number 3 is also used, creating a transitional moment between the two buildings.

41. Dosen and Ostwald, "Prospect and Refuge Theory."
42. Unwin, *Analyzing Architecture*.

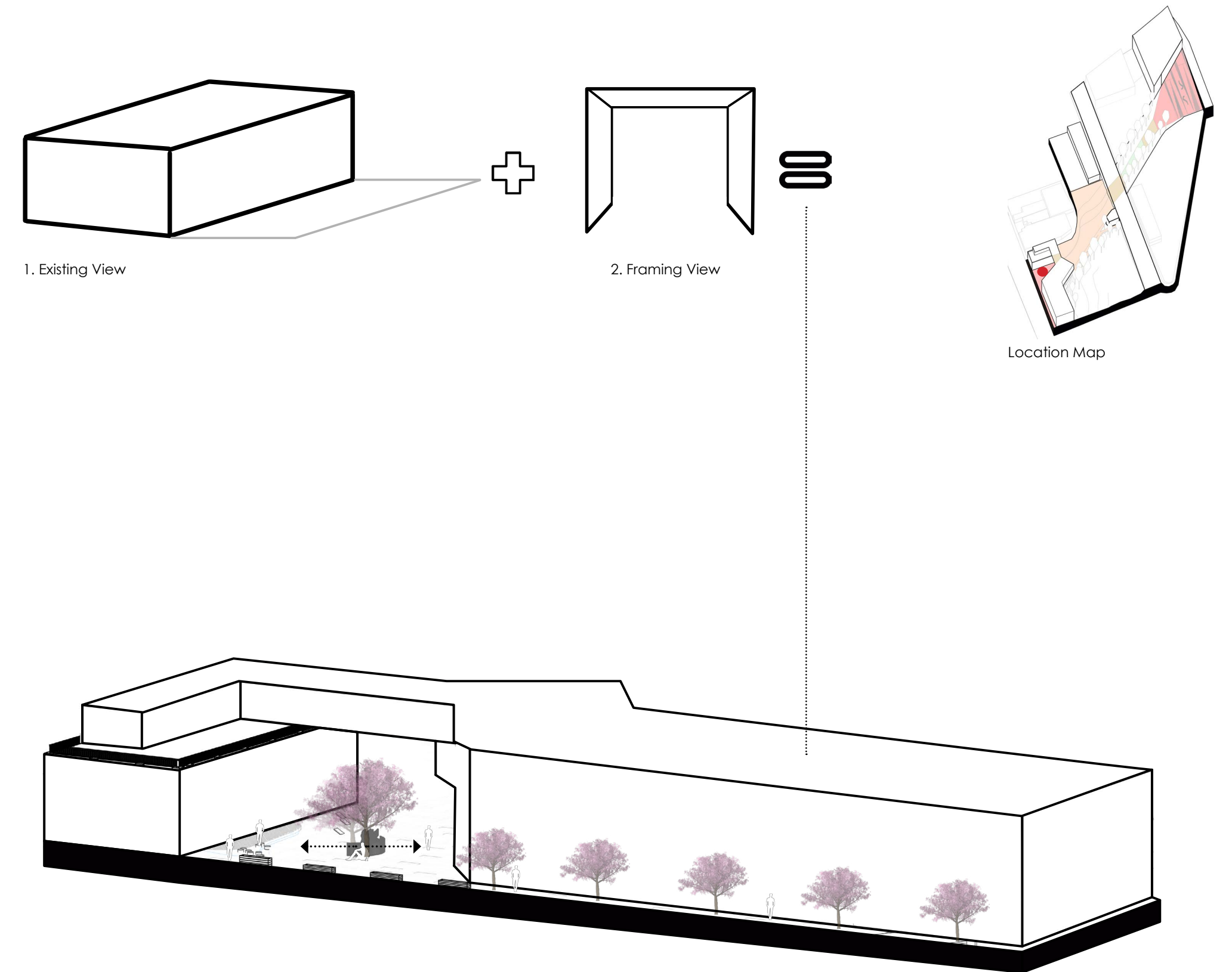


Figure 51 Entry Plaza from the City

Communal Space

Figure 52 shows a communal space where social activities occur. This area is expansive, and the edges are integrated with the adjacent urban fabric. It serves as a place for performance, since the sloped hill and the extensive pathway along the ramp can serve as spectator seating. The relationship of application 1 is at work on this slope where spectators are protected by the canopy of trees from the sun and can view the activity in the plaza. The tree covered hill also has seating benches allowing individuals to sit; groups can sit on the hillside ground.

The ramp from Monroe Avenue engages the slope providing refuge and prospect opportunities in succession along its length. Due to the switchback, travelers view the communal space from various heights and angles.

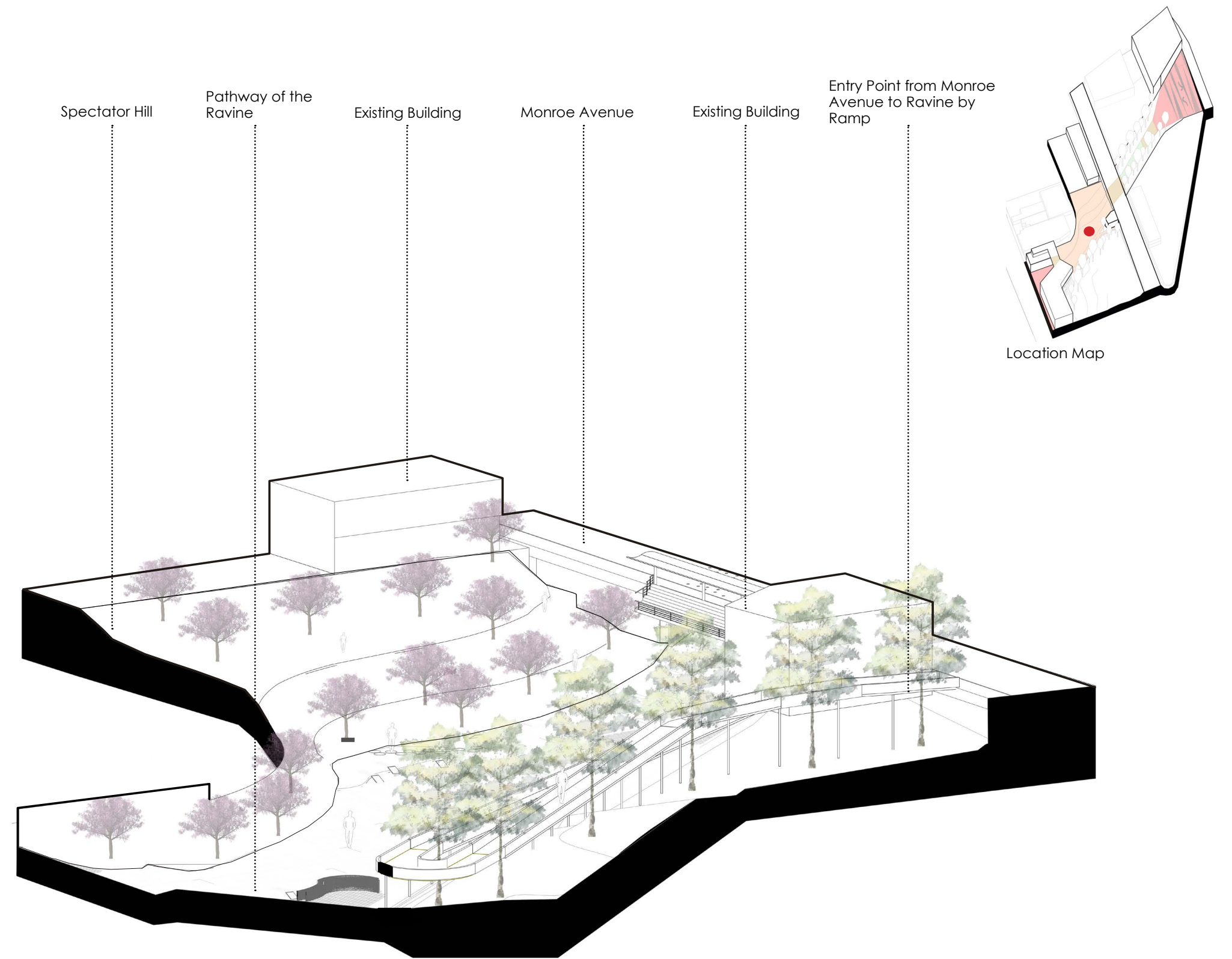


Figure 52 Communal Gathering Space

Intimate Space

Between Monroe and Madison Avenues, the ravine narrows and the adjacent slope is steeper. This is the location of the "nests" carved into the steep slope. These elements follow application 2 in their spatial relationships. Carving into the topography is intended to provide small intimate areas with enclosure that look out into the narrow pathways of the ravine. Several nests, with varying levels of enclosure, are located along the path and each is visually sheltered from the rest by the carved slope (figure 53).

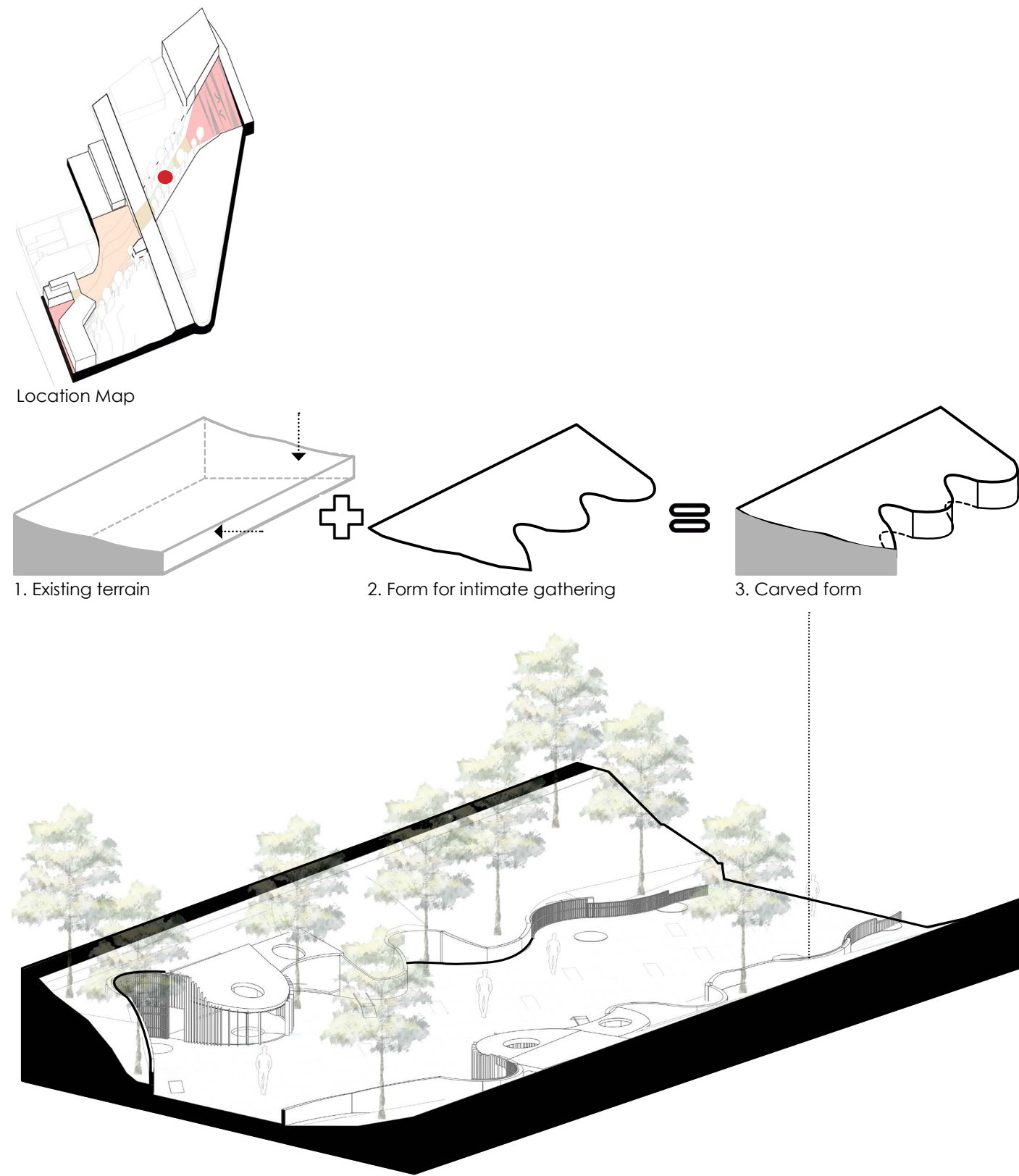


Figure 53 Intimate Spaces

Alternative Entry Plaza from the City

At the Madison Avenue end of the site, the ravine opens up and is more urban in context. This plaza is bound by a steep slope to the east, an existing building to the west, and Madison Avenue to the north. A stair-ramp is designed to allow access to the site from Madison, but also to be a place to experience the plaza. Refuge and prospect find another expression in the pathway and seating that follows the ramp down into the ravine. The integration of seating with circulation allows for groups of different sizes to engage each other. Trees are incorporated into the ramp and a second level plaza. This upper plaza allows for another perspective of the larger plaza below.

The center of the lower plaza is the location of a circular water feature that acts as the end of the watercourse, symbolically terminating the ravine path. Seating in the sunken circular "out-door room" allows a small group of people to engage visually, tactically, and auditorally with water. The sound of the water coupled with the open yet embracing nature of the water feature allows the user to occupy a space experientially removed from the plaza (figure 54).

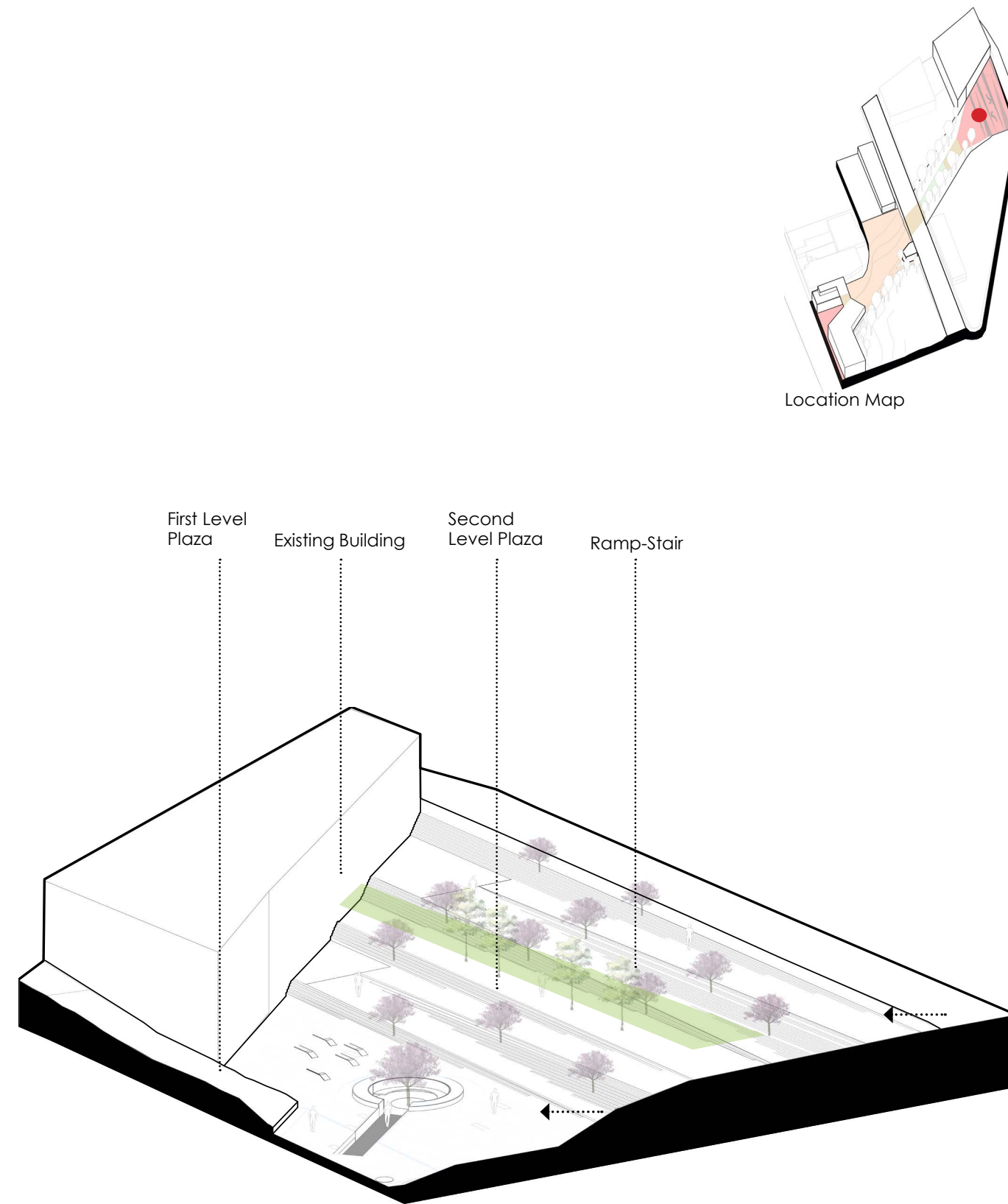


Figure 54 Plaza Entry from Madison Avenue

Figure 55 is a diagrammatic section summarising the aspects of prospect and refuge used in all of the zones. The images inserted below represent the applications of refuge and prospect throughout the site.

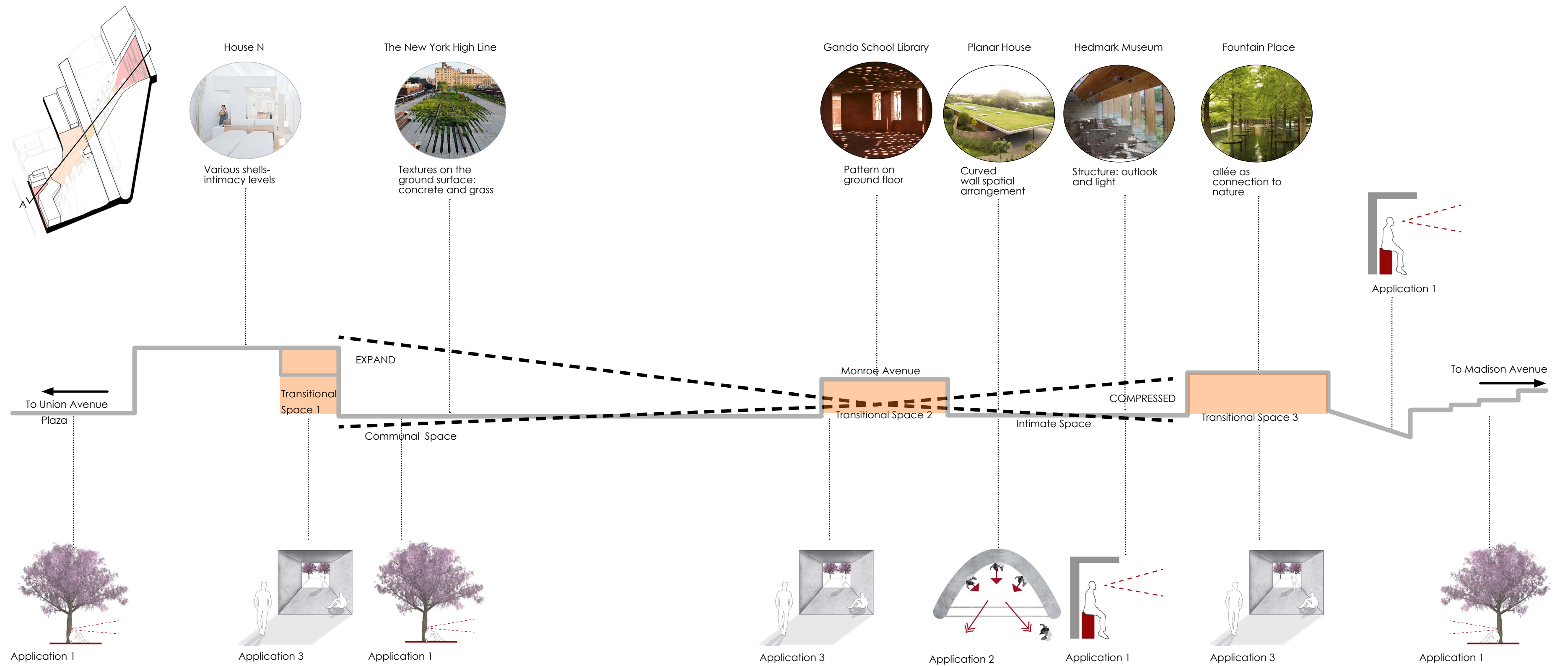


Figure 55 Diagrammatic Section A-A, Concepts of Refuge in the Ravine

Sections of the Zones

It is essential to design in section while working on the floor plan, to create the poetic image in the project. Section analysis is necessary to understand the experience the user will have. In section, the relationships are based on the interaction between the human body and the context. The architecture becomes a cradle for the imagination, governed by the strategy that links diverse zones across the site. The section is used to appeal to the emotions, and conveys the poetry of space.

According to Le Corbusier, an arrangement is a gradation of aims, a classification of intentions. Aims refer to what the eye can appreciate, and intentions are the architectural elements.⁴³ It is necessary to study each section and design by seeing the experience of the user. For the designer, the perspective is essential to understanding the space. This leads to the exploration of how to create a sensorial experience in that space.⁴⁴ For example, the intimate areas that have curved walls carved into the slopes, or the transitional spaces that generate a type of light and shadow. These spaces are first studied in section and then understood through perspective to generate an experience. The creative aspects of textures, light, shadow, and form are used throughout the project. To have a poetic image in the project it is necessary to use aspects of the designer's imagination accompanied by the perception of the space. These two aspects come together to create an atmosphere of a place, where the image becomes the experiential reality, the cognitive embodied and remembered. Section-perspectives are a marriage of the scale analysis of section with the experience exploration of perspective.

The project interacts with the natural and surrounding context through the use of connectivity components, transitional spaces, and gathering areas. These are shown in sections (figures 56-59). The new borders or edges, along with the new ground texture, orchestrate a journey of interaction between the human body and the context through which the inhabitant moves and pauses (figure 60). The use of Cor-ten steel (ramp, building, urban furniture) in the site is an industrial reference; the use of the water, light, and shadow engage the senses and help develop an embodied experience.

43. Le Corbusier, *Towards A New Architecture*.

44. *Ibid.*

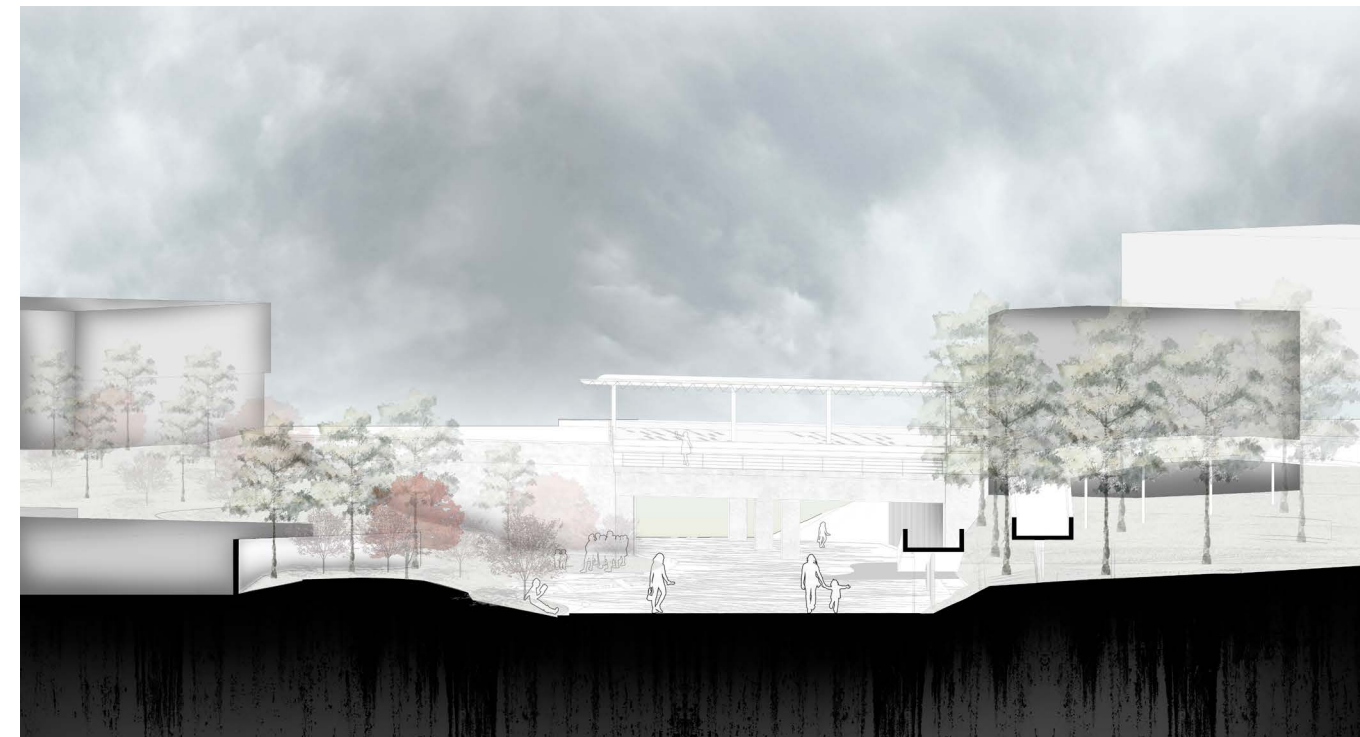
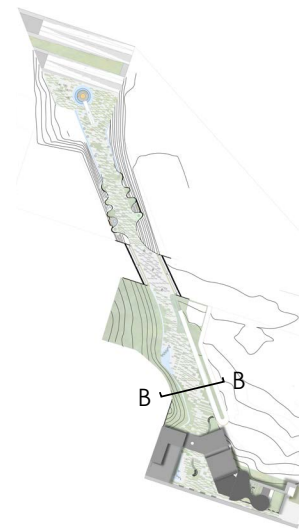


Figure 56 Section Perspective B-B. View towards the bridge across the Communal Gathering Zone.

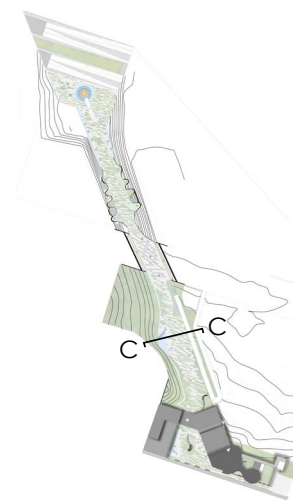


Figure 57 Section Perspective C-C. View towards the buildings across the Communal Gathering Zone.

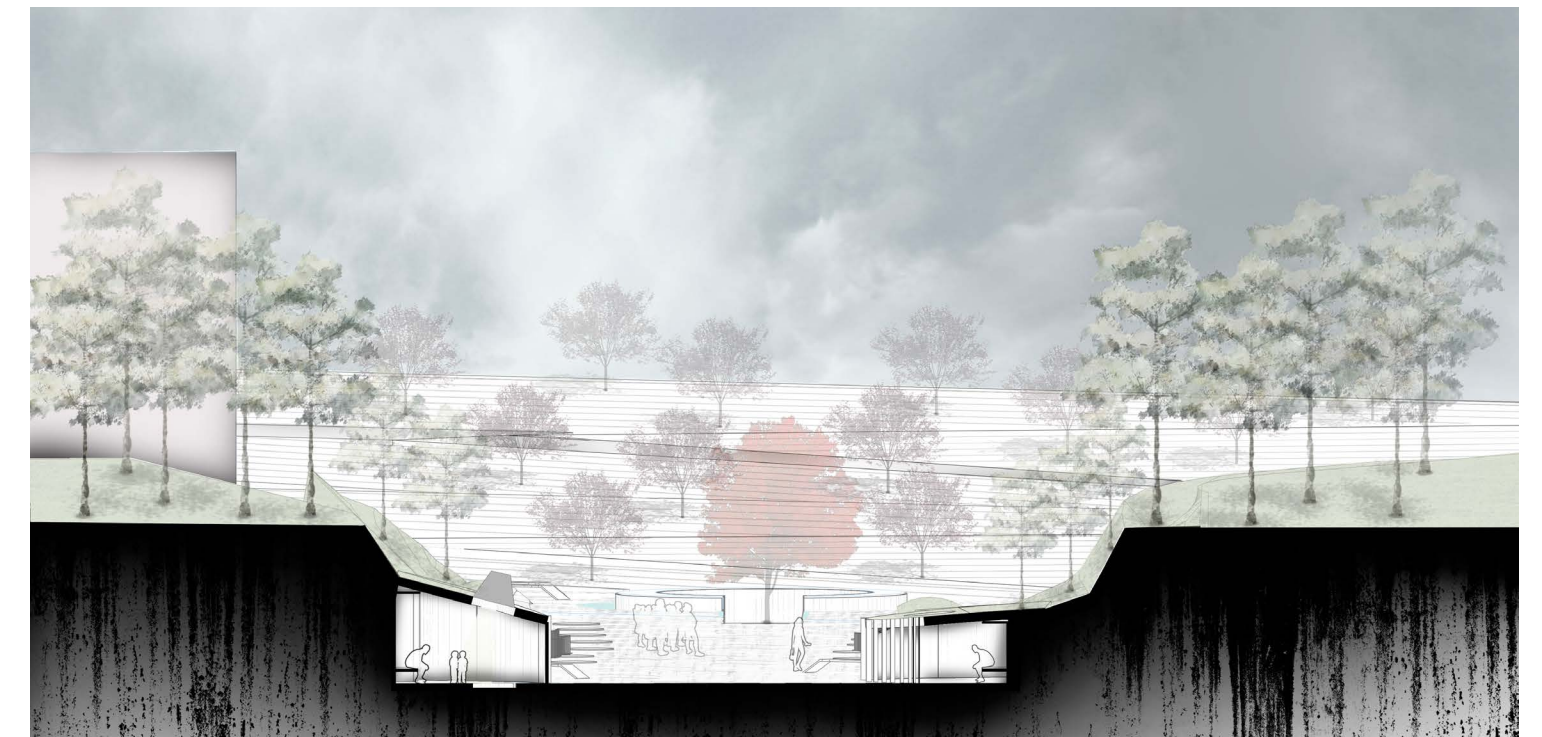


Figure 58 Section Perspective D-D. View towards the ramp-stair across the nest spaces.

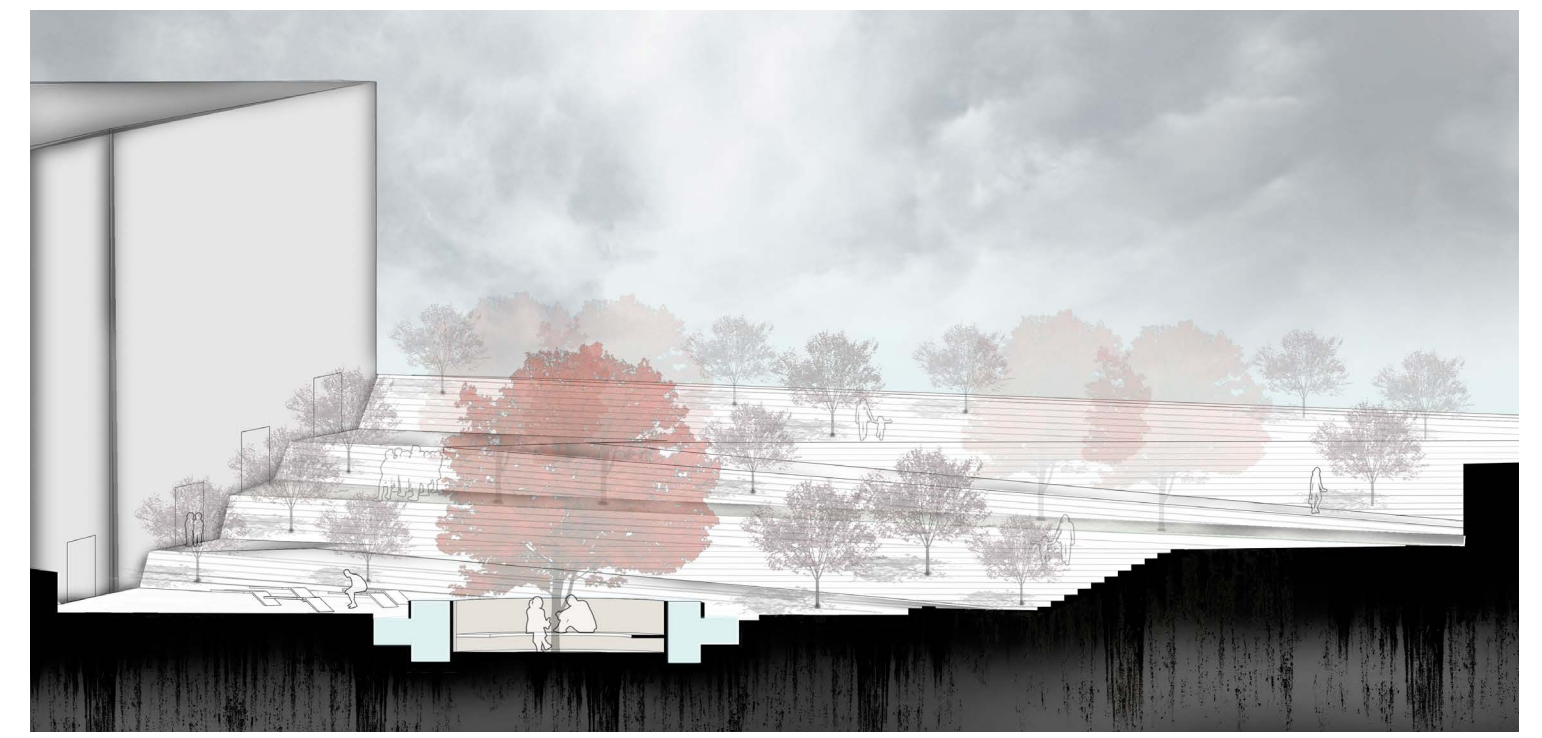
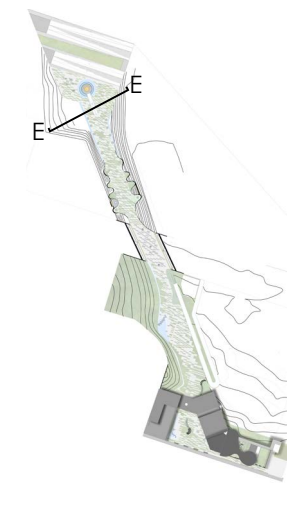


Figure 59 Section Perspective E-E. Across the plaza and internal refuge space, surrounded by water.

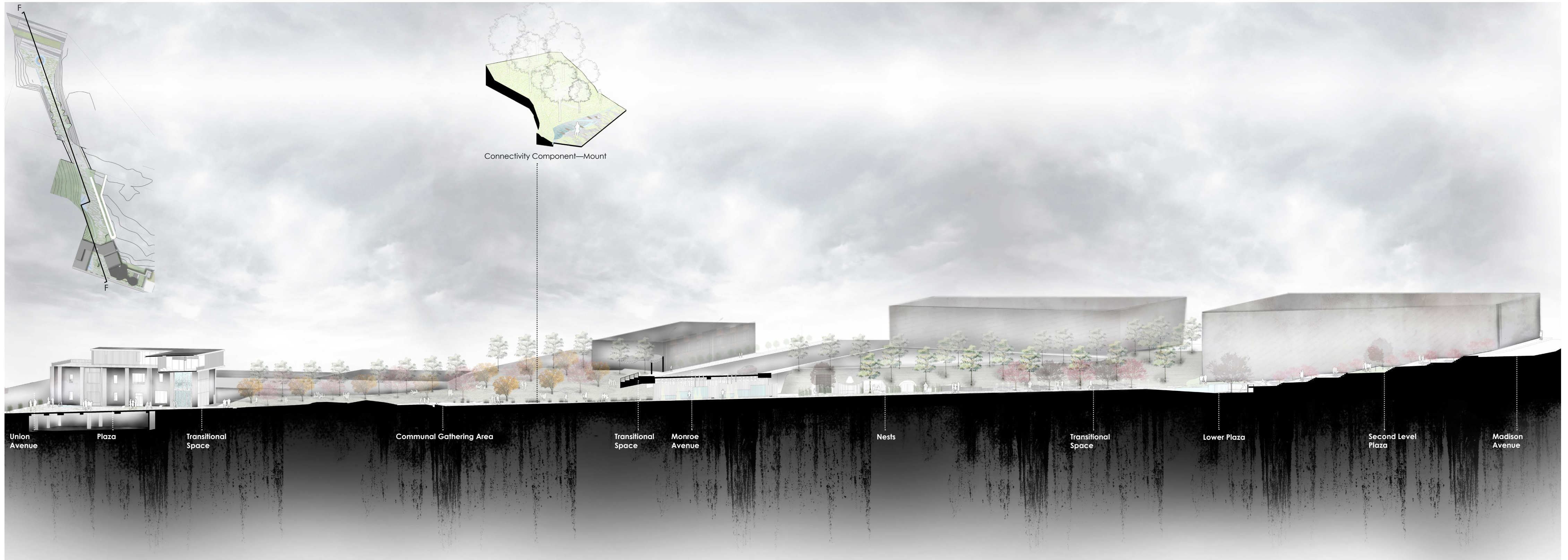


Figure 60 Section Perspective F-F. Across the ravine with transitional spaces and zones.

POETIC IMAGE PROCESS

The narrative is the story of what happens in a place or the idea of the space. For this design process, the narrative is intended to provoke a poetic image, developing a method of making a more complete understanding of architecture. Each zone in the floor plan is analyzed through an architectonic perspective, and there is a story behind every scene that connects all of the spaces in the site, creating an embodied experience.

Poetic images are intended to connect to memory and be viewed through materiality. The exciting aspect of a poetic image is that it allows a relationship with reality while giving imaginative awareness to the world. Memory is part of a narrative that does not belong to time; it depends on movement through a particular space. Memory allows empathy from the viewer enabling a connection to the users.⁴⁵

Approach to the Ravine from Union Avenue (Scene 1)

Walking across Union Avenue to visit my friend from out of town, the change of pattern in the ground plane grabs my attention. The hard concrete edges from the sidewalk seem to be invading softer greener patterns on the floor, and there are some peculiar granite surfaces as well.

As I look up, a plaza is in front of me, framed by two buildings. One wraps around slabs that slightly start to invade the older brick building. A tree is in the middle of the plaza providing shadow and shelter from the sun. This plaza has a sense of mystery, and it evokes my sense for discovery. As I walk into the square, I can hear children in the distance playing in the water and I see how the floor pattern seems like a chessboard (figure 61).

This unique plaza reminds me of the old courtyards wrapped around buildings; I feel like I am no longer in the city, but in a more secluded area. A hard wind invades my thoughts, and the noise of the leaves reminds me about my friend. As I am reading my friend's address, I realize the building is in front of me (figure 62).



Water Feature
infinity pool



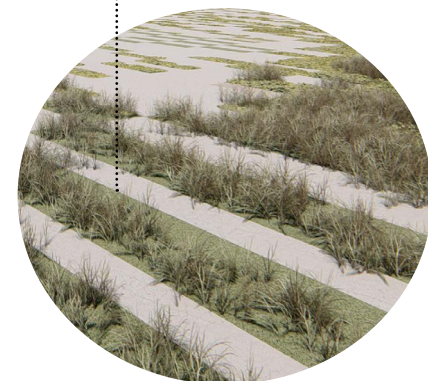
View Key Plan



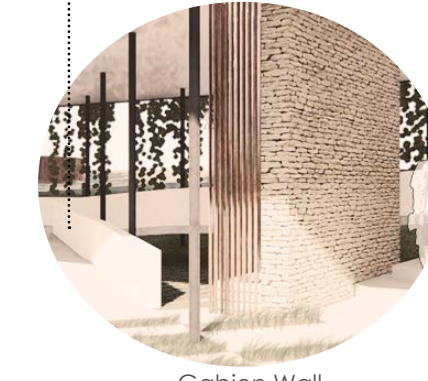
Gateway looking towards the
north of the ravine



View Key Plan



Concrete-Grass Pavers



Gabion Wall

Architectural Description

The first external node or plaza is off Union Avenue. This space is delineated by the existing building (community building) on the west side and the new residential building on the east side. The intent is to create a place of refuge, which is found under a group of trees situated in the center of the courtyard. Under the trees, a piece of urban furniture is placed to ensure the user's comfort when sitting down. The user has a view towards a water feature located on the west side of the entry to the plaza. A stream of water is carried from the pool into the building so users pass over it as they enter the door on the facade of the community building. The presence of water enhances the experience of a place by encountering the water through sight, sound, and touch. Additionally, water entices the imagination of the user and culminates in a multi-sensory experience that is soothing. The tree in the middle of the plaza protects above and behind emphasizing the feeling of refuge; it also offers visual contact of the surroundings for surveillance as an element of prospect. The plaza serves as an intermediate space between the city and the rest of the site (figure 61).

Figure 62 provides a view of the new residential building. The material selected, Cor-ten, adds a rustic industrial feel to the site. Cor-ten slats wrapping the building serve as a privacy barrier between the building and the plaza. Cor-ten steel carries through the whole project as a unifying element. Vertical wood slats are used in communal gathering areas. The entry of the building is curved to slow down the user. The urban furniture makes use of the same material used in the new building, creating a contrast between the old and the new. The benches appear to be extrusions of the concrete ground, but the area where the person is sitting is made out of wood. Wood is carried throughout the whole site and serves as a warm material that indicates direct touch interaction. Throughout the project only a few materials are used to assist in the cognition of the design intent.

Figure 61 Entry to Plaza off Union Avenue

Figure 62 Internal Space of the Plaza

45. Sturick, "The Poetic Image."

Approach to the Ravine from Monroe Avenue (Scene 2)

Unexpectedly, I decide to enter the gateway, and I am amazed by the richness of nature. It feels as if I am in a small valley, reminding me of home. I see my other friend coming from a ramp, so I decide to wait for him (figure 63).

My friend tells me the story of his journey through the ravine. He came from Monroe Avenue, through the ramp, and encountered an allée. As he was coming down, he had a fantastic view of the building and the gathering area (figure 64).

When he finished the journey on the ramp and was in the communal space, he decided to climb a small slope and cool off his feet in a narrow stream of water that bordered the hill and created a slight separation in the pathway of the ravine. As he looked south, he had a panoramic view of the gathering area and the buildings. From far away he could perceive a type of gateway. He continued his journey north and was amazed with a new space (figure 65).



Figure 63 View towards the Northern Part of the Ravine



Figure 64 View towards the Community Building and Ravine



View Key Plan



Water Feature
infinity pool



Figure 65 View towards the Communal Gathering Space

Architectural Description

When a person is arriving from Monroe Avenue on the ramp, there is an allée between the ramp to separate the city from the enhanced site (figure 63).

The intention of the gathering space is for the user to feel as if he or she is in a valley surrounded by the presence of nature. The diverse vegetation creates various types of views according to the season. Additionally, the use of pattern in the ground texture will show over time the areas where people walked the most because of the height of the grass. These areas are meant to evolve and change. There is a curvilinear shaped hill provided to connect the existing residential building with the site; it also helps to slow down users as they are walking through the gathering zones. The stream situated at the edge, in the lower part of the slope, is intended to be used as a defining element between the pathway and the slope where the user can sit down and have a longer conversation.

The experience is also about framing views, not just about movement or change. There is no physical obstacle that interrupts the view of the user, creating a broad view for prospect. At the culmination of moving through the bigger landscape area, one can perceive another experience within the gateway of the building looking south and on the southern part by the entry to the bridge (figures 63 - 65).

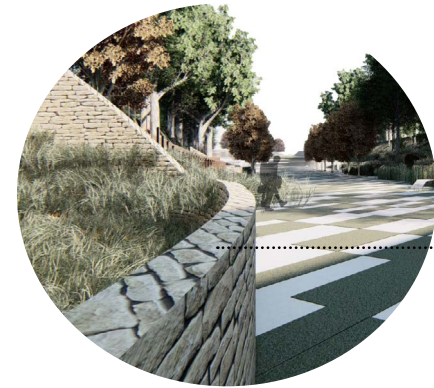
This communal gathering zone offers the possibility for various activities to happen; it can serve as an amphitheater where the slope serves as an area where people would be sitting down protected by the canopies of the trees. From Monroe Avenue, there is a sitting area with a canopy space inserted in the edge of the street to serve as an outlook from a higher perspective to the ravine (figure 63). The people who are not entering the ravine can still enjoy the space from multiple levels even if they are on the part of the bridge on Monroe Avenue or looking at the site from the balcony of the existing building (figure 63). Creating various access points to this zone is one way of promoting unity and connectivity, where the circulation can be linked. For instance, the newly built bridge that helps establish a visual connection to the ravine but physically connects the new residential building to the community center.

The Second Transitional Space

My friend called this space a room within a room. He noticed that he was really walking under a bridge. For a moment my friend forgot about observing every single structural detail, and he said he felt like a child again, seeing how the light was shining from up above from a type of suspended light, while he heard running water on the sides and a slight mist invaded the environment. As he was walking through this room, his fingers ran along a constant rhythm of vertical slats that separated the room from the running water. As he was walking by under the light it suddenly became dark, and he realized it was the traffic passing from Monroe Avenue that created this effect, creating an incredible atmosphere (figure 66).



View Key Plan



Curved Gabion Wall



Edge Detail of Concrete and Granite Floors



Figure 66 Internal View of Bridge

Architectural Description

The term "atmosphere" defines the art of architecture as creation and design with a physical presence, going beyond the mere geometrical aspect. According to Pallasmaa, space is a study of the corporeal presence in the user.⁴⁶ It is based on more than measurements, and it concerns local relationships and topological space. The bridge plays an essential part in the fusing together of various factors applied through the project. It acts as a frame so the person has an open view to either the southern or northern part of the ravine. The Cor-ten vertical slats appear again, screening a gabion wall.

The frame is created by the construction of gabion walls covering the existing outer bridge columns, while the center columns remain uncovered as a reference to the bridge above. There is a suspended ceiling of Cor-ten beams and vertical slats screening the elements of the existing bridge. The aspect of refuge is created by lowering the ceiling, so the person feels as if they are welcomed to the space. Together natural light and artificial light create an interesting pattern on the ground surface. Pendant cylinder light tubes are suspended from the roof structure to provide artificial light at night and natural light during the day. At street level on Monroe Avenue, the skylights are visible as flush glass cylinders strong enough to support vehicular loads. These elements create a kinetic interplay of light and shadow, pulling sunlight into the space below during different parts of the day, as well as creating different pockets of light and shadow within the facets of the ceiling slats themselves.

The design intent is that this space is kept active throughout the year to act as a space of refuge. A main concern is incorporating nature in the built environment so that the bridge feels like it belongs to the ravine. Waterfalls are used as a way of creating sound as the user is passing underneath. Ivy located adjacent to the vertical Cor-ten slats and the moisture of the waterfalls serve as a method of sprinkler irrigation. The experience brings together the old bridge and the new proposal. The bridge turns into a passage, which represents a course of life more than just a formal element.

46. Böhme, "Encountering Atmospheres."

The Nest Spaces

As he continues his journey along the ravine, he enters another space with smaller subspaces that are similar to nests. One of these areas catches his attention: as he comes in he encounters a hollow space with a particular skylight and he views how the sunlight is shining and creating a reflection on the concrete surface of the ground. As he follows the light on the ground surface, he sees a water feature, enticing him to relax and feel a connection with the new space he has just seen (figures 67-68).



View Key Plan



Figure 67 Nest Spaces



View Key Plan



Figure 68 Nest Space with Water Inside

Architectural Description

The bridge leads the user into a new space either more communal or more intimate depending on where the user's journey begins.⁴⁷ In the nest zone there are six nests. The design intent is for each nest to serve a different activity. The curvilinear walls allow users to slow down as they reach this area, promoting an increased desire for exploration, which is a factor in the theory of prospect and refuge (figure 67).

In this zone the following functions and refuge conditions apply:

1. Visual privacy
2. Rest or relaxation
3. Protection from physical danger
4. Protection from three sides for the user with an outlook or vista

The nests are intended to feel as if they have always belonged in the ravine. Carving part of the slope and inserting the nest guarantees a more intimate setting, similar to the Cliff Palace precedent. In the nest areas, the ceiling is lower than in the transitional spaces, and the emphasis is on creating a warmer type of environment. The use of light is approached differently for each nest. The particularity of the nest (figure 68) is its relationship to light and shadow. A water feature is placed in the nest to engage the imagination of the users and for relaxation. A unique design to the project is created for the sitting area where the material becomes wood and is contrasted by the gabion wall that defines part of the curved nest. In the same way, the Cor-ten steel is replicated in the curvilinear nest. The separation in the vertical slats varies to create a frame for the inside viewer to experience prospect. It is only by providing this type of frame that the theory can work and there has to be a balance between the frame and view. The sense of comfort provided by the right balance operates to provide psychological comfort to act against potential hazards.

47. Böhme, "Encountering Atmospheres."

The Third Transitional Space

As he leaves this space, he re-encounters something similar to what he experienced under the bridge. However, this time he is covered under the canopies of trees and in the ground surface he observes the shadow from the blooming flowers. He also hears the water and once again an air of mist hits his body. He feels relaxed and in touch with nature (figure 69).



Architectural Description

The third transitional moment in the site design was designed to minimize the impact on the user going from a loud space (plaza) to a more quiet one (nests). This area also serves as a refuge due to the surrounding trees, and as prospect because it allows a clear view either in the north or south direction. The tree canopy protects the user from the sun, creating an active shadow pattern from its blooming flowers and leaves during summer. Water also plays a part in the transitional moment. Instead of falling water, as under the bridge, this water shoots up from the ground creating a more interactive medium for the user to engage. During the hotter seasons, the transitional zone serves as a refreshing area. The spouting water creates a mist that serves as a cooling mechanism.

Each tree is located at a certain distance, following the pattern in the ground floor. The precise geometry of the axis used for developing the layout of the trees provides a link between the landscape and the existing building. The edges of the allée create a sense of enclosure while the water on the edges defines the border between the pathway and the wooded slopes on the sides. The trees are planted in circular granite planters, the same material that is used underneath the bridge (second transitional space) and throughout the whole ground plane of the site (figure 69).

Figure 69 Transitional Space—Allée

The Northern Plaza of Madison Avenue

After going through the alley of trees he encounters another great plaza that communicates to Madison. He is faced with a ramp that leads into a lower area with circular seating and running water around it. More people are sitting in this space covered by the canopy of the tree. He had two options: either take the ramp to the lower level or take the stair-ramp to Madison Avenue (figure 70).

He decides to approach and take the ramp because the lower level has caught his eye and he has a sense of discovery. As he steps into the second ramp, he realizes that there is a second type of plaza within the slope. He stops there and turns around to have a view of the ravine. He is captivated by the way the water feature in the center of the plaza, seen from a different perspective, looks as if it has always belonged to the site (figure 71). He decides to head back towards the ravine and to experience it as if he was coming from Madison Avenue.



View Key Plan



Figure 70 External Plaza—Refuge Space under Tree



View Key Plan



Figure 71 External Plaza—View from Second Level Terrace

Architectural Description

The external plaza off Madison Avenue connects the ravine to the city. Activities in this plaza can result in people prolonging their stay and connecting with each other. Human connection is fostered in places of permanence and spaces where people can sit and enjoy a specific element (a water feature or existing building) or a particular activity that could be going on in the plaza. The factor of adding refuge spaces (natural trees) prolongs the inhabitants' stay because they can feel a sense of connection to the site.

This plaza has a ramp-stair component that connects to the ravine and Madison Avenue. There is a total of two ramps; in the center, to unite the ramps, there is a second level plaza. The ramp-stair is designed to provide a place to stay. Similar to the plaza off Union Avenue, this plaza has centralized trees and urban furniture that allow the inhabitant to sit below the tree canopy on a wooden bench. There is also the option to sit in the grass, since the second level plaza is a green terrace. The plaza has a water feature that serves as a unifying element across the whole site and also as a method to help people relax when approaching the site. A round infinity pool is located in the lower part of the plaza at the level of the ravine. The pool has a hollow, recessed center where a nest space is located. This space, even though it is round, serves more like a gathering for a larger group than an intimate gathering space. In the center, there is a tree that provides shade. Following the perimeter shape of the circle the bench is specially designed. From inside one can see the glass structure supporting the pool. The intention for this is for the user to feel as if he or she is a fusion of water and, therefore, feel the connection to nature and the site. Children or adults can have contact with the water from the upper level in the plaza, enhancing their imagination.

When arriving from the allée to the south, there is an accessible ramp that leads down to the nest space. The water is on both sides of the ramp edges inviting the user into the nest.



Figure 72 Front View of Community Center and New Residential Building Units

CREATING REFUGE IN THE RESIDENTIAL BUILDING

In this thesis design, the building emerges from its historical and cultural context. The interior and exterior spaces interweave in a new residential building. The starting point that develops the layout of the new residential building is the axis circulation analysis shown in figure 72. The specific functions, theory, and program helped establish and develop the overall form. This building is designed to foster encounters, gathering, and to create a meaningful attachment to place. It serves newcomers to the city of Memphis during a period from three to six months. The apartments are temporary housing for people who are seeking job opportunities or who need a place to stay while looking for a permanent home.

Program

1. Reception Area
2. Community Gathering Spaces—Nests / Transitional Space
3. Two Living Units Studio
4. Nine Living Units—1 Bedroom
5. Six Living Units—2 Bedroom
6. Three Living Unit—3 Bedroom
7. One Communal Kitchen—Barbecue area
8. Reading Zones—Nests
9. Two Level Underground Parking
10. Two Laundry Rooms

Concept

Conceptually, the building starts as two modular blocks that overlap and rotate to create a core circulation system (figure 73). The rotation of the blocks is guided by axis 7, explained previously in the rational analytical process. Additionally, the rotation of the building allowed for an intersection between the two volumes. This intersection is used for vertical circulation connecting the two blocks. The vertical circulation is located on the perimeter of the building to be a transparent glass façade to form a prospect condition.

The Cor-ten vertical slats act as a screening device with openings in the areas where the viewer inside can have surveillance of what is happening outside (figure 74).

A division of individual living units is created per floor to allow a modular structural system and layout in the floor plan. The design later changes on the upper floors according to the necessities of creating spaces for prolonging activities so the building can have refuge aspects and create "insiderness" (figure 75).

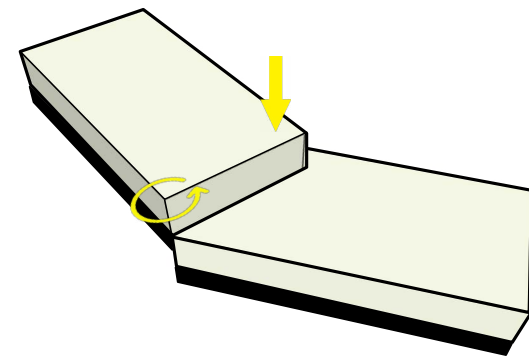


Figure 73 Overlap and Rotate. Housing blocks rotate to conform to site.

The units are shifted to allow an offset circulation, breaking down a potential long corridor with no spaces to create meaningful encounters or share stories. These spaces become transitional spaces and lead the user from one area to another, similar to those in the ravine. Transitional moments generate a thirst for exploration and a sense of mystery. At the same time, they function as frames to direct a view towards a specific object—either from nature (tree) or the building—and provide a prospect view. The transitional spaces have a lower roof structure to create an aspect of refuge and have benches to prolong the stay (figure 76).

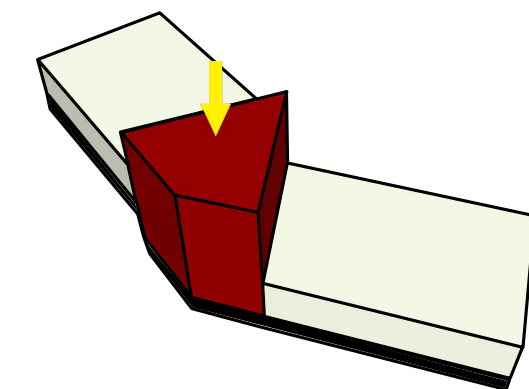


Figure 74 Circulation Core. Use overlap of housing blocks as a vertical core for circulation.

The rotated modular blocks become a circular gathering area, where the new inhabitants can sit, share narratives of culture and identity, and create bonds with one another. This area in the program is the reception. The form serves the function, in this case creating a semi-circular area where the round border causes people to slow down (figure 77).

On the second floor, two more nests are created after shifting the units, prolonging a stay in the expanded hallway and allowing for encounters (figure 78). On the third floor, nests are inserted in the transitional space to allow for the users to have a view of the ravine while gathering in groups. The third floor unifies the community building with the new residential building. The transitional space creates coverage and shadow for the ravine underneath. The vertical circulation is created to direct people from one floor to another and create enticement. The vertical circulation leads directly to the fourth floor and to the two roof terraces (figure 79). On the fourth floor, an area for a barbecue kitchen and café space is inserted, prolonging the gathering space for the inhabitants of the building. This space has roof terraces used for more private encounters of the people in the building (figure 80).

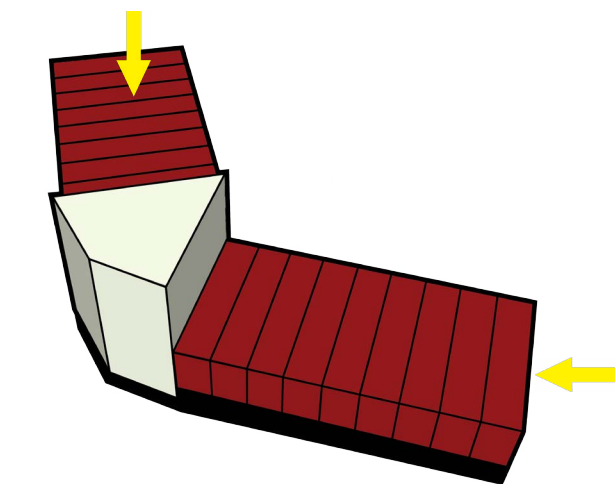


Figure 75 Division. Individual living units per floor to allow a modular layout in plan.

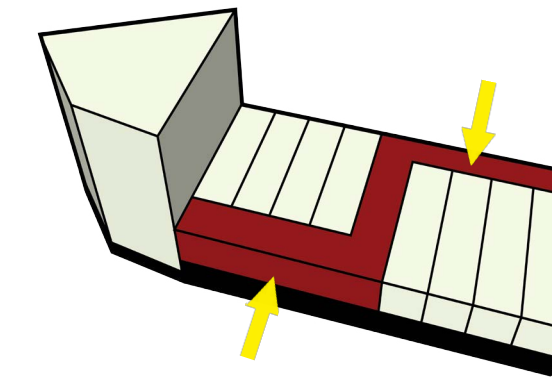


Figure 76 Shift Building Units. This allows offset circulation, breaking down a potential long corridor.

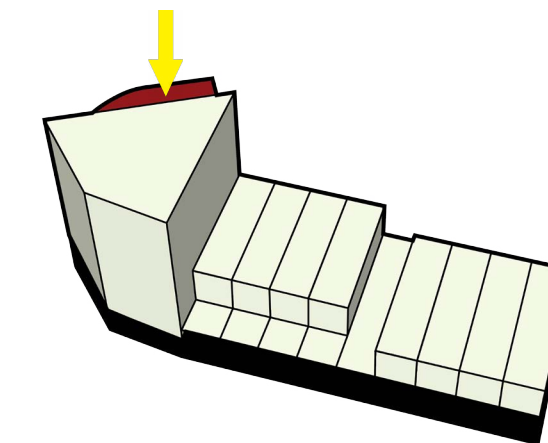


Figure 77 Conversion. The modular blocks in the first floor turn into a round gathering space.

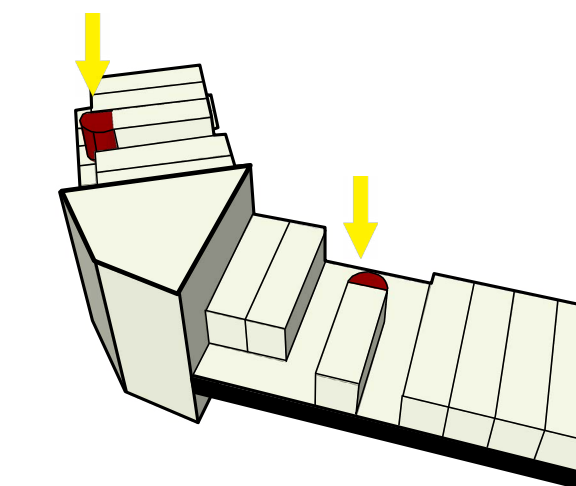


Figure 78 Insertion 1. Nests are inserted in the Second Floor to prolong stay of user.

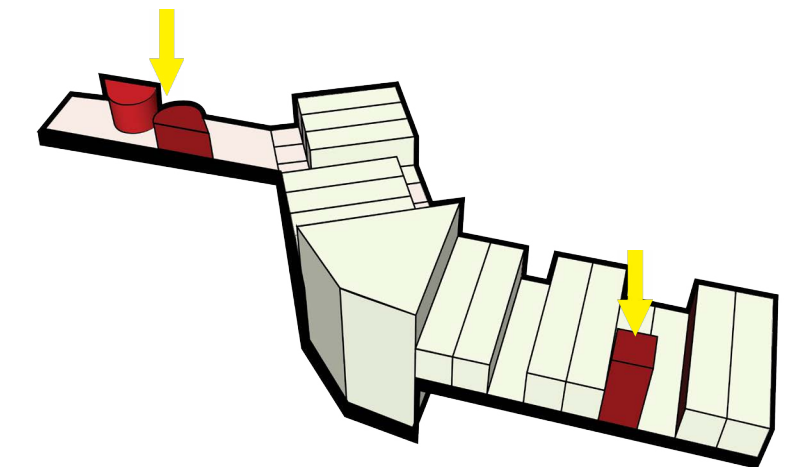


Figure 79 Insertion 2. Nests are inserted in the Third Floor and fused with the transitional space. A new vertical core is created.

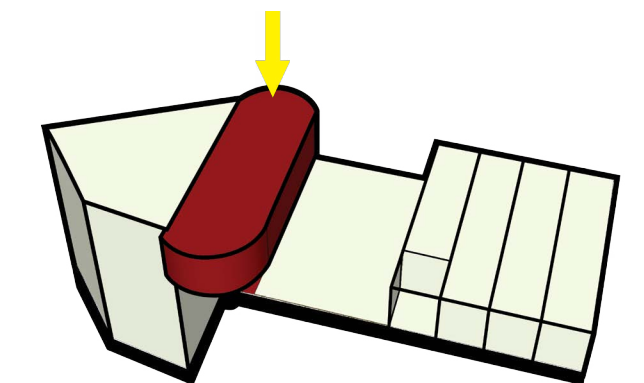


Figure 80 Insertion 3. Communal and barbecue kitchen and café space inserted.

Living Units

Within the living units the spaces that require sanitation are more intimate (such as the kitchen, bathroom, and bedroom) and have the lowest ceiling heights or compressed spaces (figure 81), while the living and dining spaces have higher ceilings for expanded areas (figure 82). These two shells form a living unit: a space within a space (figure 83).

Section G-G (figure 84) indicates the two levels of the dropped ceiling in every living unit and in the gathering area on the Fourth Floor (the kitchen-barbecue and café space has a lower ceiling as well). Varying the height in the roof allows the user to feel a different sense of comfort than in another area, creating an aspect of refuge.

Another aspect of refuge is created as the user is coming from Union Avenue. Next to the sidewalk there is a line of trees along the front façade of the building. The intention is to provide shade for the people who are walking by the apartments and for those who are sitting in the hallways. This intention creates insideness by producing a type of front porch. The hallways provide a space for hiding, where the people on the sidewalk are unable to see the person in the apartment units directly (figure 85). The decision to elevate the building is for privacy along Union Avenue, and to solve the problem of parking (which is placed underground). To create the bridge connection, the floor heights of the living units have to coincide with those of the existing building.

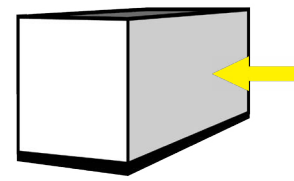


Figure 81 Compressed Space. Kitchen, bedroom, and bathroom.

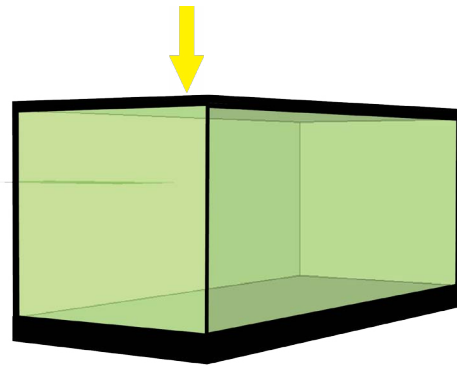


Figure 82 Expanded Space. Dining room and living room.

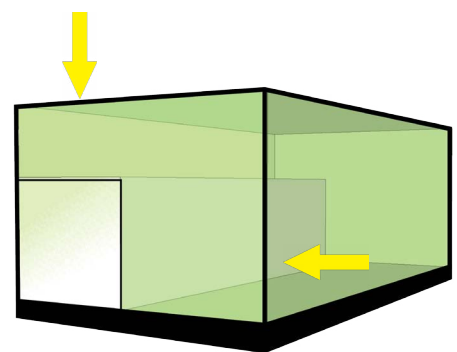


Figure 83 Space within a Space

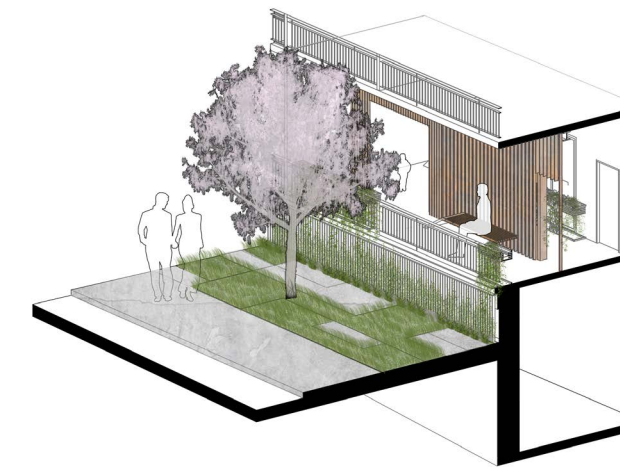
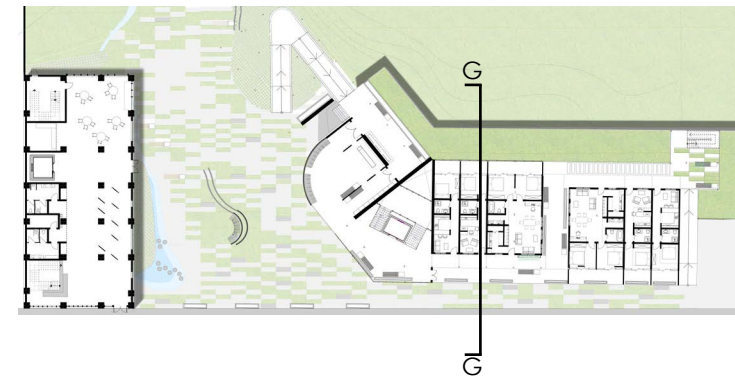


Figure 84 Refuge Space. An elevation of 4ft is required on the first floor to connect the third floor to the community center through the bridge. This space mainly serves to create an effect of refuge for the people inside the building and an aspect of privacy from Union Avenue. Additionally, vertical slats and vegetation are placed bordering the perimeter of the elevation creating ventilation for the parking lot underground.



Figure 85 Section Perspective G-G

Living Units

In section H-H, the relation between the old and the new is visually indicated regarding the levels from ceiling to floor (figure 86).



Figure 86 Section H-H

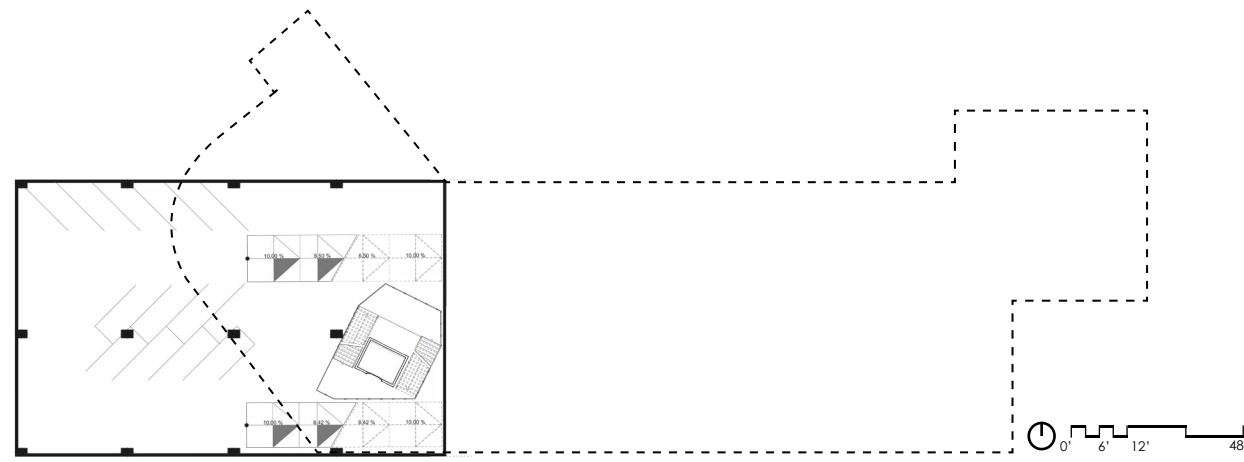


Figure 87 Parking Lot—Sub Level 2

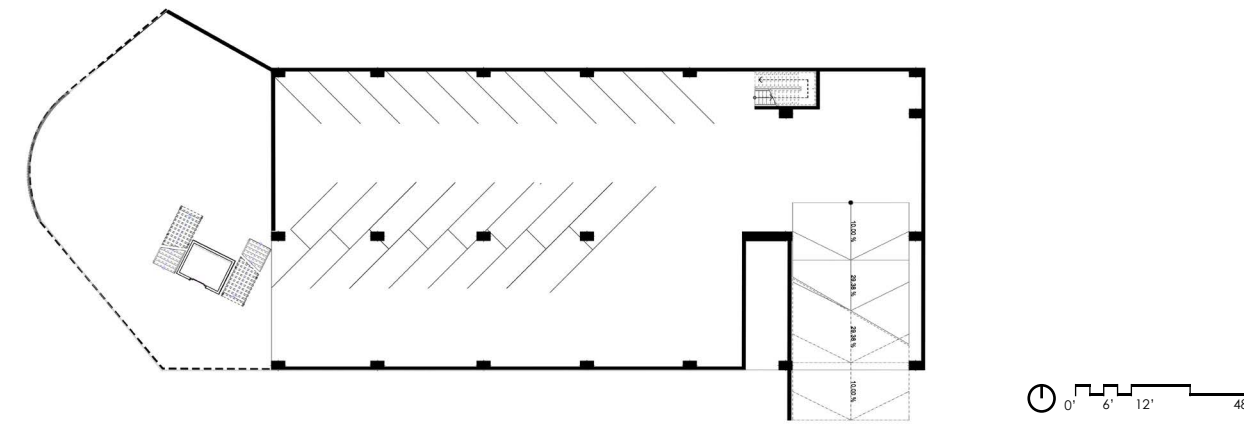


Figure 88 Parking Lot—Sub Level 1

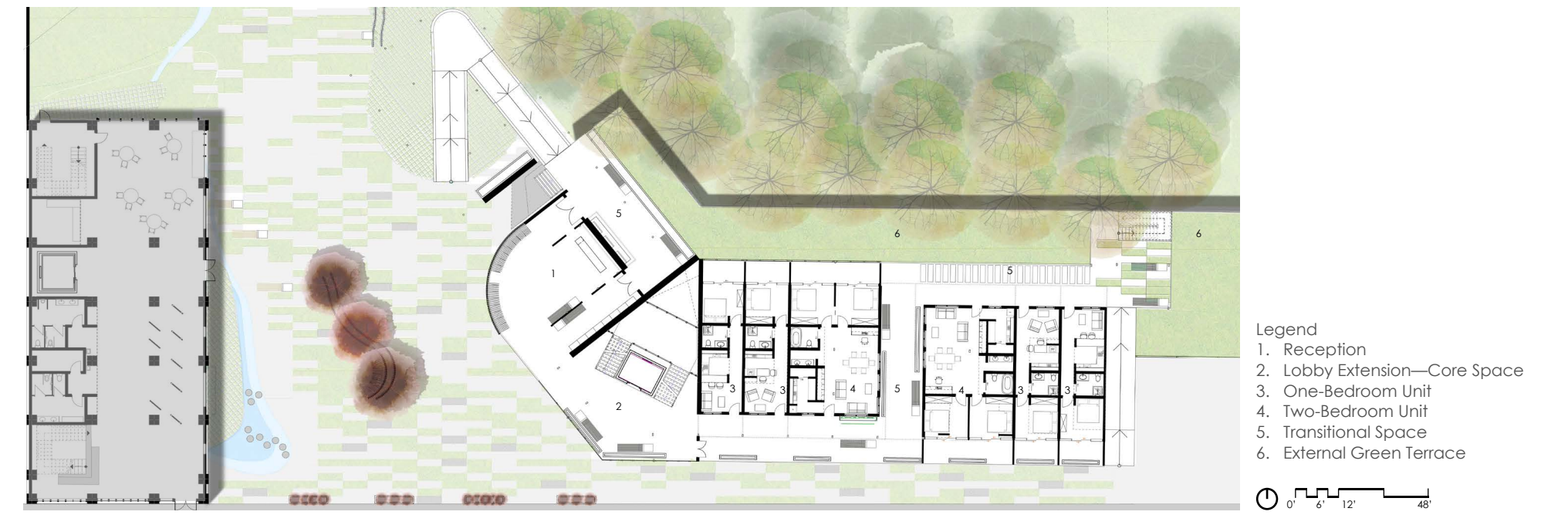


Figure 89 First Floor Plan, Community Center and Residential Building. See pages 84-85 for Community Building Program.

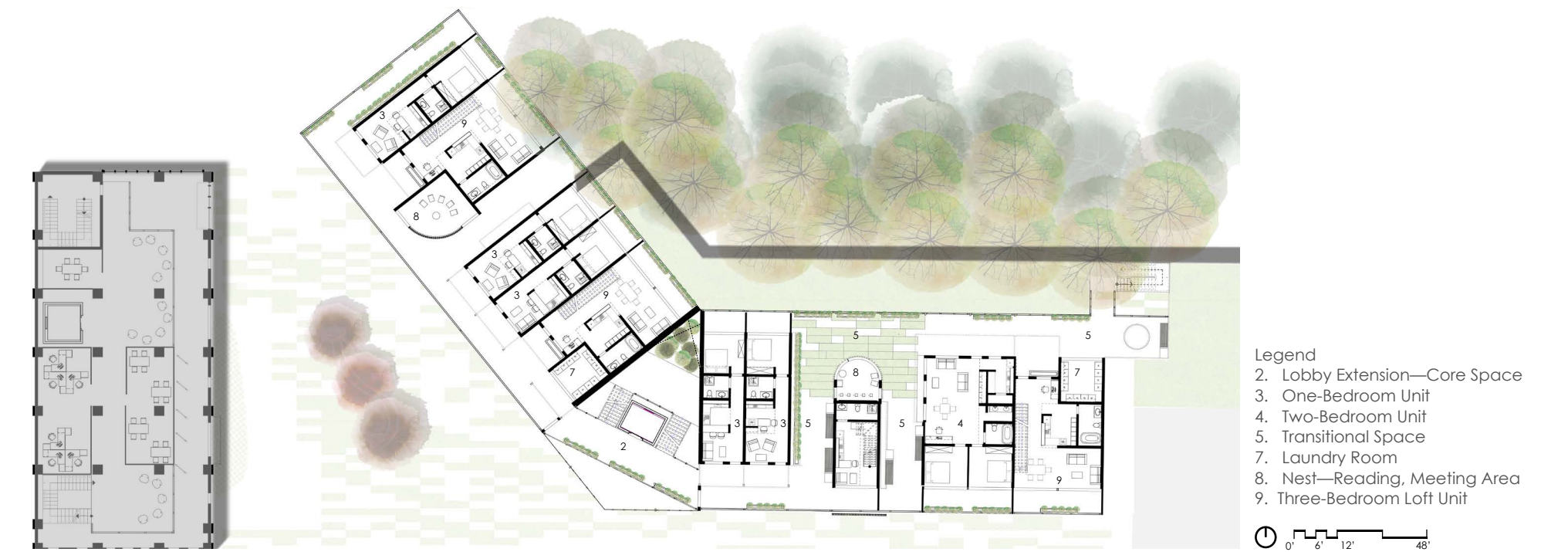


Figure 90 Second Floor Plan, Community Center and Residential Building



- Legend
- 2. Lobby Extension—Core Space
 - 4. Two-Bedroom Unit
 - 5. Transitional Space
 - 8. Nest—Reading, Meeting Area
 - 9. Three-Bedroom Loft Unit
 - 10. Studio Unit

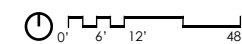
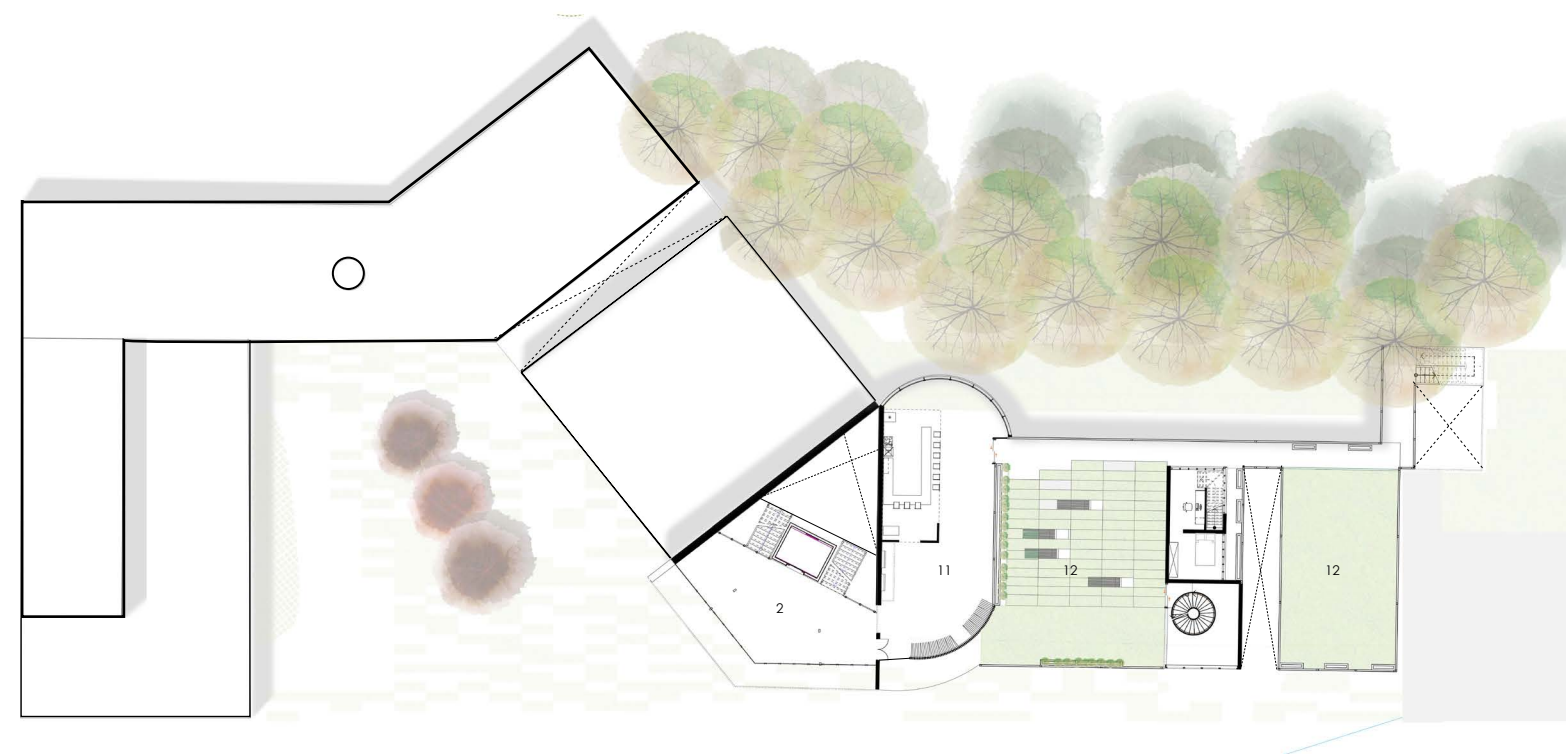


Figure 91 Third Floor Plan, Community Center and Residential Building



- Legend
- 2. Lobby Extension—Core Space
 - 11. Barbecue-Kitchen-Café
 - 12. Green Terrace

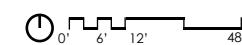
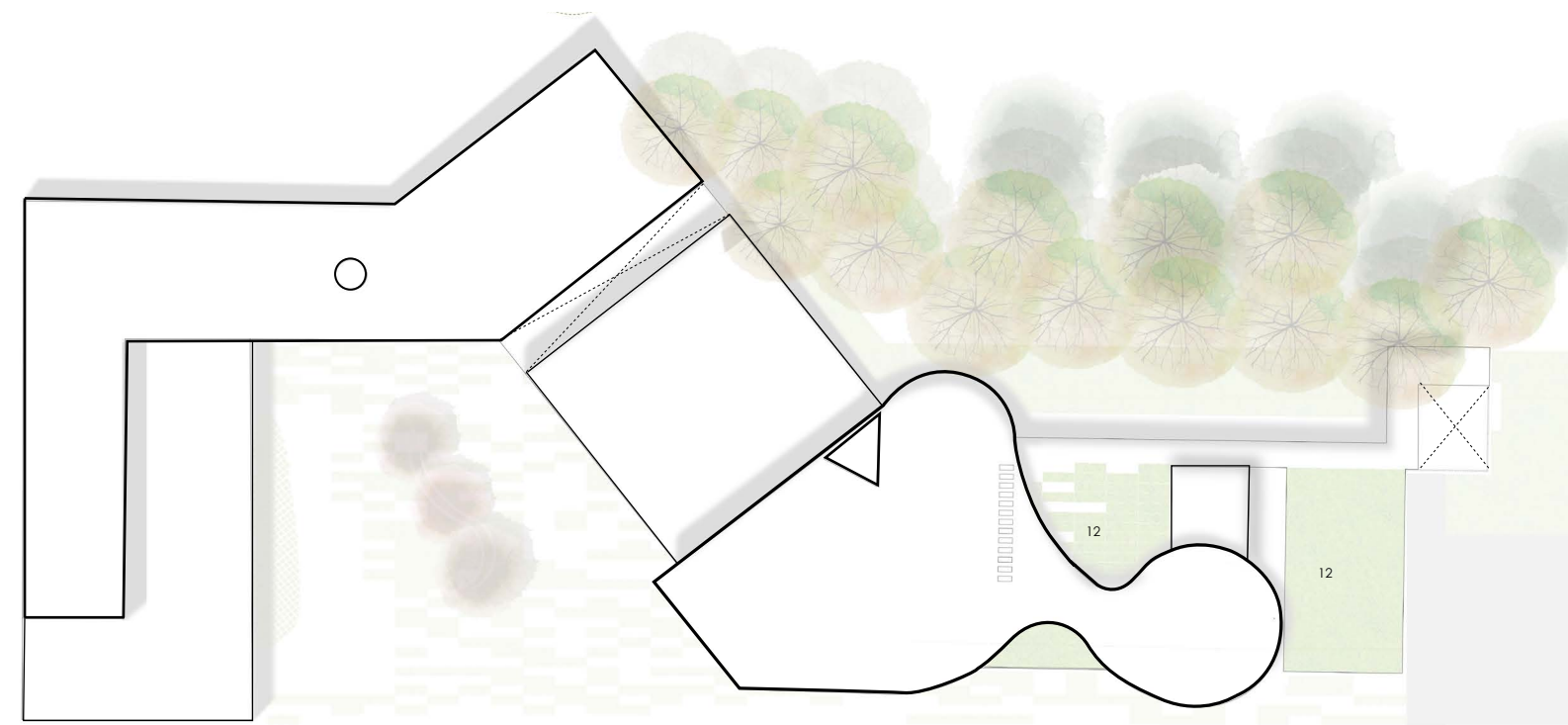


Figure 92 Fourth Floor Plan, Community Center and Residential Building



- Legend
- 12. Green Terrace

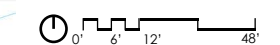


Figure 93 Roof Plan, Community Center and Residential Building

Poetic Process of Residential Building

As my friend finishes his story, I remember I have an appointment with my other friend in the building right across from where we are talking. We say our goodbyes and I start walking towards a ramp that seems like it's emerging from the ground surface. As I turn around to wave goodbye to my friend, the water from the entry plaza where the children were playing earlier has suddenly become a two-story waterfall inside a building. I am amazed by the beauty of the water running adjacent to the glass. From a distance, it as if the glass and the water are one element (figure 94).

Turning back toward the entry of the building, I encounter this fantastic external space, once again with running water, but this time I can hear it, as it creates a soft sprinkling effect. The sun rays intertwine with ivy plants hanging from above creating a shadow on the ground plane and once again a bench emerges from the ground. The hanging ivy plants intertwine with the plants from the planter on the ground floor, creating a green wall. From a distance, I have a view to the rest of the building and the trees in the ravine (figure 95).

As I enter the lobby space I ask the receptionist for directions to the Café space. She indicates it is on the fourth floor. When I walk into the rest of the building, I arrive at a lobby space. It is a room with suspended stairs and green ivy plants hanging from above. As I look up to see the hanging plants, I realize that this is a type of atrium. I take the stairs; a small garden is located at the edge of the stairs with a skylight from above making the core of the stair seem as if it is between the building and nature (figure 96).



Figure 94 View towards Plaza and Ramp Entry to Residential Building



Figure 95 View towards Residential Building—Transitional Space



View Key Plan

Architectural Description

The ramp emerges from the concrete ground floor; the choice of the material is based on what already existed (figure 94). The column is lit to create an effect during night time while the user is entering the building through the accessible ramp.

The transitional spaces in the building are defined to create an aspect of refuge and have similar characteristics to those of the bridge. The characteristics are altered according to the area; for instance, water is used at the entry of the building to infuse a sense of tranquility from the exterior to the interior (figure 95).

On the other part of the hallway, the ivy plants grow to create shade from the sun and create a shadow on the floor, similar to the alleé in the ravine. The emerging benches found in this space are also found in the plaza off Union Avenue. A similar characteristic of the aspect of refuge appears in the lobby-stair space (figure 96). The southern light hits the vertical Cor-ten screen and creates a pattern on the ground. This space is surrounded by green ivy plants and another type of vegetation. There is another green area on the back part of the stairs. A triangular skylight is used to allow the plants to receive light.



Figure 96 View Inside Residential Building—Transitional Space

Poetic Process of Transitional and Nest Spaces

I stop on the second floor where there is a gathering space similar to the one my friend described in the ravine. Instead of having round pendant lights from above, however, there are vertical lights inserted in between the ceiling and walls slats, creating a light rhythm as I walk underneath this "room." As my hands run across the vertical slats, I feel ivy plants invading the structure, creating a softer touch (figure 97).

Once I turn the corner, I see a small gathering space. It reminds me of the nest area my friend described. The difference is that this one is situated in between the residential units and the view from inside is of the trees in the rear part of the building. Inside it appears comfortable; I can see people sitting, observing the landscape. The pattern on the floor starts to change, and a softer greener surface appears, similar to what I experienced in the entry plaza. Once on the second floor, I proceed down the hallway and take the stairs on the back of the building toward the third floor (figure 98).



Figure 97 View of the Transitional Space on the Second Floor



View Key Plan

Architectural Description

In this hallway or transitional space, the rectangular entrance guides the eyes downward to darkness. Once inside, a diffused warm light appears. Vertical Cor-ten slats are arranged in a similar pattern creating a privacy screen for the apartment on the west side. Along with the screen, green ivy plants are inserted with a skylight on top providing a diffused natural light intertwined with the plants. This provides a vertical shadow pattern on the concrete floor surface. Emerging from the ground are concrete benches that are turned into wooden benches on the sitting space.

Vertical lights inserted in the ceiling and between the vertical slats maintain the character of a glowing box and create order during night time. The hallways become an area for encountering or viewing small exhibits of art (figure 97).

Entry to a nest space is on the other side of the hallway. This nesting area is created for more intimate gathering, around 3-6 people. The vertical slats are wooden, and there is an opening in the center to create a view of the northern part of the ravine, creating an aspect of outlook while still being inside (figure 98).

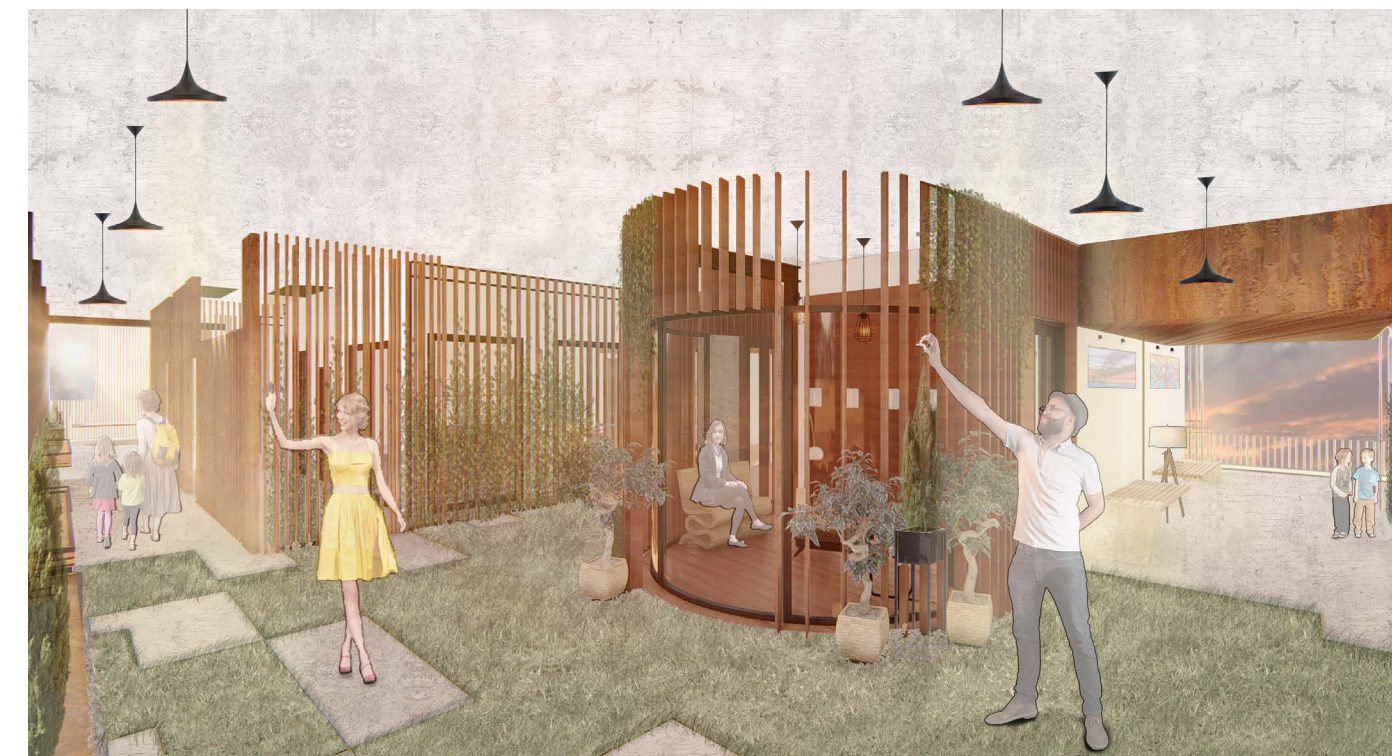


Figure 98 Front View of the Nest Area on the Second Floor

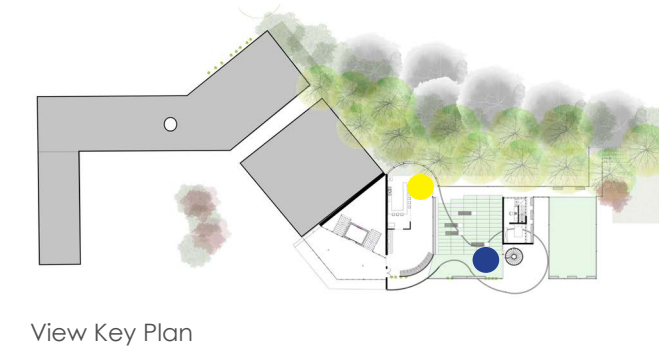
Poetic Process of the Rooftop

Once on the fourth floor, I follow the softer green pattern on the floor. It takes me to a spiral stair. I open a door and find myself on a green roof. The benches emerging from the ground appear again. This time I am protected from above by a curved roof but can still feel the warm sunlight. As I come closer to the rooftop area, I have a fantastic view of Union Avenue from one side and from the other the Edge District and part of the ravine (figure 99).

This space is a bigger nest where more people can get together and enjoy a cup of coffee, or even have some food. I see my friend waiting for me at the bar table. This area has a different height, and the ceiling is lower and of a different texture creating a different ambiance and reminding me of my childhood kitchen where we all sat around to talk and enjoy our meal. Once again, the ivy plants hanging from planters, along with the vertical wood slats, create a clear boundary between inside and outside. The rounded shape of the edge creates an invitation to explore the path (figure 100).



Figure 99 View of the Roof Terrace



Architectural Description

The green roof is an aspect that unifies the project. What occurs in the plaza of the ravine is similar to the aspect of the green roof for the inhabitants in the new residential building. The canopy on the rooftop creates protection from the weather and also a sense of pathway directing the user towards the entrances to the Café area (figure 99).

The curvilinear approach on the edges of the Kitchen-Café-Barbecue space is created for people to slow down and have casual encounters. The southern part is a dual screen made of wooden materials, while the northern part of the space is framed with high windows to create a specific frame to the ravine. The Kitchen area, a more intimate space, has a lower ceiling than the rest of the area. There is a waterfall feature, enclosed by vertical slats, permitting users to hear the sound as they are in the gathering space. This exception is made because this space is in part a transitional space. This space has ivy plants invading the structure as a symbol of continuity in the project. The shadow created on the floor is also similar to what occurs in the lobby area (figure 100).



Figure 100 View of the Kitchen-Café-Barbecue Space

Poetic Process of the Bridge and Nest Space

Later, we decide to go into the public building. We take the main stairs down towards the third floor, and my friend invites me into another small gathering area. This space was unique; it is actually a bridge connecting the community building and the residential building. The nests here invited people to have a view of the ravine either from the nest inside or in the open outside area. We decide to enter the first nest. This one has an actual perforation on the floor surface covered by glass. Once in the center of the nest, looking down I feel as if I am on the ground level surrounded by the warmth of the wood (figure 101).



Figure 101 Internal View from Nest Space to Transitional Space

Architectural Description

In figure 101, a similar aspect of intertwining the transitional spaces with the nest area occurs on top of the bridge. This space generates a private gathering area for 3-6 people but also allows for the inhabitant to enjoy the weather and outlook of the ravine while being protected by a roof. There is a balance of refuge and prospect.

The intention is to choreograph the arrival to the nest spaces. The texture of dark wood, which calmly lies on the ground with a new pattern, creates the first bright scene. In the center of the nest, both in the roof and on the floor, there is a circular opening allowing light to come in and create an effect in the space. The wooden screen on the southern facade turns the cool blue daylight into a warm diffused glow. At the same time, the inhabitant has a visual connection to the lower part of the ravine and the transitional moment where there is a waterfall.

Community Building

The adaptive reuse building serves as a communal building. The program includes different activities to enhance attachment to place, creating "insideness." Once the identity is established with place, people can create a relationship between this new space and their old home. During the retrofitting process, the adaptive reuse building retains historic integrity while also adapting to the future necessities of the residents. The importance of maintaining the building is to create an awareness of history on the site.

Diagrams 102-112 include the intentions for the community building, which functions 24 hours to ensure a safe place not only around its surroundings, but within the whole ravine.

Program

1. Information Center—Exhibition Space (multi-use)
2. Cafeteria
3. Computer Labs
4. Closed Meeting Space
5. Open Gathering Spaces
6. Rooftop
7. Restrooms Custodial Closet
8. Kitchen
9. Storage

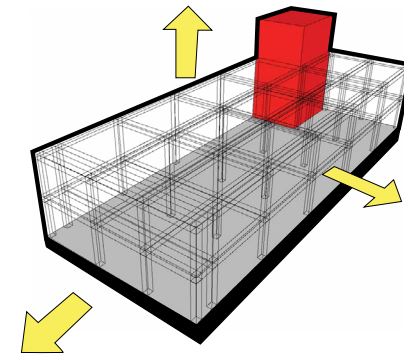


Figure 102 Existing Building and Circulation Core. Volume of the interior structure and overlap condition connection.

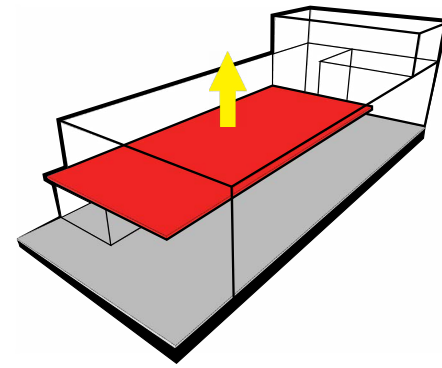


Figure 105 Second Level Mezzanine. To avoid high ceilings the same principle of lower ceilings is applied for more intimate gatherings.

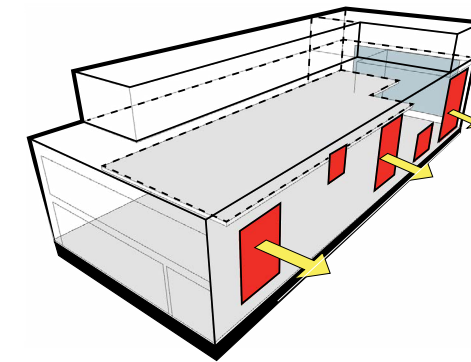


Figure 108 Openings to Generate Vista towards Plaza. Careful balance between the vista and the frame that also creates a sense of the unknown.

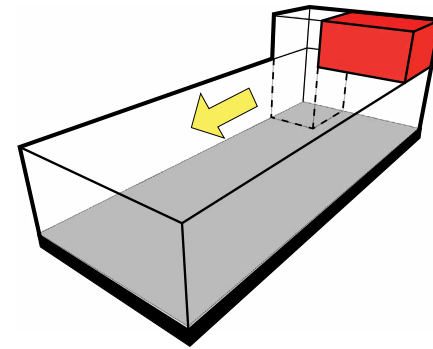


Figure 103 Lodge Connector. Connects to new bridge from the residential units.

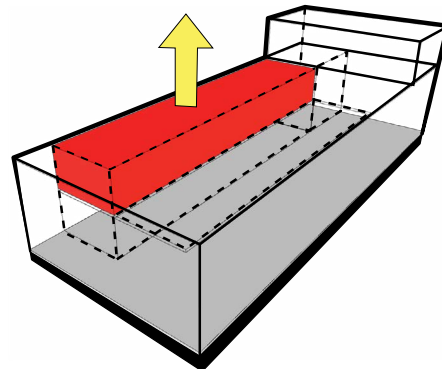


Figure 106 Second Level, Nest Area

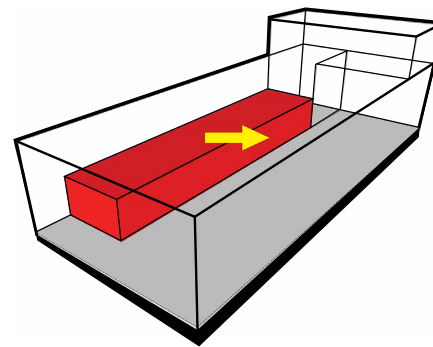


Figure 104 First Level, Lower Ceiling Height. Used to evoke a higher level of intimacy.

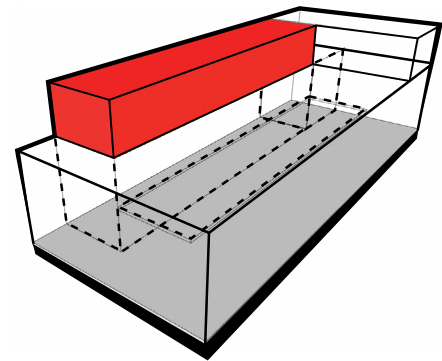
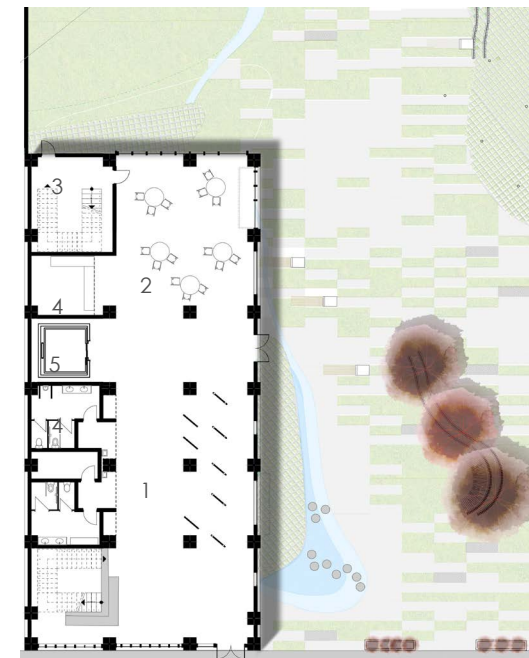
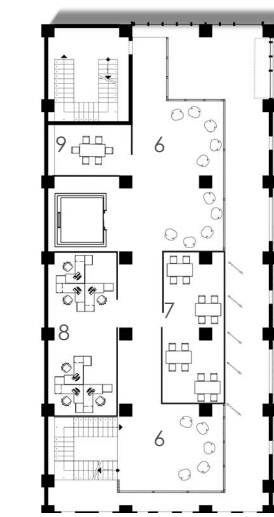


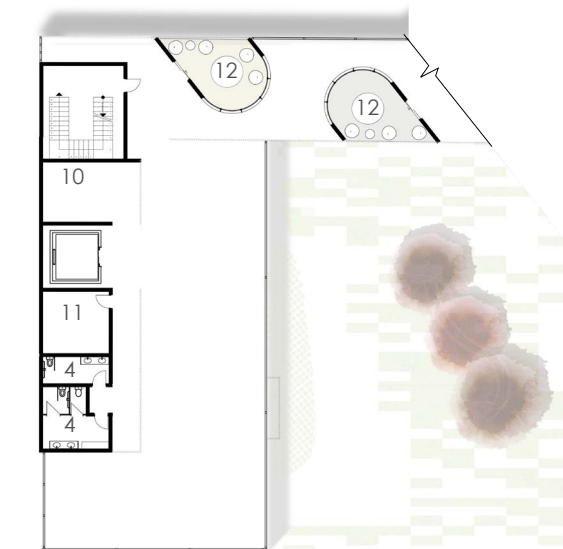
Figure 107 Third Level, Nest Area



First Floor Plan



Second Floor Plan



Third Floor Plan

- Legend
1. Multi-Functional Space
 2. Cafe
 3. Kitchen
 4. Restrooms
 5. Custodial Closet
 6. Gathering Areas
 7. Learning Rooms
 8. Computer Labs
 9. Meeting Rooms
 10. Open Storage
 11. Storage Room
 12. Nest Area

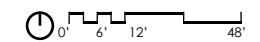


Figure 109 Floor Plans, Community Building

Poetic Process of Community Building

Once we leave the nest, we take the elevator to the first level of the community building. This building includes part of the old and part of the new. The old is visually seen because of the textures of the wall, part brick and part plaster. As the elevator opens on the first floor, there is an open space to the left with some informative maps about Memphis, while the other side has a small café area. It seems like a metaphorical breathing space for visitors, where they can have a clear view of the ravine through the floor-to-ceiling glass. The more intimate spaces feel more compressed, while the ceiling in the communal areas feels more expansive (figure 110).



Figure 110 Section H

Architectural Description

The part that is being used of the remaining building is the external shell since entry to the interior was not possible. The external column distribution of the building is used internally. Even though the interior is restored, the external load-bearing brick walls are kept. A steel mezzanine structure is used to divide the floors but still maintain the notion of one space.

The mezzanine is used to create a more compressed space and create an aspect of refuge. The mezzanine allows visibility from the second level of the community building to the first level creating an aspect of prospect. The contrast between the old and the new is noticeable since all of the heavy materials are a circumstance of the old while the steel and the glass partitions relate to new technologies. The intention is that the new and light structure and glass partitions sit on top of the old brick walls, respecting them in the form of celebration.

This space is mostly used as a place where cultural knowledge about Memphis can be explained to the new inhabitants of the city. For instance, the first floor is a multi-functional space where there can be exhibits about Memphis history and also the new plans for the city. The main intention of creating a bridge connector is to create a gateway for the inhabitants who are entering the ravine. In the same way, this connector serves as a more private way for the inhabitants to circulate without necessarily approaching the first level of the ravine.

In the café space, acoustical panels are inserted with a different rhythm to create a dynamic of compressed and expanded open spaces. In the west side of this area, there is a waterfall that can be seen from the exterior. Water entices the user's imagination and creates a relation to the other features of the site.

CONCLUSION

This thesis is an example of how the intertwining of the intuitive and rational processes can create a place of refuge. The primary purpose is to create a place that unifies people from different backgrounds to the city. This means that places can create “insideness,” or the experience of home as home is a place of refuge and a projection of the body and memory.

The poetic image can reinforce the concept of an idea for the rational process by connecting people’s emotions, memory, and imagination in embodied experiences. The bodily encounter with an architectural structure, such as light and space, is an integral aspect of the experience. The poetic image redirects and focuses viewers’ attention and gives rise to a higher state of consciousness, evoking an imaginary dimension. The intention of this project is to foster profound architectural experiences. Additionally, the theory of prospect and refuge are analyzed and reinterpreted to benefit the site. The intuitive and rational process have to be understood in order to create a successful and meaningful project.

The history of the site is essential in refuge theory to create an atmospheric experience. An important building is simultaneously about the world, life, and architecture. It should evoke one’s awareness of the past and confidence in the future. To create unified spaces that welcome diverse people, a designer must create a connection between the old, new, nature, and people. This connection is why the design has to speak a common language and use essential elements to create a universal connection.

Research for this project required on-site visits to determine the initial intuitive process approach and foster the “spirit of the place.” The site selection led to the opportunity of not only creating a place of refuge in the downtown area but a way of connecting three avenues (Union, Monroe, and Madison) through an experiential journey. The programmatic spaces were influenced by the theory of refuge, an atmosphere that requires different levels of intimacy, connection to senses and one’s self, and protection from above and behind with a wide perspective. The Memphis Low Line and Community Hub are proposed as one of the interventions located in a ravine that can foster

and enhance an already existing place. It also develops the potential for revisiting and living in the Edge District with a walkable distance for new inhabitants who are arriving to Memphis.

On the design process for this thesis, the intertwining of the rational and intuitive is something complex to understand. In order to create this integration, one has to understand the rational and the poetic image as a system that can work together in architecture. The design process started with the intuitive. Visiting the site created specific images in my unconscious that helped guide the rational intentions of the project. The rational process was accomplished through the use of floor plans and strategic diagrammatic analysis of the site. On the other hand, the intuitive manifested at the beginning and at the developing of sections and perspective drawings. This happened while the atmosphere was being immersed in the project.

ANNOTATED BIBLIOGRAPHY

Adams, Jennifer, David Greenwood, Mitchell Thomashow, and Alex Russ. “Sense of Place.” In *Urban Environmental Education Review*, edited by A. Russ and M. Krasny, 68-75. London: Comstock Publishing Associates, 2017. <https://www.thenatureofcities.com/2016/05/26/sense-of-place/>.

In the fourth essay of this book, there is an explanation of how to embed deeper meanings of place and identity into dynamic urban settings. Urban environments tend to be diverse across various elements, ranging from types of green space and infrastructure to migration. Jennifer Adams is an associate professor of science education at Brooklyn College and The Graduate Center, CUNY. Dr. David Greenwood is an Associate Professor and Canada Research Chair in Environmental Education at Lakehead University in Thunder Bay, Canada. Greenwood has authored over 50 articles and book chapters on place-based, environmental, and sustainability education.

The author describes a sense of place as a relationship that humans have; it is expressed in various dimensions including emotions, imagination, stories, and personal experiences. He refers to place attachment as being between people and places, and place meaning as a symbolic meaning that humans assign to a certain place. According to Adams et al., sense of place is the lens through which people experience and make meaning of their experiences in and with place. He discusses how in cities sense of place echoes the intersections of culture, environment, history, politics, and economics. Adams et al. mention how sense of place is impacted by mobility, migration, and boundaries between the natural and built environments. Because the author explains how sense of place is impacted, this essay provides support for how migration is a factor to consider.

The factor of migration was considered in creating a new residential building layout on the site and for the program of the community center. Migration impacts sense of place and this influences how a place is resolved to create a place for refuge on the site.

Böhme, Gernot. “Encountering Atmospheres: A Reflection on the Concept of Atmosphere in the Work of Juhani Pallasmaa and Peter Zumthor.” *OASE 91*, (2013): 93-100. <https://www.oasejournal.nl/en/Issues/91/EncouteringAtmospheres#093>.

This article is in an edited volume by Swiss architect Peter Zumthor and Finnish architect Juhani Pallasmaa. The article is about atmosphere as the central theme in architecture. The article, written by Gernot Böhme, investigates the meaning of atmosphere in the work of Zumthor and Pallasmaa. According to Bohme’s analysis, atmospheres are tempered spaces in architecture. Gernot Bohme is a philosopher and author, contributing to the philosophy of the theory of time, aesthetics, ethics, and philosophy in science. He is the principal creator of the study of the relationship between culture and the environment.

Zumthor’s approach to an atmosphere is focused on the importance of materials, and how edifices interact with the way weather and light change according to the season. Materials can create a cold or warm feeling affecting the corporeal experience. Pallasmaa refers to the essence of atmosphere as the encounter of the haptic sense, the sense of being in the world and in a specific place. Pallasmaa rejects the primacy of the visual in architecture but upholds the notion of image. For example, when a door is seen as a passage and not only as a formal element. Expanding this thought, the corporeal feeling can make the user be in a specific mood. This information is relevant because the author explains how both architects refer to atmosphere as corporeality, the reference point of architecture.

Architecture proceeds not from an overall concept but from an oscillation between the whole and the details. The information in the article is essential to the understanding that architecture can be the design of spaces of corporeal presence. This article informs how the design process is worked in a combination between the large scale project and the details. This information supports the notion of sketching and the importance of material choice in the process design of this thesis, as one is sketching and searching for materials that can be modified according to the change of seasons. This information is also used in the way of exploring how natural elements can sum to the overall corporeal experience, where the user’s perspective is the space of corporeal presence.

Browning, W.D., C.O. Ryan, and J.O. Clancy. "14 Patterns of Biophilic Design." New York: Terrapin Bright Green, 2014.

The two sections read and analyzed from this Terrapin report include refuge and prospect. The article offers a series of tools for understanding design opportunities, including strategies and considerations for how to use each pattern. Refuge and prospect are under the nature of the space pattern category. For these patterns, Terrapin includes research and provides responses to design application as a way to effectively enhance the well-being of the inhabitant. William Browning, Catherine Ryan, and Joseph Clancy are part of Terrapin. Terrapin is a sustainability consulting firm committed to creating a healthier world. They create this through high-performance development, policy, and research. Since 2006, the firm, and other specialists, have worked to create an outcome of large-scale planning and design projects.

The authors define prospect as an unimpeded view over a distance for surveillance and planning. A space that has a reasonable prospect condition feels open, but imparts a sense of safety and control, usually when unaccompanied or in unfamiliar environments. Prospect is characterized as the view from an elevated position or across an expanse. While this position enhances (indoor and outdoor) prospect, it does not create a quality prospect experience. One consideration that creates a quality prospect condition is orienting the building. Additionally, corridors help optimize visual access to indoor or outdoor vistas. Designing in an existing space or a space with surrounding human activity will help the richness of the prospect view. Location of stairwells at the building perimeter reinforces a dual prospect condition. The view of quality and balance between prospect and refuge is more critical than the size of the experience.

According to Terrapin, refuge is a place of withdrawal from environmental conditions or a flow of activity, where the individual is protected from overhead and behind. A functional refuge space is either separate or unique from its surroundings; its spatial characteristics can feel contemplative, embracing, and protective without being disengaging. Refuge pattern provides users with an easily accessible and protective environment. There should be limited visual access to refuge space. Some functions of refuge conditions are reading, complex cognitive tasks, speech, or visual privacy. In some cases, even though refuge

spaces are not completely enclosed, they can provide visual contact with the environment for surveillance. By author understanding the context and defining the intended user experience will influence the design decisions. Lowered ceiling conditions characterize some design considerations. When there is a condition of a high ceiling, the use of freestanding or mezzanine-like structures is adequate. When designing for a larger group, providing a diverse kind of refuge space can help address needs. This can be done through lighting conditions and a degree of concealment. The refuge experience is enhanced with characteristics of prospect, maintaining a balance.

The paper provides essential support to this proposed design thesis, including the design of the view quality and balance needed between prospect and refuge. Most significantly, it gives specific design consideration to follow and accomplish successful patterns in both prospect and refuge. This text, by direct reference, provides visual support used for precedent analysis, including reference to a historical approach to accomplish refuge (Cliff Place) and an example of a real prospect condition (Salk Institute).

Cilento, Karen. "The New York High Line Officially Open." *ArchDaily*. 9 June 2009. Accessed 2 January 2019. <<https://www.archdaily.com/24362/the-new-york-high-line-officially-open/>.

The same intention of restoration that is seen in the precedent is also used in the ravine, with the intention of enhancing space for more encounters. The treatment created for the ground surface represents an intertwining of nature and built. Therefore, grass pavers and concrete pavers are interwoven throughout the whole ravine. Prospect is used similarly to this precedent in incorporating different views from different levels to the existing ravine. Refuge is incorporated by creating benches that emerge from the concrete surface which have a significance of representing the old emerging from the ground. The intention is to create a balance between refuge and prospect.

Dosen, AnneMarie S., and Michael J. Ostwald. "Prospect and Refuge Theory: Constructing a Critical Definition for Architecture and Design." *The International Journal of Design in Society* 6, no. 1 (2013): 9-24. doi:10.18848/2325-1328/cgp/v06i01/38559.

In this article, the authors' intent is to construct a critical definition of prospect and refuge theory, taking into consideration the body of past research that was used initially in art theory and landscape design, and later incorporated into architecture and interior design. Anne Marie S. Dosen is a lecturer at the University of Newcastle, Australia. She currently teaches computational and architectural design in architecture and construction management programs. Dosen's research interest is in design theories on the perception of space. Michael Ostwald, Ph.D., is the dean of the School of Architecture at the University Newcastle, Australia. His Ph.D. is in architectural history and theory. Ostwald has published widely on the relationship between architecture, philosophy, and mathematics. Additionally, he has lectured in Asia, Europe, and North America. He is a member of the editorial boards for *Architectural Theory Review* and *Architecture Research*.

The authors investigate the work of Jay Appleton who defined refuge as an environment that provides people with the capacity to observe (prospect) without being seen (refuge). It was not until Grant Hildebrand applied the theory to the architecture of Frank Lloyd Wright that designers became more aware of it. Hildebrand expanded the theory to add more spatial dimensions to the concept of prospect. This dimension includes a love of complexity, exploration, and opportunity. He identifies that prospect and refuge result partially on the work of a designer who seeks to control how open and bright spaces are framed spatially. Hildebrand used the theory to analyze ceiling heights, the size of terraces, and spatial complexity. After analyzing these thoughts, the authors define prospect-theory as "a particular environmental pattern, made up of partial and formal relations that create feelings of safety and well-being" (20). This pattern is achieved through a balance of vista and frame evoking a sense of the unknown. The authors add that a combination of open and closed spaces through exploration and observation is a way people arrive at pleasure and an aesthetic experience. Finally, the authors describe elements of a definition of prospect and refuge, including outlook, setting, a sense that safety is required, and a degree of visual complexity.

This work supports the notion that the aspect of refuge and prospect goes beyond a theory of surveillance and that the immediate settings or context of a project influence the

design intentions created to implement a balance of open and closed spaces. This article also provides academic support used for precedent analysis, including Frank Lloyd Wright's designs. An example of this is the Ward Willits House.

"Fountain Place." *The Cultural Landscape Foundation*. 2013. Accessed 2 October 2018. <https://tclf.org/sites/default/files/microsites/kiley-legacy/FountainPlace.html>.

This precedent is important because the alley of trees provides a sense of prospect and refuge. Furthermore, it provides a design process where the rational and intuitive work together. The rational is used in how the alley of trees is organized through a grid system. The intuitive approach comes when the alley of trees is used as a space of withdrawal from the city, where people can be at home with themselves.

Grafton Architects. *Inspiration and Process in Architecture*. Moleskine, 2013.

In this book, the authors express their idea of design and how their design process affects the way they create architecture. The two sections of the book provide critical attributes to understand the rational and the intuitive in their design process. They focus on how they create through hand drawn sketches. The authors, Yvonne Farrell and Shelley McNamara, are both graduates of the University College Dublin, fellows of the RIAI, and International Honorary Fellows of the RIBA. The book, compiled of sketches and ideas, helped inform the beginning intention of the project.

The rational is shown in the plan, used as an organization tool, where the designer determines order, size, and structure for the design. The poetic side of the design process refers to the interaction between the human body and the space through which it moves. The authors do a thorough job connecting both the rational and the intuitive in the design process. The theory about the rational design process discussed in this book is compared to the method described by Le Corbusier.

This source helps describe the intertwining of the design process between the rational and poetic. The rational in this project is used to determine the plan organization, while the poetic part is used in the drawing of section, appealing to the emotions. The other important factor is how imagination takes a stand in the design process by recording elements

from the context combined with one's imagination. This generates contrast between light and dark spaces in section.

Havik, Klaske, Hans Teerds, and Gus Tielens. "Editorial: Building Atmosphere." *OASE 91* (2013): 3-12. <https://www.oasejournal.nl/en/Issues/91>.

In this article, the authors analyze how to achieve atmosphere and how the search for atmosphere works within the design process concerning the notions of material, craft, and detail. The authors analyze two perspectives of atmosphere from Pallasmaa and Zumthor, and they also study the philosopher Böhme. What they found, as a result, is that the complicated relationship between people and architecture is at once embodied, simultaneously evoking energy and silence, materially grounded and touched by light, that is alive and ageless. Klaske, Teerds, and Tielens are all editors of the architectural journal *OASE*. Klaske is an associate professor of architecture at the Delft University of Technology, having an interest in the experience, use, and imagination of places. She received the Dutch "Architect of the Year" award.

The authors studied Pallasmaa's definition of atmosphere: "multi-sensory fusion of countless factors which are immediately and synthetically grasped as an overall atmosphere" (5). The atmospheric quality is then an embodied experience. Pallasmaa suggests that compassion is a skill designers need to build atmosphere. A clear example of this is explained in detail in the article on Frank Lloyd Wright and the orchestration in his architecture. The author also studied Zumthor's approach on atmosphere and the use of themes, including: material compatibility, the temperature of space, levels of intimacy, and architecture as environment. The philosopher Böhme argues that atmosphere may be a conjunction of personal and emotional impressions of space. The conjunctions are reproduced by the spatial proportions, assembly of materials, aging of materials, the connections of materials, and the connection to the place or other buildings, rhythms, and light. The authors conclude that atmosphere is a total experience, not only the accumulation of fundamental aspects. The authors present different ways on how an atmosphere can be approached, including how various conjunctions serve in the design process to accomplish an atmosphere.

This work is seminal to the understanding of atmosphere and the various ways it can be approached through themes, creating an embodied experience. Most significantly, it supports the notion of how atmosphere is perceived through various levels of intimacy, which reflect the theory of prospect and refuge. Additionally, the authors begin a process of investigating atmosphere through their memory, which is fundamental in the design process of the intuitive. This led them into having various factors that can generate atmosphere, with an emphasis on material, texture and tactility, light, shadow, and aging.

"House N / Sou Fujimoto Architects." *ArchDaily*. 14 September 2011. Accessed 2 October 2018. <https://www.archdaily.com/7484/house-n-sou-fujimoto/>.

This precedent is important in the way private and public areas are designed. The public areas have higher ceilings and are exterior shells while the more intimate areas have a lower ceiling. This allows generating an "in between" space that is the transitional space. This aspect is used in the design process of this thesis where the levels of the ceiling are chosen based on the interior function of space. This method is used specifically in the living units and community building.

"In Progress_School Library Gando / Kere Architecture." *ArchDaily*. 10 August 2012. Accessed 2 January 2019. <https://www.archdaily.com/262012/in-progress-school-library-gando-kere-architecture/>.

This precedent is important for the transitional spaces in the thesis design process. The shadow of the round playful pattern on the floor is a result of the method of construction in this precedent. The existing bridge in the thesis design is where this precedent is used. The type of round pattern on the floor is created by light perforations on the road, allowing sunlight to pass through the bridge. Suspended artificial lights are also used to create a similar round shadow on the floor. This is essential for the thesis since it informs the users they are passing from one space to another by the use of light and shadow. At the same time, it evokes a sense of embodied experience for the users.

Le Corbusier. *Towards a New Architecture*. New York: Dover Publications, 1985.

Le Corbusier wrote about society's evolution and how it relates to architecture, as well as how the industrial age affected the lives of humans and, therefore, new ways of pursuing architecture. In this book, he advocates for Modern Architecture, where pure form and function are the main points to construction. Le Corbusier was a Swiss-born architect who is today known as the father of the Modern Movement in architecture.

Le Corbusier establishes that for an architectural plan there needs to be an emphasis on order. Order is necessary because it creates a rhythm that generates a sense of satisfaction to the eye. Le Corbusier does a thorough job explaining how the plan works. The author mentions the organization of the design process, which Grafton Architects also describes.

The architect's work was referenced during the design layout for the building. The design plan included creating lines of reference in the new building, which were based on the existing building and bridge. The order was fundamental in the creation of the living units in the new building which helped establish an overall rhythm.

Mohammed, Abdelbaseer Abdelraheem. "Spatial Conditions for Sustainable Communities: The Case of Informal Settlements in GCR." Research Proposal, Ain Shams University, 2010. http://www.cpas-egypt.com/pdf/Abd_ElBaser/M.SC/001.pdf.

In chapter two of this research proposal, Mohammed explains Kevin Lynch's thoughts about good city form by measuring the degree of city performance. The proposal describes the necessary elements of the urban environment according to Lynch. Abdeldaseer Mohammed, Ph.D., is an urban planner and architect that worked on this research proposal for the Ain Shams University in the faculty of Engineering and the Department of Urban Planning. He also has a publication in "Evaluating Wayfinding Ability within Urban Environment," 8th International Space Syntax Symposium, Pontificia Universidad Catolica, Santiago de Chile, 2012.

The author focuses on the senses, which are defined by Lynch as the degree of fit between the real city and the way people recognize and organize it in their minds. The author mentions sense as reflecting the clarity in which people

perceive a space. Because the author explains Lynch's formal components and simple components as elements for a good city form correctly, this research proposal provides support in identifying the sense of place of the project and defining spaces that can contribute to establishing the program. The five elements of the urban environment according to Lynch are: paths, edges, districts, nodes, and landmarks. The identity of events gives people the means to remember what happened, thus helps to structure their lives. Therefore, according to Lynch, legibility can enhance the identity and the meaning of environmental surroundings. This work is seminal for understanding the sense of identity as the characteristic that allows differentiating one space from another. It is the character and spatial attributes of an object or a place that enhance the ability to recognize and identify an environment.

The idea of identity in this work was used in the thesis by giving the project an identity of refuge. Additionally, in the thesis project, the identification of paths, edges, and nodes contributes to prioritize the layout of significant points in the site, such as the layout of the new building and the relationship of the existing building and structures already on the site. This work helped build a connection between the project and the city.

Najafi, Mina and Mustafa Kamal Bin Moh Shariff. "The Concept of Place and Sense of Place in Architectural Studies." *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering 5*, no.8 (2011):1054-1060. <https://waset.org/publications/14034/the-concept-of-place-and-sense-of-place-in-architectural-studies>.

In this article, Najafi analyzes and summarizes various ideas of sense of place given by important scholars, including, Christian Norberg-Schulz, Edward Relph, Richard C. Stedman, F. Steel, Shmuel Shamai, Kevyn Lynch, and others. Najafi reviews the scales of sense of place and evaluates the various factors that contribute to it. Mina Najafi wrote this article as a Ph.D. candidate in the Department of Landscape, Faculty of Design, and Architecture at the University of Putra, Malaysia. M.Kamal Shariff was the chair of Mina Najafi's doctoral committee.

The authors define sense of place as an emotional relationship between people and places, where physical attributes, activities, and meanings associate with place and contribute to make a sense of place. Najafi mentions that environmental psychologists argue that experience of place is one of the most important factors in sense of place. The most relevant part in this article is place attachment, defined as an emotional connection formed between people and their surroundings. In this article, it is argued that the role of architecture should provide physical attributes to space that facilitate habitation of the users as well as their mental and physical well-being. Place is defined as an interaction of three components: physical setting, activity, and meaning. Steel defines sense of place as a particular experience of a person in a particular setting. The significant elements of a setting that contribute to sense of place are: the size of setting, scale, proportion, diversity, distance, textures, colors, smell, sound, temperature, and visual variety. The article mentions that identity, history, fantasy, mystery, pleasure, surprise, safety, vitality, liveability, and memory also influence people's relationship with place.

The authors mention that to have a meaningful experience one needs to have an activity associated with that place that inspires the creation of ongoing activities throughout the thesis project. If this place has a certain identity (in this project it is refuge) then it will further create place attachment to the user. The site in the project was suggested based on the article's proposition that site selection influences identity of place because of historic, cultural, and immediate surroundings and landscape features.

"Naman Retreat Pure Spa / MIA Design Studio." *ArchDaily*. 28 July 2015. Accessed 26 September 2018. <https://www.archdaily.com/770560/naman-spa-mia-design-studio>.

This precedent is important in the way the designers use contrast. The other element used by the designers is plants. They become part of the architecture screens, proving shadow to the user inside. In the thesis design, the contrast of light and shadow become direct factors of atmosphere, sustaining a multi-sensorial experience for the user. The connection to nature can create tranquility and, therefore, create an aspect of refuge. Plants are applied in the transitional zones to create an aspect of shadow and connection to nature even though the user is inside.

Pallasmaa, Juhani. "Orchestrating Architecture: Atmosphere in Frank Lloyd Wright's Buildings." *OASE 91* (2013): 53-58. <https://oasejournal.nl/en/Issues/91/OrchestratingArchitecture#53>.

In this article, Juhani Pallasmaa explores how Frank Lloyd Wright orchestrated architecture. The author emphasizes, Wright's intuitive manner of integration through contrast and similarity into a unified, but dynamic whole. Wright's original architecture arises from modes of being human, being part of culture and nature at the same time, and from observing life and human behavior, not from theoretical constructs. Juhani Pallasmaa is a Finnish architect and former professor of architecture and dean at the Helsinki University of Technology. He established his own architect's office. He has written numerous articles on cultural philosophy, environmental psychology, and theories of architecture and the arts.

According to Pallasmaa, architectural atmosphere is a reflection of the designer's existential sense of being, and the fusing of physical stimuli, texture, and different illumination. Wright uses these factors to create a singular embodied unconscious experience. Wright was sensitive to other architectural qualities, such as the essence of the landscape, its dynamism, rhythm, materiality, history, and hidden primordial narratives. Pallasmaa refers to how Grant Hildebrand studied Wright's excellent instinctual understanding of the meaning of refuge and prospect. For this theory, in Wright's work, there is a dialectic between a sense of protective enclosure, comforting intimacy, and a vista across the landscape providing control of the environment. For Wright, a sense of safety and togetherness was achieved by gathering around a fire. The fireplace was used to provide a sense of warmth and welcoming, both physical and psychological. In addition to Wright, Pallasmaa refers to another author-philosopher, Gaston Bachelard, and how he describes that staring at flames is one of the strongest enticements for imagination. Another element, which Bachelard refers to in Wright's work, is water. These two elements are the right stimulants for imagination, and they are two genuinely poetizing substances. The author does a thorough job connecting the various factors of how Wright accomplished atmosphere, the meaning in prospect and refuge, and the use of two active elements

(water and fire). This article provides significant support to the proposed design thesis, through the reference and meaning of prospect and refuge.

Wright's work is used as a precedent for the entire thesis project in the sense of how he used atmosphere, prospect and refuge, and other architectural qualities to influence his design solutions. These factors support the notion of initial conceptual ideas concerning the creative process in design as well as its landscape, surroundings, and history.

Pallasmaa, Juhani. "Space, Place and Atmosphere. Emotion and Peripheral Perception in Architectural Experience." *Lebenswelt*, 4.1 (2014): 230-245. https://www.researchgate.net/publication/307736759_Space_place_and_atmosphere_Emotion_and_peripheral_perception_in_architectural_experience.

In this article, Juhani Pallasmaa explains the peripheral perception in the brain, the sixth sense. This explanation dates back before there was an image or building actually to look at; Pallasmaa refers to the time when one still had to survive in the wild. The basic understanding is that before one can actually "view" an object, the brain recognizes either danger or beauty and can determine how to act. Juhani Pallasmaa is a Finnish architect and former professor of architecture and dean at the Helsinki University of Technology. He established his own architect's office. He has written numerous articles on cultural philosophy, environmental psychology, and theories of architecture and the arts.

Juhani Pallasmaa, through reference to various authors (Peter Zumthor, John Dewey, Maurice Merleau-Ponty, and Tony Hiss), explains how atmospheric perception involves all the senses, where the atmosphere is an exchange between the material of the place and the immaterial realm of human imagination and understanding. He also refers to Genius loci, the spirit of a place, and how it is a non-material experiential character closely related to atmosphere, or applied to an atmosphere of a place. This atmosphere gives a place its unique perceptual and memorable identity. Materials, color, rhythm, and illumination, are considered strongly atmospheric because of their embodied nature. Pallasmaa refers to how art and music are part of creating an integrated atmosphere. Music impacts human emotions and moods and creates lived and existential atmospheric

interior spaces. The author explains how the atmosphere emphasizes a sustained being in a place rather than a singular moment of perception. In the article, there is a clear explanation of how as a human is entering a space, space enters the human, and the experience is an exchange and fusion of the object and subject. Moreover, the article provides information on how architecture should focus from an entity down to details, where the complete image is grasped instead of single elements. These elements need to be full of poetic images, intertwined with different emotive orientations.

This work is seminal to the understanding of the creation of an atmosphere in the thesis design project. The considerations that include the designer's imagination and the context influence the initial ideas for the design process of the project. Furthermore, this article supports the notion of understating how the designer can design an atmosphere of a place, creating a unique and memorable identity.

Pallasmaa, Juhani. *The Embodied Image: Imagination and Imagery in Architecture*. Chichester: John Wiley and Sons, 2011.

In this book, the author explains how architectural and artistic effects are experienced and evoked through poeticized images. These images are defined as embodied images and lived experiences that become part of the human. This book is separated into five parts: the image in contemporary architecture; language, thought, and the image; the many faces of the image; the poetic image; and finally, the architectural image. Juhani Pallasmaa is a Finnish architect and former professor of architecture and dean at the Helsinki University of Technology. He established his own architect's office. He has written numerous articles on cultural philosophy, environmental psychology, and theories of architecture and the arts.

The majority of Pallasmaa's thoughts are used on "the many faces of the image," where the author creates a distinction between the unconscious image and the iconic image. In this chapter, the archetypal image in architecture refers to the basic geometric images in art. Even though the basic geometric shapes have a symbolic connotation they also have conceptual and organizing powers. For instance, the circle focuses on perception and energy in a centripetal manner, but it emanates energy centrifugally. The circle is

a symbol of self, including the man-nature relationship. The artist image has a reality of its own; it does not develop under a rational logic but sporadically. The images Pallasmaa refers to are not retinal pictures, but instead poetic images that are multi-sensory and affect the user in an emotive manner. Pallasmaa remarks that there is more to architecture than the discipline that articulates space and geometry. The mental impact of architecture begins from the quality of the image with various aspects of experience into a singular and remembered entity.

The object or material reality is intertwined with the mental and imaginative realm of the user. Pallasmaa values an architecture that responds to the context, social reality, and culture rather than a concept. For the author, the task of architecture is to provide a space of shelter, facilitating activities and stimulate sensory experiences. The building should be an extension of human bodily functions, externalizations of the user's imagination, memory, and conceptual capacities. Pallasmaa refers to Gaston Bachelard who gives special emphasis to the house. Even if a house is absent, the images of houses in the user's memory and imagination structure the experiences. The experience of "homeness" condense the feeling of self, security, and meaning. Architecture arises from the concept and experience of home and even the other functions in the building such as gather and work; these derive from the essence of dwelling.

The house is a refuge and protection of the body, memory, and self-identity. Another factor important in the book is the primal architectural image and archetypes, this refers to the images that bring out the primitiveness in humans and architecture. The images are: floor, roof, door, window, stair, bed, table, and bath. These elements are not just objects, but they are acts. For instance, according to the author, the roof projects shelter, protection, and experiences of "insideness." Entering through a door turns the experience into a profound architectural act performed by the user. A door protects and invites; it mediates gestures of welcome and mystery. The author manifests various ways of how a poetic image can create a meaningful experience, creating connection to one's home and creating "insideness."

This work relates to the design process of this thesis since it entices the designer to have a different approach to architecture, not from a concept initiation but its context

and mostly internalized memory and imagination. Additionally, it provides for specific geometric forms that have a representation of one's self, which could be used for the gathering areas where people are sitting together and enjoying each other's company. The architectural elements, such as doors, could be helpful to inform the user that he or she is approaching a new space.

Seamon, David and Jacob Sowers. "Place and Placelessness (1976): Edward Relph." In *Key Texts in Human Geography*, edited by Phil Hubbard, Rob Kitchin, and Gill Valentine, 43-52. London: Sage Publications, 2008. <https://www.researchgate.net/publication/251484582/download>.

In this article, Seamon and Sowers synthesize Relph's thoughts on how there is a deep human need for links with significant places. To understand social and human phenomena, there are different dimensions of human experience. The authors give categories to understanding place. They use Relph's work to study the notion on Relph's insideness and to extend how it can be phenomenologically examined in what Seamon calls "everyday environmental experience." Geographer David Seamons Ph.D., is an environment-behavior researcher, researching on the way the natural and built environments contribute to human well-being. Jacob Sowers is an assistant professor of Geography at Minot State University.

In this article, the authors discuss the various factors of place and placelessness based on Relph's theory. For Relph, the root of a lived intensity is an identity with the location, which he defines through the concept of insideness—the degree of attachment that a person or group has for a particular place. Because the authors emphasize crucial points in Relph's theory about the concept of insideness, this is essential to understanding how the experience can shape the way people understand a place.

This article contributes to this thesis design as being the starting point for choosing a project that can generate insideness. Relph's components of identity help determine the project's site selection, activities around the project and how meaning is established. Finally, the source is analyzed to increase place identity in this thesis design to create unity, which allows this place to be differentiated from others.

Sturich, Matthew A. "The Poetic Image: An Exploration of Memory and Making in Architecture and Film." Master's Thesis, Kansas State University, 2005. <http://krex.k-state.edu/dspace/handle/2097/85>.

In this thesis submission, Matthew Sturich explores the poetic image through memory and making in architecture and film. He creates a short movie to provoke poetic images. In the process of building or constructing, architecture through film provides the poetic image to become more pronounced. In this thesis, he references various architects that use the intuitive method of design in their work, such as Gaston Bachelard, Juhani Pallasmaa, Peter Zumthor, and Martin Heidegger. In this case, the film became a tool of communication for the architecture and its poetics. Mathew Sturich has a Master of Architecture from Kansas State University, guided by major professor Mathew Knox.

The author states that the poetic image is a connection to memory and viewed through materiality. The author describes memory as a narrative that depends on the movement through space, allowing empathy from the viewer. The author explains how people's senses strengthen Juhani Pallasmaa's theory on the poetic image. The author states how Peter Zumthor and Steven Holl revisit memories as poetic images that can be used with a design process. The author says that for Zumthor not just the tactility of materials creates the image, but the memory that is held within the matter. The author does a thorough job connecting mind to material and memory; this is essential to the further exploration of how poetic image can be used in the development of one's thesis design.

This source is essential for the understanding of the poetic image in the thesis design process. Most significantly, it supports the notion of using memory in the first phase of the design process. Materials are considered in the poetic image based on memory and the context in which the project is developed. The way materials meet and how they are used as surfaces are essential for the significance of the poetic image in this thesis project. Space has to become more meaningful because of the sense that the poetic image demands. The intent is for the poetic image to envelop the users influencing their lives, culture, and memory.

"The Edge." *Downtown Memphis Commission*. www.downtownmemphis.com/neighborhoods/the-edge/.

This website gives general information about the Edge District, its location, a brief history, and immediate surroundings. The Downtown Memphis Commission is responsible for developing the Central Business Improvement District for a better Memphis and Shelby County.

The Commission explains the intersection of industry and culture in the Edge District as well as how the zig-zag streets and alleys lined with industrial buildings turn into studios with boundless potential. Because the Commission explains briefly an overview of the Edge District this information is useful in understanding the history of the site.

The website explains how the Edge District began as a railroad hub and how it was surrounded by industrial buildings; this information is relevant to the understanding of the history and the material choice for some parts of the elements used on the site. More specifically, this includes materials that allow a representation of industry.

Toccolini, Alessandro, Simone Felisari, and Paolo Stefano Ferrario. "Design of Green Spaces Located below the Urbanised Level. Themes, Problems and Solutions Applied to a Case Study." *Journal of Agricultural Engineering* 46, no.4 (2015): 151-61. <https://doi.org/10.4081/jae.2015.484>.

In this paper, Toccolini, Felisario, and Ferrario explore how to design spaces located below the urbanized/street level (or on different levels). Below level locations may have various origins: areas derived from the regeneration of defensive ditches; sites derived from the demolition of buildings or other structures; or spaces created sub-level expressly as a result of design choices. This paper deals with design issues concerning those places orography, vegetation, and the type of users expected. Furthermore, the authors take into account the opinion of the population to define design choices. The paper ends with the presentation of design experience applied to a study area in Italy. The authors belong to the Department of Agricultural and Environmental Sciences-Production, Landscape, Agroenergy, of the University of Milan in Italy.

In the paper, the authors identify various issues during the design process, including connection with the urban context (difference in height), accessibility, historical restoration, possible functions and activities, and suitable vegetation. Different guidelines determined to solve the issues where

the theory of prospect and refuge was employed. These guidelines included creating a visual connection with the city; uses of footbridges and terraces; valorize escarpments; and, vegetation as visual background elements. Additionally: allowing access to all types of users through access ramps realize well-positioned rest areas, creating prospect-refuge situations, with the possibility to control the place and to be protected by the bluff and vegetation; and provide different activities. Because the authors specify different solutions based on a case study for spaces below the street level with issues, this paper provides essential support for the proposed design thesis.

This information is seminal to understanding how prospect and refuge are solved in a place located below the urbanized level. The solution provides various views (from above and below, inside and outside), creating different relational spaces. Most importantly, it supports the notion of the integration of morphological elements (slopes), vegetation, buildings, and structures. These form part of the components of place but also are functional elements used to ensure well-being and pleasure to the users.

Unwin, Simon. *Analysing Architecture*. New York: Routledge, 2003.

In a chapter of the text, Simon Unwin explains the importance of transitional spaces in architecture. These spaces contribute to the well-being of the user in the sense of taking the human from one place to another. The author teaches in the Welsh School of Architecture and has also taught architecture in Sweden, Israel, and the United States. In 2003 he was appointed the chair in architecture at Duncan of Jordanstone College of Art and Design in Scotland.

The author describes how transitional spaces are efficient in the relationship between place and context. These transitional spaces extend the passage from a public area to a more private one. The author does a thorough job connecting the experience of the user during the transitional space essentially as the user is being led into the different zones, each increasing the privacy.

This work is seminal to the different spaces created in the thesis project, specifically in leading individuals from larger gathering spaces into a more private area where the refuge is manifested. The transitional spaces of the thesis design are also created to be embodied experiences for the user.

Vada, Pedro. "Planar House/Studio Mk27—Marcio Kogan + Lair Reis." *ArchDaily*. 7 June 2018. Accessed 3 January 2019. <https://www.archdaily.com/895911/planar-house-studio-mk27-marcio-kogan-plus-lair-reis>.

This precedent is important in the way the designers use the concave wall and the green roof. The wall divides outside from inside but it also connects it through the brick openings on the wall. For this thesis design, the same concave and convex wall is incorporated in the intimate gathering zones. This type of wall is also considered in the analysis of the circle as a place to generate intimate gathering and a place of refuge, similar to the precedent from Mesa Verde Cliff. The wall in the design process serves as a retaining wall, and the concave parts as voids where nest spaces are created for refuge. The green roof system is used in this thesis project as an opportunity to create indoor-outdoor gathering spaces. This system is implied in the residential living unit apartment.

"Vernebygg—Ruin Protection Structures." *Fundació Mies Van Der Rohe*. 2019. Accessed 2 October 2018. <https://miesarch.com/work/278>.

This restoration project is an important precedent in the way the architect uses new materials to represent the new changes. The architect provides spaces of discovery and exploration by the use of a ramp, as well as a balance between refuge and prospect. The new structure is designed to let the light come into the secluded spaces. Additionally, in the interior spaces, floor-to-ceiling windows create a view towards the exterior. In the thesis design, the idea of implementing a new material that contrasts the old is essential. The use of ramps is implemented as areas where the user can travel from point a to point b and create a multi-sensorial experience. Glass windows are placed in strategic areas to allow the user to have a view of the exterior but also feel safe.

"Ward W. Willits House." *Frank Lloyd Wright Trust*. Accessed 2 January 2018. <https://flwright.org/researchexplore/wrightbuildings/willitshouse>.

In this house, the architect generates a journey through the space, a progressive sequence of experiences, using transitional moments (which is why this precedent is used). In this design process, the transitional moments are important because these spaces inform the user that they are going from one space to another. These spaces create an embodied experience that serves the memory and imagination of the user. As the user is immersed in the house he or she experiences a sense of compression and expansion. In this thesis design, compressed and expansive spaces are used to differentiate the communal gathering spaces from the intimate gathering spaces in the project. Wright uses the strategy of incorporating nature as a part of architecture, through the use of windows that connect the interior to the exterior. In this thesis design, this approach is used to create a connection to the site, which is in a nature-type setting, but also to consider the urban aspect of the city and its historical presence.

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Unless otherwise noted, figures are by author.

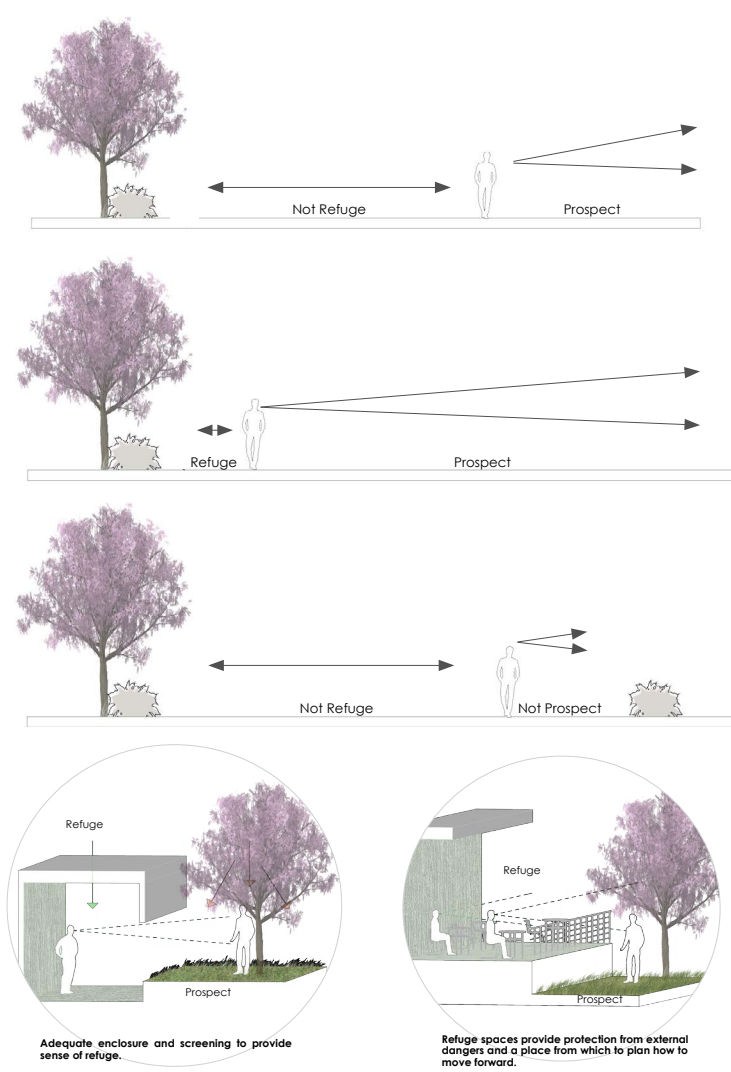
APPENDICES

APPENDIX 1: PRESENTATION BOARDS

Figures 111-125 are the final presentation boards used at the time of the thesis defense.

Figure 126 contains images taken at the time of the thesis defense.

Figure 127 contains the Research Summary Board.



THESIS STATEMENT

TO CREATE A PLACE OF REFUGE THROUGH AN INTEGRATION OF BOTH THE RATIONAL AND THE POETIC IMAGE.

GOALS

- 1 Create a journey between the human body (spatial engagement) and the context through which the user moves and pauses, by the use of materials, light, shadow and a degree of concealment.
- 2 Generate social and intimate gatherings that led to insiderness and memory.
- 3 Understand the process between intertwining the rational and the poetic image for the design process.

Figure 111 Presentation Board—Thesis Statement and Goals



Figure 112 Presentation Board—Precedents



Figure 113 Presentation Board—Existing Conditions

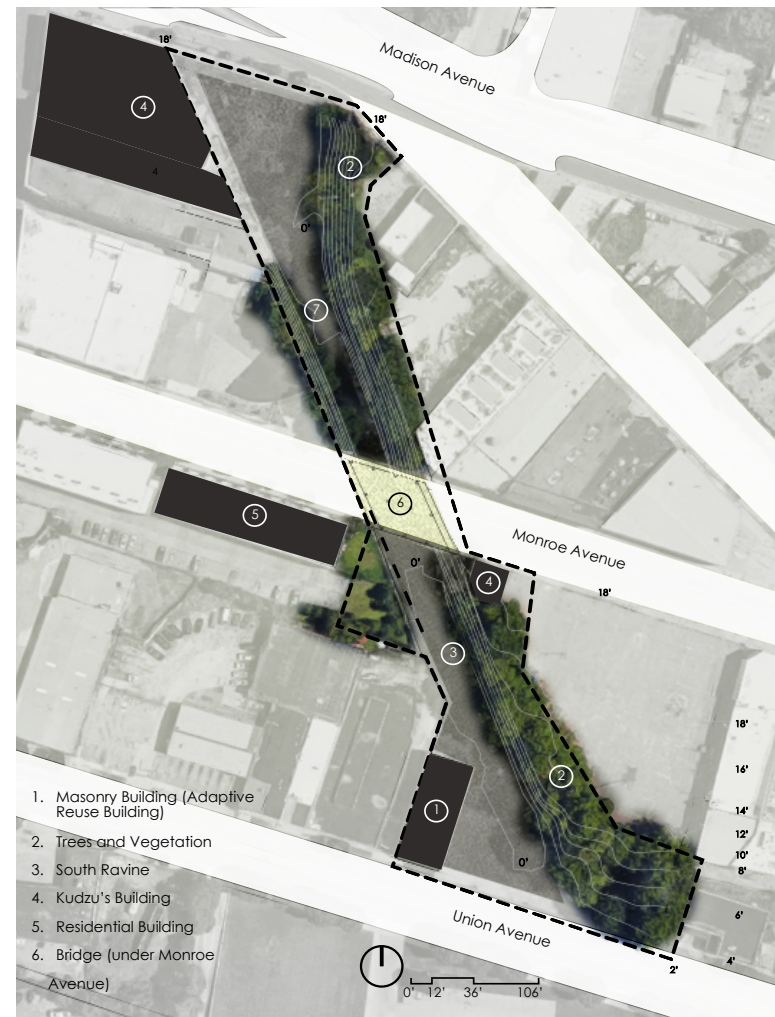


Figure 114 Presentation Board—Existing Site Plan

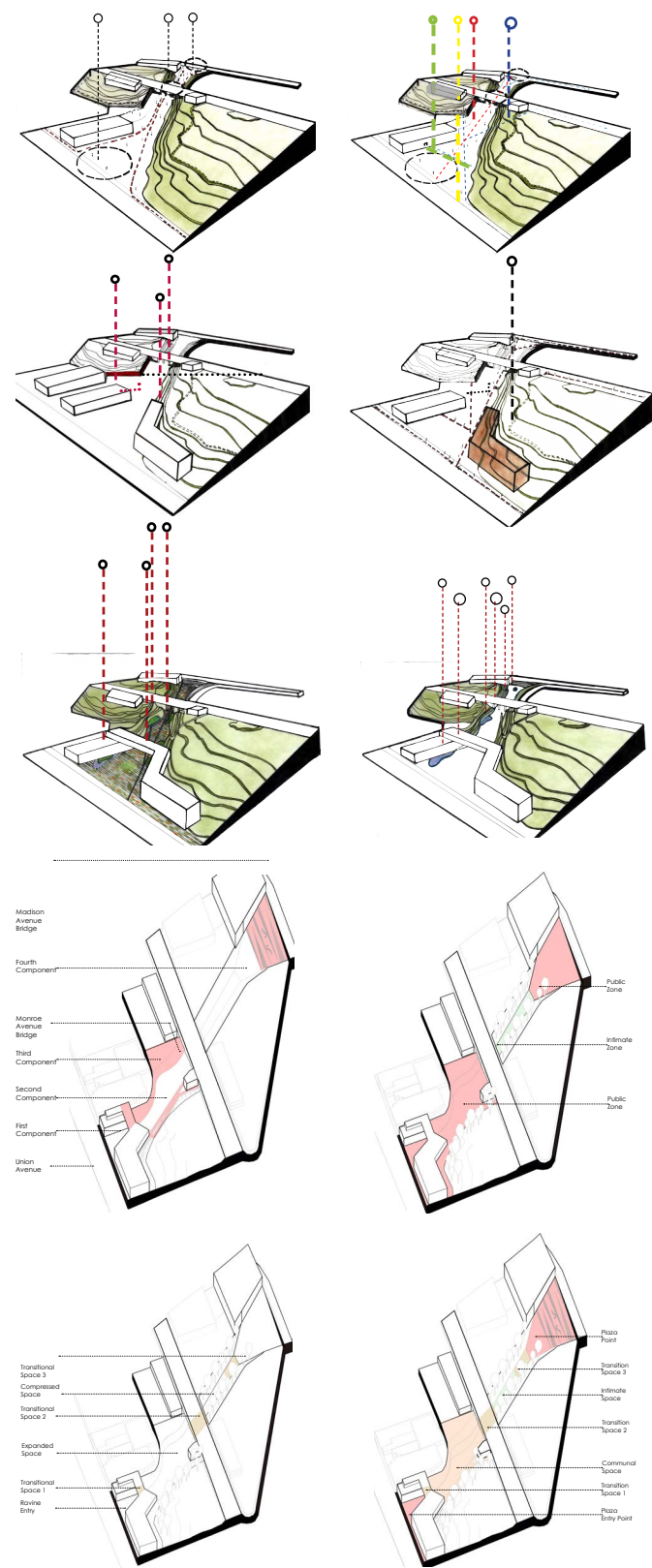


Figure 115 Presentation Board—Diagrams

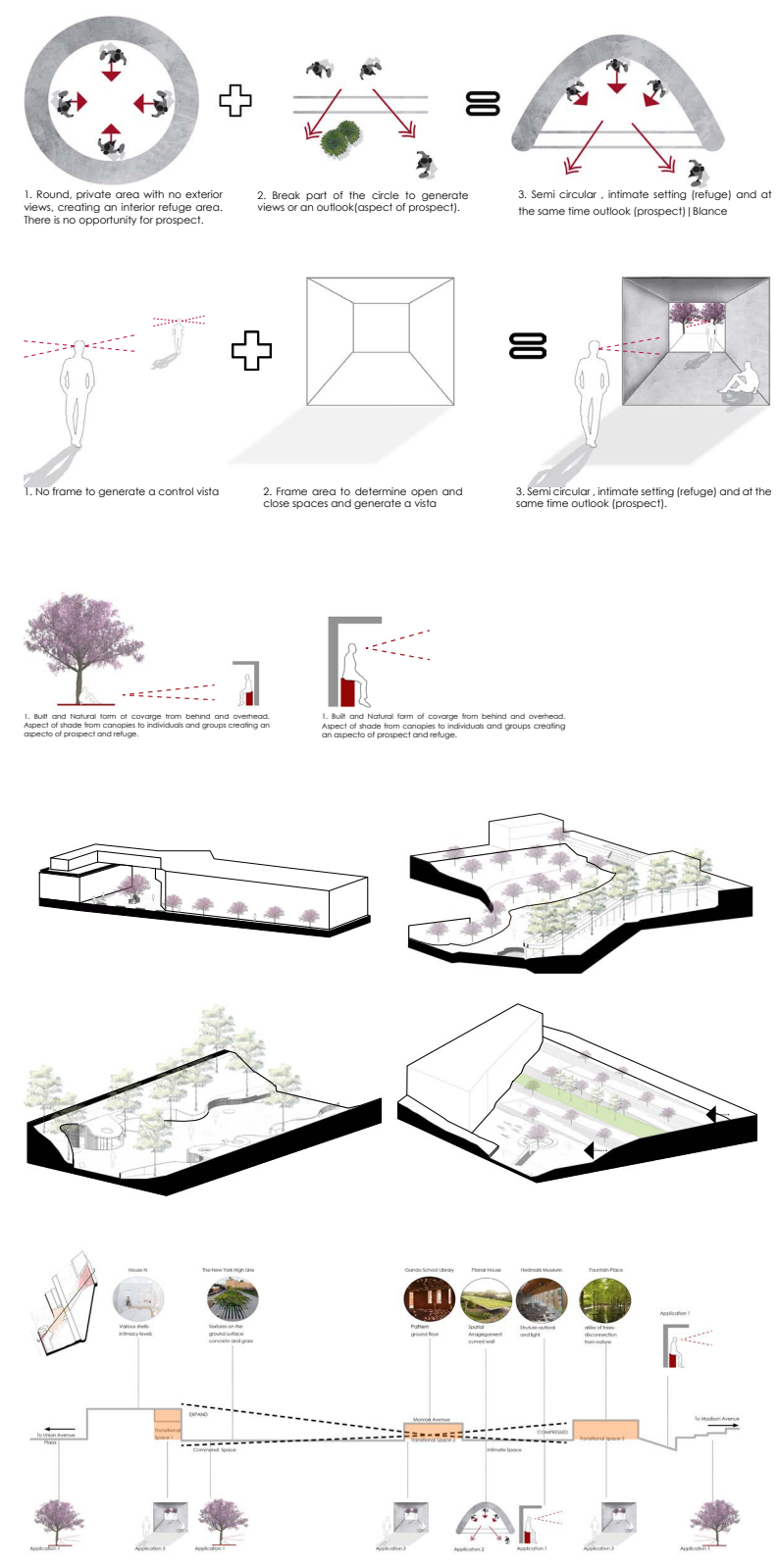


Figure 116 Presentation Board—Refuge Diagrams



Figure 117 Presentation Board—Site Plan

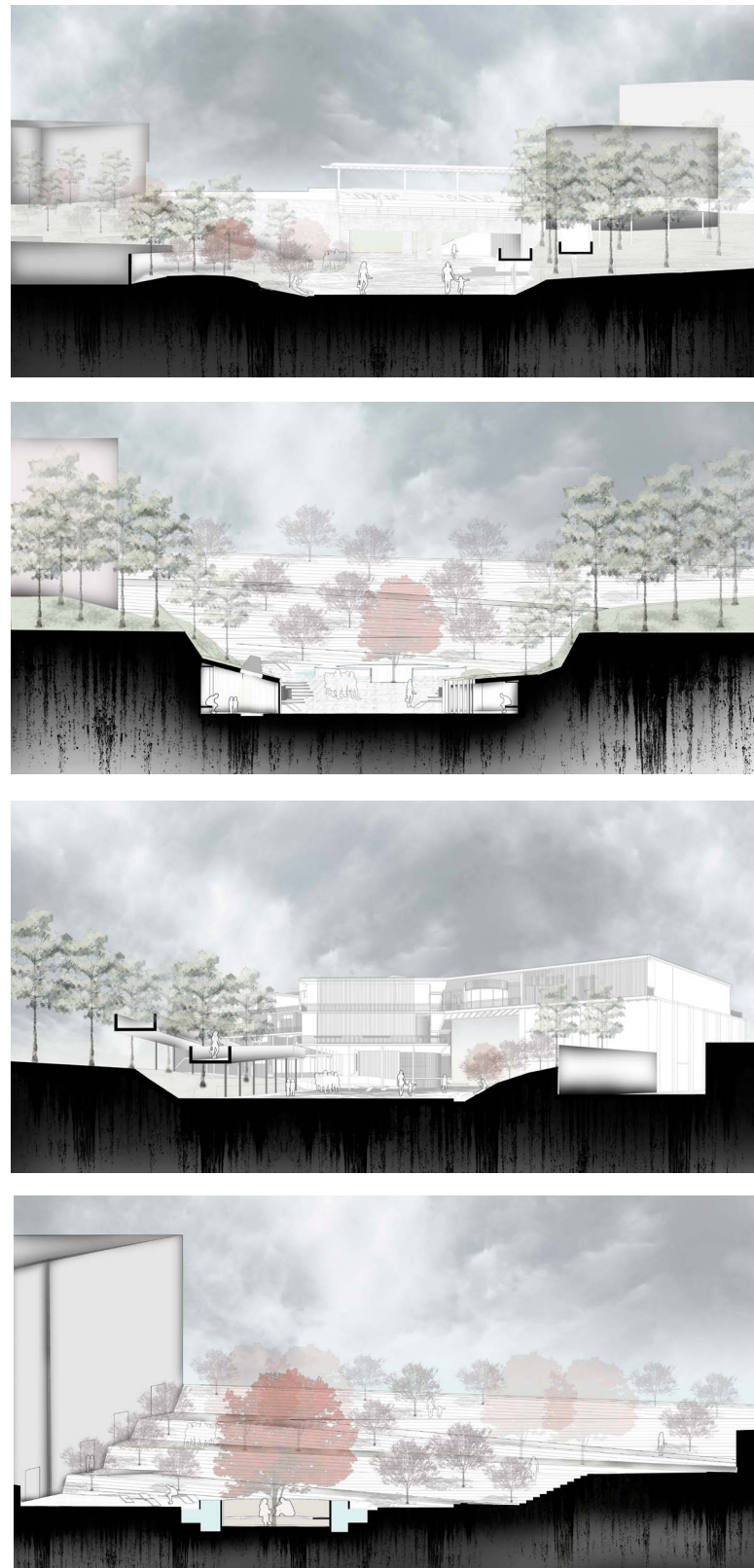


Figure 118 Presentation Board—Sections



Figure 119 Presentation Board—Perspectives 1



Figure 120 Presentation Board—Sections and Elevation

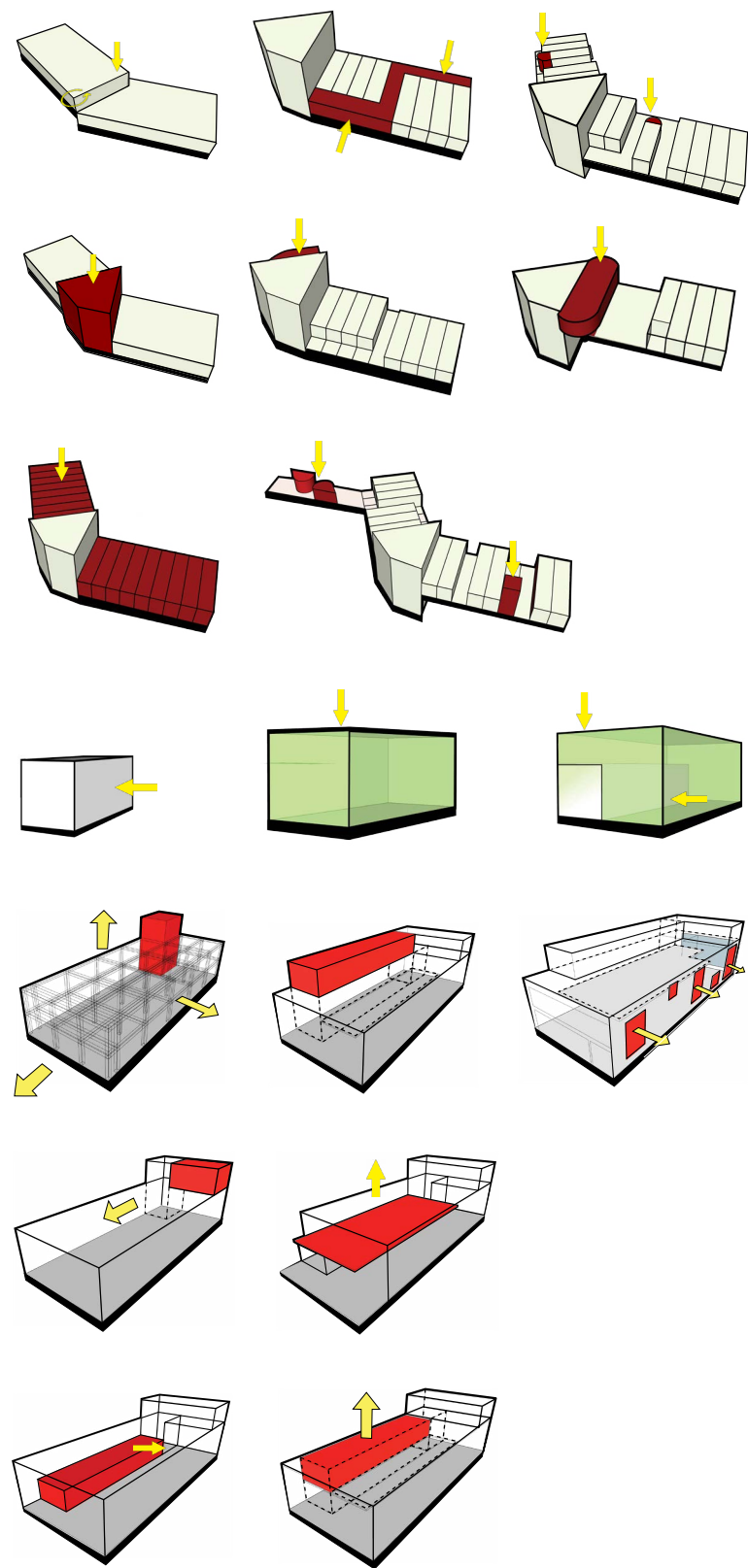


Figure 121 Presentation Board—Floor Plans, Residential and Community Building

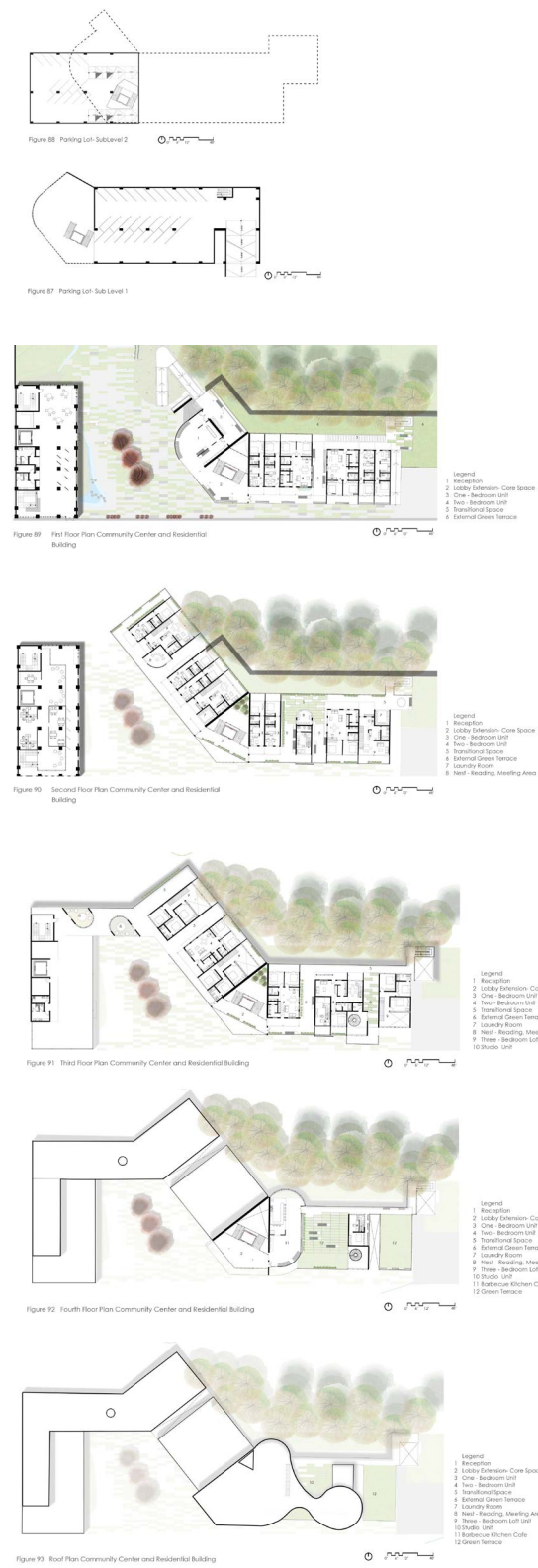


Figure 122 Presentation Board—Residential and Community Building Diagrams

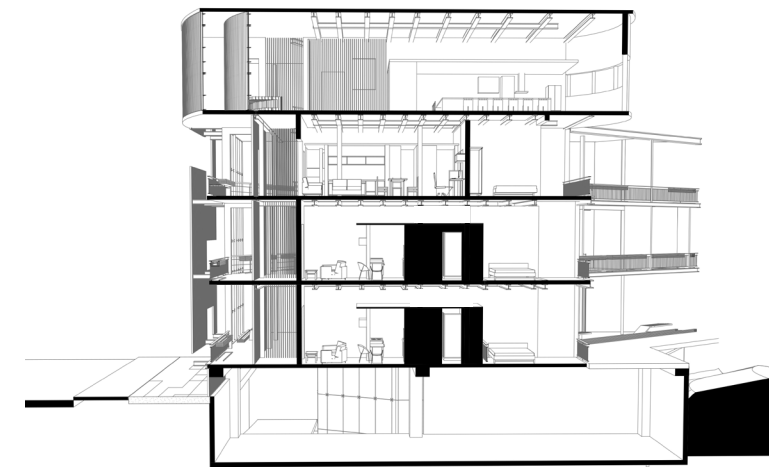


Figure 123 Presentation Board—Sectional Perspectives

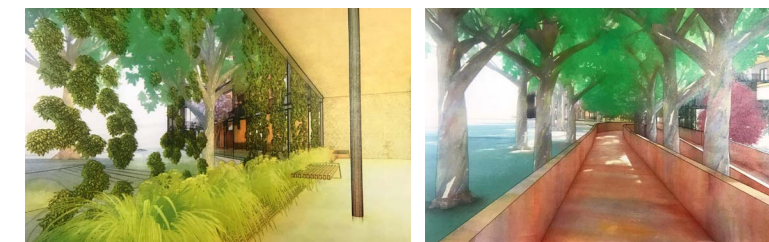


Figure 124 Presentation Board—Perspectives 2



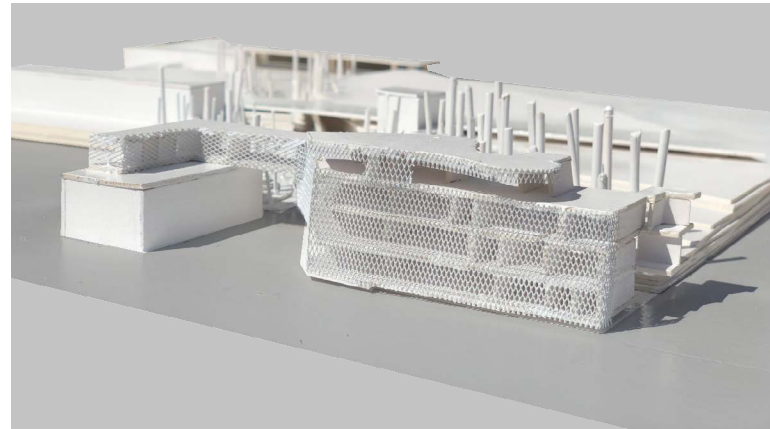
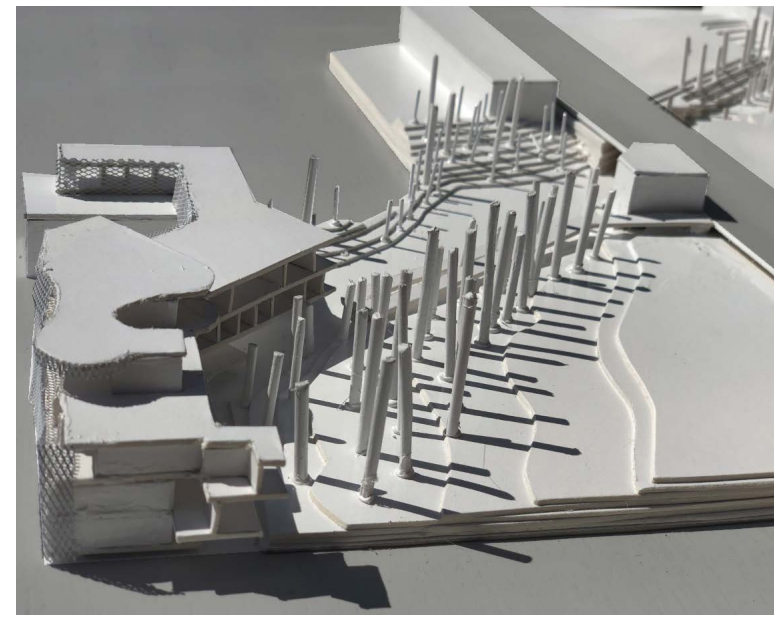
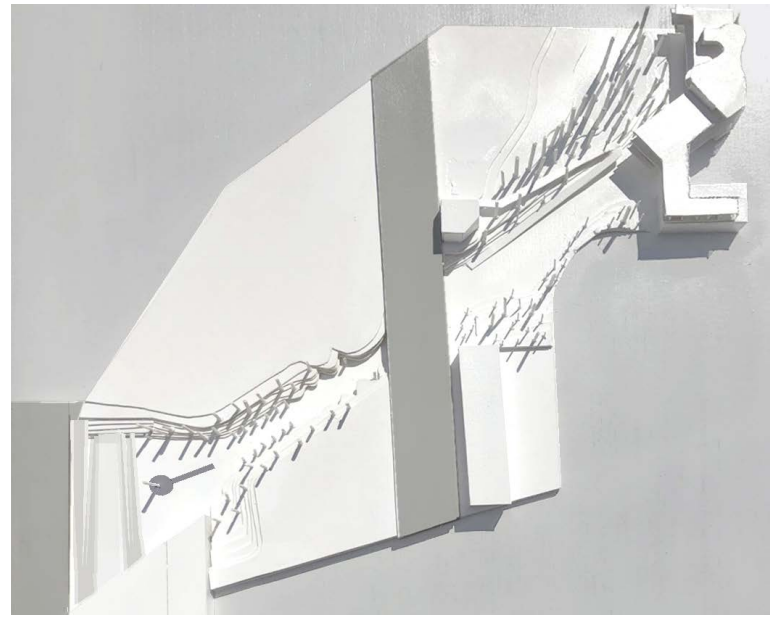


Figure 125 Final Presentation Model



Figure 126 Final Presentation Photographs

Introduction

In cities, sense of place echoes the intersections of environment, history, culture and economics, and is impacted by global mobility, migration, and blurred boundaries between the natural and built environment. Understanding sense of place in the urban context is incomplete without a consideration of cities as socially constructed places both inherited and created by those who live there and those who have recently migrated. The challenge is to craft an atmosphere for refuge by instances, the strongest sense of place experience, allowing the user to have an identity of place (persistent only which allows place to be differentiated from others). Instances is reinforced by three diverse place attachment similar to when one is at home or in one's own community. First, the place's physical setting. Second, its activities or events. Third, the individuals and group meanings created through a spatial multi-sensory experience. The multi-sensory experience is a fusion of factors which are immediately grasped as an overall atmosphere, ambience, feeling or mood. The experience of place is elaborated perception which involves judgments beyond the five senses and it's perceived in an unconscious manner.

An experience has a unity, constituted by a single quality that pervades the entire experience in spite of the variation of its constituent parts. It is essentially an exchange and fusion of the object and the subject. Additionally, material, light sound, temperature are the language of architecture with unconsciously experience influences the observer's perception of space. Therefore, atmosphere is experienced as spatial quality, an exchange between material or existent properties of the place and the immaterial realm of human perception and imagination. Atmosphere can be achieved through material consistency, temperature of space and various intimacy levels.

By extension, these intimacy levels or proximity levels are referenced as a starting point for developing an atmosphere for refuge. Refuge can be defined as an inner world of control and relief, withdrawn from environmental conditions, in which the individual is protected from overhead and behind, providing a sense of rest or retreat with an awareness of collectivity within a place. This theory is accompanied by Prospect creating the theory of prospect and refuge, where the architect seeks to control the manner in which open and bright spaces are framed spatially. The theory of "prospect and refuge" seeks to describe why certain environments feel secure and thereby meet basic human psychological needs. Environments that meet such needs will often provide people with the capacity to observe prospect without being seen (refuge).

One reason for this interest is that Hildebrand expanded the theory to add several additional spatial dimensions to the concept of prospect, including a level of complexity, vegetation and opportunity. Prospect and refuge could be described in general terms as a particular environmental pattern, with spatial and formal relations. The pattern is achieved through a balance of vista and frame evoking a sense of the unknown. The idea is that the qualities and attributes of space, including volume, configuration, and outlook, can influence a person's emotional response to space. Several additional dimensions added by Hildebrand set to establish that a combination of spatial order and formal complexity and order is required. With understanding the concept and identity of place cognitive and affective relationships with place are created.

As for the design process it is essential to explore the integration of both the rational and poetic image. In this case, the plan serves as the rational organizational tool, the functions provide an order, the structure suggests a site. While the sections convey the poetry of space to the user, where there is a clearer understanding of the interaction between the human body and the context through which it moves. The design a clearer multi-sensory experience producing a sense of place, fulfilling an atmospheric quality for refuge. Thus, the purpose of this thesis is to create atmosphere for refuge with the understanding of the existing and the new on the site through a design process of both the rational and poetic image.

Research- In site

The design approach for the thesis is pursued through various theories and the intertwining process of the two design strategies. The first theory to understand a place, to reinforce experiential instances. The second theory to analyze is the rational design process that is used as an organizational tool for determining parameters of order, structure, form, and supporting plan arrangement. The third theory to analyze is the experiential design process through the poetic image that helps determine the atmospheric quality experience through parameters of contrast, shadow, light, and materials of the inner and outer spaces within the place. The final theory to understand is refuge. Where the interaction of outside and inside spaces for small or large groups of people can reinforce instances to place, to create a connection back to the built environment, the existing building and revive on the site, and the new residential building, to other individuals by establishing meaning to manifest a collective awareness of place, and a greater sense of self.

To further explore these theories and understand the intertwining design process of both the rational and poetic image, it is necessary to communicate the intentions through the design of a new transitional residential building and an adaptive reuse building, and a ravine. The adaptive reuse building and ravine are appropriate because in the process of redefining the old, the structure retains historic integrity, but adapts to the new necessities of the occupants, and serve as a communal spaces. This strengthens a sense of place for the people who inhabit the space and for the new groups of people who will live in the new building.

On the other hand, the residential building allows for a. The proposed site for this thesis is situated on Union Avenue in the Edge District of Memphis, Tennessee. The site offers a great opportunity to reuse a building and generate a new proposal, and it offers an outdoor "room" or ravine that can connect Union, Madison, and Monroe Avenues to the project and the city. This offer provides public space for the users of Memphis and provides for social and informal gathering for the transitional unit living building and community building. This generates an opportunity to create a variety of social engagement for the human body and the context through which it moves and pauses, by the use of materials, textures, light and shadow and a degree of concealment, thus creating a sense of place with meaning, and offering an atmospheric quality for refuge.

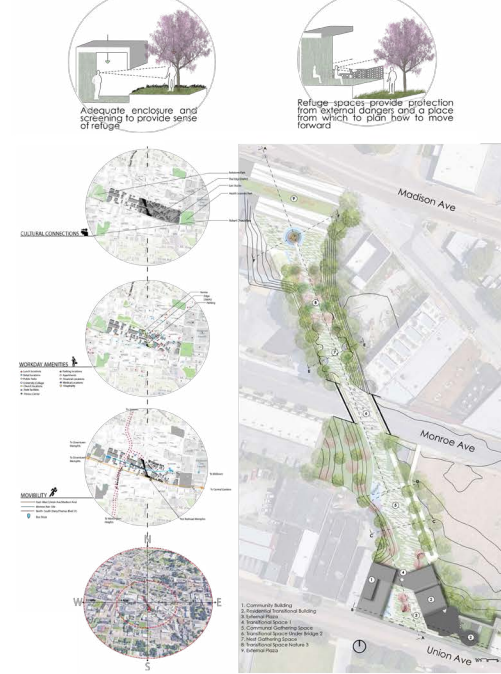
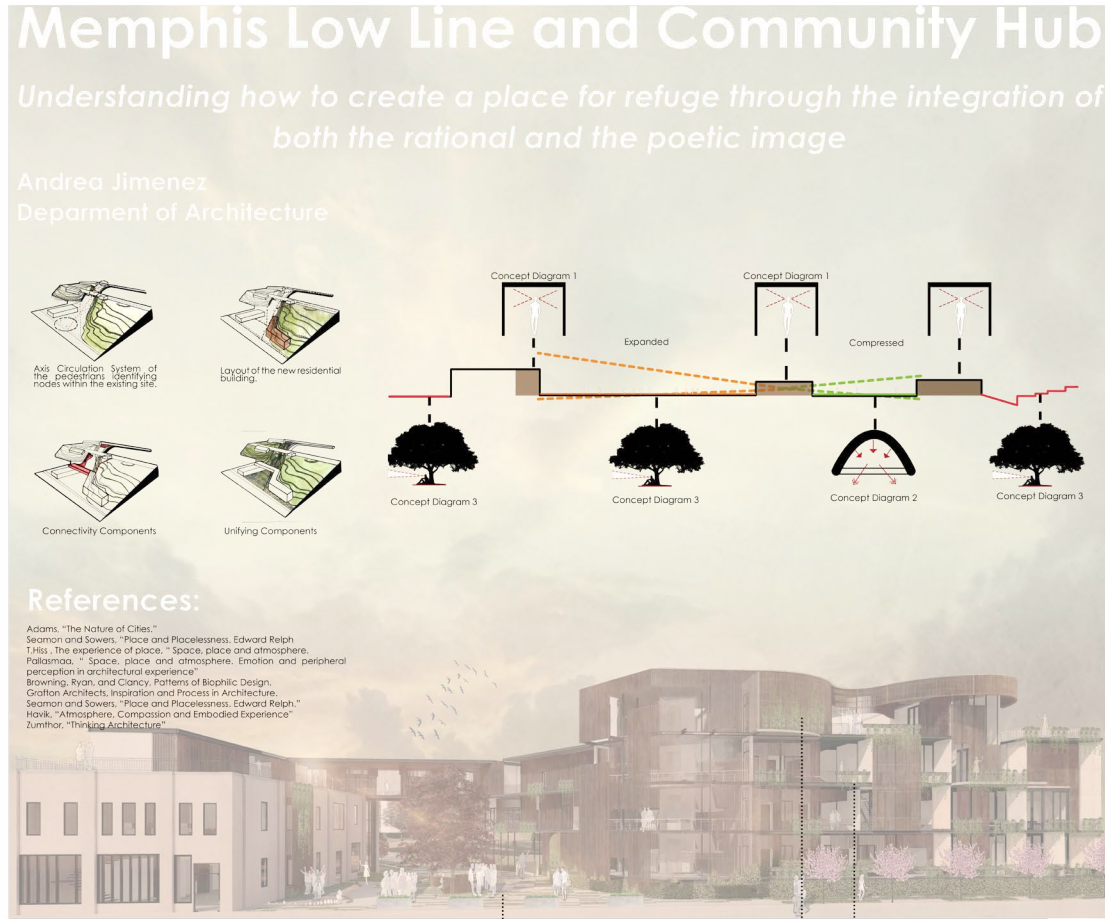


Figure 127 Research Summary Board

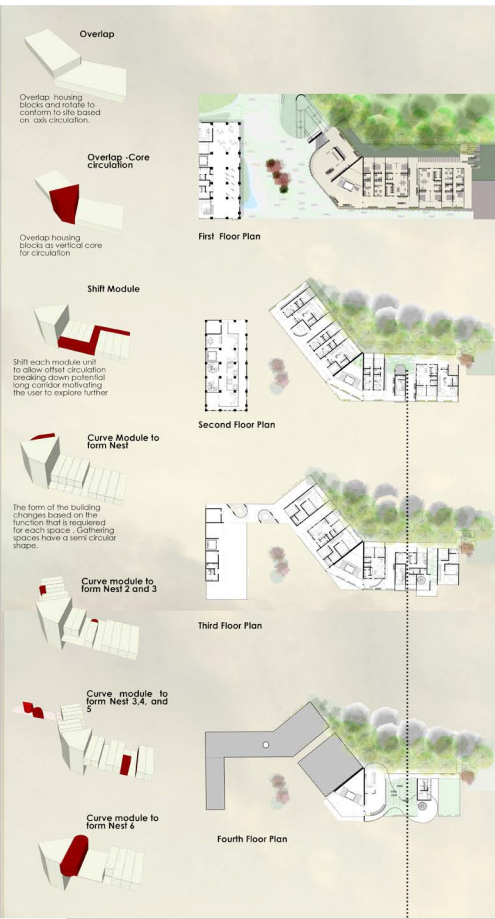


Figure 128 Process Piece



Figure 128 Process Piece

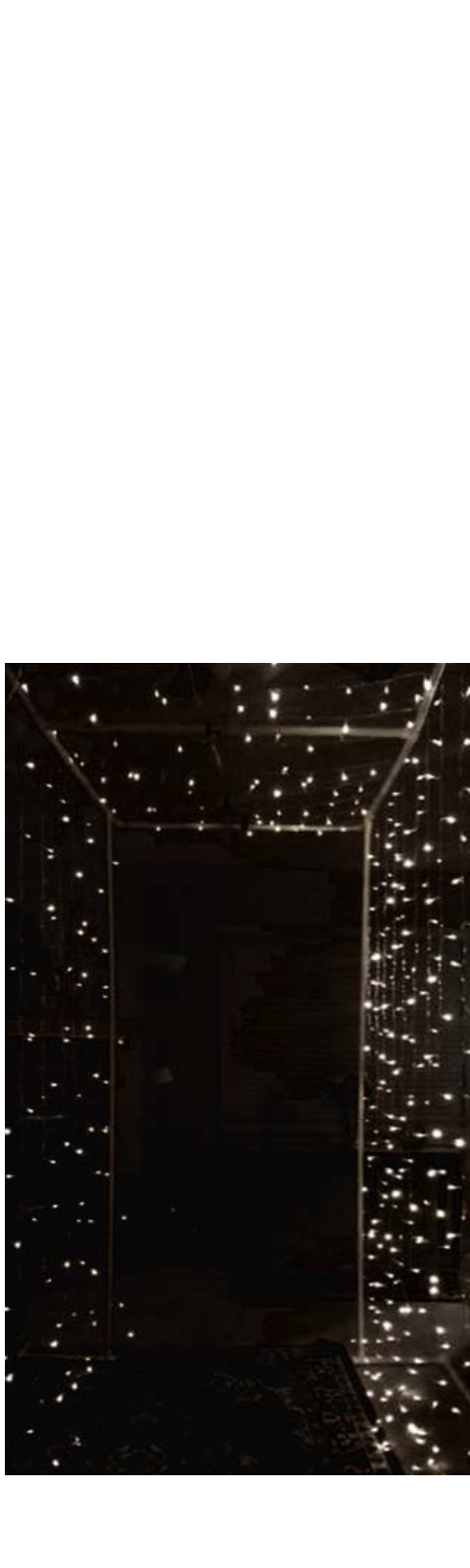


Figure 128 Process Piece

APPENDIX 2: PROCESS PIECE

The process piece serves as an indicator of how a person can experience a sense of mystery and discovery while passing from point A to point B. The user is protected overhead, creating a place of refuge. The intention is for the users to have a connection with their surroundings and with themselves, creating a memorable experience of "insiderness."

As the person is walking through the lit frame, the user has a view of what is happening. Additionally, the adjacent lights are sparkling according to the rhythm of Vivaldi's "Winter" composition. The lights filter with the same intensity, and in some cases soften according to the melody of the music. This space is created to symbolize the experience similar to those of the transitional moments in the thesis project (figure 128).

