

The image features three horizontal bands of a textured, golden-brown material, possibly dried flowers or fabric, set against a white background. The bands are positioned at the top, middle, and bottom of the frame. The middle band is the most prominent and contains the text.

“THE ARCHITECTURE OF HAPPINESS”

DESIGNED BY MORGAN LARSON

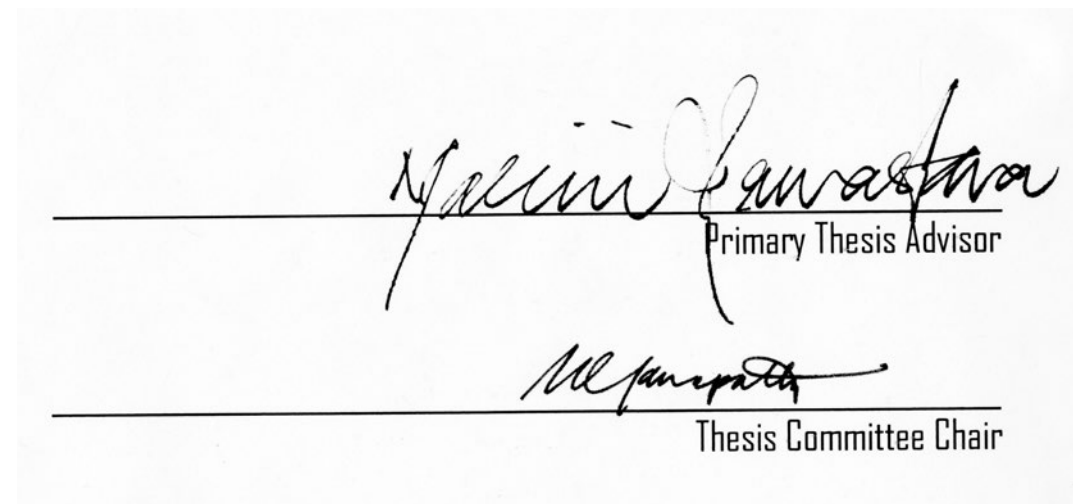
“THE ARCHITECTURE OF HAPPINESS”

MAY 2018

FARGO, NORTH DAKOTA

A DESIGN THESIS SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE
AND LANDSCAPE ARCHITECTURE OF NORTH DAKOTA STATE UNIVERSITY

BY MORGAN LARSON IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARCHITECTURE.



The image shows two handwritten signatures on a light background. The top signature is written in black ink and is quite stylized, appearing to read 'Morgan Larson'. Below it is a horizontal line, and to the right of the line, the text 'Primary Thesis Advisor' is printed. The bottom signature is also in black ink, appearing to read 'M. J. Janssen'. Below it is another horizontal line, and to the right of the line, the text 'Thesis Committee Chair' is printed.

Primary Thesis Advisor

Thesis Committee Chair

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THESIS ABSTRACT

According to Architect John Lautner, the purpose of architecture is to “improve human life. Create timeless, free, joyous spaces for all activities in life” (Lautner, n.d.). His goal for this statement was to push architecture into a more timeless frame, architecture that had no beginning or end; however, I feel it can also be used to describe the importance of feeling within a space. Much of what we do as Architects is based around the wants and needs of people, this normally falls into the category of square-footage, bathroom space, circulation, how we can move a person from one space to another; basically, the program requirements of space, we tend to be less focused on atmosphere. But what if we consider interior architectural spaces in a different way, make them a journey of their own and put emphasis back on the atmosphere of the space—make the experience the main attraction and not just an added benefit.

From considering the definition given to Experiential Space, I have found that a lot of people have varying opinions about what it means. One source says it’s how people interact with space to gain the knowledge of what an organizations brand is all about (Office, 2016). Another article describes Experiential architecture as a “achieving a strong sense of place with a particular atmosphere” (Morello & Piga, 2015). To me, Experiential architecture is a set of conditions within an interior space that build upon one another to create an emotional experience, this falls in line with the architectural theory of phenomenology (something we will discuss at length later in this thesis project); using lighting, material and space as tools to emphasize emotional phenomena in space, I will be designing a Nursing Home, a typology I feel could gain a lot from this study.

THESIS NARRATIVE

Explanation of Thesis

According to the EPA most Americans spend up to 87% of their time inside (Klepeis, et al., 2001). That's a lot of time. From this we can postulate that the interior spaces of our architecture is arguably the most important aspect of our buildings. When we are inside, we interact with our surroundings: we touch the walls, sit on any available surface, gather in empty spaces, sit in offices and work for hours. We like to feel welcome in space and we don't like to be told we are using it wrong. For this thesis project, I will be focusing my efforts on understanding experiential space through phenomenology: using light, material and space as tools to emphasize emotional phenomena in space, I will be designing a Nursing Home, a typology I feel could really benefit from this study.

Why is this relevant?

How can psychology and the analysis of how people feel in a space be used to design spaces that are healthy and more conducive to living? This is important to our discipline because we design spaces for people to occupy, because, again, people spend up to 87% of their time indoors (Klepeis, et al., 2001). So, to create spaces that make people feel better and are comfortable to be in is a huge part of our jobs. How do we do it better than we already are? These days, with the resources we have, it opens a lot of opportunities for us as designers to create spectacular spaces. However, sometimes an interior space just doesn't work the way you want it to, doesn't function as intended, is simply uncomfortable to be in; any number of additional road blocks can get in the way.

Research Objectives

To start answering some of the questions posed above I will begin by learn about spaces that work and those that don't in terms of public opinion. Then, compare them to understand where one fails but the other doesn't. To do this I will be researching architecture that is already categorized as experiential such as the Jewish Museum in Berlin. To further my research beyond comparing and contrasting existing architectural processes, I will also be looking into architectural design theory that follows along the same vein as my project, such as Phenomenology.

Thesis Justification

These issues have merit to research because I think it will give us a new understanding of what the population wants from architects. It will also give us the opportunity to further analyze where people feel most comfortable and how architecture can continue to further evolve to suit people's needs. To this end I feel like emphasizing the atmosphere and preferred experience within a space is important, to understand how the spaces we create influence people is truly beneficial to the profession. As our developments get bigger and more complicated, the spaces inside also get more complicated, how do you give each interior space a welcoming feel without over generalizing a space?

PROJECT TYPOLOGY

Through the study of experiential space and phenomenology, I will be designing a Nursing Home using light, material and space as tools to emphasize emotional phenomena in space.

I think this typology could be most benefited by the answers I find through the thesis process because from my experience, they are lacking when it comes to pleasant interior space. Over the course of my lifetime I have been to six different nursing homes within the Twin Cities area in Minnesota. As a child, visiting the nursing homes would scare me, they honestly still do to an extent, and that feeling is what I remember most being in them. When we went to my Great Grandma Minnie's nursing home, we always took her out of her room into a more spacious lounge area with a large bird cage. There wasn't enough room in her "apartment" to have more than one other person in there, let alone two young kids. I remember always feeling sad to go, I didn't feel comfortable in a building that was so impersonal. The only thing that seemed vibrant with energy were the birds they kept caged up in the lounges. I always left thinking it was cruel that they would cage up people the way they did the birds. Their environment always the same, everything somehow dull and faded.

I feel the end of a person's life should be a celebration, in space, in environment and in experience. I don't feel that nursing homes and full-time care facilities meet this mark just yet.

PROJECT EMPHASIS

My Project emphasis will be to create an emotional experience within the construct of a nursing home using the architectural theory of phenomenology; using lighting, material and space as tools to emphasize emotional phenomena in space, I will be designing a Nursing Home, a typology I feel could gain a lot from this study. I will be researching the needs and wants the elderly wish to see in a nursing home and pulling those aspects into space.

PROJECT GOALS

Academically

I am glad to apply all I have learned from previous classes, studios, and seminars to further my ability as an architect. Using skills gained in realistic rendering and visuals—I will utilize my ability to create images within this project to more successfully produce illustrations that speak to the nature of my thesis focus. Since the experience within space is so heavily emphasized, I also hope to use virtual reality so one may feel as if they are within the space to get the full extent on the design. Through the course of this project I hope to challenge myself to experiment with different rendering tools so that anyone can experience the full extent of my project.

Professionally

Through this project I hope to gain the ability to better propose my knowledge and thoughts in architecture. To articulate in a concise way all that I have learned through my years in school. It will be used as a tool for future employers to gauge my abilities as an architect. It will express my ideals and ideas of what architects and architecture are to help me find the best fit of a firm for my professional career.

Personally

I hope this project furthers my development as an architect and my confidence in my ability. I wish to find a balance between applied emotion to architecture and find a productive and succinct means to apply this to the architectural process. This project should be one that I am proud of for years to come. I hope it will be something I can show my grandparents, partents and siblings and even they will be able to understand and be proud of.

USER/CLIENT DESCRIPTION: THE FULL TIME CARE FACILITY

The Tenants

Those who live and inhabit the space provided, who will be most influenced by the level of design within.

The Nursing Staff

Those who provide constant care and maintain the sense of wellness for the tenants.

Custodial Staff

The maintenance teams and custodial workers who clean and maintain the functionality of the facility

Visitors

Families and friends who come to visit with relatives and spend quality time seeing to a tenant's peace of mind and wellness.

MAJOR PROJECT ELEMENTS: GUIDELINES

Community space: a large space where all who occupy the building can congregate and choose where to sit and inhabit the space; space where any number of encounters can happen amongst people.

Secluded space: still connected to but apart from community space, allowing for more intentional discussion with the benefit of privacy.

Breakout spaces: still mostly public but for those moments when conversation has progressed and you need a space that still invites others to join.

Singular space: alcoves or havens where an individual can be alone in a space full of others, a getaway for those seeking solitude and participation from the outside.

Transitory space: allowing one to move from one situation to another.

Personal spaces: space where one has a sense of ownership and may personalize to their benefit and need. Where every aspect can be changed if the individual so chooses.

THE FULL TIME CARE FACILITY

Housing for tenants: space they can make their own and is privately theirs.

Lounge and Community space: Where get togethers are hosted and tenants can interact with their fellows.

Kitchens: space where meals are provided to tenants and employees within facility.

Visitor Lobby: space where visitors can check-in and get directions to their family living within.

Medical Care Areas: spaces equipped to care for any needs the tenants may have in the long run, storage spaces for medicines and medical equipment.

Circulation: Hallways, elevators and access in general.

Public and Gender-neutral Bathrooms



Figure 1: Map of Case Studies

HOME FOR SENIOR CITIZENS BY PETER ZUMTHOR

NURSING HOME

CHUR, SWITZERLAND

BUILT IN 1993

USE OF ONLY NATURAL AND LOCAL MATERIAL
CREATED CONNECTIVITY
EMPHASIS ON NATURAL LIGHT

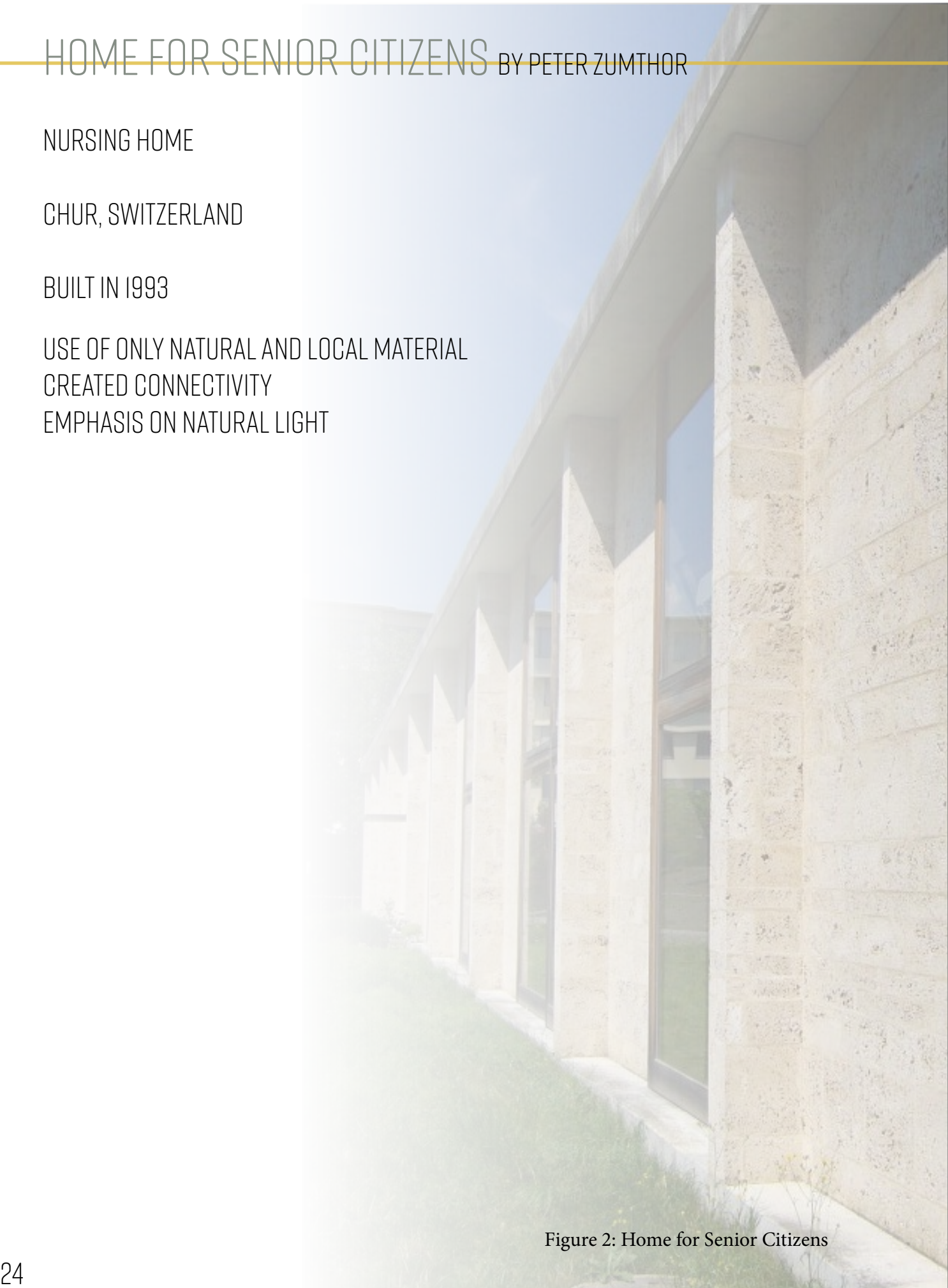


Figure 2: Home for Senior Citizens



Figure 3: Interior Corridor

As is the way on Peter Zumthor, materiality is the key to this project. Exposed concrete makes the physical structure of this project, using tufa and glass as the primary exterior or façade. Zumthor uses larch wood to frame the windows, using the warm tones of the wood to off set the stable color of the concrete (Abache, 2001).

On the East façade Zumthor put to entrances into the Senior Citizens Home. Framed by floor to ceiling windows, natural light is allowed to floor into what is essentially a long living room. A wide corridor that has been occupied by the resident's belongings pulls each apartment into a community space that literally links all them all together. The apartments of the residents are partitioned off with wood, not quite touching the ceiling of the floor, the rhythm in which they move in and out of the corridor's space gives a sense of music to the space (Abache, 2001).

I chose this case study because Peter Zumthor is always so intentional with the lighting and material choices he makes. He is a great phenomenologist and you can see it in this work of his. Looking at the pictures of that corridor you can imagine yourself sitting there having a cup of coffee, having friends walk by to say good morning. He built a community into the very walls of the Home.

Figure 4: Floor Plans



SANTA RITA GERIATRIC CENTER BY MANUAL OCANA

GERIATRIC CENTER

CIUTADELLA DE MENORCA, BALEARIC ISLANDS, SPAIN

BUILT IN 2003

The project was built around optimism, a lush green space creates a vital space where spare time seems to prevail, a space residents can comfortably spend the last years or months of their lives. This Geriatric Center has no corridors of separating architectural structures. Everything is accessible through and around the green space in the center, promoting connectivity. These design decisions were made to promote physical autonomy, psychical security and respect to individual privacy, and to facilitate access to visitors (Santa Rita Geriatric Center, 2009).

Figure 5: Interior Green Space

Over the top of the building is what is called a “polyatmospheric” circulation space. Many events are experienced here that can stimulate the senses and diminish the tedium of it all that one can sometimes feel in a geriatric center. On top of this, the building is oriented geographically and so the north façade, using blue and green plastics, strengthens the cold light. The west and south facades use the same plastics but in yellows to keep the spaces warmer (Santa Rita Geriatric Center, 2009). I choose to analyze this case study because it is so different from centers you would normally see. To create a space that speaks of vitality in a typology that helps people stay comfortable until their end is incredibly different, considering most look just like little hospitals. This building flipped the script, really focusing on the needs of the residents living within by offering them spaces and experiences that would break them from the mundane. I strive to do just that in my thesis project.

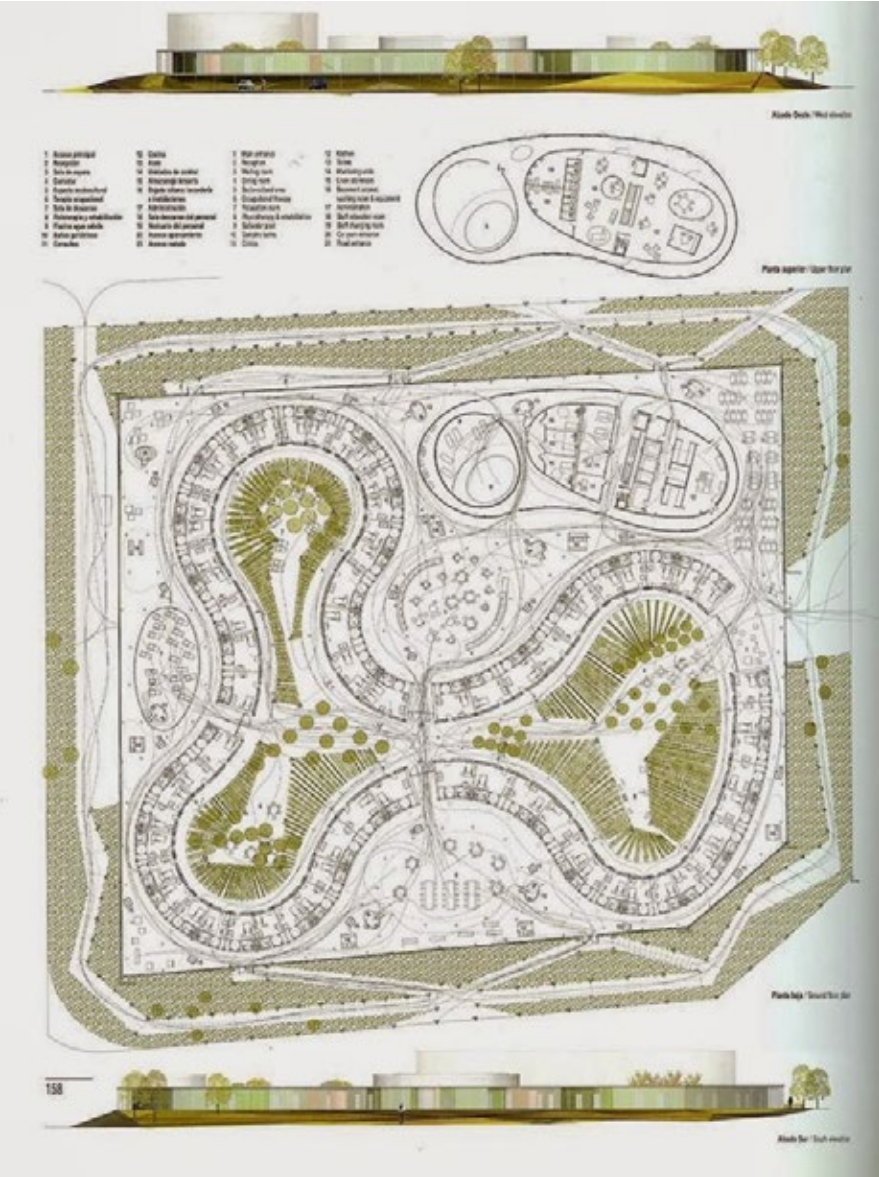


Figure 6: Site and Floor Plans



Figure 7



Figure 8



Figure 9

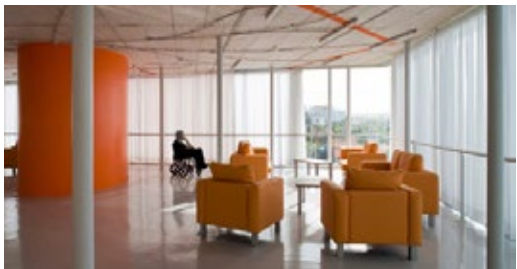


Figure 10

ATELIER LIYUAN LIBRARY BY LI XIAODONG

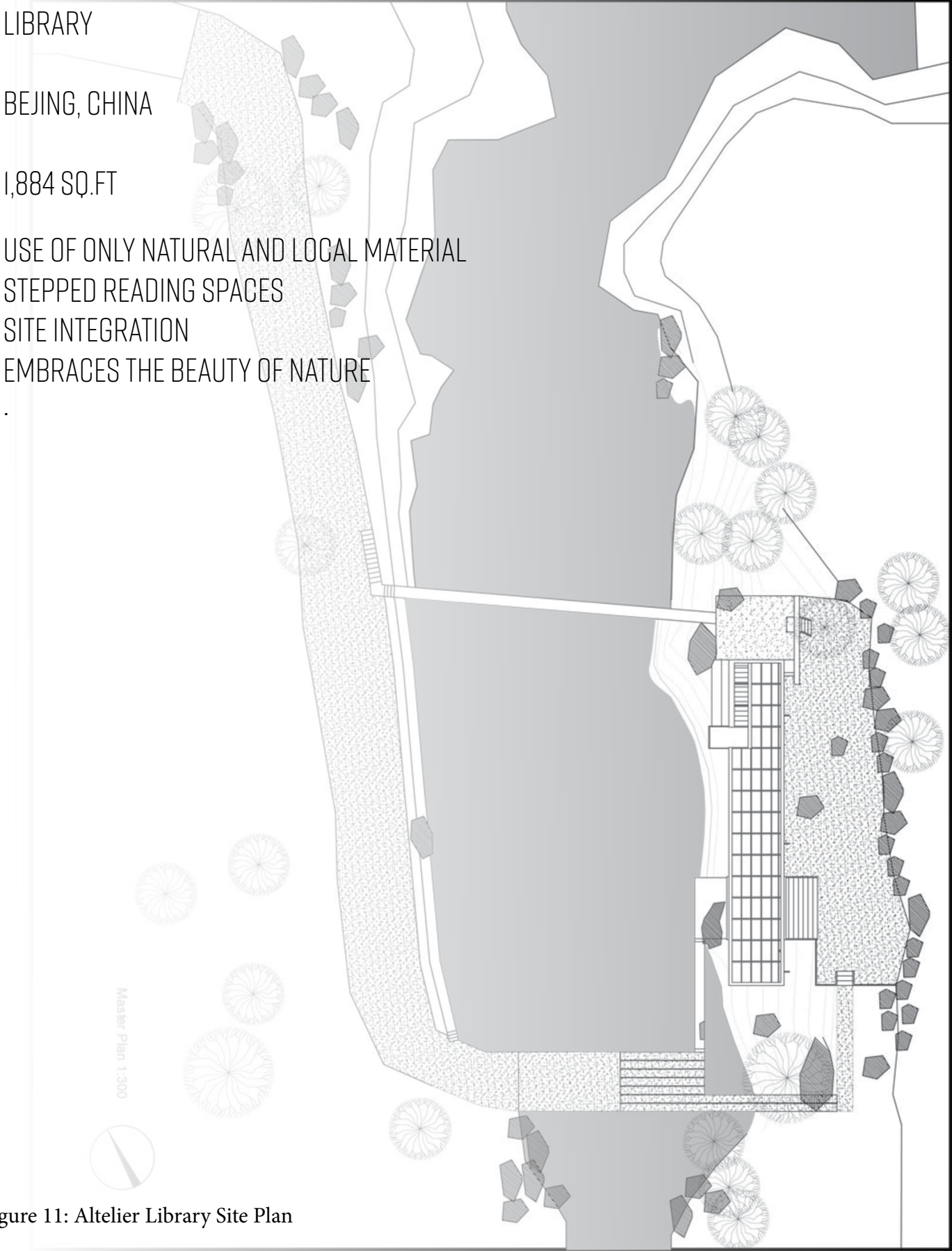


Figure 11: Altelier Library Site Plan

Xiaodong didn't want to make a piece of architecture that would stand out from the Landscape, he wanted the building to integrate itself into its surroundings and enhance the landscape. Within his library he created stepped reading spaces, allowing individuals their own space within the whole. Small square windows, simple in that they fall within the structural geometry of the library, highlight beautiful viewpoints outside. His choice in material are sticks that the near-by villagers would collect for their cooking fire; his completely organic and local material palette allows a visitor to feel fully embraced by nature while sitting in this library reading their favorite novel. There are no artificial lighting in the structure, it has no power so it is completely reliant on sunlight to heat and light the interior.(Frearson, 2011)

The process by which Xiaodong creates space is interesting because it follows many Chinese traditions in feng shui. He says, "What is contained is more important then the container. In Chinese history, architecture has never been focused on the form of a building but rather, how a particular environment is shaped by architecture". This philosophy is incredibly appealing and I hope to dive further into it through the course of my research. To not be concerned with form but rather the space inside is a different way of viewing architecture. (Malkin, 2014)



Figure 12: Altelier Library Window View

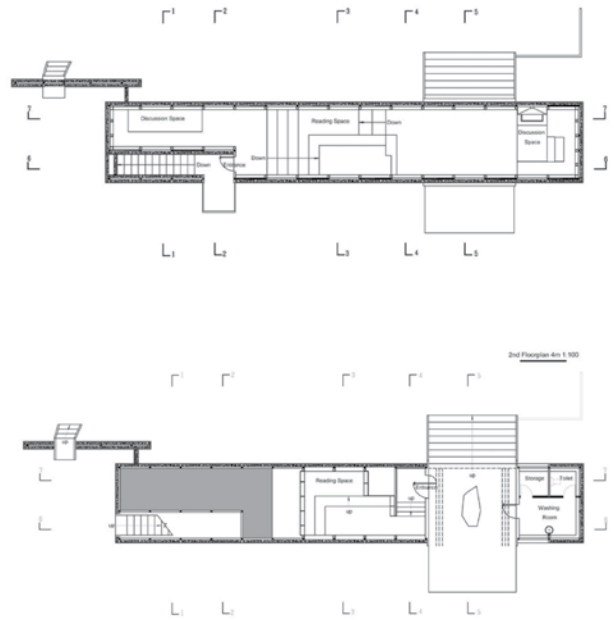


Figure 13: Altelier Library floor plans

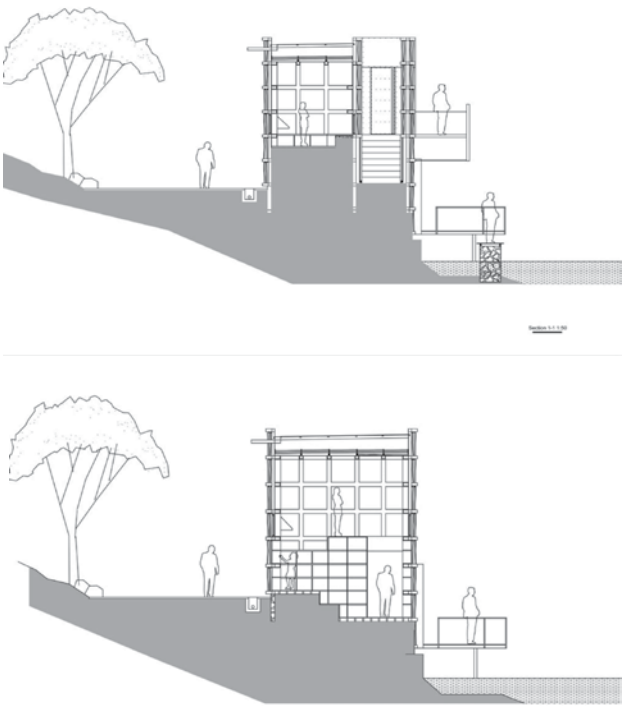


Figure 14: Altelier Library Sections

THE SITE

The site will be a brick building in Minneapolis right off Hiawatha avenue and East Lake street. It is at a major junction of traffic for the city, the cross roads of two major byways in the city, the Light rail, and its proximity to the Greenway (bike highway) in Minneapolis make it a great central location. The many people who pass through the site everyday offer me the opportunity to challenge myself in figuring out the best way to provide the best experience possible for them. This connectivity and activity can also be beneficial to a nursing home/full-time care facility, connecting residents to the life of the city instead of locking them away from the world.



Figure 15: The site

Definition of Research Direction:

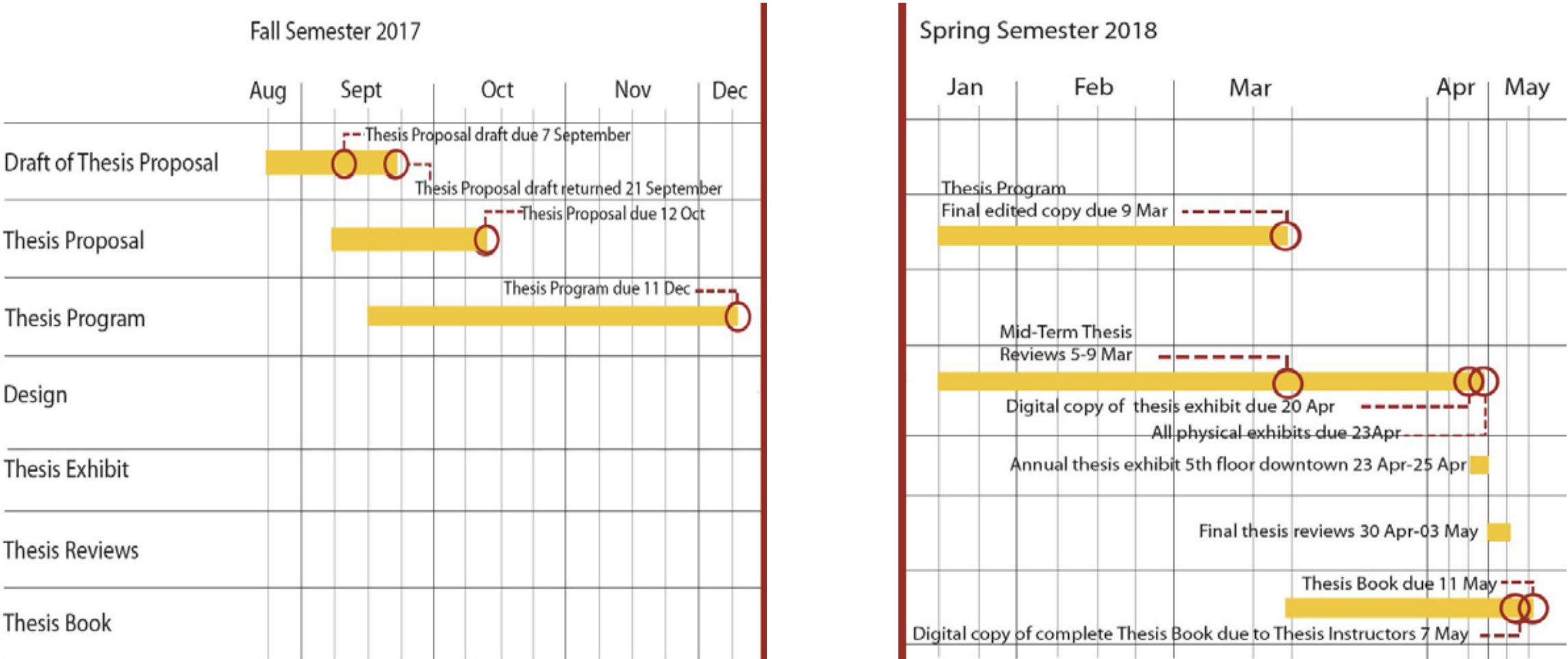
My research will be predominantly case study based, I will be analyzing as much architecture as I can so I can create guidelines for designing interior experiential space in an urban setting. The case studies I will be focusing on will fall into that definition of experiential architecture.

Documenting Design Process

Photography and digital recording of my process will be my primary form of documentation. I will be taking process photos of any models I make along with scanning any drawings I may do. I will also be developing process renders through the course of the design process so that I can show how I started and how I get to the concluded project in spring.

I will be making models by hand as well, I feel this is a great way to feel how the spaces will interact and having something I can hold in three dimensions always helps my design process along. I will again be photographing all of this and the steps to model completion.

Figure16: Thesis Schedule



THESIS RESEARCH

What it is about architecture that intrigues us? Why do certain interior spaces resonate more fully with our being than others? The focus of my thesis is answer these very questions so that I may design a nursing home that emphasizes the emotional phenomena of space through lighting, material and space. To this extent, the research I will be conducting will be to explain the experiential phenomena through the architectural theory of Phenomenology, deduce the psychological needs of the elderly, and how these studies can work together.

Phenomenology and Experiential Space

Through my research into experiential space, to further define it and come to a better understanding regarding this topic, I came across many definitions. One source described it as the way people interacted and perceived a space to gain a better understanding of a company's brand (Office, 2016). Another described Experiential architecture as "achieving a strong sense of place with a particular atmosphere" (Morello & Piga, 2015). However, these definitions weren't enough for me, no matter how I searched for information, descriptions of experiential space and supporting sources were minimal or not living up to the level of understanding I was striving to uncover. Through the discussion and help of my friend Hannah Langr (also a master's student in architecture) and one of my professors, Cindy Urness, I was turned on to the theory of Phenomenology in architecture.

So, first, let's discuss what this theory is. Phenomenology is the study of how we relate to our surroundings through the scope of our own experiences. Neil Leach, a philosopher and compiler of phenomenological theory, pulls from the definition of Hermeneutic Phenomenology as defined by Heidegger and Gadamer to say that "to engage with architecture involves an openness not only to the realm of the sensory, but also to the potential revelation of some truth. Hermeneutics allows for the reception and understanding of that truth" (Leach, 1997).

Gaston Bachelard, a French philosopher and phenomenologist, pursued the question of phenomenology through the context of the house. He explains that we must go beyond a realist conception of the house, beyond limiting constraints to truly understand it. In Bachelard's book *The Poetics of Space*, he denotes the importance of childhood memories and dreams in the process of analyzing space. He says,

“Now my aim is clear: I must show that the house is one of the greatest powers of integration for thoughts, memories and dreams of mankind. The binding principles in this integration is the daydream. Past, present and future give the house different dynamisms, which often interfere, at times opposing, at others, stimulating one another. (Bachelard, 1969, p. 6)”

His poetic understanding of the true nature of the house is filled with memorial iterations, descriptions of space by “the odor of raisins drying on a wicker basket”. For him, to experience architecture and to understand it, is to live through the memories of our past and the sensation memories space calls us to remember. Only when a structure can call these revelations from your sub-conscious can it truly be successful.

While these descriptions and definitions are helpful and the way in which Bachelard's poetics resonate beautifully with a hitherto unrecognized perception of the home, I found that I more fully understood the idea on phenomenology through a book titled *The Architecture of Happiness*. Alain de Botton, co-founder of the School of Life and Living Architecture, beautifully illustrates, again using the home, why we connect with our surroundings, from furniture and fixture to art and sculpture. He proposes that all things we try to find something relatable to ourselves, that we try to see the characters of people in the everyday objects of our lives.

“To speak of home in relation to a building is simply to recognize its harmony with our own prized internal song” (Botton, 2007, p. 107).

Botton postulates that our sensitivity to our surroundings, this need to relate, comes from theory into human psychology, that we hold within ourselves many different selves. He suggests that the surroundings that we find most pleasing are those that allow us to feel most truly our true-selves. He states, “We depend on our surroundings obliquely to embody the moods and ideas we respect and then to remind us of them” (Botton, 2007, p. 106).

Through these many perspectives into phenomenology, there are also concerns in its usefulness into the pursuit of architecture. As Neil Leach states, phenomenology is very inclined to oneself and there isn't much one can do to legitimize a claim made within that scope. In order to bring authority into the theory, many slide into the realm of the metaphysical nature of being. Despite this, however, phenomenology continues to persist in architecture today. Especially now, the physical body can't be ignored when discussing the experience of space, particularly when we further enter an age dominated in virtual reality (Leach, 1997).

For all intents and purposes, phenomenology is the space of lived experience.

Case Studies—Phenomenology in Architecture...

So now that we understand the theory more fully, let's look at how Phenomenology has been seen through examples in architecture.

Peter Zumthor is a leading architect in the theory of phenomenology. We will discuss two of his works, *Therme Vals* in Grabunden, Switzerland and *Kolumba Museum* in Cologne, Germany. Each show an incredible thought in materiality and lighting, creating experiences you can't help but get lost in.

THERME VALS BY PETER ZUMTHOR

BATH HOUSE

GRAUBÜNDEN, SWITZERLAND

3,100 SQ.FT

INDOOR POOL 32C

OUTDOOR POOL 36C

FIRE POOL 42C

ICE POOL 14C

BLOSSOM POOL 33C

MELODIC POOL/SPRING GROTTO 35C

12 SWEATING STONES WITH STEAM BATH

7 TREATMENT ROOMS

1 WATER MASSAGE ROOM

"Mountain, stone, water – building in stone, building with stone, building into the mountain, building out of the mountain, being inside the mountain – how is it possible to create an architectural interpretation of the meaning and sensory significance contained in these words by translating them into architecture?" – this was the underlying question pursued by Peter Zumthor in creating his world-famous masterpiece. (7132 Therme, n.d.)

Zumthor designs in tune with the site to the extreme. From above, you can hardly see that the Thermal baths exist. He wants people to experience a world away from the hustle and bustle, it's why he built most of the bath underground.



Figure 17: Therme Vals Floor Plans



Figure 18: Light and mist

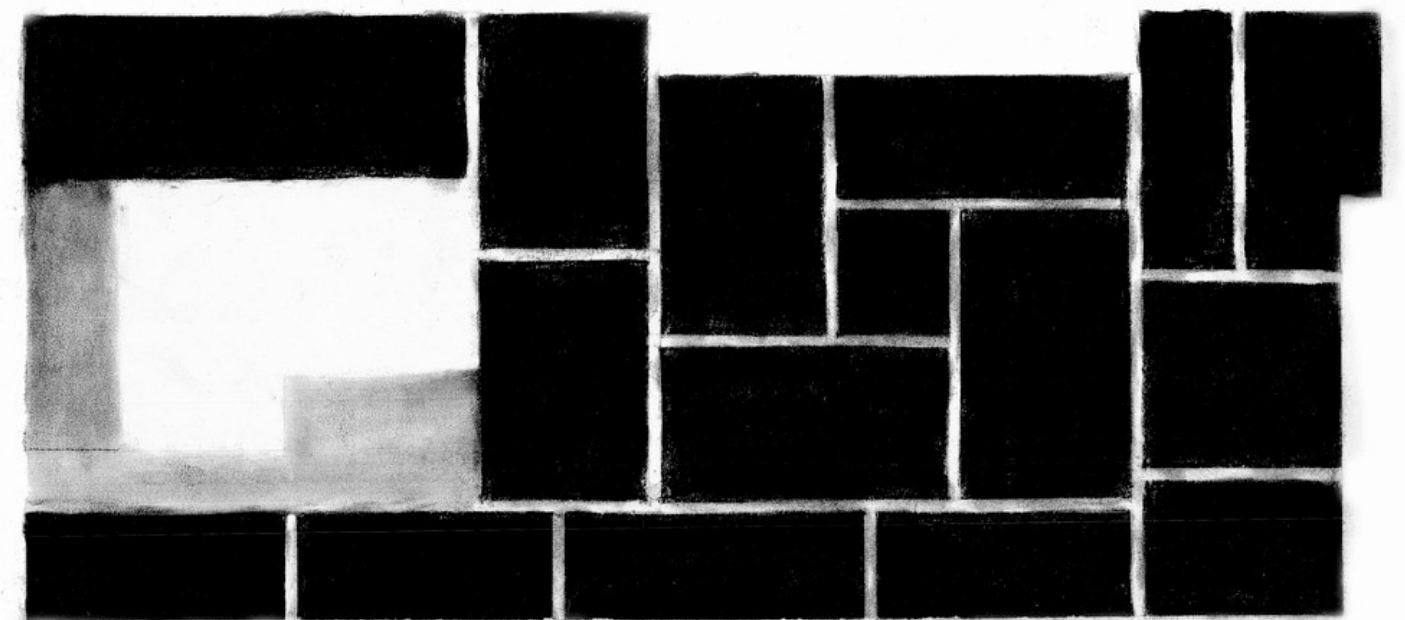


Figure 19: Therme Vals Roof drawing

To add to this, he uses light and shadow expertly to emphasize spatial transition and create a relaxing atmosphere. During the day he utilizes the sun through frosted windows to defuse light softly through the pools, creating within one space separate spaces of light and dark. As sunlight becomes less abundant, artificial lights that are set beneath the surface of the water create that continued atmosphere of relaxed and defused light. When the light hits clouds of mist in the air it creates an unnatural and almost mystical feel to the spaces within, bouncing light into every corner of the space but still allowing you privacy. He took all his inspiration from the earth and used it to create calming spaces for people (Ryan, 2015).

Understanding the way Zumthor uses light and material to enhance an experience within his architecture is paramount to further understanding how it is others as architects can create experiential spaces just as relaxing and all encompassing as his.

ROOF | SCALED DRAWING WITH ENLARGED LIGHT PASSAGES

KOLUMBA MUSEUM BY PETER ZUMTHOR

MUSEUM

COLOGNE, GERMANY

A city once encompassed in ruin, Cologne, Germany experienced an enormous loss of life during the allied air strikes of World War II. Sharing the site of Zumthor's Kolumba museum, Kolumba's church ruins are integrated and preserved in the construction, a homage to the once great church and the history and culture it cultivated. The competition held by the Kolumba Art Society in 1997 was won by Peter Zumthor who's modest design encompassed and preserved the ruins elegantly. Zumthor utilized thin, textured, grey handmade bricks by Tegl Peterson of Denmark to construct his modern museum. He went to lengths to pick such a specific brick in order to off set the history to the existing stone ruins with just the right color.

Figure 20: Columba Floor Plan

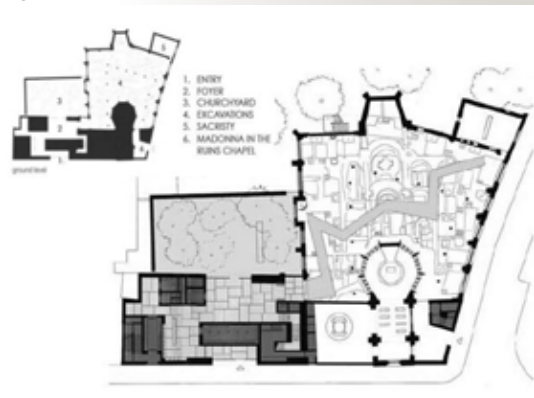


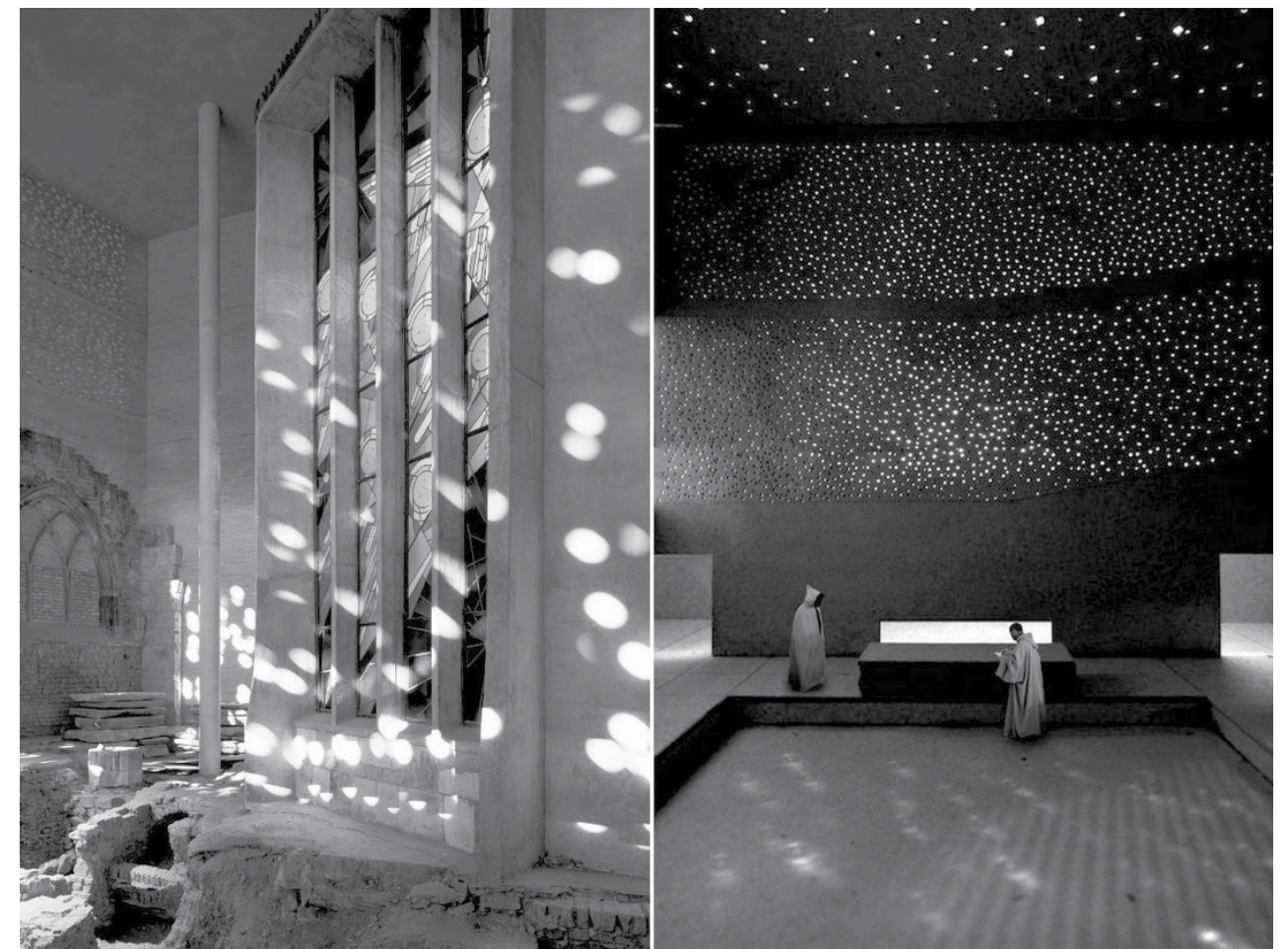
Figure 21: Stairs to Gallery at Kolumba

From the exterior of the museum you can see perforation where he set the bricks apart, creating openings for air and light to pass into the museum and onto the contained ruins and excavation site. While protected from the elements, the ruins are preserved by this, as there is no heating or cooling in this section of the museum so that the ruins will remain as they are (Mutuli, 2017).

Over the ruins inside, Zumthor created a winding pathway to take you over and within the ruins; each corner and length of the path allows you a new vantage point, a new piece of history. Having been to the museum myself, I can tell you that if they have not been about to close the section for the day, I could have spent hours there. The lighting was low and contemplative and no matter how many of my classmates squeezed onto the path, there was a hush of reverence within the space. On the other side of the path over the ruins there was a courtyard surrounded by the old church walls. It's here that you get to feel the intentionality in Zumthor's brick chose. It so closely matches the color or the ruins but is just that bit lighter to call emphasis to their connection, a join between the past and present.

At Kolumba you are surrounded by moments of reflection, every space you enter gives you pause. A moment where you wonder.

Figure 22: Inside the ruins at Kolumba



THE JEWISH MUSEUM BY DANIEL LIBESKIND

JEWISH MUSEUM

BERLIN, GERMANY

166,840 SQ.FT

Libeskind's design was created a year before the Berlin Wall came down and was based on three major insights. Firstly, without initial understanding of the massive contributions made by the Jewish citizens, it is impossible to grasp the history of Berlin. Second, the city of Berlin must integrate into its consciousness and memory the meaning of the Holocaust. Finally, recognizing the expurgation of Jewish Life in its history is paramount for the city of Berlin and Germany as a whole.

(Jewish Museum Berlin, 2017)

Figure 23: Jewish Museum Interior

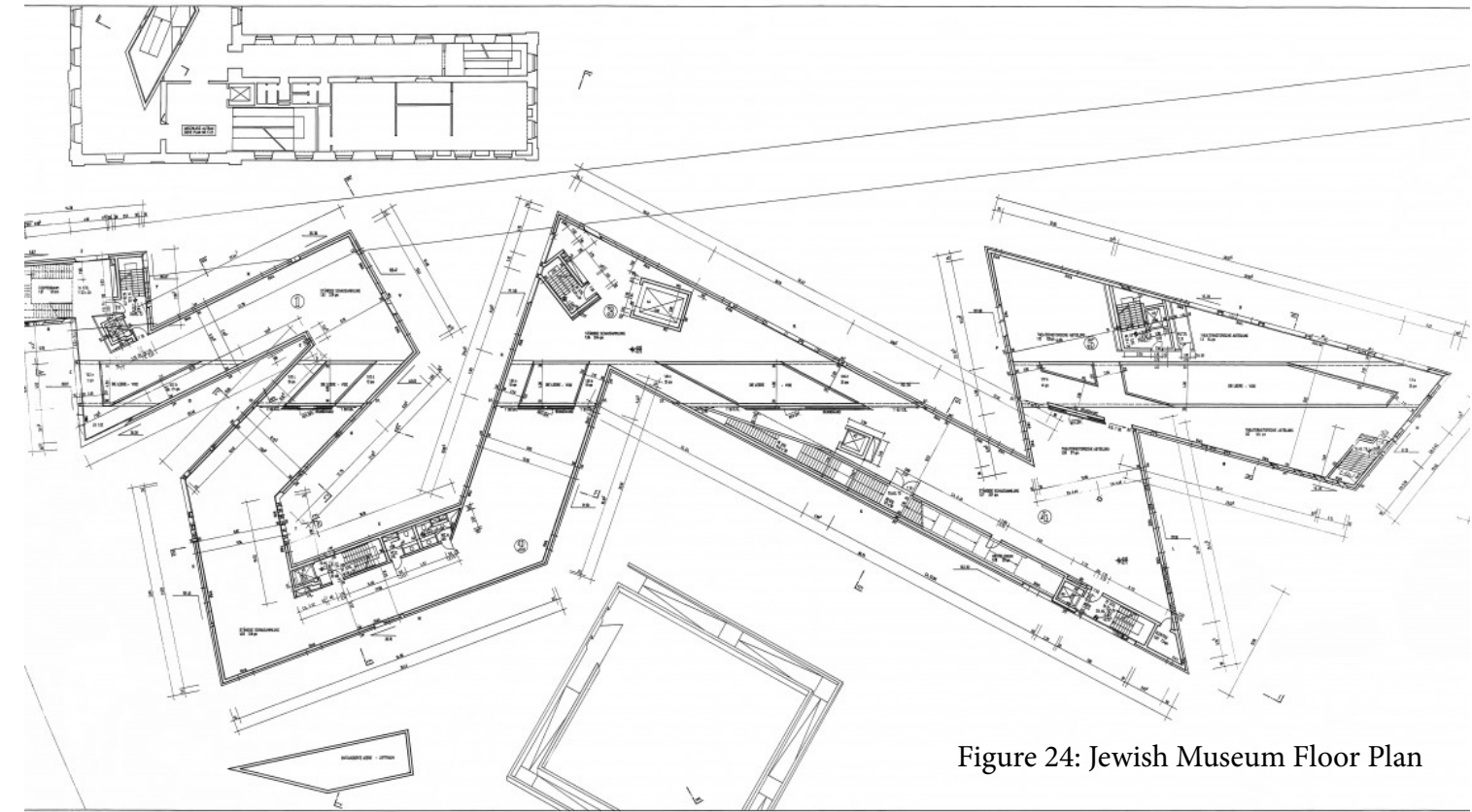


Figure 24: Jewish Museum Floor Plan

Libeskind designed this museum not on the premise of moving people but on the idea of axis. The museum was designed with the understanding that each event within the Holocaust that it is portraying relates to each other event, so there is no right or wrong way to travel through the spaces, the spatial configuration allows for a continuous experience. (Jewish Museum Berlin, 2017)

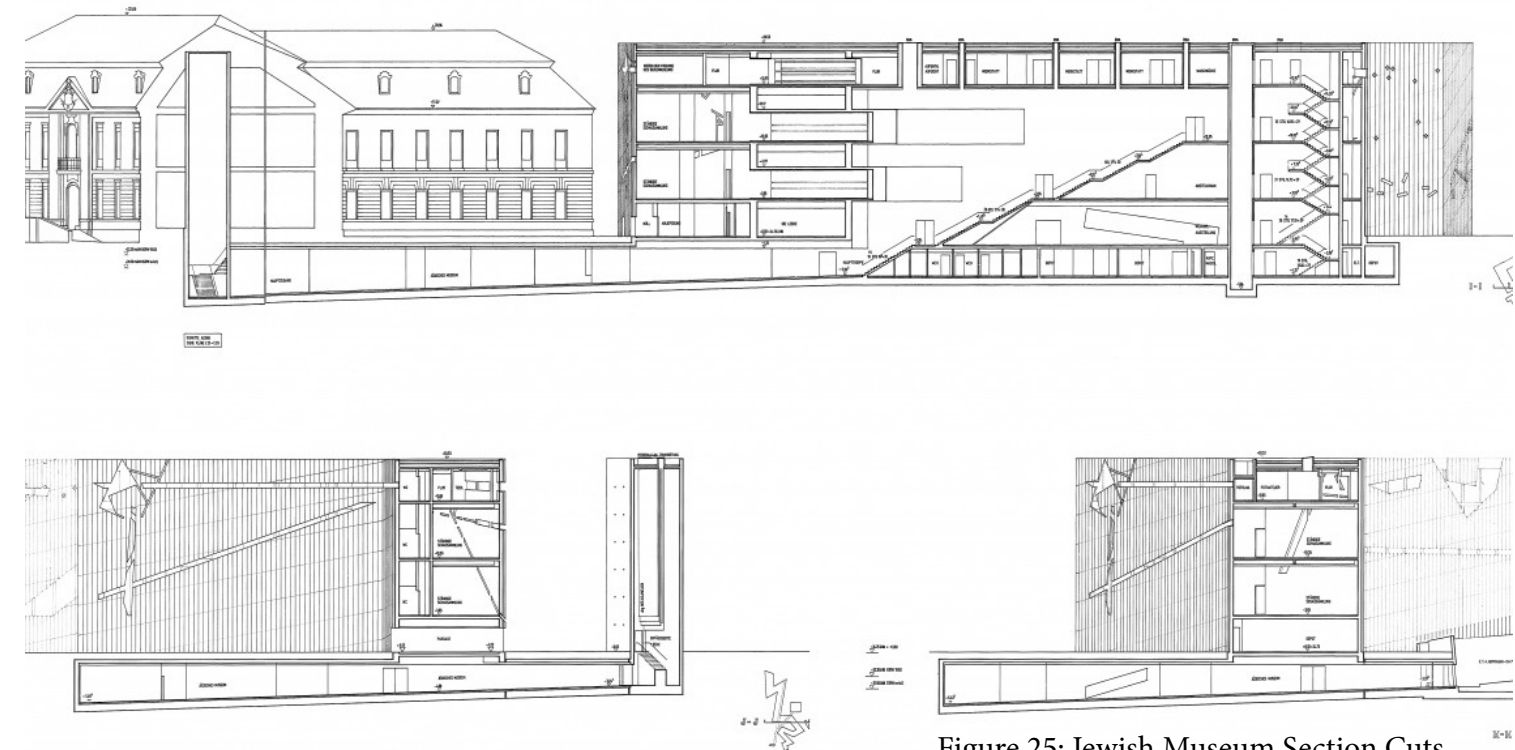


Figure 25: Jewish Museum Section Cuts

Libeskind's axial design is intersected by the Void. It is an absence of space, a line whose impermeability becomes the essential focus around which all the exhibits are organized. In order to cross through the museum you have to take one of 60 bridges that pass through the void. While inside, visitors find themselves encountering another world, the spaces forcing them to experience an approximation of what the Jewish must have experienced. The fear and discomfort visitors experience varies from space to space, real experiences are created by void placements, a person having to squeeze between narrow and claustrophobic walls, walking through a vast hall over hundreds of iron faces. (Ahlawat, 2016)

This case explores the ways space and the journey through space can have a negative impact on our emotions but allow us to experience the truly horrible injustice done to Jewish people. Analyzing the spaces within the museum allows me to conclude how similarly treated spaces would feel, how they would make a person react. Leibaskind demonstrates a mastery of spatial manipulation; his museum not only allows visitors to see artifacts, learn about history and see how these people lived, he truly makes one feel it by using the architecture as a learning tool, an artifact as well.

Figure 26: Emotions within space



Figure 27: Jewish Museum Iron Faces

Libeskind made people interact with space, manipulating how architecture, and the variety of spaces within, can make people feel. A major part of his process was figuring out how to actually get people involved in a tragic event in history. He had to answer the question of how he was going to teach people what it was like, why it happened. He created a narrative that explained to people the horrors of the time so that those who didn't live through it could understand where our world has come from. He believed whole-heartedly that architecture needs to go beyond its utility, that it must have values built in to it.



Figure 28: Jewish Museum the Void

These case studies were chosen because of the emotive response people have to being in these buildings. Libeskind's Jewish museum, when those who survived the holocaust walked through it, it was an incredibly evocative experience for them, bringing those experiences back to the for and showing the public a fraction of what they went through. Kolumba museum, from my own experience was an act of reverence, a feeling of peace and history all tangled up into a sense of wellbeing. Therme Vals because the use of light and steam from the bath's creates an otherworldly environment that prompts relaxation. These are all spaces that I feel illustrate the theory of phenomenology, just from viewing images of them, can make you feel what the architect intended to be experienced.

Psychological needs of people in space—specifically elderly

What does it mean for a space to be conducive to living? Or conducive to life and the end of life? This question is what the research in this section will try to answer, especially regarding the needs on the elderly in Nursing homes.

Let's start by considering the basics, for as long as one can remember we have been learning about Maslow's Hierarchy of needs, starting with the bottom of the pyramid and moving up. When a need has been 'more or less' satisfied the motivation of an individual will move to the next needs on the pyramid. So, for clarity's sake I have listed the needs below from one's first priority to one's fifth. The goal of this is to illustrate what we inevitably want the elderly to have and feel while living within a nursing home, all these needs should have sufficient opportunity to be met (McLeod, 2017).

Maslow's Hierarchy of Needs

- 1. Physiological Needs: food, water, warmth, rest
- 2. Safety Needs: security, safety
- 3. Belongingness and love needs: intimate relationships, friends
- 4. Esteem needs: prestige and feeling of accomplishment
- 5. Self-actualization: achieving one's full potential, including creative activities



Figure 29: Maslow's Hierarchy of Needs

A study done at the University of Rochester posits that wellbeing and health would increase for the elderly if they had opportunities of

“a) greater personal autonomy;

b) perceived support for autonomy from both nursing-home staff and residents’ friends and relatives; and

c) the emotional quality (rather than quantity) of residents’ contact with friends and family”

These results were based on a study of 50 nursing-home residents who participated in a structured interview and follow-up meeting a year later (Kasser & Ryan, 1999).

Through a follow up study, the University of Rochester considers the “Darker Side of Human Functioning”. In this article, the authors go on to discuss Self-Determination Theory (SDT) and Terror Management Theory (TMT). To them, SDT is the theory that they feel best let a person come to terms with the darker sides of human behavior, it has dealt not only with well-being and growth but, maybe even more importantly, SDT proposes practical ways to reduce human estrangement and malice, which TMT and most other theories don’t do. However, TMT also has its merits because it was founded around the existence of existential anxiety and the need to manage it before it consumes an individual. This existential anxiety is the outcome of one’s awareness of their inevitable death. When one becomes cognizant to their inevitable demise, the result is subconscious terror that leads to changes in behavior to fight the terror (Ryan & Deci, 2000). These theories and thought process are important to understand because in the process of designing a nursing home, I will have to confront the inevitability of death. While the nursing home itself should celebrate the residents lives I would be remiss not to also consider the implications of old age and death that are woven into the very fabric of this typology.

So, as we proceed into design, it will be important to consider the things the elderly need to lead a full and functional end of life. To achieve their social needs, an emphasis on connection to the community and interactions with people will be key as, when one ages, due to health issues or changes in ability, being able to connect with society becomes harder. Creating hobby spaces will also be high of a list of amenities to include, allowing the elderly space to engage in what they love to do with others who can appreciate their craft.

Conclusion: How Phenomenology and Nursing Home design go hand in hand

So now we understand Phenomenology and the needs of the elderly in an ideal nursing home. How do these two concepts go together? Why should someone take a phenomenological approach to a nursing home? I would theorize that because of the elderly’s rising need for involvement, autonomy and emotional quality, it is imperative to take this approach towards the typology of a Nursing home. The elderly deserves to have spaces that are emotionally and experientially evocative just as museums and resorts do.

Phenomenology in architecture is used as a way of understanding existing space, interpreting what it was the architect imagined in the process of design and pulling your own personal experience into the space. Through understanding phenomenological analysis, I feel it can be used as a design tactic if only we work backwards in its process. We can use this backwards process to then create a phenomenological or experiential space. First, an architect must decide what experience or emotion a person within the space created would potentially experience. Next, using an architect’s personal experience, one would sketch, model, photograph, record what those feelings or experiences are like. This process of investigation should be well documented as it is arguably the most important part to the project. From these abstract extrapolations an architect can then start to decide what the space value would need to be, should the space be large and open, or should it be small and private? What is the lighting like, a spotlight of sun on a wall or the subtle illumination of led lighting recessed into the ceiling? What is the material sense of the space, is it natural and organic: woods and glass, or is it heavy and immense: concrete and stone? Then the architect must ask themselves, how do these three things: space, light and material, create the sense of the intended emotion or experience? Will this work for others outside of the designing architect’s experience? To best answer this question peer reviews and opinions are highly recommended.

PROJECT JUSTIFICATION

Why is the project that you have defined important to you as a person (your personal reasons)?

This project is important because I believe architectural spaces that tell you a story or make you feel welcome are the most powerful kind of space. I especially want to apply this idea to a nursing home/full-time care facility because my own experience within them, and the experiences my grandparents and great-grandparents, was not what I would have wanted or thought a space like that should be. I am of the mindset that a building that houses people at what can be considered the end of their life should feel like a home, welcoming and unburdened, not as if even the walls speak of a sense of dread and sadness.

Why is it important for you to do at this stage of your academic development?

I feel like it is important for me to do at this stage because I haven't had the opportunity yet to grapple with theory and how it can affect architecture in abstract ways. I am very motivated in social issues and I feel like using both my passion for theory and my passion for social issues will help me to develop further as an architect.

How is the project going to add to your knowledge base?

It already has added to my knowledge base by prompting me to look into the theory of Phenomenology. More than this, the project will push me further into proficiency with our rendering programs, elumtools which is a light analysis program, and into better phrasing my thoughts together to create one cohesive story.

Why is doing the project important for the profession at this time?

I feel this is important for the profession at this time because it can only help to improve the quality of interior spaces we design in the future. I think my thesis in exploring some valuable information and testing to see where it will take design is part of the fun. Also, there are many cultural and social movements circling the idea of nursing homes right now so I feel like reassessing what it takes to design one can again only be beneficial.

Why is the project important as an academic exercise at this time?

This is an important academic exercise currently because it's as good a time as any for me to start exploring what it means to design for people and communities. I have the time and opportunity to research what interests me and create something helpful out of it. Also, with my research into Phenomenology, it is good to have people around who I can bounce thoughts off of, especially since it is such a dense subject.

How can you justify the project economically?

Economically I see the Nursing home as an investment to our community. By building in the location chosen it allows the elderly of the neighborhood to stay close by and also allows a safe and well-designed space for people to age into in the future.

How can you justify expending the funds to implement the project?

I justify the funds by saying that the people who occupy the building deserve a space they can call home and feel happy in. They have given all they can to our communities and it is only right that the designs for this type of building should show that.

What would be the environmental impacts of your project? Would these impacts justify your project?

There are no environmental impacts to my project as far as I know, in fact, with the plan I have right now on how I plan to design the nursing home/full-time care facility, the impact on the environment should only be positive. My site lies in the middle of Minneapolis at two major junctions of traffic, my project will work to address these pollutants. While my project is mostly interior focused the theme of my thesis is improvement in quality of space, I feel this will also apply to the exterior of the building.

How is the project justified in its chosen site location?

The nursing home/fulltime care facility is justified in its local because there is a large number of aging families in the area who wish to be close to their relatives. By designing on the site chosen, I will be giving these families the required support they need while also creating a space they can feel good about.

Is working on your project an imperative, or is it just an option?

I think working on this project is an imperative. I feel very strongly about understanding why and how we design spaces for people to occupy.

Can your project be left for someone else in the profession to solve? If so, why should you solve it?

Yes I feel this can be left to someone else but either way to result will be different. Everyone has a different perspective and understanding of everything, so the answer to this is less 'why I am also working to solve this' and more 'how many people can'. The more opinions and thought processes we get into this issue, the stronger the answer will be.

HISTORICAL, SOCIAL AND CULTURAL CONTEXT

History of the Nursing Home

Before the creation of the nursing home there were Almshouses, group housing that the local governments at the time favored because they were cheaper. These almshouses housed the elderly who were debilitated or broke before the early nineteenth century. With the Civil War decimating the ability of some families to care for their elderly members, more and more people ended up in almshouses. As a result, all kinds of people ended up living here, notable the insane and mentally ill, orphans and physically incapable. (The History of Nursing Homes, 2015) (Medicine, 1986)

Homes for the Aged started popping up as the nineteenth century started to wind down, church groups and woman of the time took those elderly considered 'most worthy' to these homes so they wouldn't have to spend the end of their days with "the most despised of society". (The History of Nursing Homes, 2015)

While the Almshouses sheltered populations of the elderly, they also gave shelter to feelings of isolation, embarrassment, pain of abandonment, shame, poverty, and degradation. In 1935 the Social Security Act came into play when the Federal Government finally got involved. In one fail swoop the government abolished Almshouses, a hated institution, giving the elderly instead a pension to live out the rest of their days. However, they failed to realize that many of these new pensioners needed constant medical care from various ailments that they couldn't receive by just being at home. Having barred residents who continued to live in Almshouse from financial aid, it forced the remaining elderly into private care, those who needed medical care. The government then transferred country houses into private care, where the institution could then receive the monthly annuities from the Federal Government. (Medicine, 1986)

In the 1950's, Almshouse were officially destroyed, they could not function without the federal annuities. Considering there were still many sick and elderly who needed assistance, Congress passed another law. This allowed for public institutions for the most ill of elderly adults. During this time states who participated in this also had to make programs for licensing nursing homes, however, there was no stipulation of standard (The History of Nursing Homes, 2015).

1954 the Hill-Burton Act was amended after the revelation that there were very few nursing homes with skilled nurses to provide care. The amendment provided funds for those nonprofit organizations so that they could construct hospital like buildings for skilled nursing facilities. Over the next few years, funding to nursing programs increased and in the 1960s the Kerr-Mills act created a program called Medical Assistance for the Aged (MAA). For the first time ever "Medically Needy" was now covered under the MAA (Medicine, 1986).

In the late 1950's quality control in nursing homes started to gain a public eye as States themselves started to report issues. A study in 1955 by the Counsel of State Governments, found that relatively untrained personnel were employed at most nursing homes and that they functioned at relatively low standards. Now the issue of the quality of state licensing standard and enforcement came up, leading to a marked change with the passing of Medicare and Medicaid in the 1960s. In 1963 the Nursing Home Standard Guide was released which outlines mandatory nursing home standards and also made endorsements for supervisory organization and procedures (Medicine, 1986).

A nation scandal erupted in the 1970's when talk of abuse in nursing homes became rampant. Relatives again started to feel guilt for leaving their loved ones in nursing home, much as they had during the times of the almshouse. In 1972 the Medicare and Medicaid supported nursing homes were made to follow specific requirements that reduced patient compensation for most people looking to enter skilled nursing homes. These measures are what started the "Assisted Living" industry.

Social Trends and Developments within our Society

A large concern or societal conversation of our time is how are we going to take care of the ageing baby-boomers? One of the largest generations so far in our history, how are we to care for them as they age? You would think, that with the increase in senior population, more nursing homes would start cropping up, however, it turns out the opposite is actually true. The number of nursing homes in our nation hasn't increased or decreased much past 15,000 in more than a decade. It's actually thought that the number will decrease by 20% by 2021 (Rust, 2016).

Driven largely by insurance reimbursement, its looking like home care and assisted living facilities are becoming popular. Nursing homes just aren't making enough money, Medicare and Medicaid make up 90% of their revenue and the rest comes from private long term care insurance. The facilities can't keep up! These programs certainly help those who can't afford to pay for care otherwise but nursing homes continue to loose money (Rust, 2016).

Construction and renovation of nursing homes has nearly stopped because people aren't willing to invest because of the volatility of future revenue. By 2050 the amount of people in their 80's and older will increase by 4.5% and these are the ages that use nursing homes. Not exactly a huge jump quickly. And the babyboomers? They aren't going anywhere fast, with life span increasing they aren't willing to stop just yet, the oldest are in their 70's with the youngest being in their 50's. Especially with movements towards better health, it is unlikely the babyboomers will even need these facilities for another 20 to 30 years (Rust, 2016).

With this in mind, nursing homes, especially assisted living operations, are still vital for a lot of people and are anything but obsolete.

Cultural Context

The Culture surrounding nursing homes is one of perceived abandonment and guilt. Abandonment felt by a large percent of the elderly who would rather not agree to living in a nursing home and guilt from the family members who do not have the means to take care of the elderly and so put them up in a nursing home. Because of these feelings many families create shared care patterns between themselves and a long-term care facility (McFarland & Zehnder, 2006).

There is a large push to change this however, movements have been made to make facilities more amenable to both staff and residents. If the facility and work conditions are more conducive to the work the employees must preform then they are more likely to be satisfied with their surroundings. Likewise, resident based design of nursing homes is being pushed as well because if a resident feel more at home in a nice facility that has everything they could need, they are less likely to be unhappy and to in turn make life harder for the employees (Banaszak-Holl, Castle, Lin, & Speizer, 2014).

SITE ANALYSIS

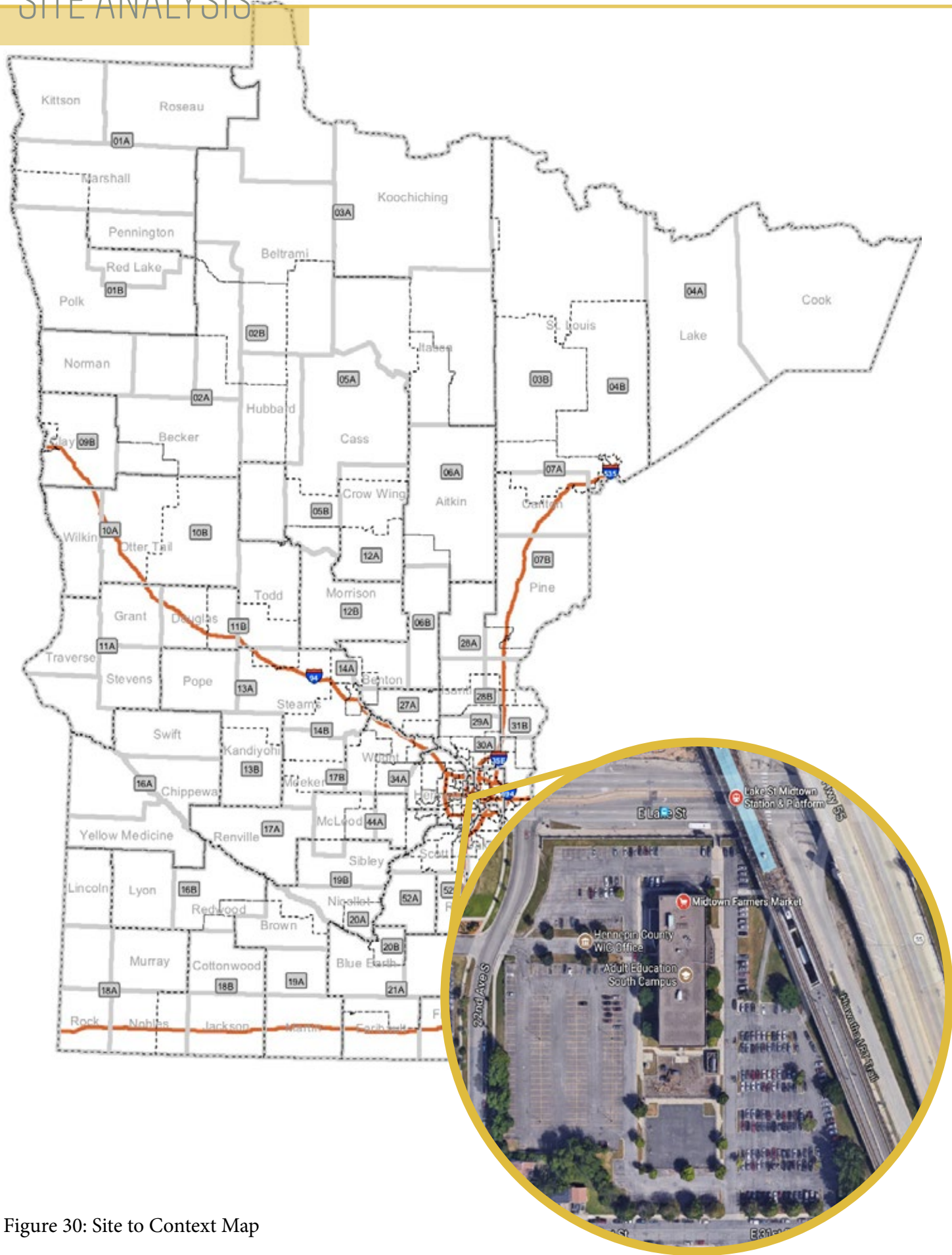


Figure 30: Site to Context Map

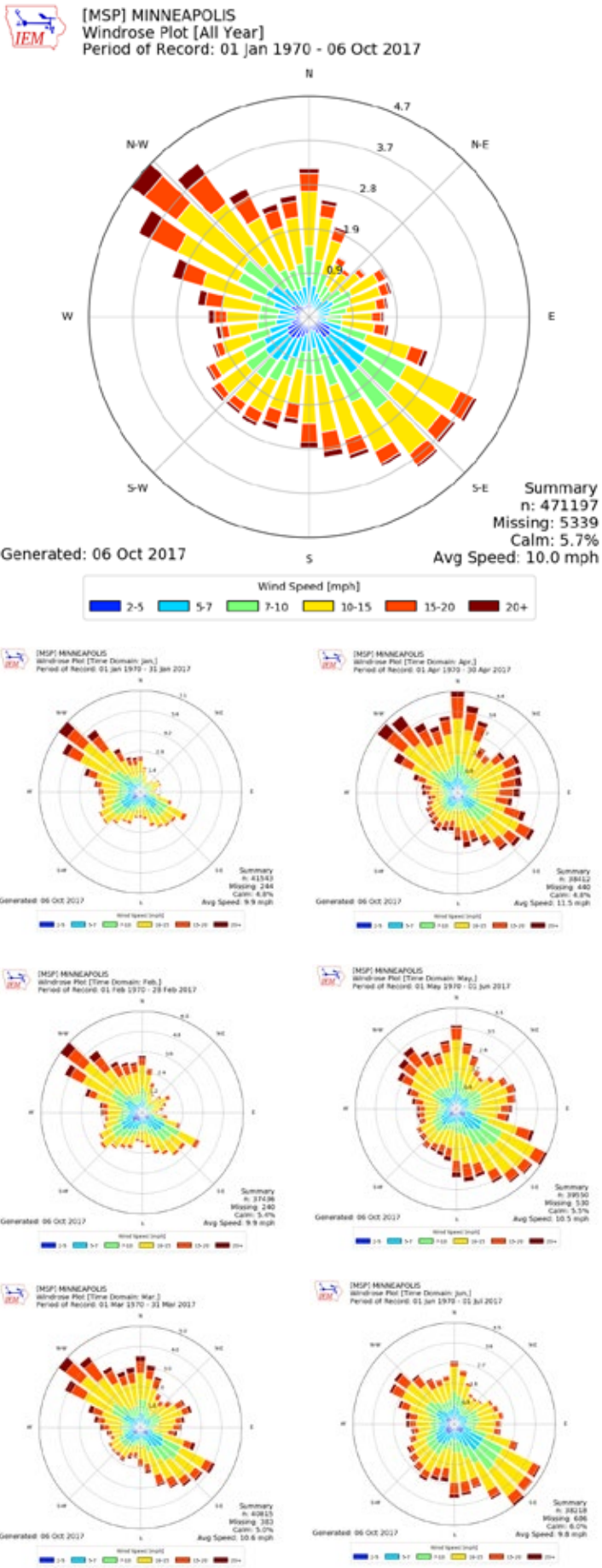


Figure 31: Wind Roses for Minneapolis

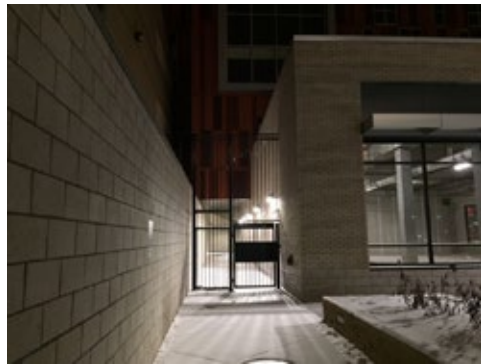
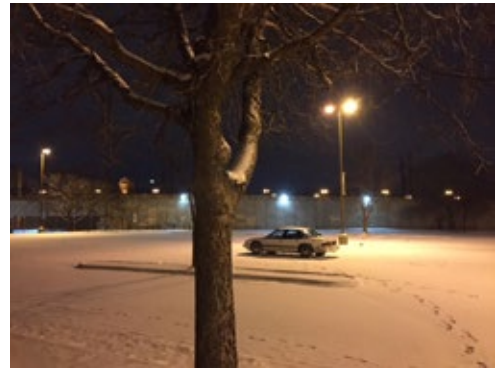


Figure 36: Site Photos

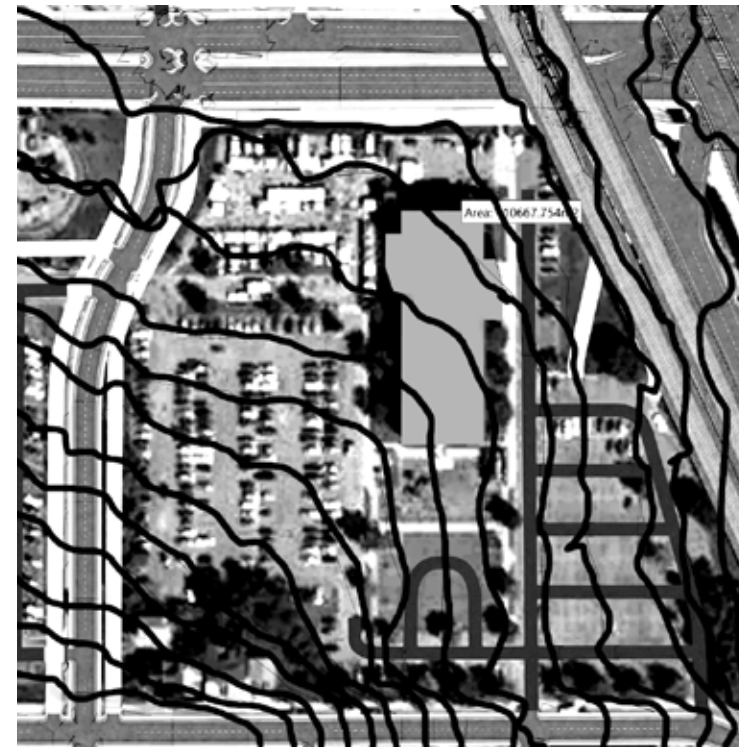


Figure 32: Site Contours

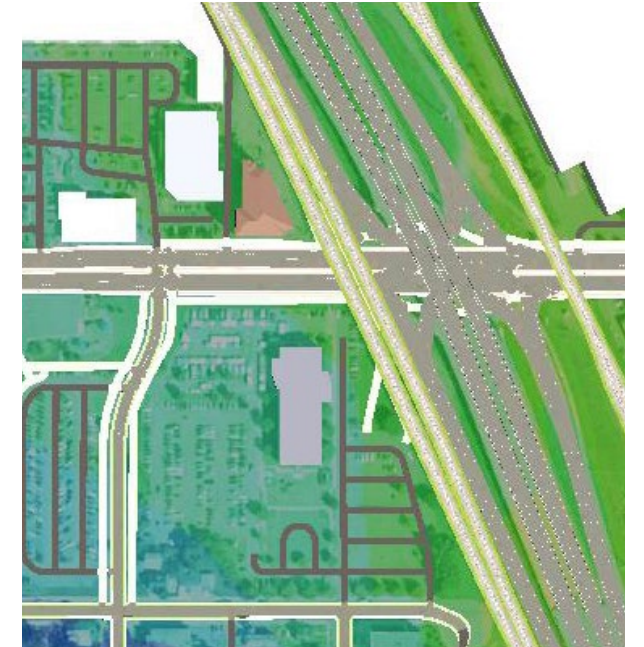


Figure 33: Elevation

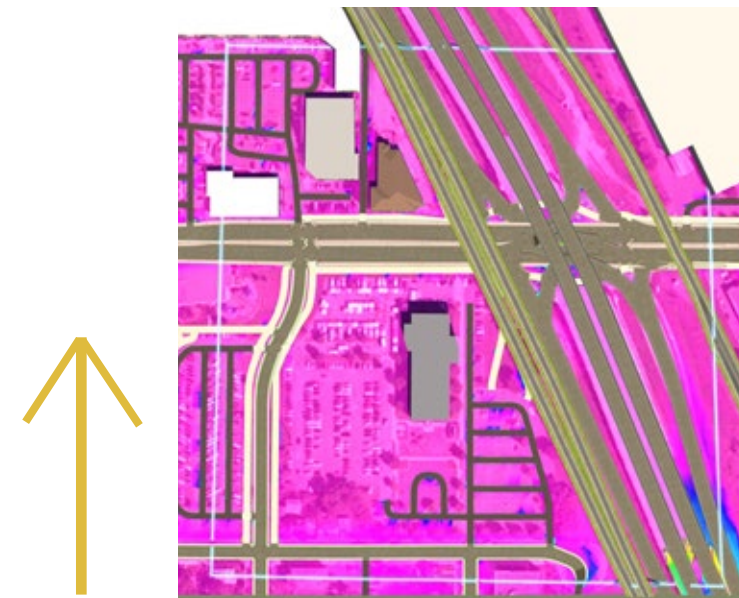


Figure 34: Slope

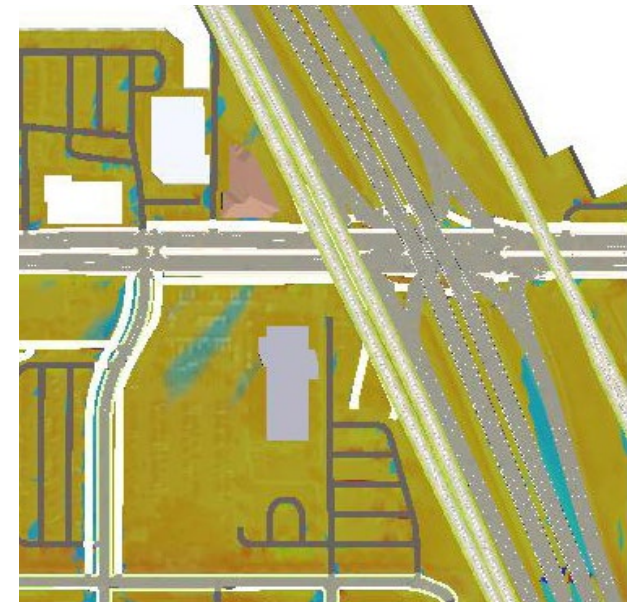


Figure 35: Aspect



I've grown up in this neighborhood all my life, I went to pre-school in the brown brick building sitting in the parking lot in the pictures previously. In all that time my neighborhood never changed, until I came to college. Now where there used to be an ominous stone wall and plenty of parking spaces, they have built a mixed-use apartment and retail mid-rise around the North-west corner of that brick building. The gentrification doesn't just stop there either, there is another apartment complex that was just completed about a year ago across East Lake Street to the North of the site and another just across the street to the south.

This area of Minneapolis is urbanizing quickly and it had a lot to do with how well this area is connected.

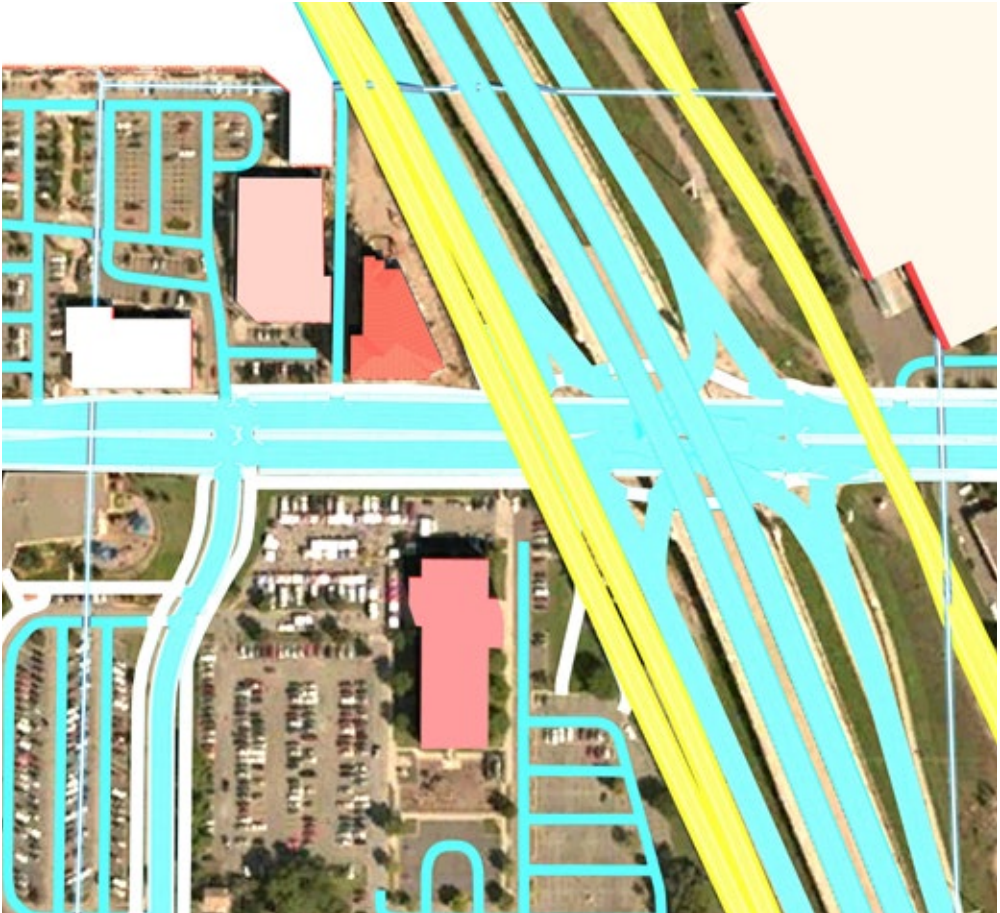


Figure 37: Transportation

As you can see in this figure, there is no shortage of options for transport here. East Lake Streets Light Rail station connects to the parking lot of my site and there is a city bus stop on the north-east corner of my site. The blue lines you see are street, two major arteries in Minneapolis, Hiawatha heading North South and East Lake Street heading East West. The Yellow lines in the figure are railroad tracks, the ones closest to my site are the light rail tracks, not far at all to go from there if you want to go downtown (to the north) or to the Mall of American (to the South).

Program

The Space requirements I have documented here are just preliminary figures because I have a few other spaces I have only recently started considering adding on to the plan for the Nursing Home. I want to be as intentional as possible with the program and layout of this facility and I require a little bit more research to feel like I have really nailed down the program this nursing home needs. However, as it stands now, all the spaces listed within the space allocation table will appear in my thesis project. I want to make sure the emphasis to this design is on the connection and usability of space for the residents of the nursing home.

Environment

One thing that is crucial through my project will be adhering to the lighting requirements necessary for a nursing home, listed to the right are the Recommended Lumens for each space within the Nursing Home. I plan to stick to this guide and do lighting analysis through elumtools to illustrate my success in the end. I also plan to include rooftop gardens and green walls into my project so that the nursing home can recycle its own water. I would like my project to also qualify Leed compliant when we are done.

Psychology

The sensory Experience within this Nursing Home will be paramount to the success of my project because my focus is on creating experiential space through a phenomenological understanding. I will be illustrating these spaces through video rendering so that those who look in on my project will be able to experience the spaces as they are created. It will be very difficult to say in the end whether or not I have succeeded in this aspect of my design because it does so heavily rely of an individuals point of view. The success of this stage will be whole determined by whether or not I was able to make the viewer understand the intention behind the interior spaces, to present in such a way that it will be as clear to them as it is to me.

Code Compliance

The nature of my typology needs the design to be code compliant with ADA regulations. Because it is the elderly and those of impaired mobility that I am designing for, everything must universal. That means I also must be very intentional with the materials I select for the flooring and other surfaces, while I want them to integrate with the end design, that also must not be a tripping or slipping hazard.

APPENDIX D

Recommended Lighting Levels for Areas Unique to Nursing Homes

Minimum Foot Candles on Tasks At Any Time¹

	Foot Candles
Administrative Spaces: General Office, Medical Records, Conference/interview area/room(s)	50
Corridors – Nursing Areas: Day:	20
Night:	10
Dietary	50
Elevators	15
Examination Rooms	50
Employee: Lounge(s):	50
Locker Room(s):	20
Linens: Sorting soiled linen:	30
Central clean linen supply:	30
Linen room(s)/closets	10
Stairways	15
Lobby area(s): Receptionist:	30
General:	20
Physical therapy	30
Occupational therapy area(s): Work benches/tables:	50
Work area – general:	30
Speech therapy	30
Resident Lounge(s): Reading	30
General	15
Resident dining area(s)	30
Resident care area(s): Room/bed/toilet/reading:	30
General:	15
Nursing station(s): Desk, medication area, nourishment center:	50
General:	30
Corridors day/night (see “corridors” above):	20 - 10
Mechanical-electrical room/space:	30
Utility room: Clean and soiled	30
Janitor’s closet	15
Storage – general	20
Toilet – bathing – shower facilities	30
Barber and beautician areas	50
Waiting area(s): Reading	30
General	20

¹ Source: *Guidelines for Construction and Equipment of Hospital and Medical Facilities*, The American Institute of Architects Press, Washington, D.C., 1992--1993 edition.

Figure 38: Lighting Recomendations

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THE DESIGN

INITIAL THESIS QUESTIONS:

- CAN THE QUALITY OF SPACE; PARTICULARLY LIGHTING, SPACE(VOID), AND MATERIAL, HAVE AN IMPACT ON THE QUALITY OF LIFE AND PERCEPTION OF A NURSING HOME?
- HOW MAY THE RESULTS OF MY RESEARCH REDEFINE THE TYPOLOGY AND REQUIREMENTS NEEDED PROGRAMMATICALLY IN A NURSING HOME FACILITY?
- HOW MIGHT PHENOMENOLOGY BE USED IN THE PROCESS OF DESIGN IN ORDER TO ANSWER THESE QUESTIONS?



PROCESS WORK

Beginning this project was difficult because I had to first wrap my head around the idea of phenomenology. Is the philosophical study of the structure of experience and consciousness.

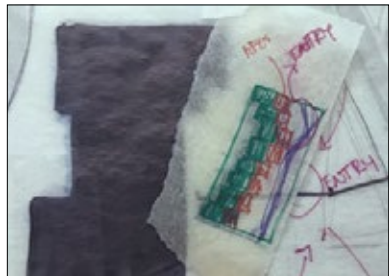
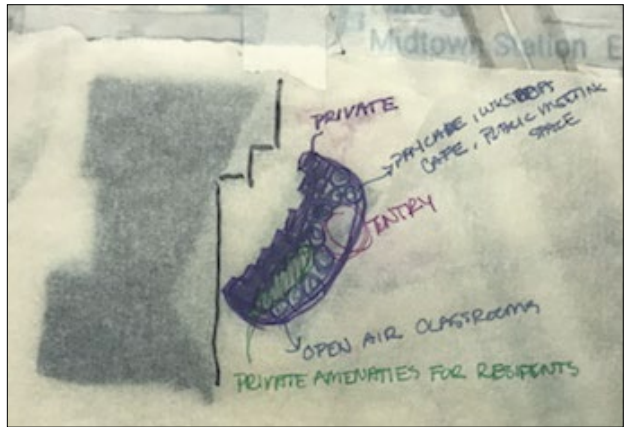
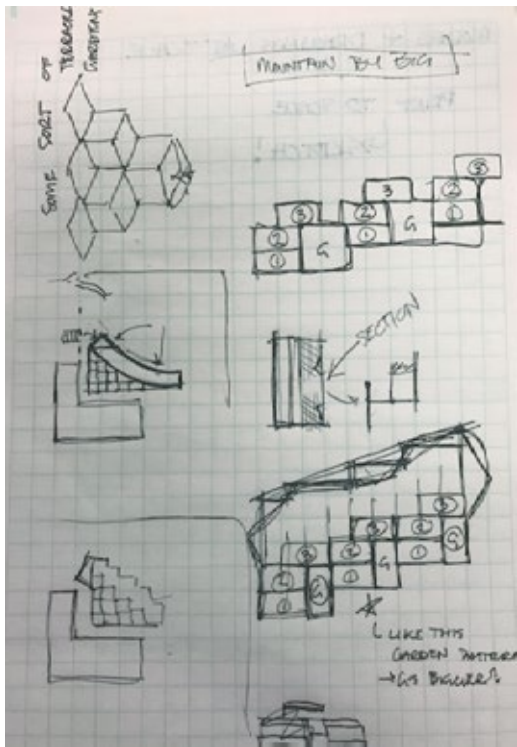
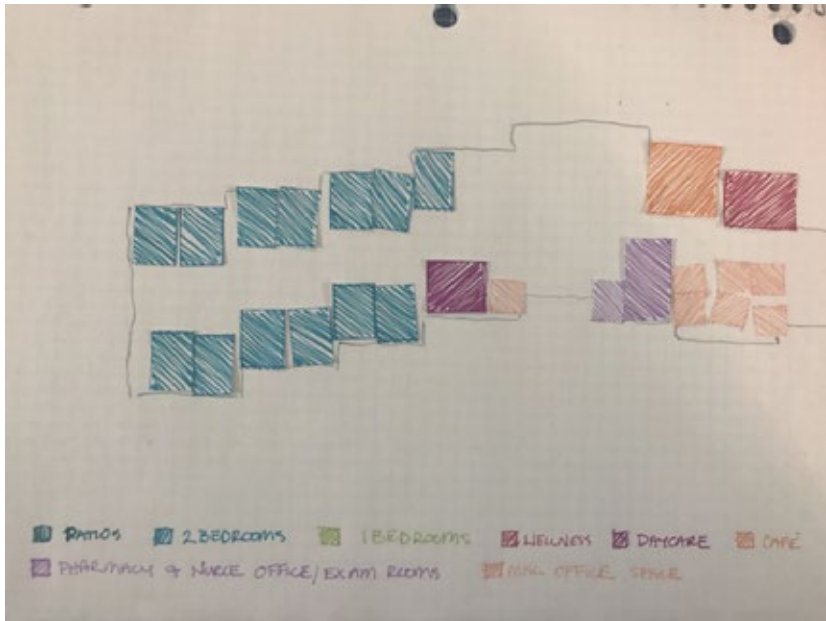
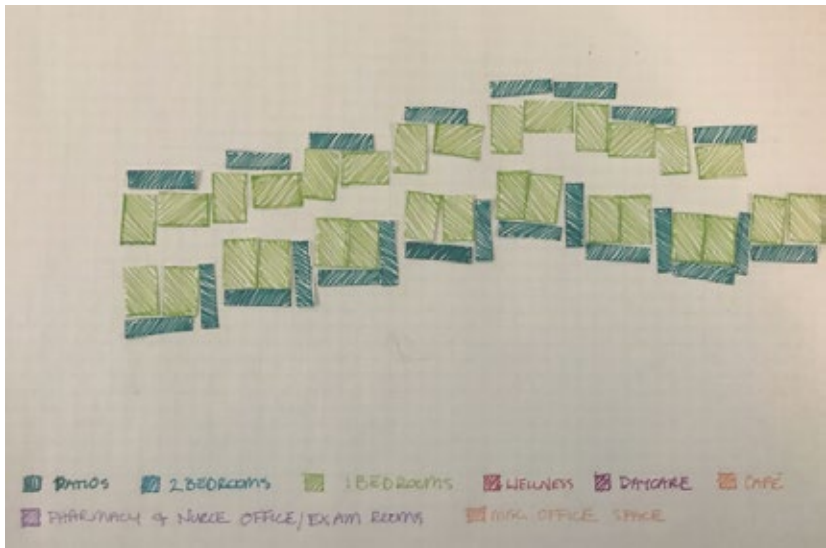
In its most basic form, phenomenology attempts to create conditions from the objective study of topics usually regarded as subjective: consciousness and the content of conscious experience such as judgements, perceptions, and emotions.

The Stanford Encyclopedia of Philosophy says that: "The central structure of an experience is its intentionality, it's being directed toward something, as it is an experience of or about some object. An experience is directed toward an object by virtue of its content or meaning together with appropriate enabling conditions."

Painting, like the ones you see to the right, were integral in promoting my understanding of the kind of spaces I wanted to create. By painting what I thought the feeling on the space would be, I was able to more fully grasp how the spaces on the building would interact.



STEP #2

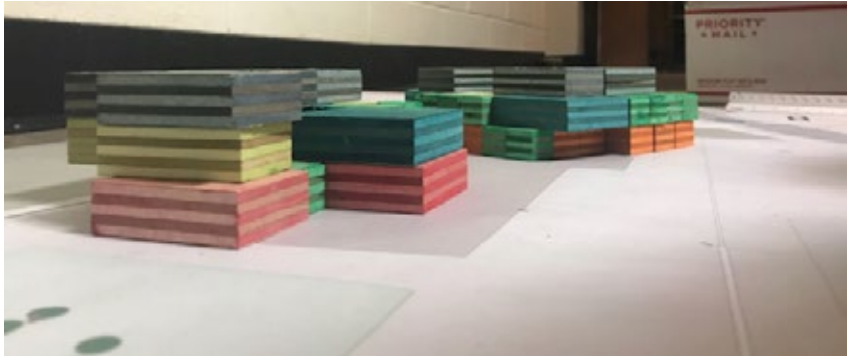
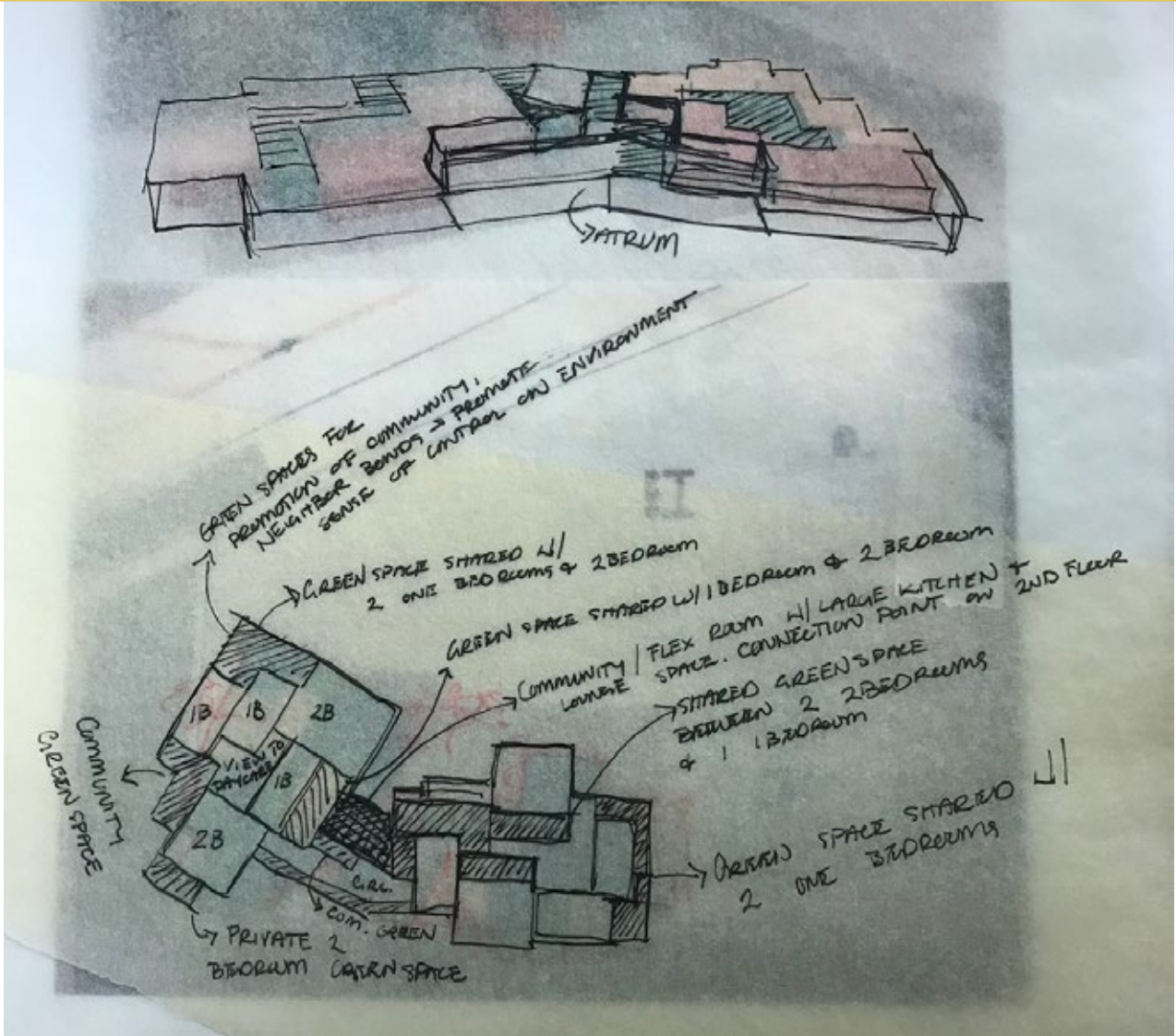
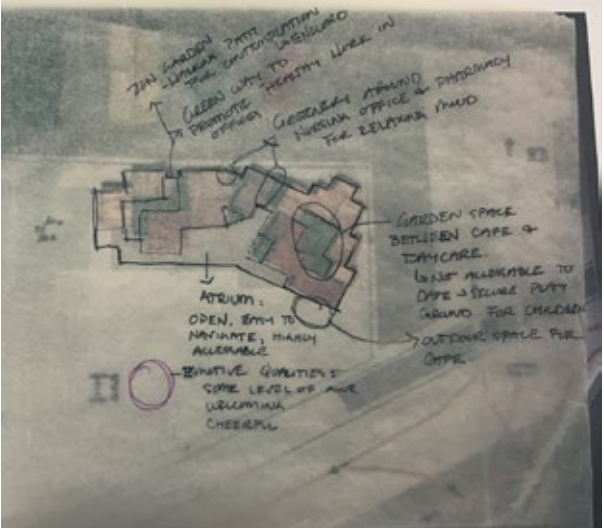
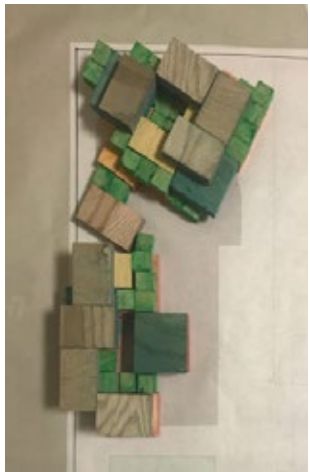


The next step in the design process was to figure out how to lay real and dimensioned spaces out in a way so that I could analyze the way they went together. The goal of this process was to create relationships between space, create spaces that worked as mixing points for people. Garden spaces, at this stage, was the way i was articulating these mixing points, places of conversation.

STEP #3



- Garden Spaces
- 2 Bedroom Apartment
- Nursing Offices
- 1 Bedroom Apartment
- Offices
- Childcare Facility
- Cafe
- Wellness Center



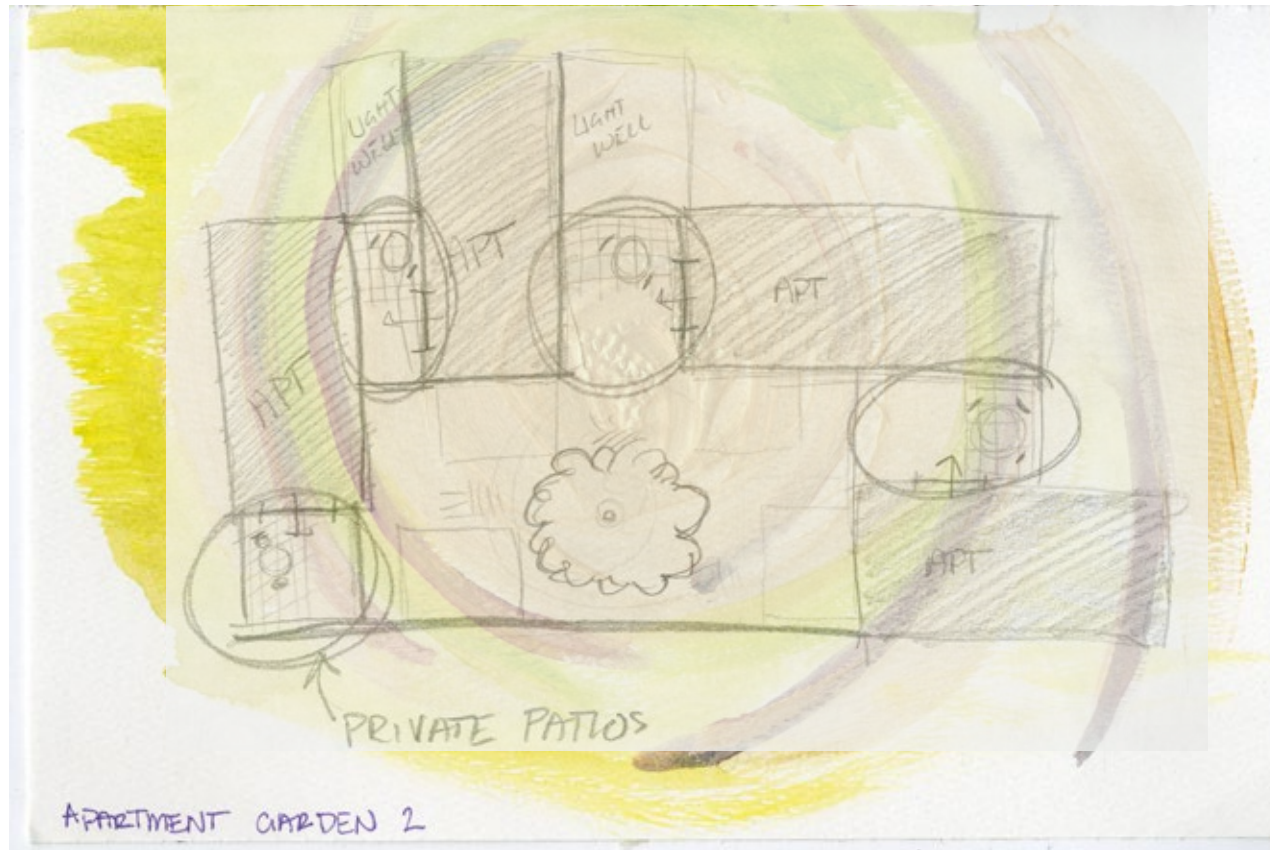
This process of connecting spaces evolved into the 3rd dimension in the form of these colorful blocks. At a scale in 1':1/16" I was able to properly represent space and how they would interact with spaces to the side, above and below it. Once I had placed blocks in a pattern I thought worked, I would draw over the images to try to figure out why it. Through a process of peer review, I came to conclusions on the pattern of these spaces interactions.



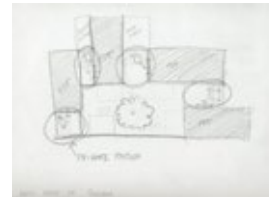
While the colorful blocks worked wonders to push my design and further my process, I had no real understanding of how big the spaces I was representing actually were. So, with the help of a friend pictured above, I laid out the exact dimensions of what I thought was a good sized one-bedroom apartment.

This allowed me to think in terms of actual space so that I could give each tenant of this facility enough space to live vibrantly.



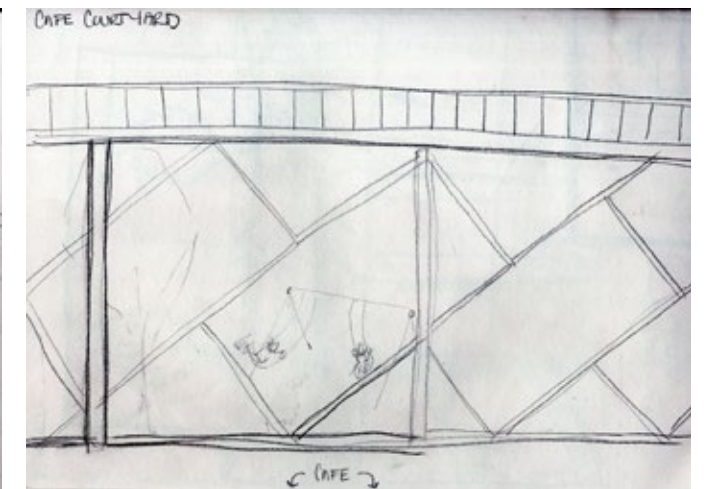
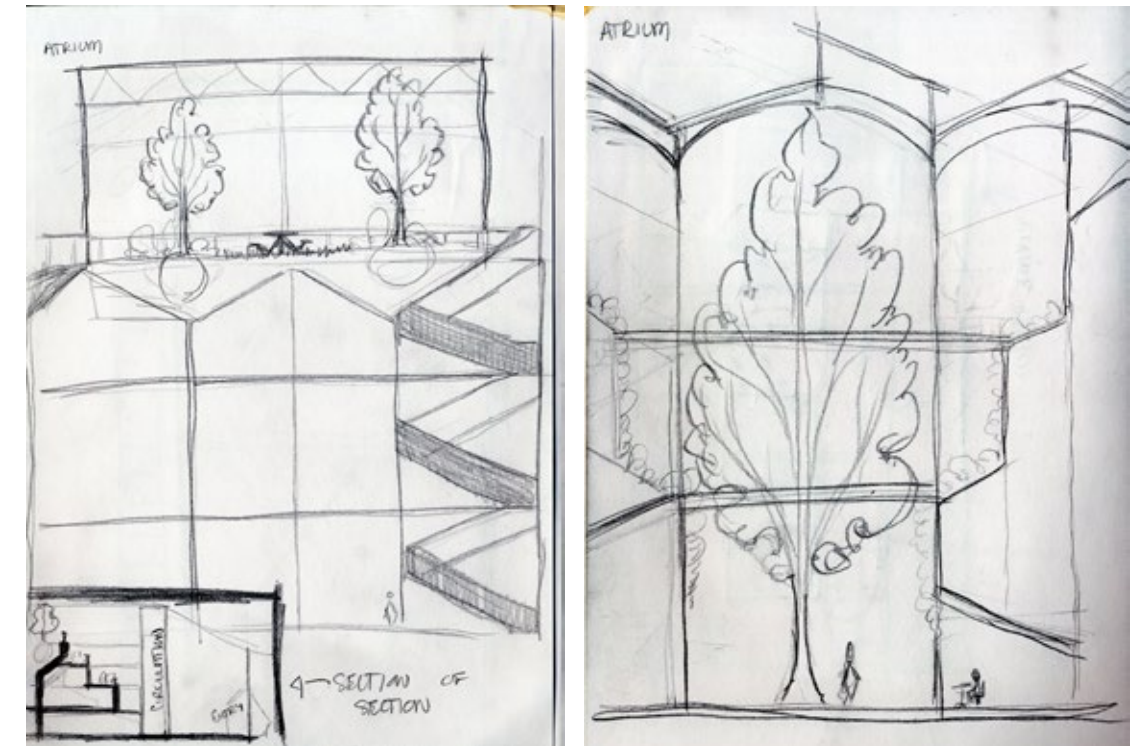


Once I got a feel for laying out the spaces in a way that connected them together via garden spaces, I realized that I hadn't been thinking too much about phenomenology and how that would impact these spaces. So, I started painting again. This led to the drawing you see above, where the layout of the apartments and garden spaces were inspired by the swirling motions in the painting.



The painting itself was done to represent different people coming together into a central community space where their interactions would brighten their experience.

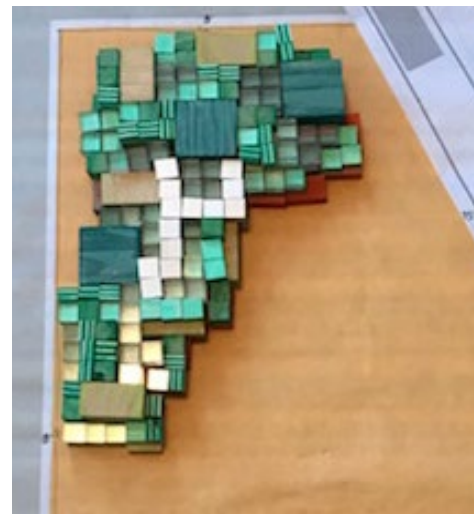
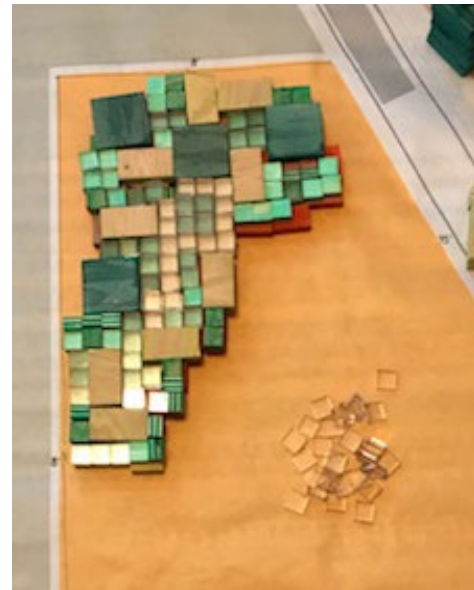
That's where the idea of garden space as a meeting place, a point of opportunity, was furthered.



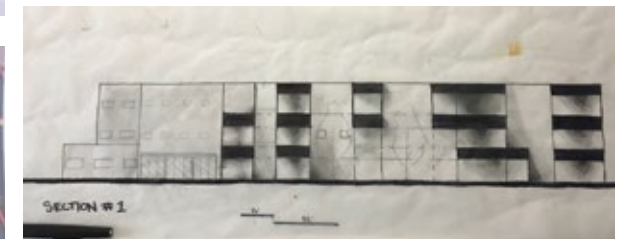
While I was painting, I started to draw what I imagined these spaces on the interior spaces would look like, get a feel for their character and how people might use and interact in them.

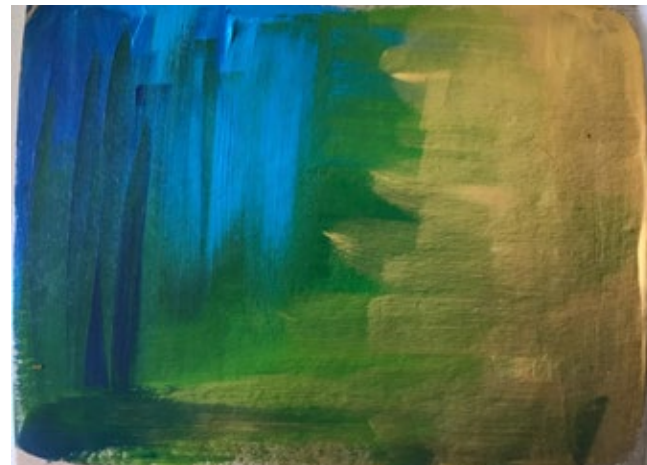


STEP #5



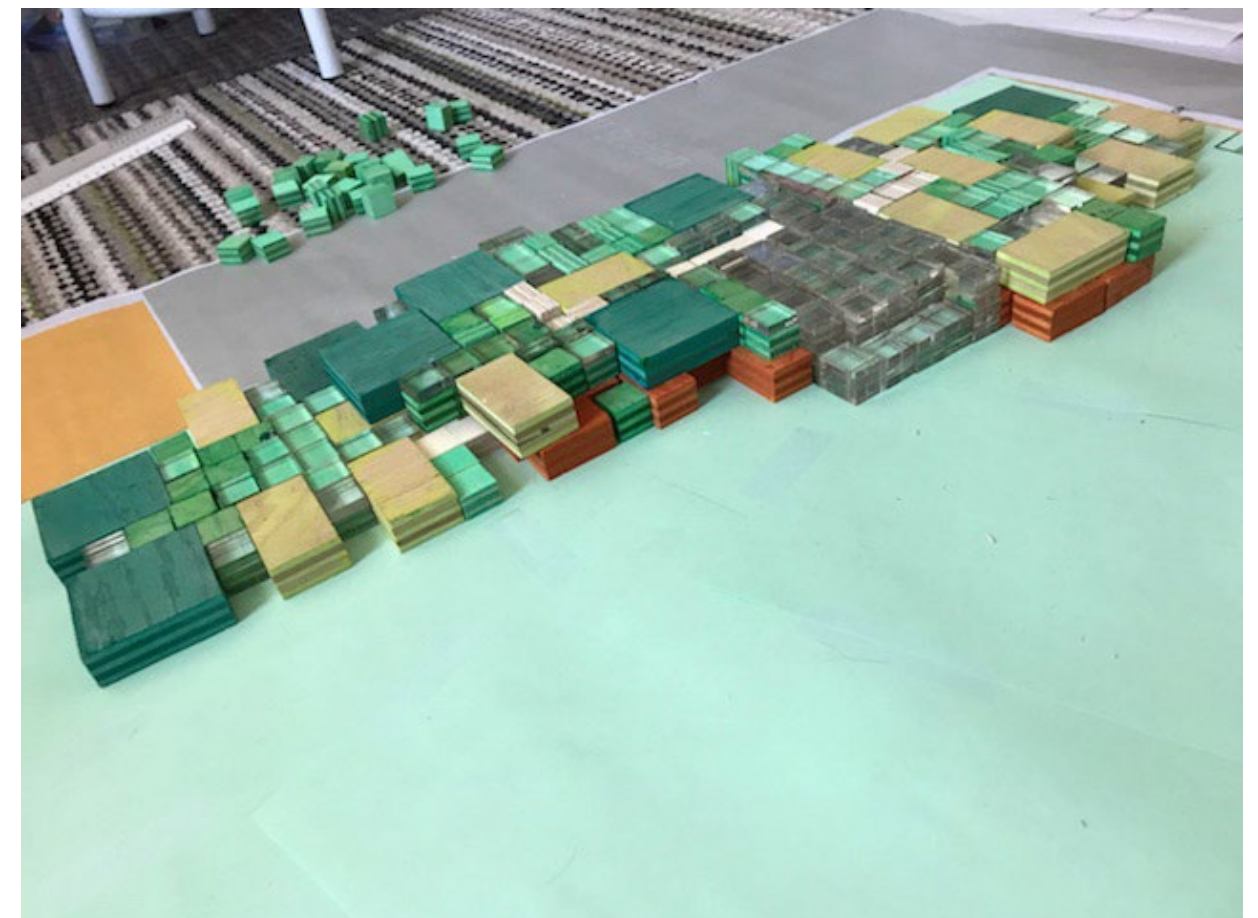
Up to this point the process of my work and picking out space relationships was going well but could be pushed further. Part of the question I am asking was focused on light and my process, while it delved into space and material, lacked a representation for light. So, I proceeded by cutting out clear acrylic blocks to go over the garden spaces so that I might understand how the light would travel through the levels of the building. Once I had a layout I printed out images on them so that I could analyze the ratio of garden space to actual built mass. The result ended up looking more like swiss cheese than I wanted.

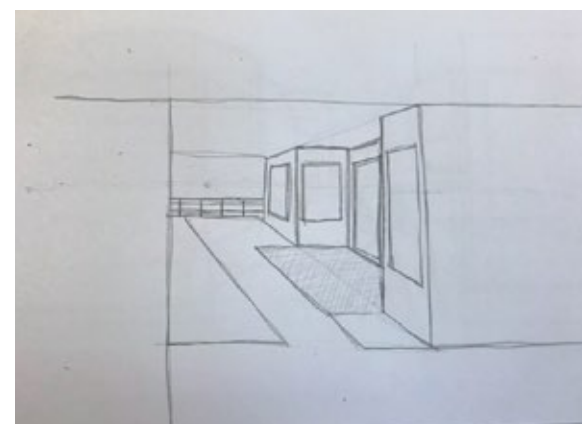
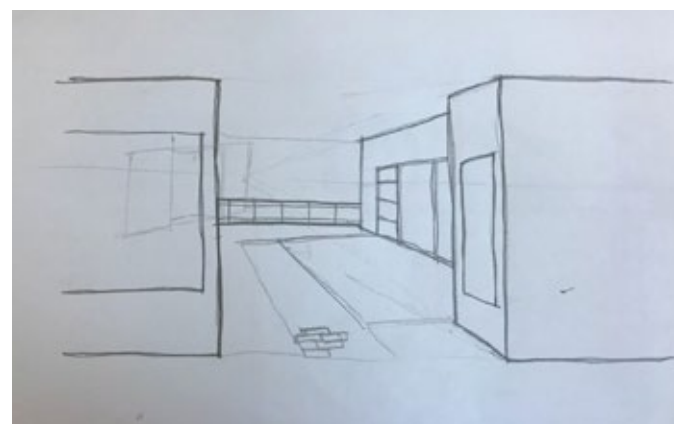
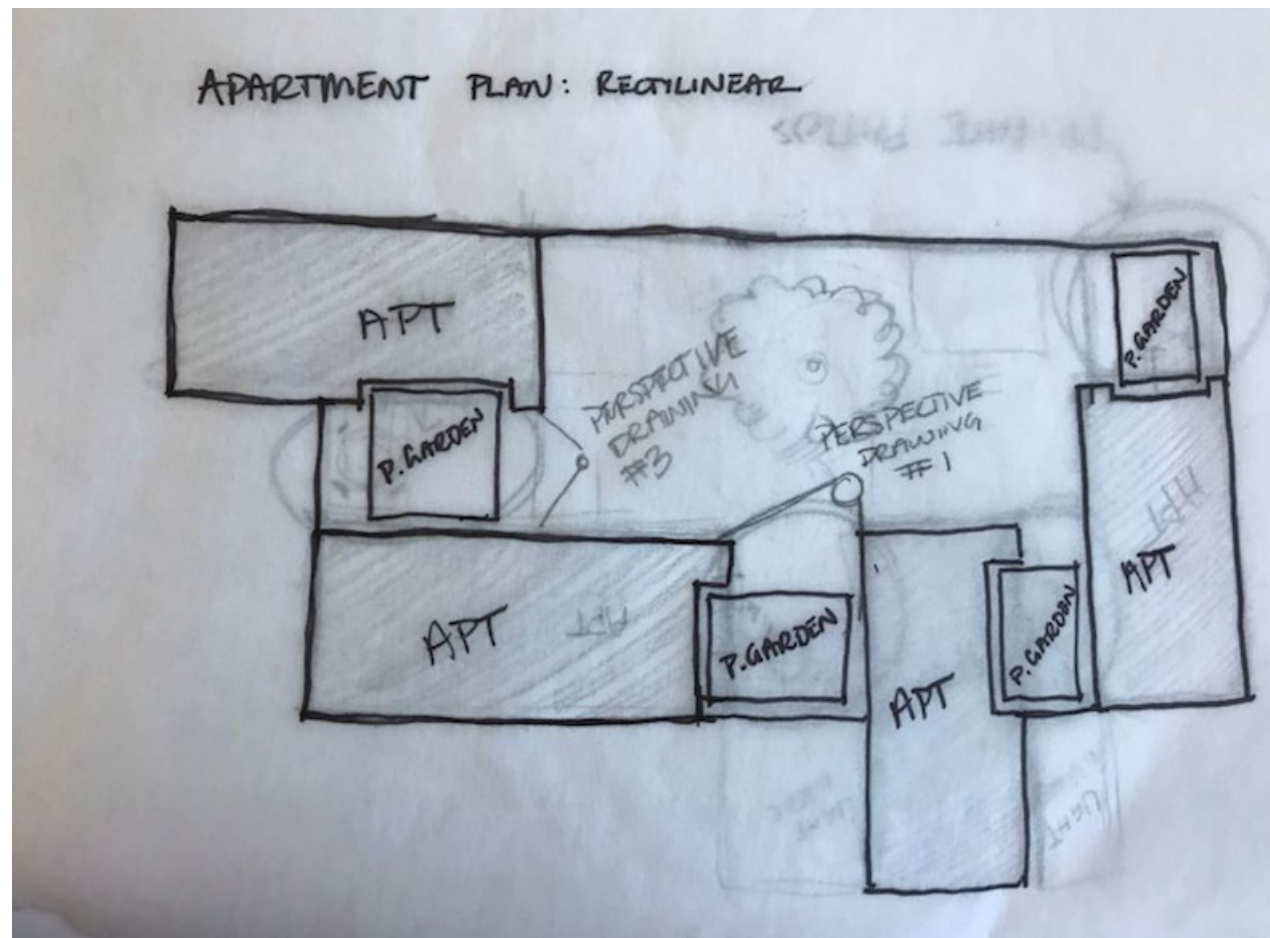




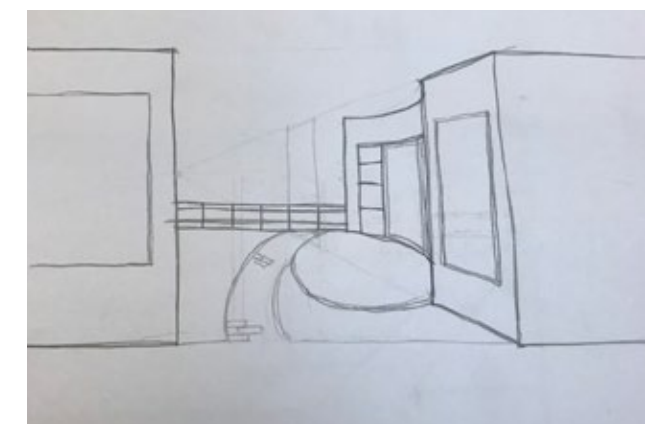
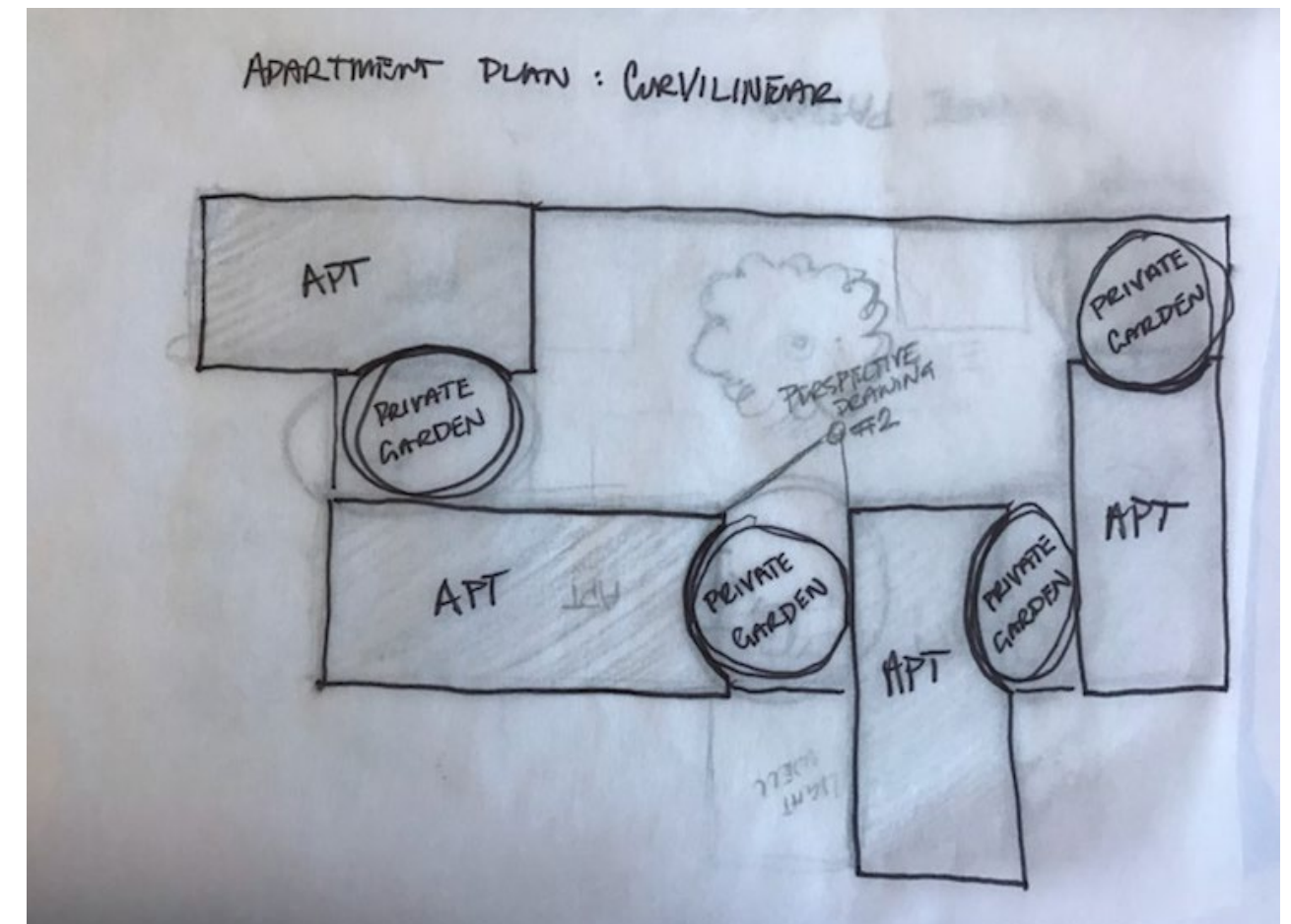
So, I went back to my layouts again and I concluded that this structure would have to be only two levels above ground in order to have a more equal ratio of mass to garden space, allowing both levels more or less equal access to daylighting. The Atrium of the structure was still the center space to the building, a space all others branched off.

The paintings above were made at the same time as I was analyzing the layout of this set of blocks. At this stage, the apartment layout depicted on page 78 makes a reappearance.





Through peer review, I was prompted to play with the relationships of the apartments to the garden spaces. Before there was no real ownership to the individual garden spaces and the apartments they belonged too. Having garden space that could also be specifically owned by one apartment was very important so that the tenants of this facility could feel more autonomous, have an option between being alone and being around others.



On these two pages you can see two different iterations of how the interaction of the apartment and private garden spaces could be solved. I inevitably ended up going with the more rectangular design because it followed with the other patterns of space I was working with. While in peer review, I was also told that the rectangular iteration had more of a feeling of ownership while the circular one seemed to let the private garden spill out into the shared garden.

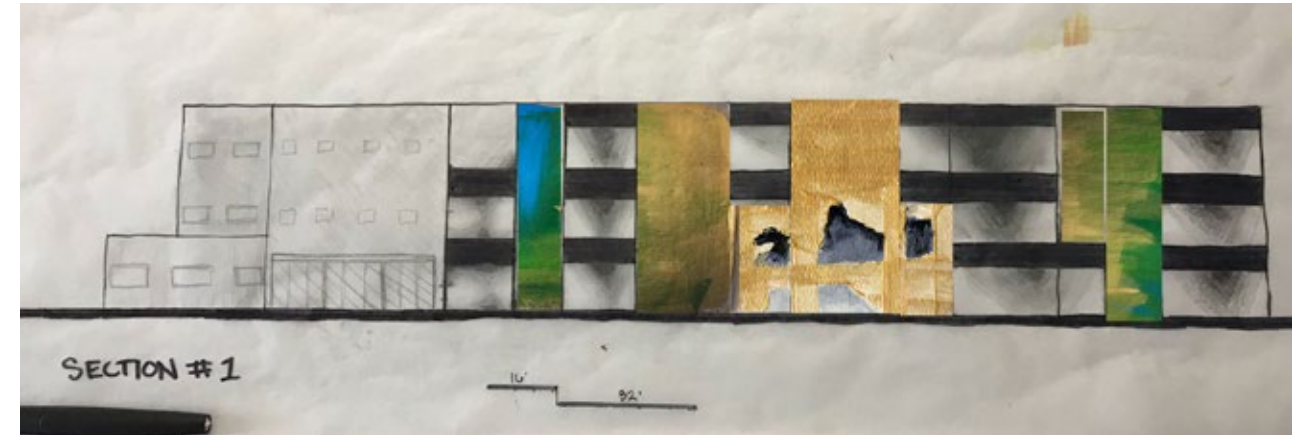
STEP #7: SITE VISIT



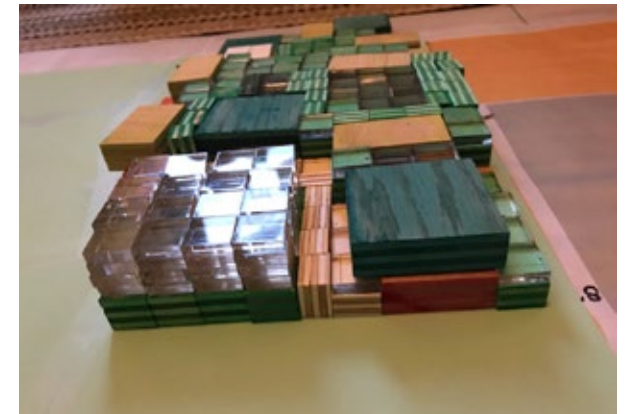
To continue to connect my project back to the site and keep it in the context and parameter I had set for this project, I went back and did another site visit to figure out the relationships between the light rail, the newly finished bus plaza, and the neighboring housing developments.

I really wanted to get a feel for how the building I was planning to put here would interact with the existing conditions. There is a large wall that runs along the east side of the site where the light rail crosses over East Lake street. Having refreshed these ideas of site constraints in my mind, I was able to once again re-iterate my project.

STEP #8

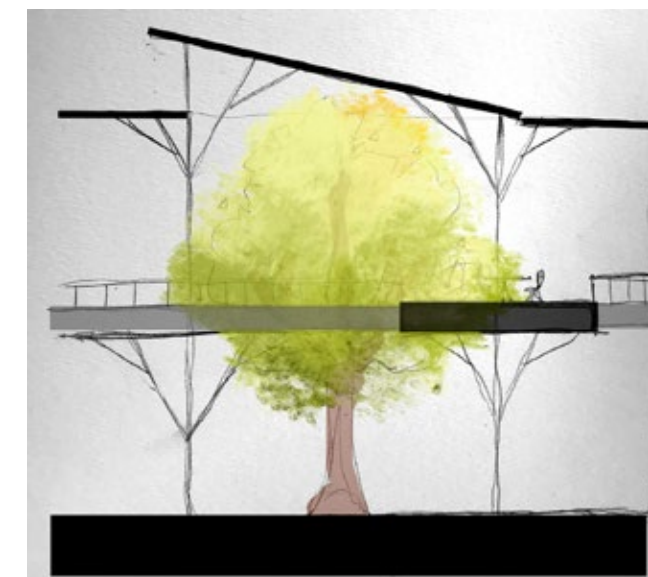
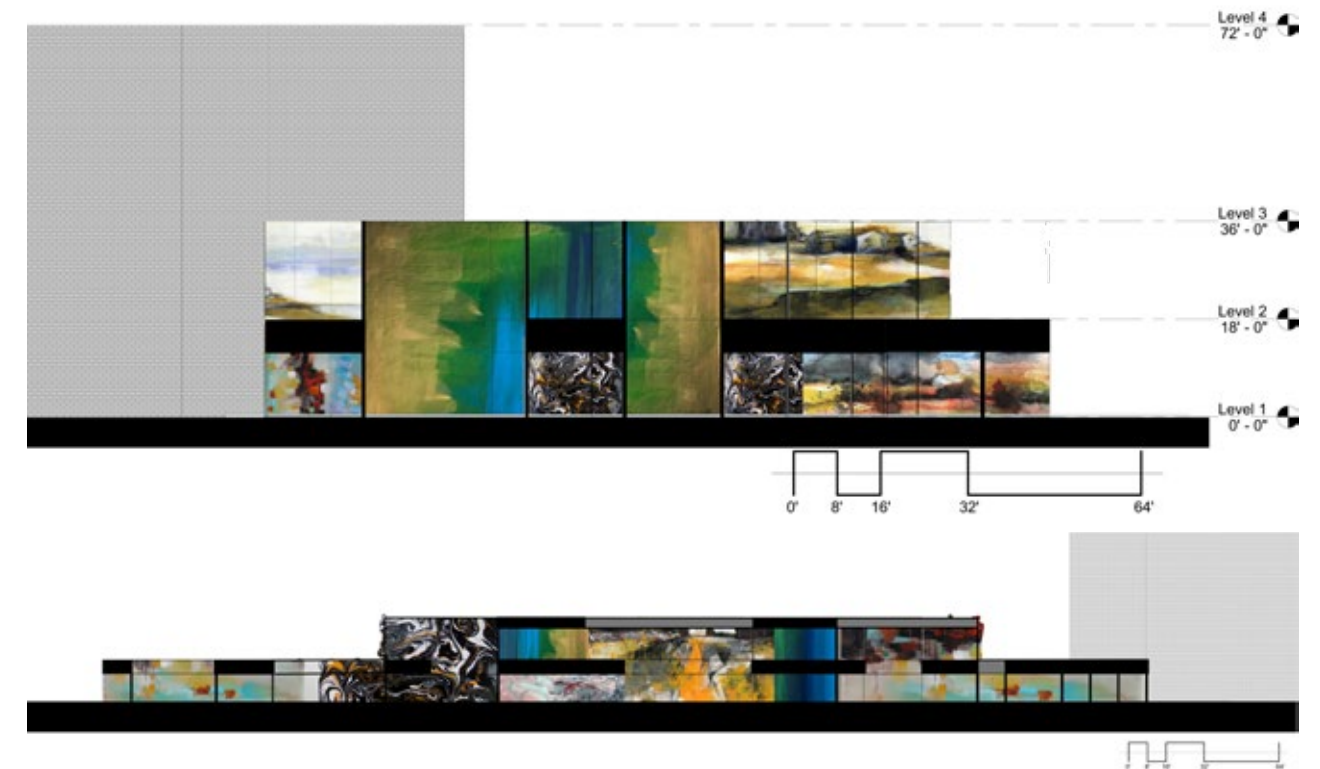
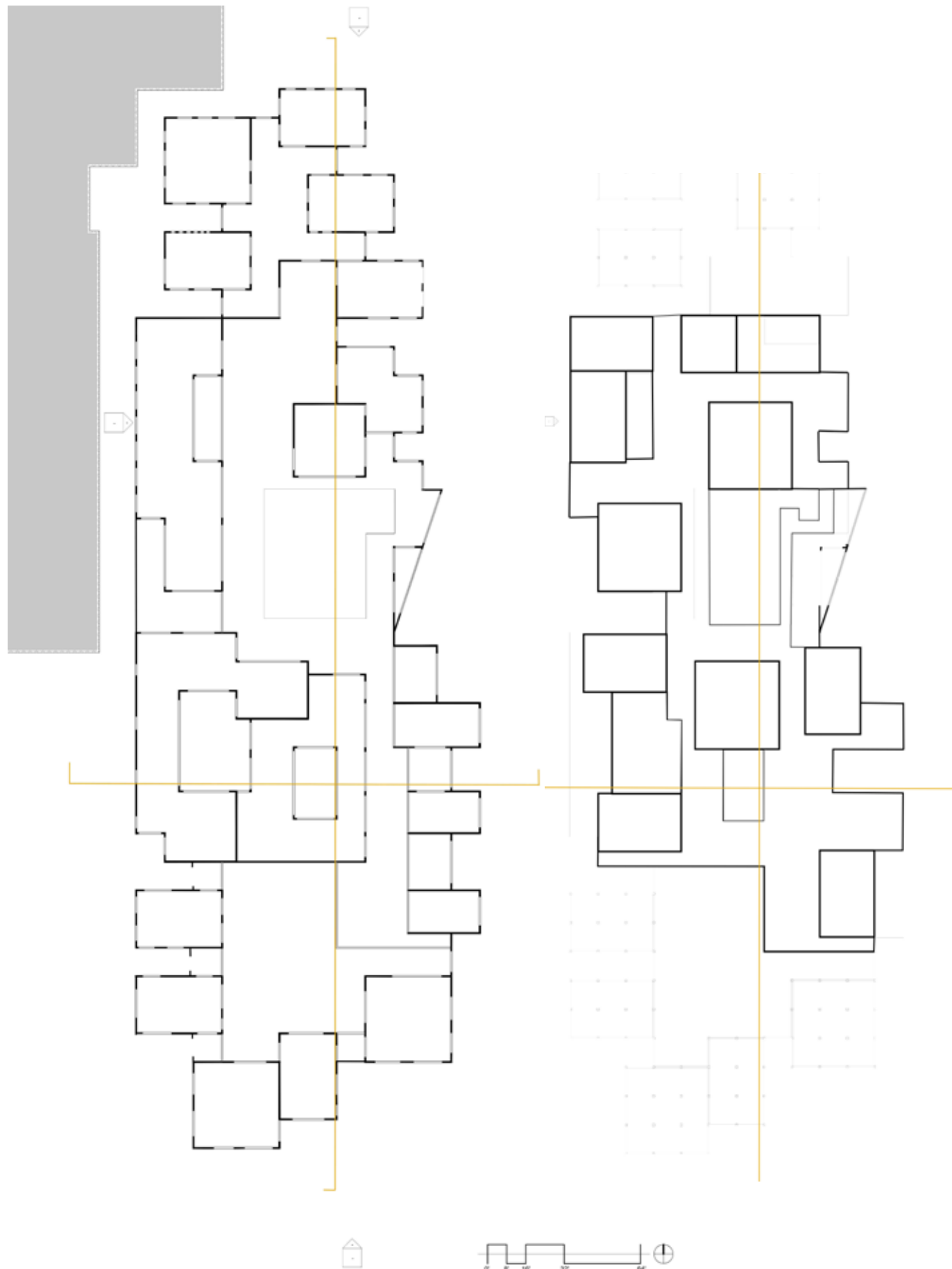


I again utilized the blocks I had created earlier to set up a new building layout. This iteration more fully incorporated the pattern of apartments and their respective garden spaces. It also included a pattern of space that a peer and I roughed out from previous analyses of similar layouts.



This pattern is that between the cafe and the childcare facility, allowing them to share and inner courtyard space where the children could play but the people in the cafe could not access, colored glass that would be slightly frosted would protect the children's identities from the public to add more security to that space as well.

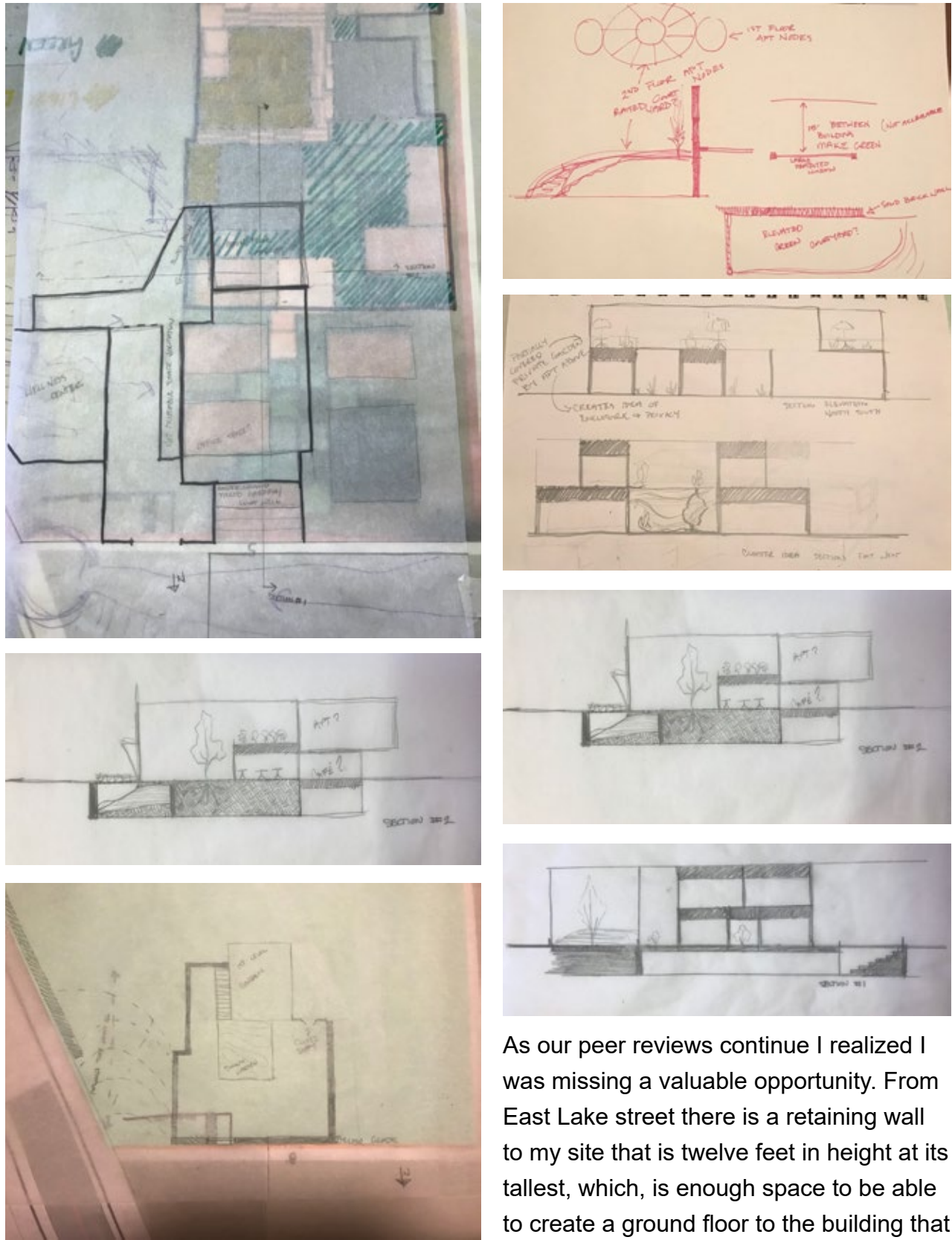
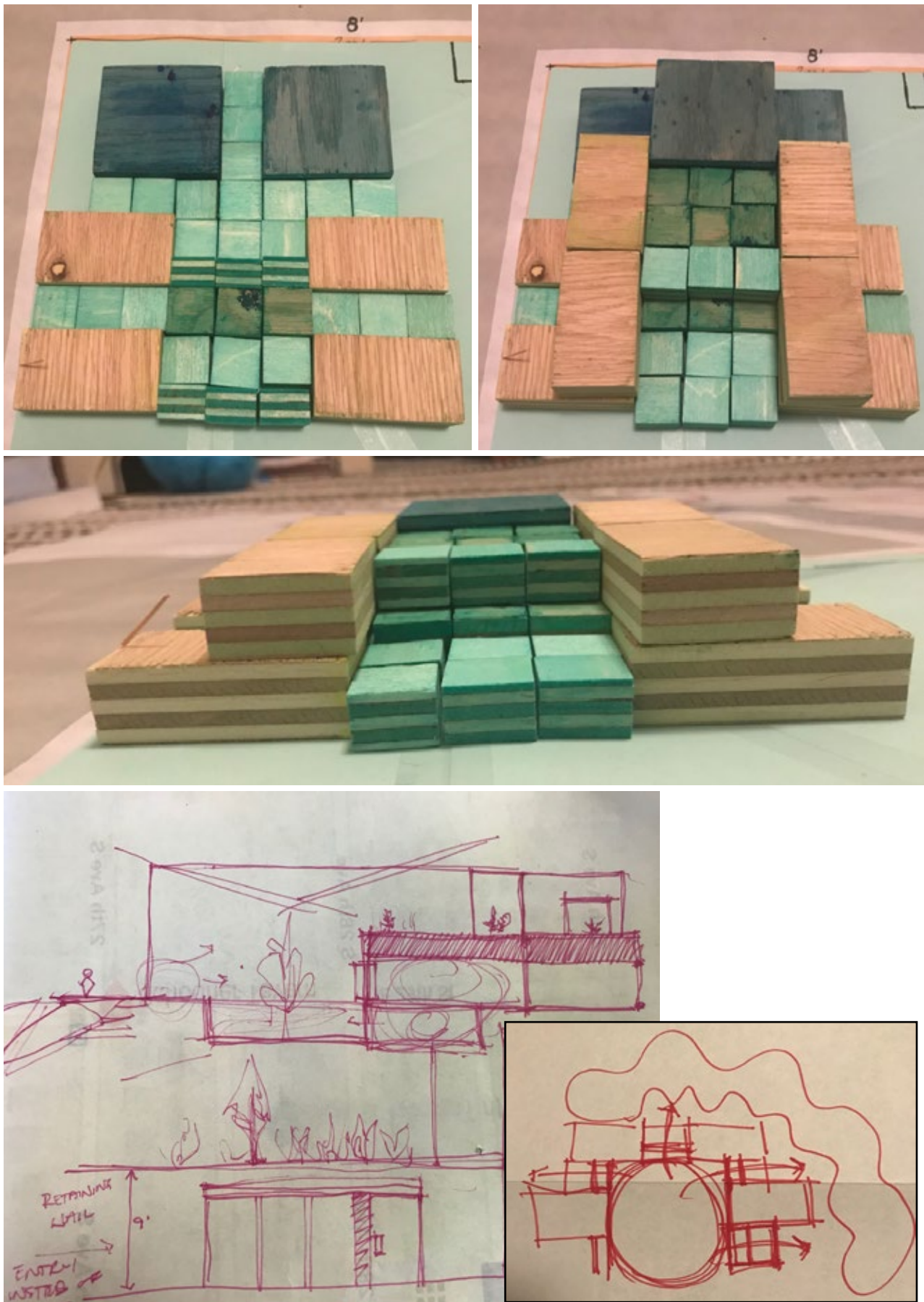
The two sections you see above were my first attempt to describe the quality of the spaces proposed without using words or being present to describe them. This was an exercise in depicting the phenomenology of the space.



Here, the first initial floor layouts as the process of design continues. The yellow lines that run through them show you the relationship to the two section cuts that are seen above.

Again, I have incorporated paintings into the section so that one can get an abstract feel for what these spaces might be like using one's own imagination.

The image with the tree is an initial attempt at depicting what the atrium would be like. Here you can see what I consider to be a canopy walk, this path allows the elderly to again experience what it is like to interact with the canopy of a tree. A treehouse that does not require any climbing



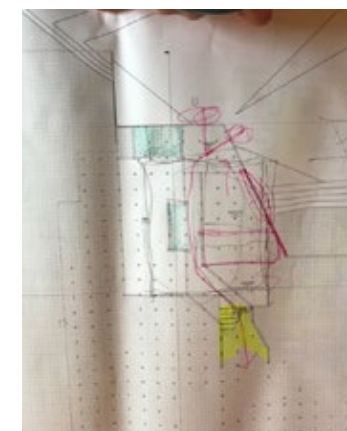
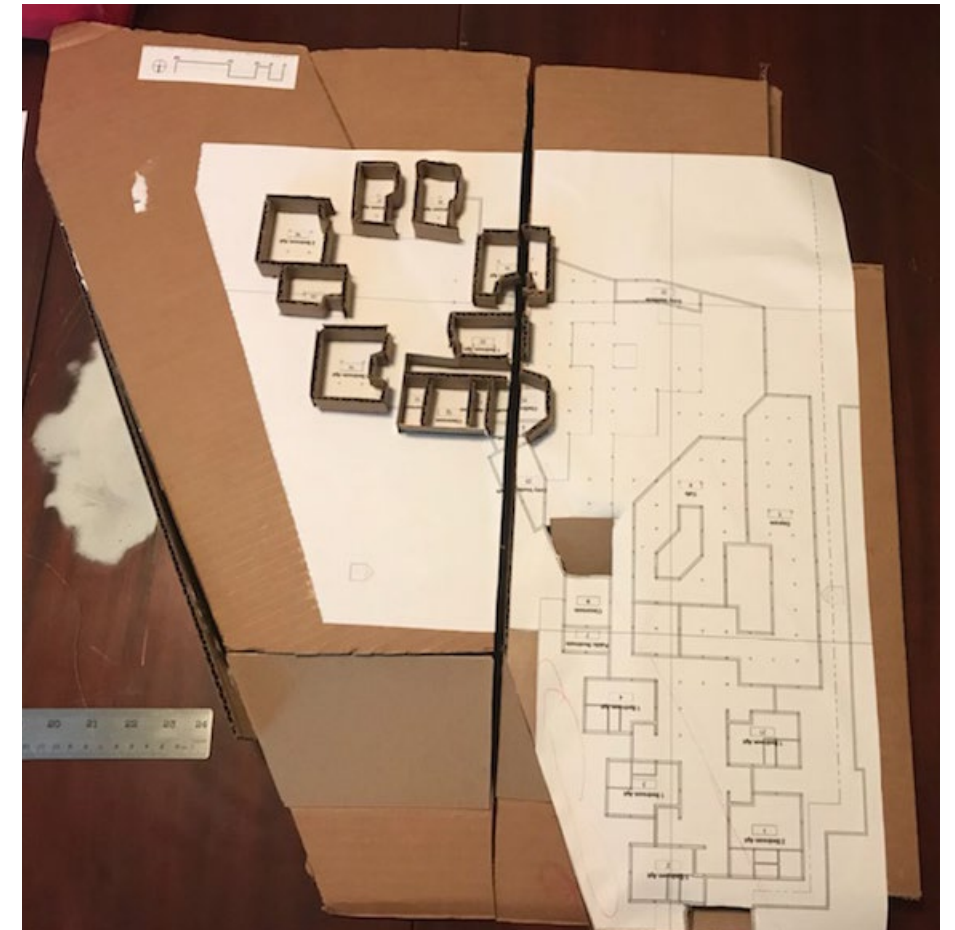
As our peer reviews continue I realized I was missing a valuable opportunity. From East Lake street there is a retaining wall to my site that is twelve feet in height at its tallest, which, is enough space to be able to create a ground floor to the building that would allow people entrance right out of the bus or lighttrail.

Here you can see my studies into how to implement this additional space.



At this point I am very confident in my plan layouts for this thesis and start to input this information into Revit. However, once I put in the dimensions of the site's existing building, I realized that the long and linear building I proposed was going to cut off all access to the west visually. This prompted me to rotate half of the building to more fully utilize the site. It had an unexpected benefit of creating the perfect space for the Mid-town Farmers Market between the building, the light rail and East Lake street.

On the next page you can see a bit how I worked to enhance the design even further.



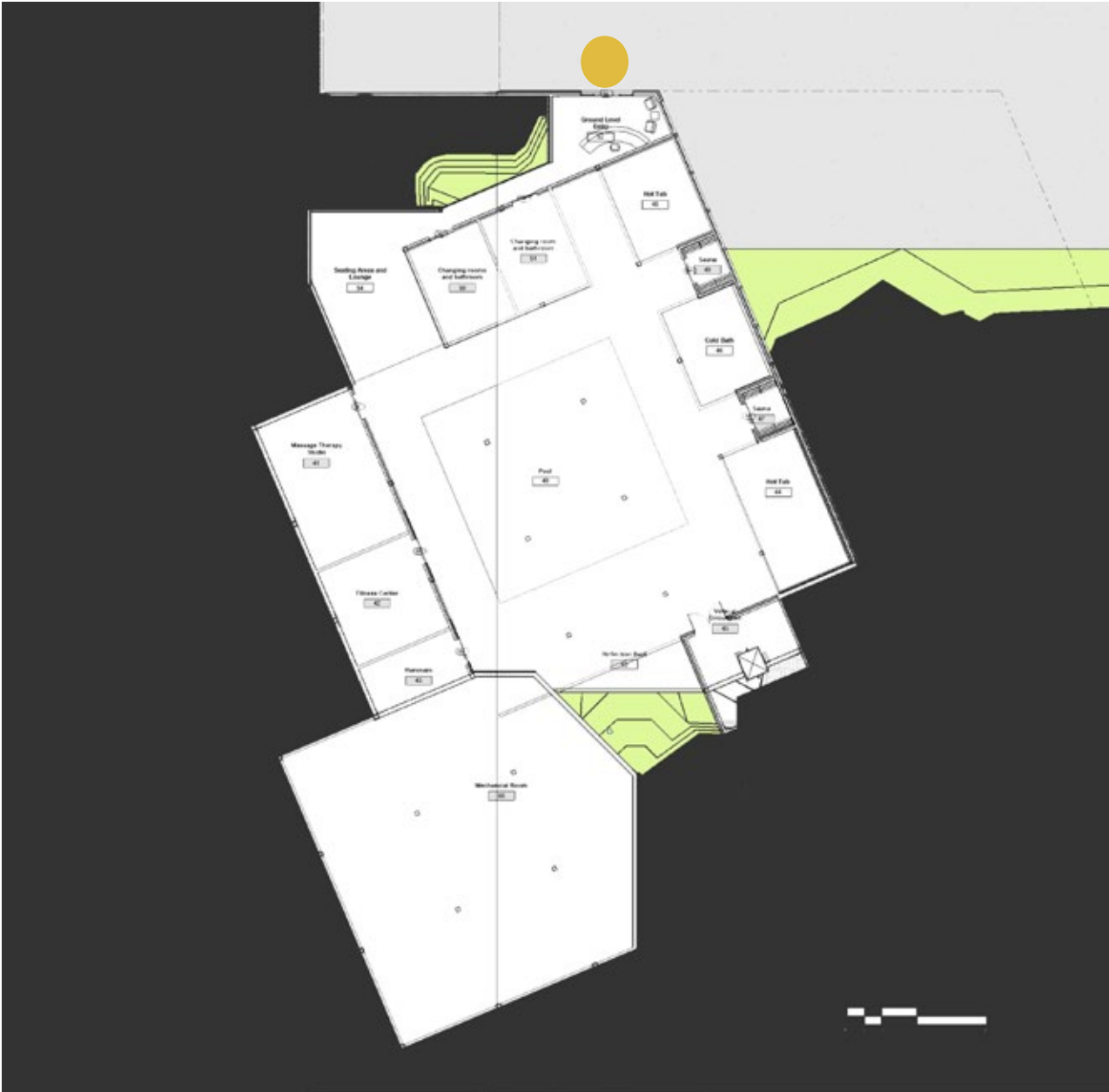
STEP #12: SITE VISIT



PRIVATE:	
1 BEDROOM APARTMENTS.....	500FT^2
2 BEDROOM APARTMENTS.....	700FT^2
BREAK OUT COMMUNITY SPACE.....	(VARIABLE)
PRIVATE GARDENS/PATIOS.....	(VARIABLE)
PUBLIC/COMMUNITY:	
DAYCARE.....	1000FT^2
WELLNESS CENTER.....	1500FT^2
CAFE.....	1000FT^2
COMMUNITY CLASSROOMS.....	360FT^2
INTERIOR GARDEN/GREEN SPACE.....	(VARIABLE)
OFFICE:	
SECURITY.....	200FT^2
RENTABLE SPACE (COMMUNITY OFFICES).....	1000FT^2
ADMINISTRATION OFFICES.....	1000FT^2
HEALTH:	
MESSAGE THERAPY.....	300FT^2
PHYSICAL THERAPY.....	1500FT^2
SPA.....	7500FT^2

PROJECT SOLUTION





Ground Level:
On this level you will find a reception office, changing rooms, a message therapy studio, physical therapy studio, hammam, pool, two hot tubs, two saunas, and a cold pool. Vertical access to the rest of the building is accessible only to the tenants whole reside in the facility.

This space is meant to promote the health and wellness on the tenants and provide the personnel they may need at any point in their stay.



First Level:
The yellow circles on each of these floor plans show where egress into and out of the building are. The North and East wings of this building are designated to elderly living, access into these parts of the building will be restricted to tenants who live there with a system to allow guests access. In the center of the building are the public spaces. Off the atrium you have access to offices, a child care facility, a cafe, two public indoor-outdoor classrooms and public bathrooms.

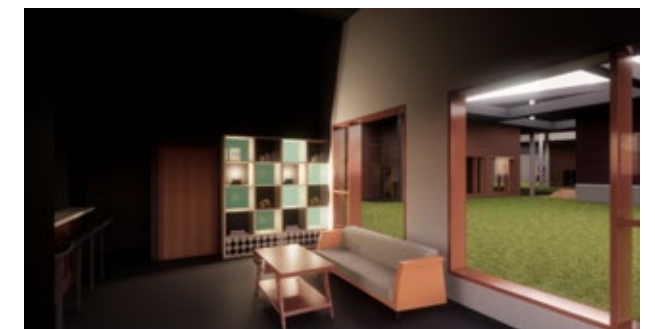
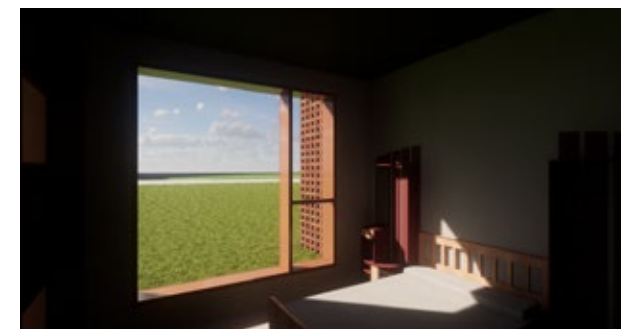
In the outdoor space that is hugged by the building, a zone has been created for the farmers market to be held in.

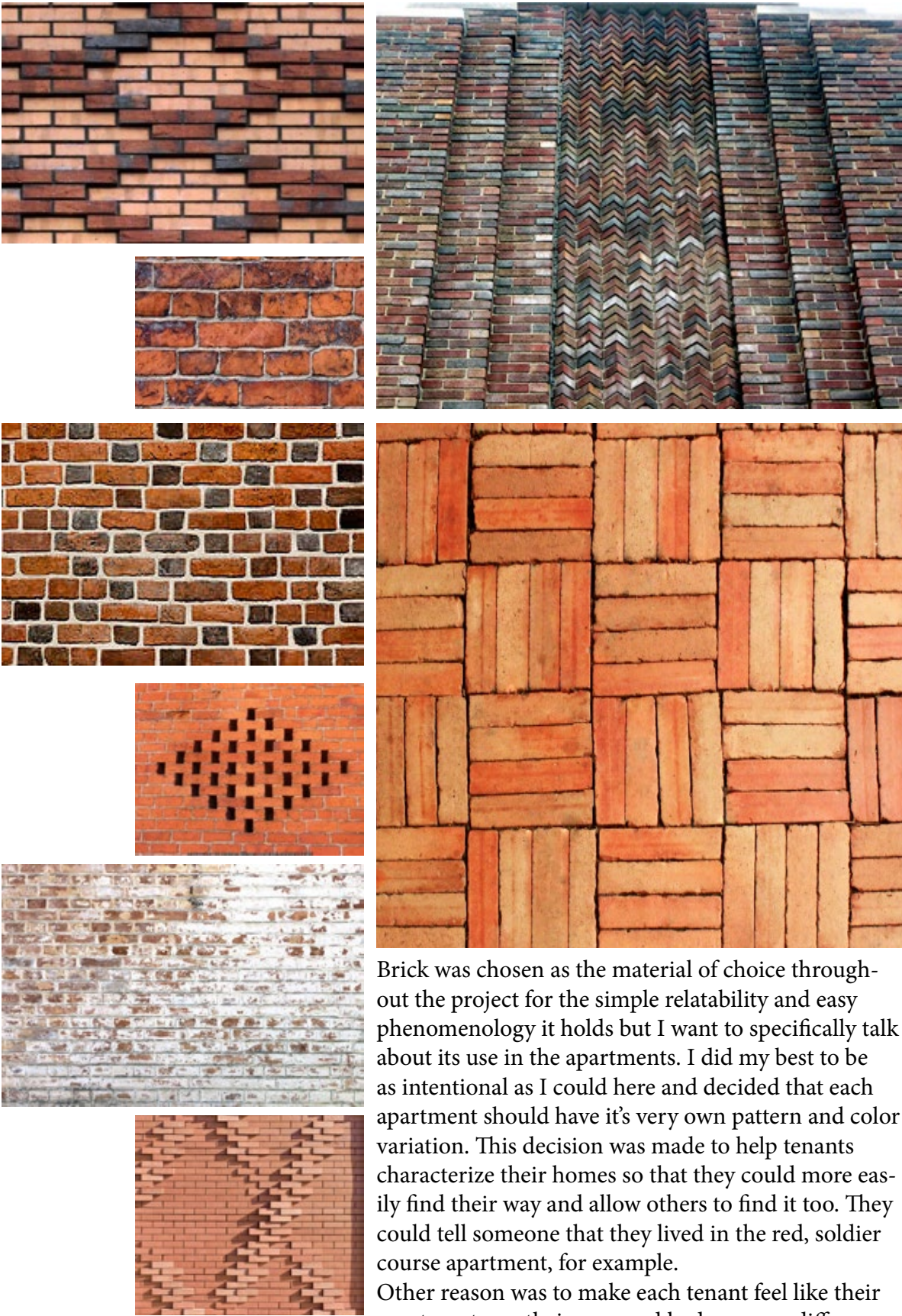


Second Level:

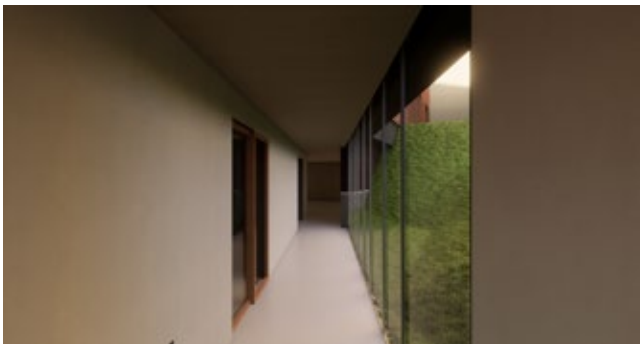
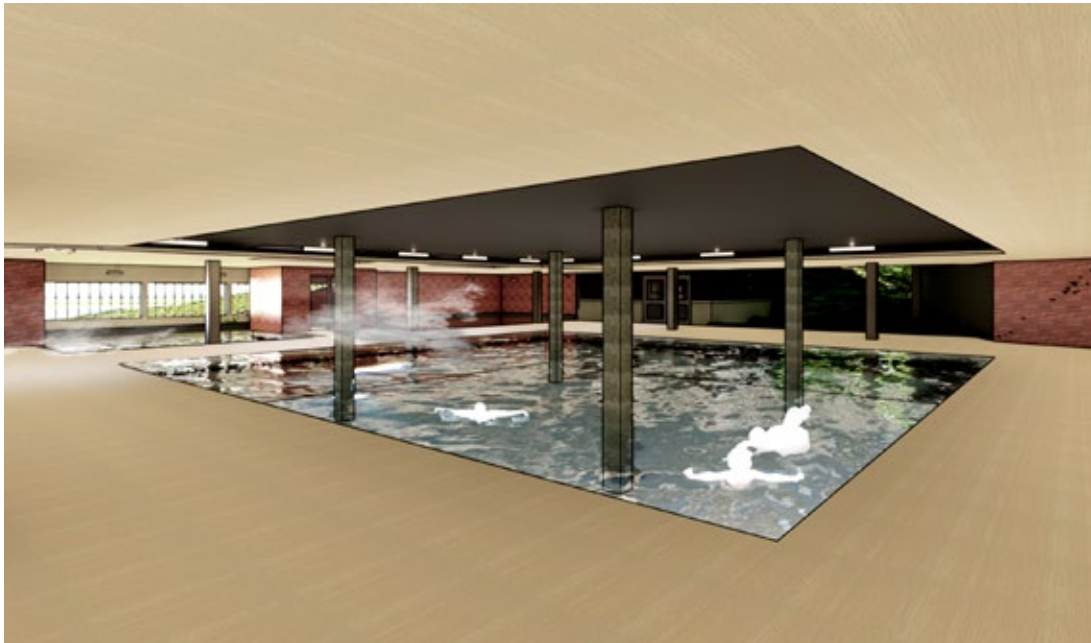
This level is completely private to the tenants who live in the building. Those tenants from the first floor can still venture up if they so choose. This level is all apartments with the added feature of having cat-walks over the atrium so that the elderly can again interact with the canopy of the trees, adding a playful element to the experience offered. Along these cat-walks are rest areas big enough for a few people to sit if one wanted to be in the trees for an extended period of time.

Again, the yellow circles indicate egress.

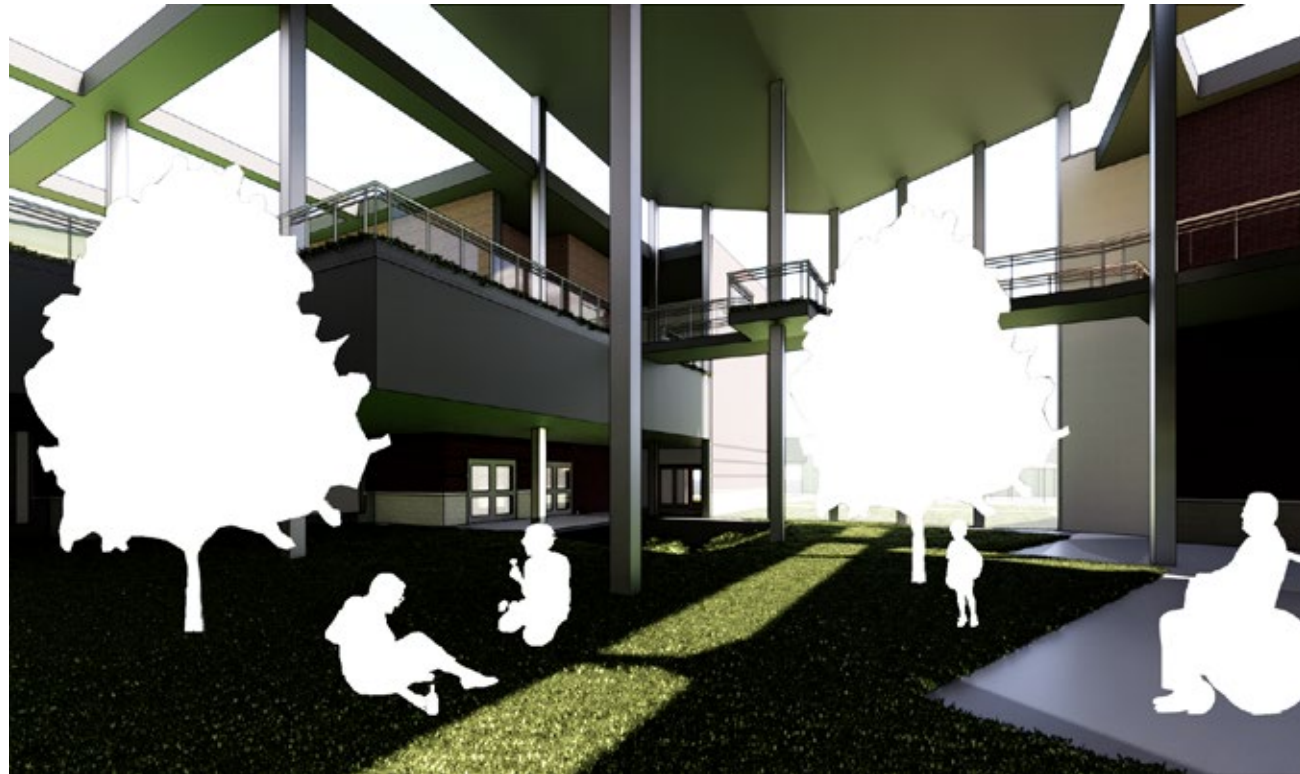




Brick was chosen as the material of choice throughout the project for the simple relatability and easy phenomenology it holds but I want to specifically talk about its use in the apartments. I did my best to be as intentional as I could here and decided that each apartment should have its very own pattern and color variation. This decision was made to help tenants characterize their homes so that they could more easily find their way and allow others to find it too. They could tell someone that they lived in the red, soldier course apartment, for example. Other reason was to make each tenant feel like their apartment was their own and had as many differences from the other tenants as they did. The hope was that this decision would add to their feeling of autonomy.

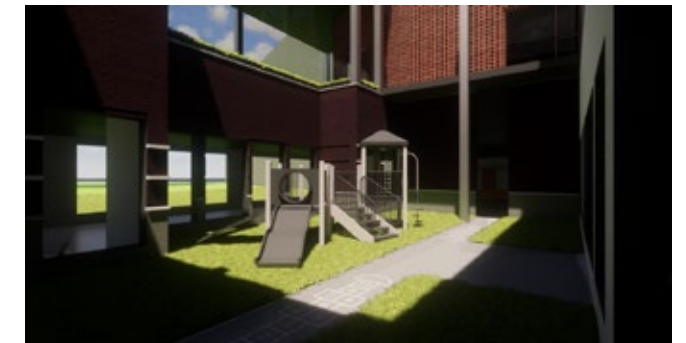


The Spa is ment to be a peaceful space of contemplation and healing. A space to go to hang out with your neighbors, gossip in the sauna, and relax while getting a message.



The atrium is the life blood of this building, it's a place of possibility. Everyone who wants something in this building must pass through and interact with this large garden space in order to get where they are going, families will bump into coffee shop goers; office workers into the elderly who reside in the complex. It's rife with opportunity!

The atrium allows space for those visiting the coffee shop to spill out onto a lawn at any time of year and interact with the passers-by.



The childcare facility is a secure location with a security check-point located at the south entrance through the vestibule. This area is not accessible to the public but there is a window into the atrium that is colorful and frosted that allow those passing to see the general shape of children.

The child care facility is large enough to host a number of children and staff with an open floor plan so that furniture can be arranged to suit the needs of the children and the day care.



Because the Farmer's Market is so important to the surrounding community, I wanted to make sure that there was designated space for it in the program of this design. I situated the farmers market at what I would consider to be a junction of connection, all sorts of people have the opportunity to see and hear what is happening and join in at their leisure. They may be just getting home from work of the light rail or bussing in to visit a friend.

When the farmer's market is not going on this area is a wide-open lawn the would hopefully draw people into play. It would also be a space that can be utilized by other organizations within the community as well.

In conclusion, I think the final product of my design is a great way to solve the problems I saw in Nursing homes and addresses short-comings that research has even proven exist. Beyond that I feel like this is a great way to promote connection in the elderly which really was the driving force behind much of the design process. Allowing those spaces where interaction could happen was incredible important.

When it comes to phenomenology, I didn't so much use it as a tool for design but as an influence. Thinking about phenomenology and how a space may be understood through phenomenology gave me a way to pull myself out of design ruts and think more clearly on the things I wanted my space interactions to do. It made me refocus and tackle the project from a different perspective.

All in all, I really enjoyed this project and while I do plan to continue thinking about the design further, I do feel that it is a plausible solution to my proposed thesis questions.

PERFORMANCE ANALYSIS: SITE

It is interesting to consider a performance analysis of a theoretical architectural solution when there is no data on how this solution would actually function with actual people. All I will be saying here is speculation based around research and my understanding of the people who live in this area.

The purpose of picking this site in South Minneapolis was to create much needed connection to community among the elderly tenants living here. This site has been home to the Mid-town Farmers Market for since 2003 and I thought it was the perfect opportunity to involve the elderly. This function provides access to families and friends the tenants would normally have no access to; the placement of the building on the city effectively forces the community to get involved with the elderly. This is also a major transit hub in the Twin Cities as the Light Rail station is situated just to the right of the site, as shown in yellow. It also has a bus stop the runs East and West along East Lake Street that has been depicted with a yellow circle.

In order to connect neighboring citizens to the light rail station, bus stop, and farmers market, the main atrium space of the facility is designated for the public with a large garden atrium connecting the two sides through the building. Off of the atrium there is a café that is open to the public as well as small community classrooms and restrooms as well. A childcare facility has also been included for those families who need to drop off their kids before they go to work. This is a secure facility with one check-in desk that is maned by a security guard.

The hope is that this increase in foot traffic will provide the elderly an atmosphere that will allow them to meet new people, engage with people of many ages and backgrounds, and feel immersed in an active community.



Again, this possess an interesting question, how does one write a performance analysis for something that has not been tested outside of a peer group of students? I have done my best through all of the research I have done to create a space that addresses what I have identified as typological short-comings.

Through my research into qualities that the elderly wishes their assisted living facilities had, I came to the conclusion that community involvement was key. The Journal of Gerontological Social Work had a very interesting article about these assisted living short-comings. They interviewed a number of tenants and staff at three different locations. The conclusion of which was that the tenants felt disconnected and unimportant to the world around them. They didn't like that they were often restricted by the staff and the different rooms in their facilities being locked and un-accessible (Koehn, Mahmood, & Stott-Eveneshen, 2016). This study was a lot of the reason that I ended up picking the site I did, so that the elderly wouldn't have to rely so strongly on others to get them around and out into the community.

Over the process of creating this Thesis, I came across a few articles that had supporting research that posited that incorporating a day-care into an assisted living facility was beneficial to all involved (Janden, 2016) (Brady, 2006). So, the hope and goal to incorporating a daycare into this thesis was to promote interaction between the elderly and the children, so that they could learn from each other.

Adding a spa and health center into the ground level of the facility was to promote health and wellness among the tenants and allow them access to these things within the comfort of their own building.

GOALS:

Academically

While I didn't experiment in virtual reality, I did meet my goals in utilization of a new rendering program to great effect. I used Enscape to render all of the images of this project with only minimal help from photoshop to enhance color and add entourage. I feel far more proficient in my ability to use Revit in order to build my digital model.

Professionally

Through the process of developing this thesis I feel far better about my skill to easily articulate my ideas and knowledge. Through the weekly submittals of work that Malini, our studio professor, has asked us to complete, I have seen a marked improvement in my ability to document my thought process and to relay those thoughts concisely to another.

Personally

I have found this thesis to be very informative personally. It allowed me to analyse what it is that people seek in a living condition later in life and the struggle to elderly go through to readapt to a new situation. I have gone through a lot of personal growth over the course of this thesis as well. It has allowed me to reflect on our culture's treatment of our elderly. I feel like the questions I have asked will continue to weigh on my mind and I will continue to try and answer them.

EMPHASIS:

My Project emphasis was to create an emotional experience within the construct of a nursing home using the architectural theory of phenomenology; using lighting, material and space as tools to emphasize emotional phenomena in space, I tasked myself in designing a Nursing Home, a typology I felt could gain a lot from this study. I researched the needs and wants the elderly wished to see in a nursing home and did my best to pull those aspects into space.

Through the incorporation of garden spaces, a cafe, a child-care facility, and a spa/wellness center I feel I have successfully answered the wants and need of the elderly. When it comes to phenomenology there are obviously a number of different opinions as to how to incorporate it into design. Through the intentionality I put into the floor layouts, the relationships between the spaces of this design, the material choices, and the prevalence of natural lighting; I feel that I have successfully adapted an understanding of phenomenology into the design. I think the aspect of phenomenology in this project could have been more emphasized and better incorporated but I am ultimately happy with the results of this thesis.



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ARCH 271- FALL 2014

CINDY URNESS

Teahouse—Moorhead, MN

Boathouse—Minneapolis, MN

This semester allowed me to really delve into the poetics of architecture and just how much it can represent. This semester was all about learning how to render your ideas by hand and creating a base knowledge of architecture.

ARCH 371- FALL 2015

STEVE MARTINS

Firehouse—Chaska, MN

Fossil Museum—Marmarth, ND

These projects had a heavy focus of materiality and structure and I loved to explore the two. The site and context of the project was very important.

ARCH 471- FALL 2016

DAVID CRUTCHFIELD

Highrise—San Francisco, CA

High rise was a very comprehensive design project that pushed me to apply all of my architectural knowledge gained over the years into one project. This was also the first time I had ever designed a project in Revit.

ARCH 571- FALL 2017

ELIZABETH MEDD

Pineapple Pavilion—Fargo, ND

This semester was all about finding new and renewable materials to theoretically design with. It tested our ingenuity and creativity to incorporate this material study into the context of a pavilion and the city fabric.

ARCH 272- SPRING 2015

JOAN VORDERBRUGGEN

Montessori School—Fargo, ND

Dwelling—Marfa, TX

These projects permitted me to figure out how to be more efficient in a small space. This is the first time we were given a pre-prescribed square-footage to work with.

ARCH 372- SPRING 2016

REGIN SCHWAEN

Steel Challenge—Chicago, IL

Art Museum--Nekoma, ND

Also with a strong focus in material and structure, this semester pushed me to think about them in a more theoretical way then any studio before. It also allowed me to experiment with restoration of an existing structure.

ARCH 472-SPRING 2017

PAUL GLEYE

Redevelopment project—Brussels, Belgium

This was one of my favorite projects to work on because it really pushed you to analyze the culture you bring with you to a new country and how that affects design. It gave my the opportunity to see the similarities and differences between architectural practices in different cultures.

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