

July 2019

THERAPEUTIC COMMUNITY: FOR REFUGEES

Raghad Alrashidi

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THERAPEUTIC COMMUNITY: FOR REFUGEES

A Thesis Presented

by

RAGHAD ALRASHIDI

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

MASTER OF ARCHITECTURE

May 2019

Master of Architecture Program

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ACKNOWLEDGMENTS

I would like to thank my thesis advisor Kathleen Lugosch, for guiding me through this process; your ideas, discussions, and feedback have been absolutely invaluable.

Thank you to the UMass Amherst Department of Architecture for guiding me through a fulfilling graduate academic career.

Finally, this thesis is dedicated to my family, friends and loved ones who encourage me every day. Thank you to my parents, Anwaar and Abdalnaser, to my sisters, Yara, Rawad and Fatemah, to my brother, Bader for your infinite love and support throughout this journey.

ABSTRACT
THERAPEUTIC COMMUNITY: FOR REFUGEES

MAY 2019

RAGHAD ALRASHIDI, B.S. QATAR UNIVERISTY
M.A., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor Kathleen Lugosch

The purpose of this thesis is to explore the different aspects of therapeutic architecture through the design of a therapeutic community for refugees who suffer from PTSD. To understand a therapeutic space a depth of understanding of what space, atmosphere and stimulation of senses is explored through the effects of light, shadow, and color psychology. The methodology exploration studies different lighting strategies and massing models to understand the relationship and aura of the space being designed.

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CHAPTER 1

INTRODUCTION

Healing spaces is an interesting concept in architecture where there are different parameters as to what constitutes a space for healing. Health is defined universally as the mental, physical, and spiritual balance of an individual. Over the course of years architects have researched about how architecture can affect a person's' health. However, today the idea of designing based on a person needs (excluding function) is often neglected – not only in architectural firms but also at architectural schools. Therefore, the exploration of healing spaces starts from the understanding of the sensory potential of architecture.

1.1 The Role of Therapeutic/Healing Architecture

When discussing healthy spaces one of the keywords addressed in this topic is atmosphere. Peter Zumthor, a Swiss architect who wrote *Atmospheres: Architectural Environments, Surrounding Objects* believes atmospheres are a visual quality and an environmental character he defines atmospheres as “*this singular density and mood, this feeling of presence, well-being, harmony, beauty...under whose spell I experience what I otherwise would not experience in precisely this way.*” In addition, Mathew Suriano, an architect who wrote a paper called *On an Architecture of Atmospheres* relates atmospheres in architecture as the relationship between the surrounding context and the building's sensorial design considerations. Sensorial design considerations were encouraged by Juhani Pallasma, a Finnish architect, who emphasized the importance of multisensory in design through his book *Eyes of the Skin*, published in 1994. This book portrays the discourse of sensory architecture during that time. Atmospheres are described as the energy

of space; meaning reacting to the deep human drive to occupy new place - which then creates a perception of space and place. In relation to senses, energy may not be able to grasp the sense of vision, but it grasps the sense of touch.

Moreover, Pallasmaa states that modern architecture does not consider imagination, memory, or peripheral vision. In his observation, many modern buildings were “manufactured”; where everything is copy and paste and there is no character to the building. Zumthor posits rather than through consciousness observation that experiences are perceived peripherally rather than through consciousness observation. Experiences which merge into perception, memory, and imagination. According to Zumthor, multisensory experience is absorbed through a perception of: orientation, gravity, balance, stability, motion, duration, continuity, scale, and illumination, as well as interpersonal atmospheres which are cultural, social, family, and workplaces.

This also creates a dilemma for architects. As everyone experiences a space differently; humans perceive spaces through their emotions, therefore to design an atmospheric architecture studying the users of the building is important.

Another form of designing a healing space is the use of color. Color creates an impact on spaces in relation to light intensity, texture, and combination. Josef Albers , an artist who wrote the book *Interaction of Color* – where he talks about how each color creates a different sense of environment, but also how one color in its different hues is not the same and has a different effect on space.

Reza Babakhani, an architectural academic from Iran, wrote a paper titled *Color and Light in Architecture and its Effect on Spirits of Space Users in a Psychological View*, which states that both color and light affect a human’s social behavior. For example, bright red is used to make people focus. It is used to help students memorize or do math, increasing their ability to focus. However, transparent red/pink or the color pink are used to reduce stress and calm the person.

Healing spaces as a thesis topic is challenging because it depends on the perception of the users. It is challenging because every person describes a space differently, a spiritual place for one person might not make another person feel anything once they enter this space that is supposed to be ‘spiritual’. Therefore, it is helpful to design reflecting on an analysis of case-studies and successful spatial expressions.

1.2 Thesis Intent

This thesis intends to explore the design of healing spaces in the form of a therapeutic community for refugees through the design of a community for refugees in Springfield, Massachusetts, where people go to not only “heal” but to find support and become an active member of society. The thesis will investigate various factors that contribute to therapeutic

architecture such as space, place, the exploration of human senses as well as the play of light, shadow and color psychology.

CHAPTER 2

EXISTING REFUGEE CRISIS

A refugee is defined by the UN refugee agency as a person who is forced to leave their country. They flee their country because of war, violence or persecution. Two-thirds of all refugees come from just five countries: Syria, Afghanistan, South Sudan, Myanmar, and Somalia. By the end of 2017, there were 25.4 million refugees in the world, and 24,559 of those refugees resettled in the United States.¹ Some of these refugees have settled in Amherst, Western Massachusetts specifically in the following towns: Springfield, Northampton, and Greenfield. As stated by the executive director of the catholic charities' agency, Kathryn Buckley-Brawner, Springfield has a wider diversity of populations (Somali, Burundian, Congolese, Bhutanese, Ethiopian, Burmese, Russian, Ukrainian, Russian Turks, Moldovan, Iraqi, Syrian, Bhutanese) while in Northampton is almost exclusively Congolese.²

2.1 Refugees Suffering from PTSD

Architecture as an interdisciplinary subject takes into consideration not only the aesthetic of the exterior façade but also the experiences that happen within the building; the different aspects that affect humans whether it may be behavioral, psychological, physical, etc...

With that being said – can architecture heal? What factors makes architecture able to help people. Winston Churchill stated: “We shape our buildings; thereafter they shape us.” This made me think about how architecture is able to help people who suffered from traumatic stress disorders especially refugees who have experienced war.

¹ "Refugee Statistics," USA for UNHCR, accessed September 18, 2018. <http://www.unrefugees.org/refugee-facts/statistics/>

² Kathryn Buckley Brawner in discussion with the author, September 19, 2018

This brings up different aspects of healing – designing a therapeutic community. If you look at rehabilitation facilities in general during the 1990’s, Ulrich states that:

“According to recent research, models of healing centers (past and now) create isolation of people from society with the intention of replacing the undesirable distractions associated with an urban lifestyle with the more desirable effects of a rural one, which is believed to increase the rate of healing.”³

Before starting to design a therapeutic community for refugees; it is important to understand their traumas and PTSD, and where it came from. In general, someone may experience trauma from a natural disaster, rape, or even from a car accident. As for refugees, their traumas are often the situations they have experienced from their home countries (warzones). In these war zone countries refugees may suffer from experiences such as violence, rape and persecution. The main problem though is leaving their countries forcefully – leaving their families, homes, culture, and some may even say identity as well. On top of all these traumas, they arrive to a country with a different culture and social human interactions.

Moreover, what makes it difficult to design for such traumas is that there is no one design solution that will fit the many different individual reactions or will deal with the many different emotions.

³ Ulrich, “View through a window,”421.

CHAPTER 3

EXPLORING THERAPEUTIC ARCHITECTURE

The term therapeutic architecture has been recognized as a reaction against the austerity of modern treatment facilities. This reaction represents the manifestation of well-designed architectural spaces that encourage healing and human wellbeing.⁴

When exploring therapeutic architecture; there are different facets that may contribute to the design. The factors to take into consideration are the understanding of space, place, and atmosphere and how that may affect the users. Also, how to stimulate human senses to improve the overall user experience. Moreover, when designing the actual building – effects of light, shadow, and color psychology play a role in the enhancement of the therapeutic effect.

3.1 Space, Place, Atmosphere and Stimulation Of Senses

Designing for a therapeutic community for refugees is difficult in terms of creating a “safe place”. Christian Borch claims in his book *Architectural Atmospheres: On the Experience and Politics of Architecture* the role of space or place is not only the first reaction to the what is seen (not necessary a visual quality) but rather a multisensory experience of the subconscious that fuses perception, memory, and imagination. Therefore, a closed space with diffused lighting might be viewed as a space of tranquility, while others may feel claustrophobic – it all depends on the overall atmosphere, feeling, mood or ambience.

⁴ Grinde et al, Biophilia: International Journal of Environmental Research and Public Health

Moreover, Peter Zumthor thoroughly explains what atmosphere in architecture means to him in his book *Atmospheres*. He divides the exploration of atmospheres into nine sections which are: 1) The Body of Architecture 2) Material Compatibility 3) Sound of Space 4) Temperature of a Space 5) Surrounding Objects 6) Between Composure and Seduction 7) Tension between interior and exterior 8) Levels of intimacy 9) The light of things. However, there are certain chapters that were particularly inspiring was *Section 4: Temperature of Space* where he stated that materials are a form of temperature in that it more or less extracts the warmth from our bodies as seen in *Figure 4*, where each material gives off what kind of temperature.

The next two sections that were interesting are *Section 6: Between composure and Seduction* and *Section 7: Tension between interior and exterior* which somehow relate to another. In these two chapters Zumthor defines architecture as a type of temporal art which means thinking about the way people move in the buildings – and also the transition between the interior and exterior of spaces. This is important as it relates to the design of this therapeutic community where the sense of direction is important since some of the refugees are not fluent in the English language – therefore architecture here plays an important role in designing movements that are not always forceful but more so seducing movements to a place ; creating this sense of freedom of movement and not forced. He also explains the relation between the exterior form and the interior and he uses Palladio's Villa as an example; where the outside of the villa is huge and monumental whereas inside it's not intimidating.

Therefore, when designing architecture as different atmospheres there are certain factors that apply in terms of materiality and sense of direction.

3.2 Effects Of Light, Shadow, And Color Psychology

When designing a therapeutic space, light, shadow, and color are an important part of that. Zumthor states in his *Atmospheres* book that: “*Plan building as a pure mass of shadow then, afterwards, to put in light as if you were hollowing out the darkness, as if the light were a new mass seeping in.*”⁵ This quote will guide the initial step of this design process.

In any form type of architecture, light is an important element especially in a therapeutic environment. Users of the building who are exposed to intensified concentration of natural light become less stressed; natural light if used correctly creates this healthy environment as stated by Benedetti.⁶ Without light, it would be difficult to perceive space, and illuminate the interior of buildings; where the light casts dark and bright shadows of forms inside the building, to showcase the different physical forms which gives a sense to the users about the changes in space.

Color is an integral element in architecture because it not only aesthetically pleasing but has psychological/behavioral elements to it.

⁵ Peter Zumthor, *Atmospheres: Architectural Environments, Surrounding Objects* (Basel: Birkhauser Verlag, 2018).

⁶ Francesco, Colombo, Barbini, Campori, Smeraldi, “Morning Sunlight Reduces Depression,” 222.

COLOR	CEILING	WALLS
Red	intruding, disturbing, heavy	advancing, alert, conscious
Yellow	light (towards lemon), luminous, stimulating	warm (towards orange), exciting to irritating (highly saturated)
Pink	delicate, comforting	aggression-inhibiting, intimate, too sweet if not grayed down
Blue	celestial, cool, receding (if light), heavy and oppressive (if dark)	cool and distant (if light), encouraging and space deepening (if dark)
Green	protective	cool, secure, calm, reliable
Orange	stimulating, attention-seeking, activating, motion-oriented	warm, luminous

Figure.1 Meaning of Color

CHAPTER 4

CASE-STUDIES

4.1 Palliative Sanatorium: A Place of Retreat and Solace For Stage-Four Metastatic Cancer Patients

The Palliative Sanatorium is a proposal for a place of retreat and solace for cancer patients located in the United Kingdom, designed by Architect Mathew Ryall. This case-study uses an interesting process to achieve the desired outcome. The architect experiments with scale and proportion while also looking into light and materials.

The architect focuses on the experiential journey within the building by starting with a composition of warm retreat spaces that lead the users to an inviting aqua therapy area and ending it with cold stonewalls. Mathew also encourages the user's exploration by playing with the buildings' scale and experimenting with shadows by having light wells to create this spiritual phenomenon.⁷ The architect also emphasizes on the way the user will experience the buildings by using the following terms: serenity, tranquility, and sensuality as seen from the figure below.

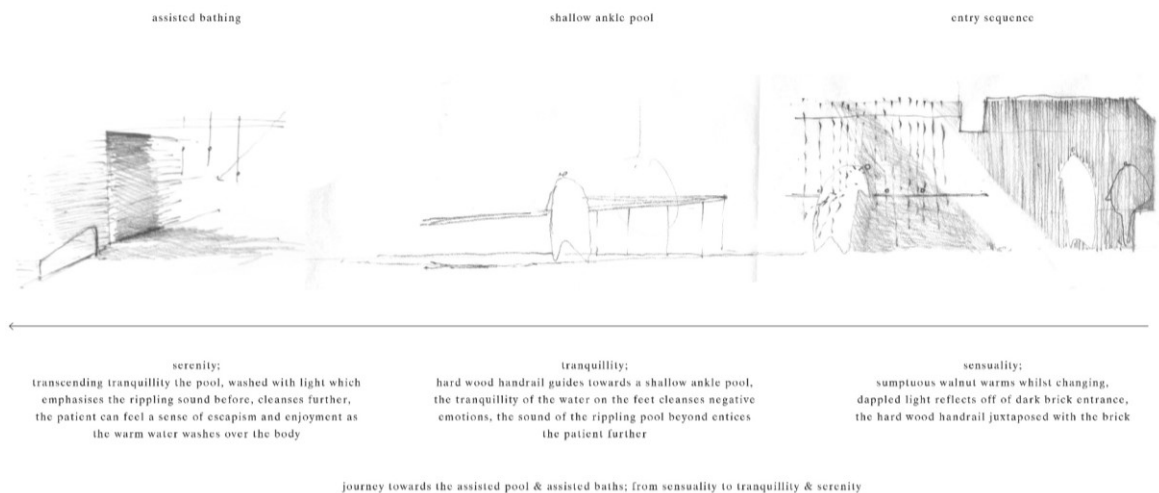


Figure.2 Spatial experience
Source: Mathew Ryall Sketch

⁷ Ryall, "Palliative Sanatorium."

The architect's methodology towards achieving the desired building was interesting as seen in the figure below; he started by having this concept of duality between what a medical building should be vs. the quality of the users' experience. Then he redefined the typology of his building by shifting the medical part of the building to the ground floor level; while the rest of the floors have this rhythmic experience- by prioritizing the architectural language and finally ending it by exploring atmospheric spaces that heighten the healing process.

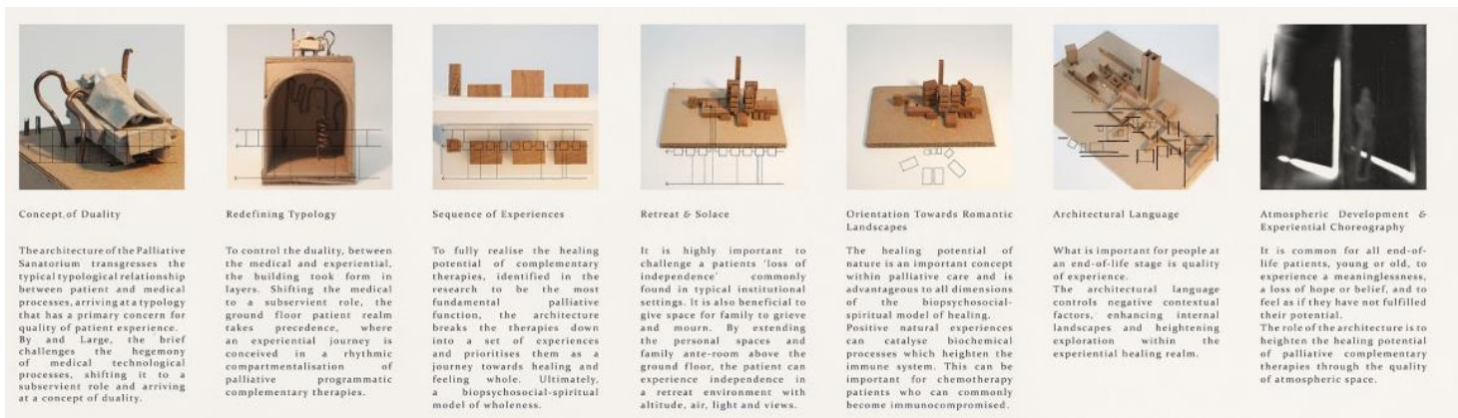


Figure.3 From concept to the physical
Source: Mathew Ryall

4.2 Maggie Center by Thomas Heatherwick

A healing space proposal case-study where the architects integrated nature within the building for cancer patients in the United Kingdom is Maggie's Center designed by Heatherwick Studio. The idea of this center is to treat cancer patients through plants. The idea wasn't bringing the center into the landscape but rather integrating the landscape

within center.⁸ The center is in an urban setting which is interesting, because usually healing centers are encouraged to be located in a rural setting – because of nature’s benefits. However, in a daily life situation the rural setting is usually remote and is difficult to approach. Therefore, sometimes ‘nature’ or beauty can be within the building rather than surrounding it; and in my analysis of the center – the materiality also plays a role in and has a large effect on the users in the city area. The use of wood and the organic shape of the building enhances the calm factor that the architect is pursuing.



Figure. 4 Maggie Center exterior and interior
Source: Thomas Heatherwick

4.3 Therme Vals By Peter Zumthor

In Peter Zumthor’s Therme Vals, the use of material is important because it impacts the users psychologically. He found beauty in materials, which along with environmental context may determine the form of the building. In therme vals, the architect used a grey-blue stone which was used to form a monolithic structure within the mountainside. He

⁸ Frearson, “Maggie’s Centre.”

treats his architecture as “a bodily mass, a membrane, a fabric, a kind of covering, cloth, velvet, silk” ... “A body that can touch me”.⁹

Therme Vals is proof that the thought of incorporating the senses is evident and also lighting and materiality. In *Thinking Architecture*, Zumthor states that sense are present when specific “meanings of certain materials in my buildings, meanings that can only be perceived in just this way in this one building.”¹⁰

The water, light and heat define areas in the ritual of bathing at the Therme Vals. The program and the experiences of the users are interesting – where the tunneled passages take the users from change rooms to the other side of the bath. The materials are used carefully, where the copper pipes that is located below the stone wall allows water to be poured from it. Below the baths are therapy rooms for massage and physiotherapy. “Zumthor invites the body into a new recollection of memory and encryption of texture, temperature, light and sound are not only read visually but are also comprehended by the sense of touch”¹¹

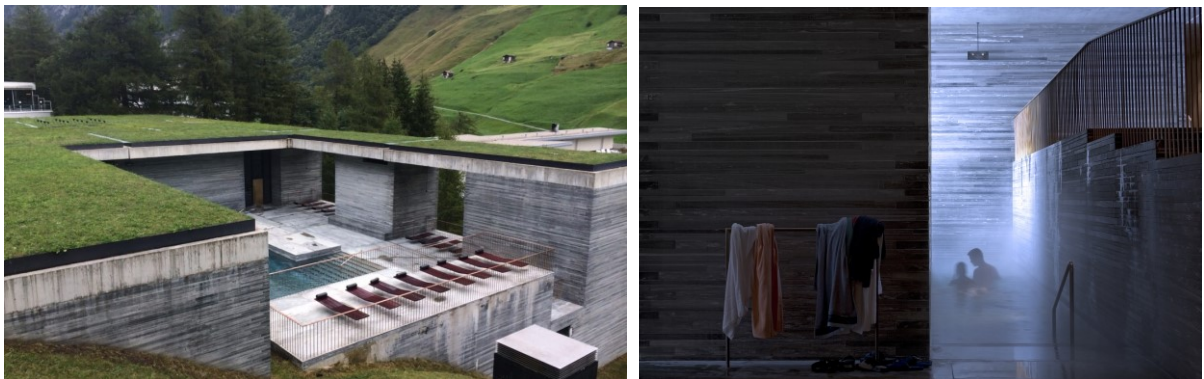


Figure 5. Therme Vals by Peter Zumthor
Source: Hussein Cayser

⁹ Peter Zumthor, *Thinking Architecture* (Basel: Birkhauser Verlag, 2006).

¹⁰ Peter Zumthor, *Atmospheres: Architectural Environments, Surrounding Objects* (Basel: Birkhauser Verlag, 2018).

¹¹ Hussein, “Healing spaces.”

CHAPTER 5

METHODOLOGY

This thesis will explore healing spaces; by firstly creating story boards. The story boards will indicate how each person will use the space. This will be challenging because refugees come from different cultures and backgrounds that follow certain customs and would approach this differently. Therefore, another way to help design the program of this community is to understand the different cultures that reside in Springfield and collect data that will help form the story-boards and design a universal design that applies to all.

As seen in the figure below, the idea was to design this narrative where the entrance experience starts with an open welcoming space and then before entering the building there is this threshold that creates an interesting transition. Furthermore, there are these keywords that are used when trying to transition refugees into normal civic life and these keywords are then used as a source of inspiration to create the program. For example, the following functions determine the sense of safety: spiritual and contemplation area. For sense of self-reliance: gardening, group therapy, classes, and grocery store. Sense of empowerment and liberation: gym and artistic studios and also having gardens such as: playground, meditative garden, and community garden as seen in the figure below.

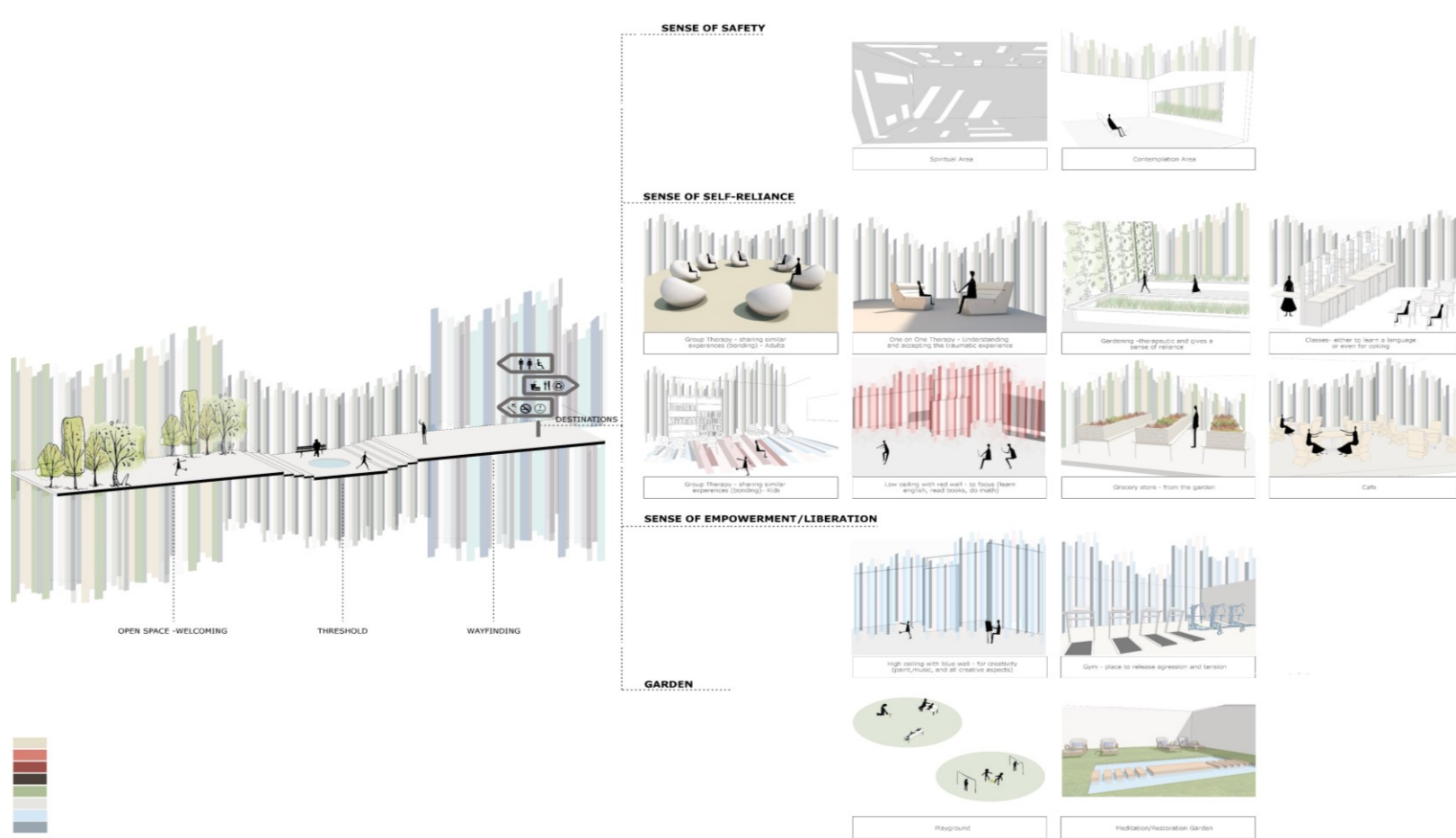


Figure.6 Storyboard

Another method to exploring healing spaces is by understanding light. To understand and differentiate between what is good lighting and what is bad by modeling different modes of lighting and then conclude which atmospheric expression is favorable – to use in designing the therapeutic community for refugees. First of all, looking into three different types of lighting: perforated, transparent, and translucent.

Perforated Light:

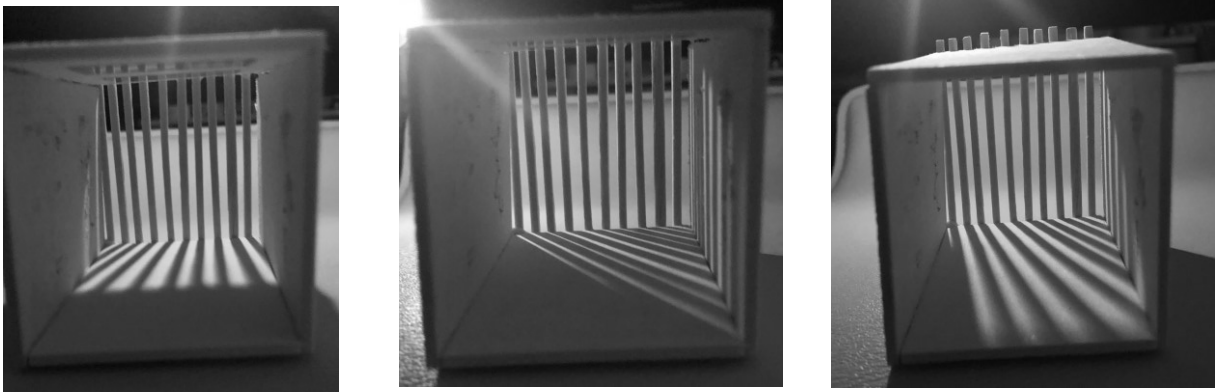


Figure 7. Perforated Light

The following graphic shows what perforated light can be used for, what it means, and how it feels to be in a perforated space:

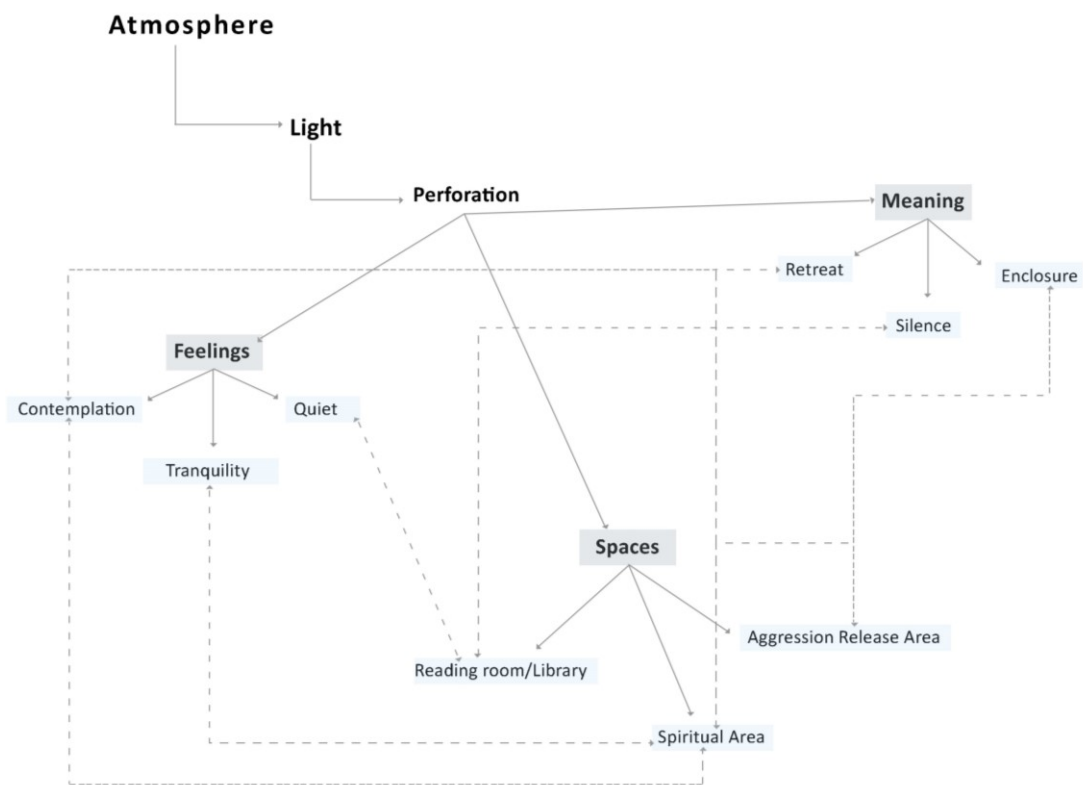


Figure 8. Atmosphere of Perforated Light

Transparency:

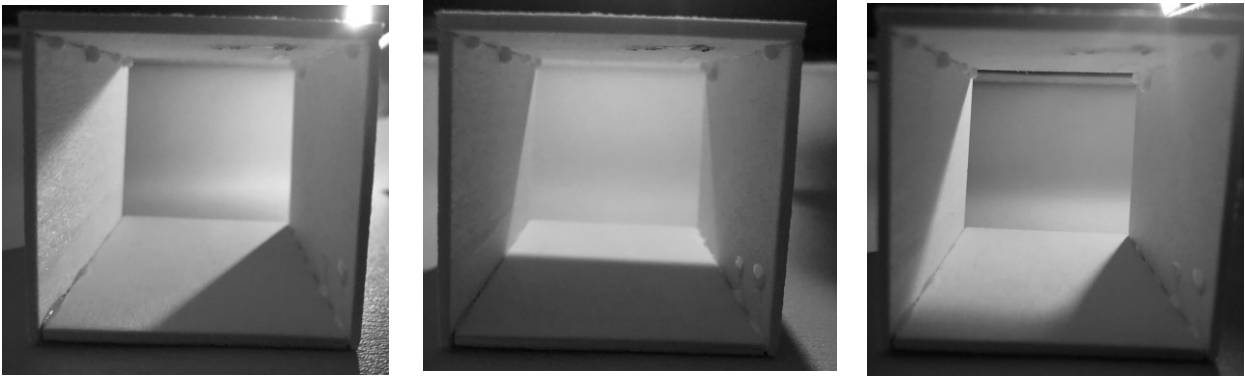


Figure 9. Transparent Light

The following graphic shows what transparent light can be used for, what it means, and how it feels to be in this space:

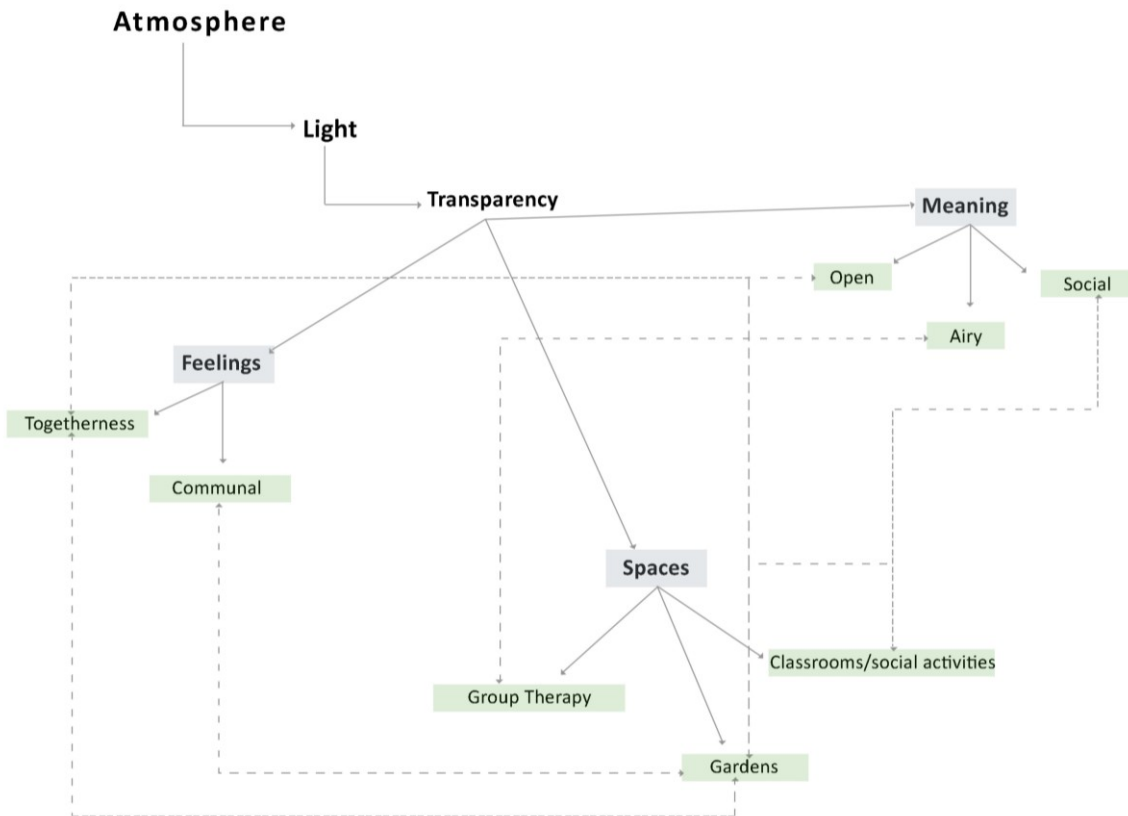


Figure 10. Atmosphere of Transparent Light

After looking into these two lighting types, the next step was then to take this step further and test different lighting strategies as seen the figure below. These lighting strategies will then help produce series of shadow experiences that later will be a way to guide the different possibilities of experiences that may apply within a building.



Figure 11. Lighting Strategies

These shadow experiences that can be seen below will help not only set different experiences but also inspire as to what program/function fits with what kind of lighting and also the sequence of events that may occur within the building.

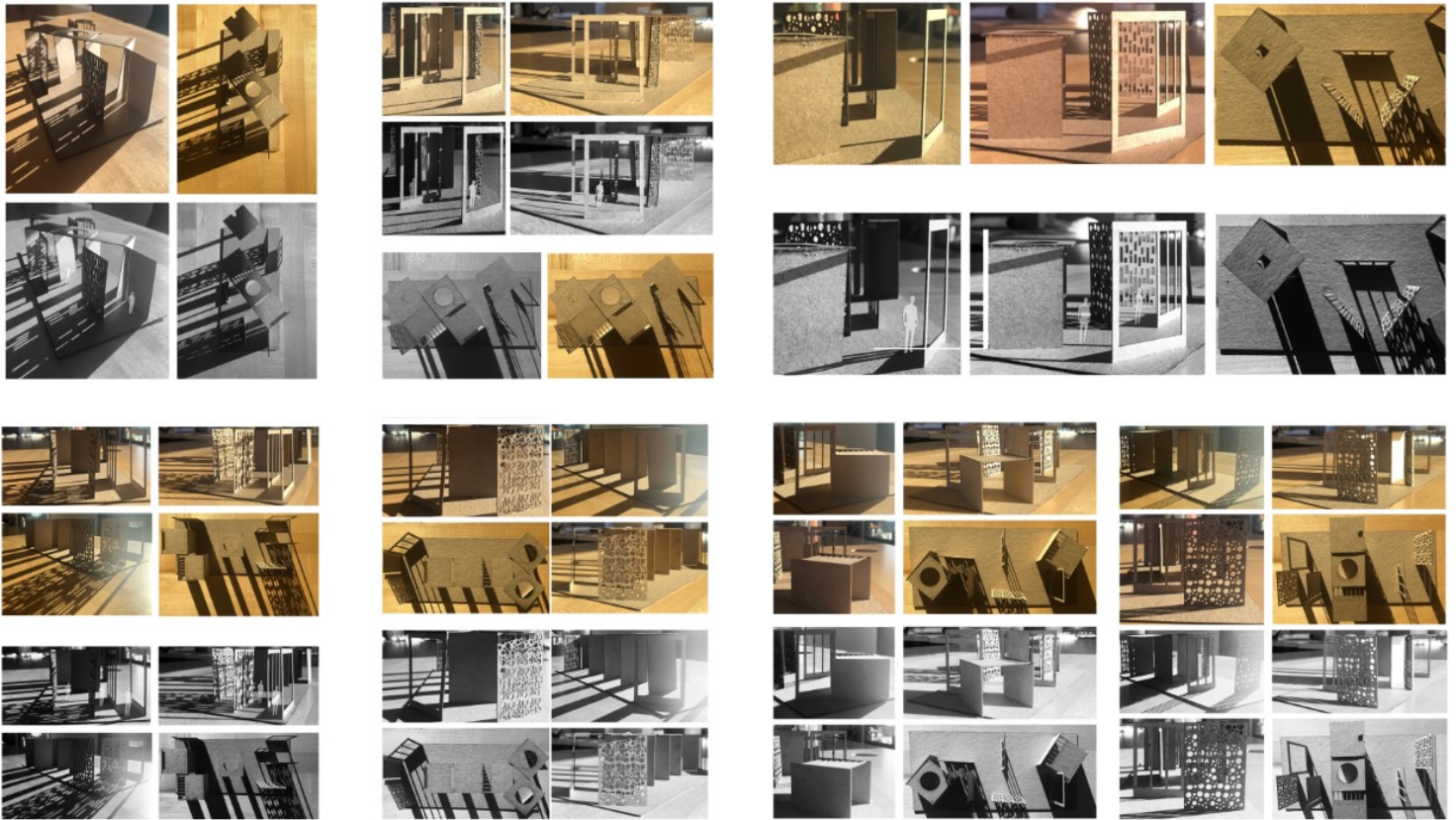


Figure 12. Shadow Sequence

The next step is to use the production of these modeled shadow experiences and integrated them with the story-board to portray different possibilities.

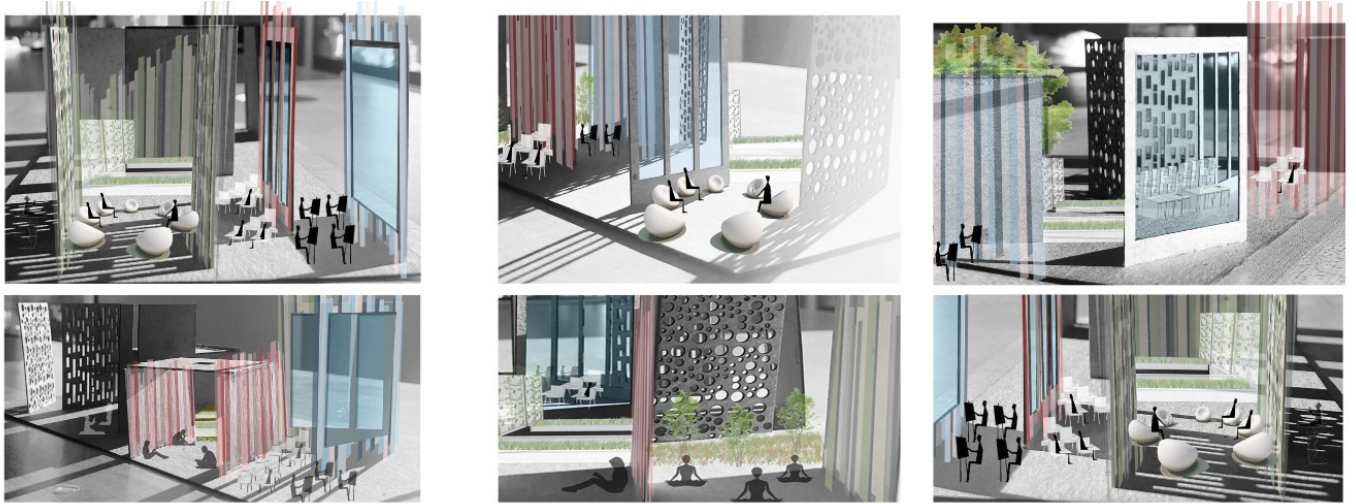


Figure 13. Integration

The following graphic is a programmatic mapping that combines the exploration of light and color:

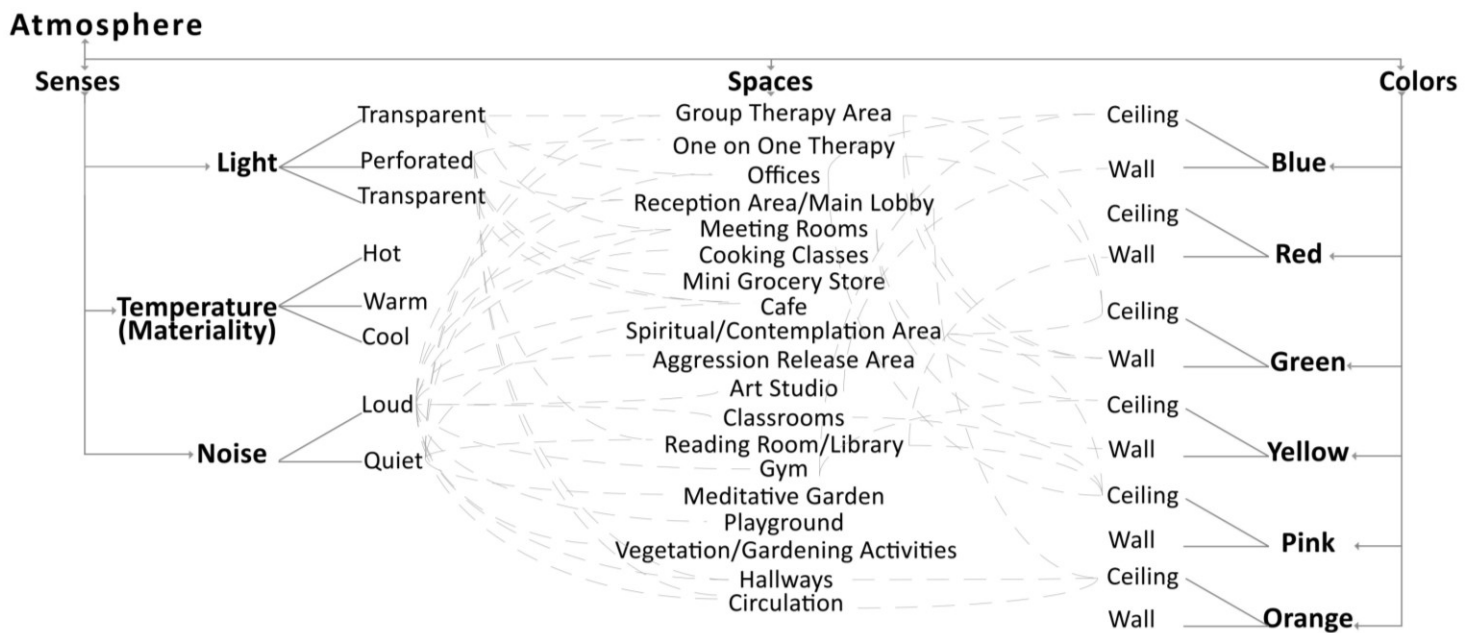


Figure 14. Programmatic Lighting

The next step was to use these modeled experiences and turn them into three different concepts that corresponds to the site.

Concepts:

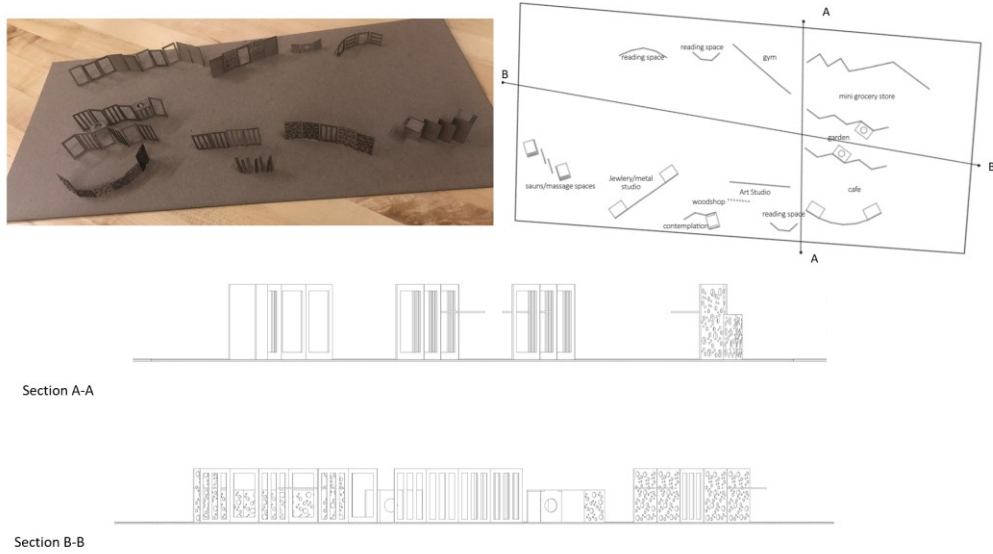


Figure 15. Concept 1

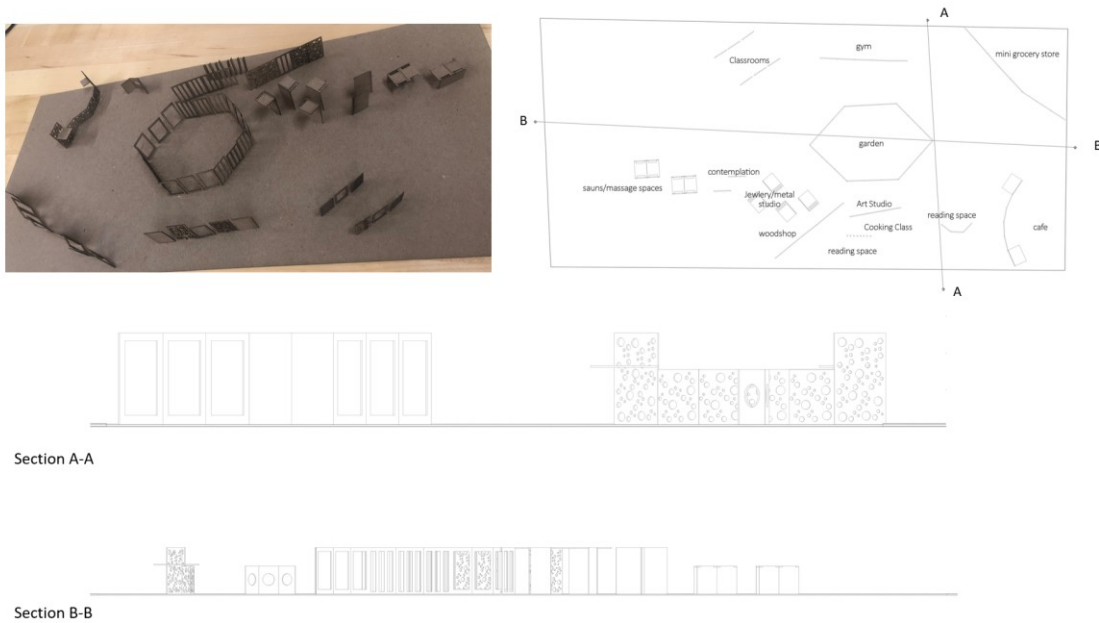


Figure 16. Concept 2

The idea of the second concept was to have a main hexagonal courtyard which hosted all the garden that brings light to the spaces surrounding it.

Third and Chosen Concept:

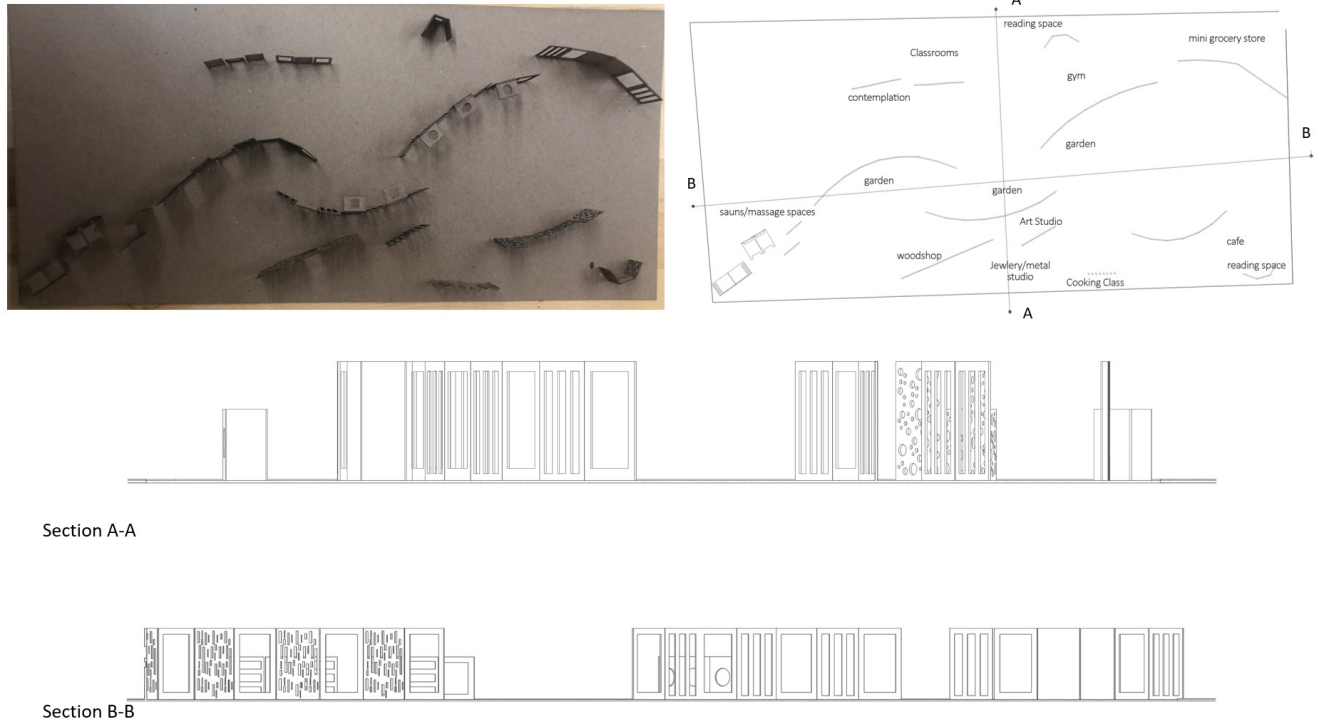
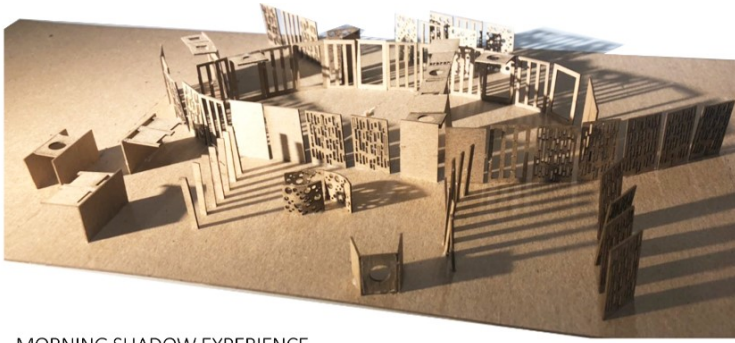
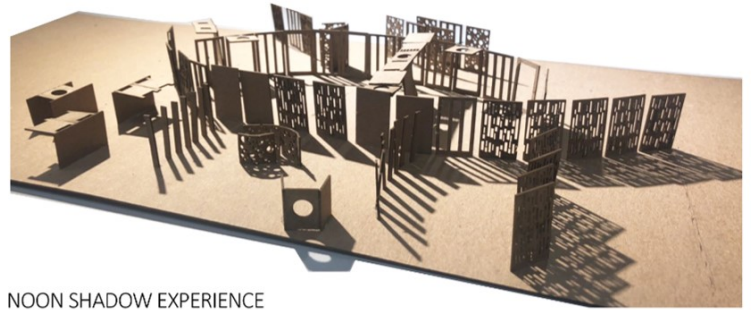


Figure 17. Concept 3

The reason the third concept is chosen is because it not only has an interesting shape but also the flowing curvy screens in the middle hosts the gardens in a way that is sheltered and private. After choosing this conceptual experiential model, it had to be developed according to the program and square footage. Therefore, a developed experiential model was built which then was used to test the experiences during different times of the day using a heliodon.



MORNING SHADOW EXPERIENCE



NOON SHADOW EXPERIENCE



LATE AFTERNOON SHADOW EXPERIENCE



Figure 18. Developed Experiential Model with Sun Study

This interior shadow experience is important, as the stated goal of this thesis is to design experience. Hence the methodology for this design started from the inside to capture the 'buildings' feelings'; form follows feeling.

CHAPTER 6

SITE AND CONTEXT

As stated previously the site is located in Springfield, Massachusetts because of the number of refugees settled there. However, this specific site is originally a parking lot that serves the Baystate Hospital. As seen from the image below, the site is surrounded by different building typologies such as residences on the east, while the hospital, school, and other commercial buildings are located on the west side of the site location.



Figure.19 Site Location

The site location is ideal because it is accessible through public transportation and has several bus stops. Moreover, it is a great location to help integrate the refugees with existing local community.

After that, the site was layered and are used to help see the site as three-dimensional space portraying the heights of the surrounding buildings and help design the therapeutic community in respect to the context.

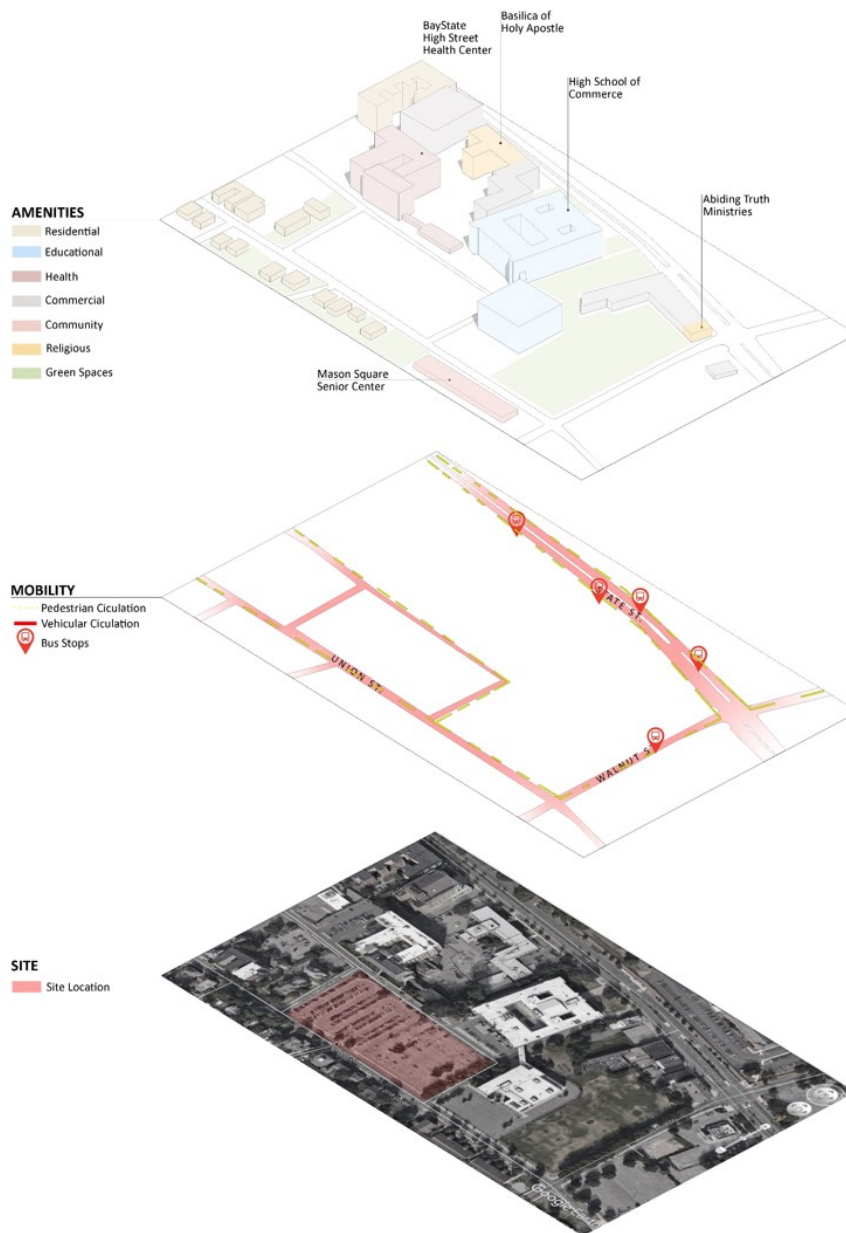


Figure 20. Site Layers

In addition, a sun study for the site helped understand how the surrounding building create different shade/shadow on the site to help with design considerations of the building.

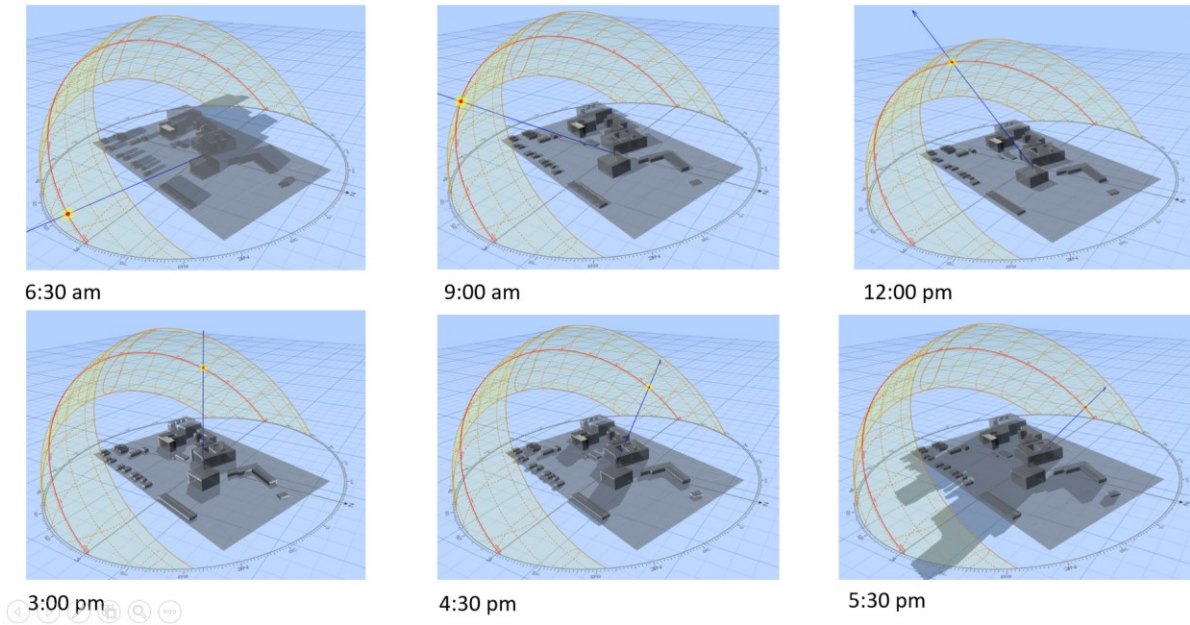


Figure 21. Winter Sun Path Diagram

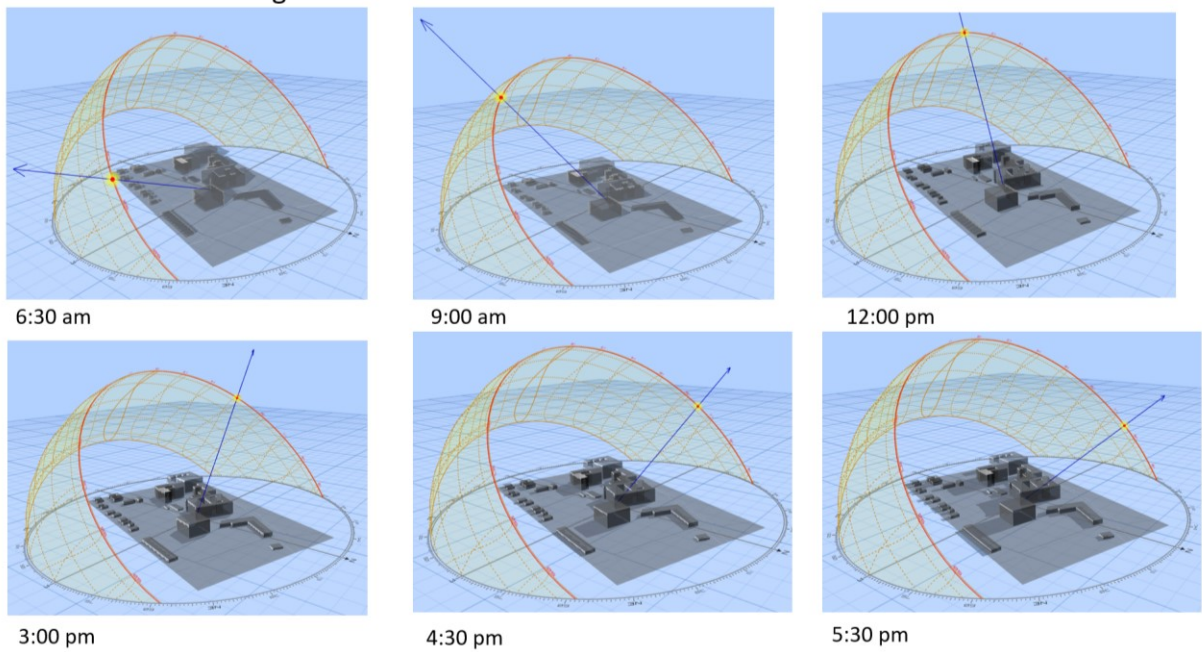


Figure 22. Summer Sun Path Diagram

CHAPTER 7
DESIGN

7.1 Program

Spaces	sqft
Offices (3)	900
Conference Space	800
Cooking Class	2500
Mini Grocery Store	5000
Café	1800
Art Studio	1500
Gym	3500
Classrooms (5)	3375
Reading Areas (5)	750
Jewelery/Metal Studio	1500
Woodshop	1800
Reception	300
Spiritual Contemplation Areas (5)	1500
Meditation Garden	800
Playground	2500
Vegetable/Fruit Garden	1000
Toilets(50)	2700
Circulation	40% of the total Usable Area.
Sauna/Massage	1200
Pool	5800
Total	39225

Figure 23. Program

7.2 Design Development

The site is designed in such a way to attract people to come to the building. The site is inspired by the curves of the building portraying compatibility between the architecture and the landscape.



Figure 24. Site Design

The building is preceded by greenery and the use of native plants and flowers and also deciduous trees as a source of shading. Then a wooden deck that serves a farmer's market in a good weather is parallel to the grocery store. This is followed by another wooden deck that serves multi-purpose/open seating area – along the greenery on the site are benches where the users are able to sit and socialize before entering the building. After that immediately before the entrance there is a community garden that is also adjacent to the grocery store. It is not only a therapeutic function but also grow food for to the grocery store, café, and is used as part of the cooking classes taught inside of the community.



Figure 25. First Floor Plan

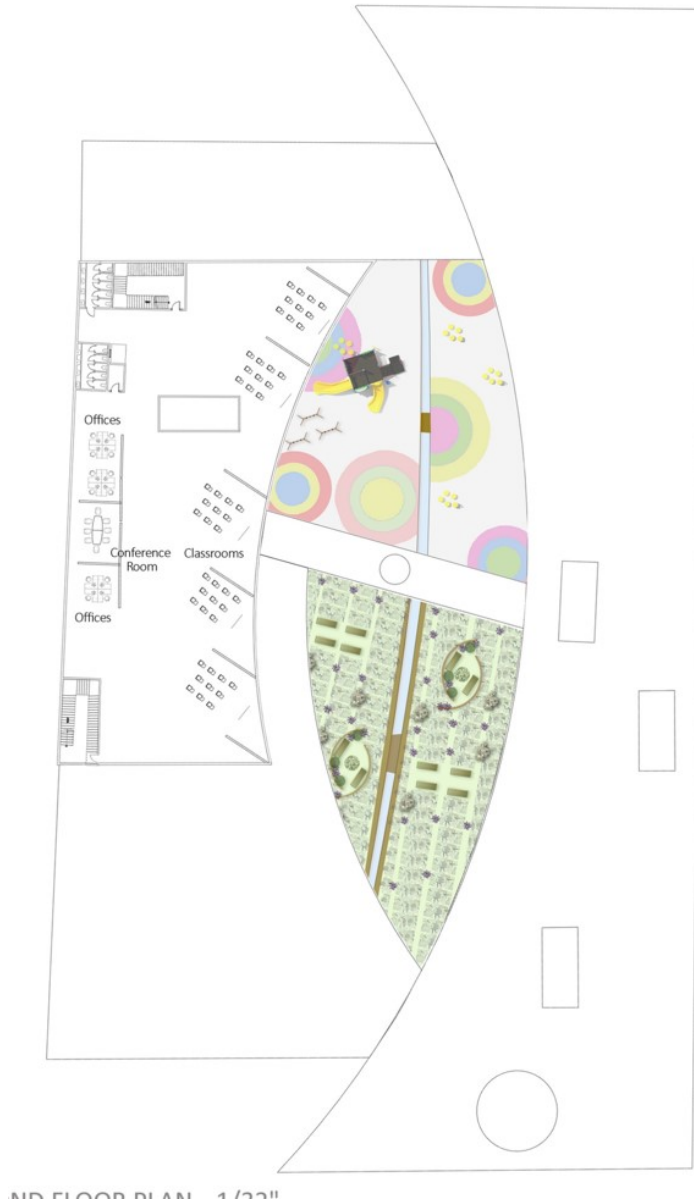


Figure 26. Second Floor Plan

As seen from the plans above, the more loud, open, public activities are located on the ground floor overlooking the playground and the meditative garden. The functions are placed in such a way that is related to the sun rise/set, meaning the morning activities such as: gym, yoga, aerobics, sauna, and swimming pool are located on the south east side. While the more afternoon activities such as: cooking class, art studio, jewelry/metal studio, and woodshop are located on the north west side. Moreover, the reading spaces and

spiritual spaces are pocketed/hidden on both sides. In addition to that, the more private and quite functions are located on the second floor of the building such as: classrooms, offices, and meeting rooms.

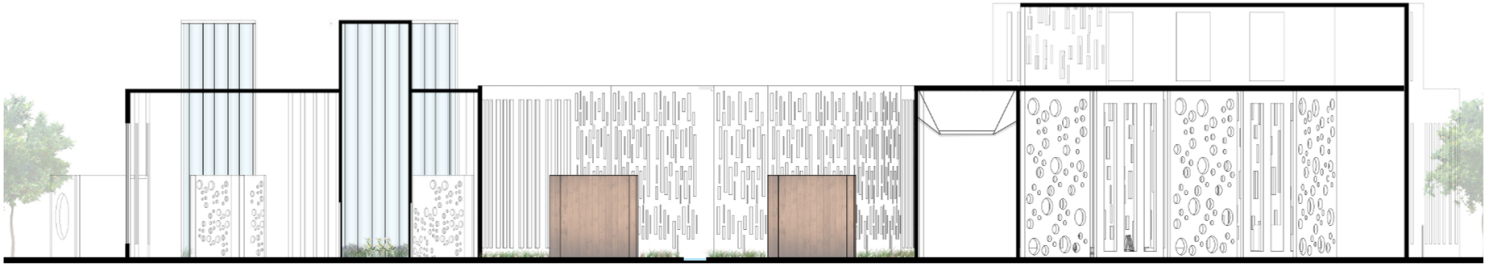


Figure 27. Section A-A

Section A-A cuts through the meditative garden which is between the meditation area that has the light-well and the studios which are next to the contemplation space overlooking the meditation garden.

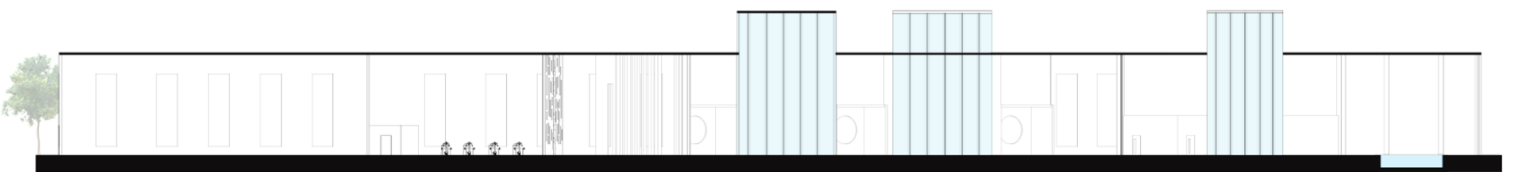


Figure 28. Section B-B

Section B-B is a longitudinal section that cuts through the morning program starting from the grocery store and ending with the swimming pool- from most active to least.



Figure 29. South East Elevation



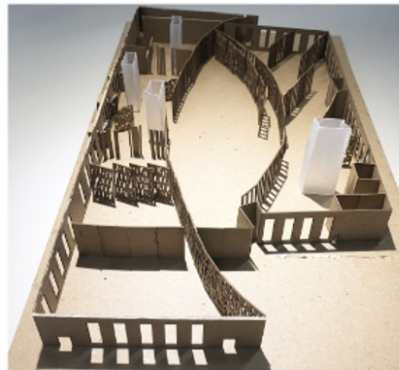
Figure 30. North West Elevation

After that a final model as made and tested under the heliodon to see the new experiences that are presented within the building.

SUMMER



8AM Morning

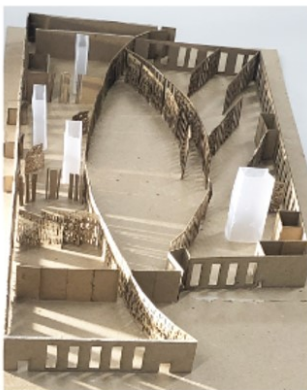


12PM Noon



3PM Afternoon

WINTER



8AM Morning



12PM Noon

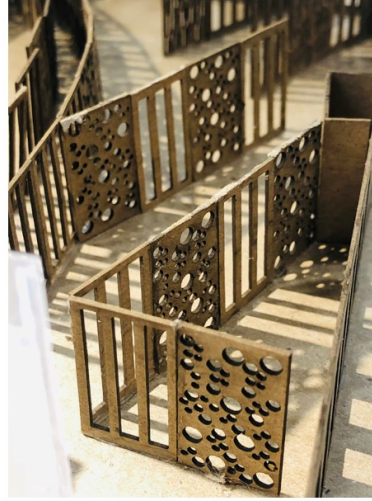


3PM Afternoon

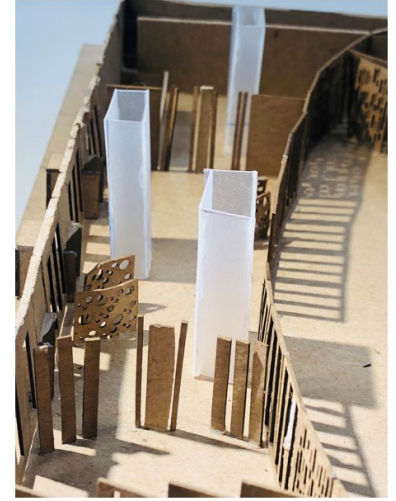
Figure 31. Final Model Sun Study



Contemplation Space and Garden



Cooking Class & Art Studio



Aerobics Area

Figure 32. Final Model Experiences

Renders that show experiences to the site and within the building:



Figure 33. Entrance

The entrance render shows the experience towards the building.



Figure 34. Playground, Reception, and Classrooms

The perspective section above shows the reception that has a light well that secures plant that gives a calm and welcoming effect and on the top floor the classrooms are located which uses a red colored screen because the color red triggers concentration and therefore is used to help students study. In addition, they both overlook the playground that is a safe secure space for kids to play.



Figure 35. The studios and the contemplation area

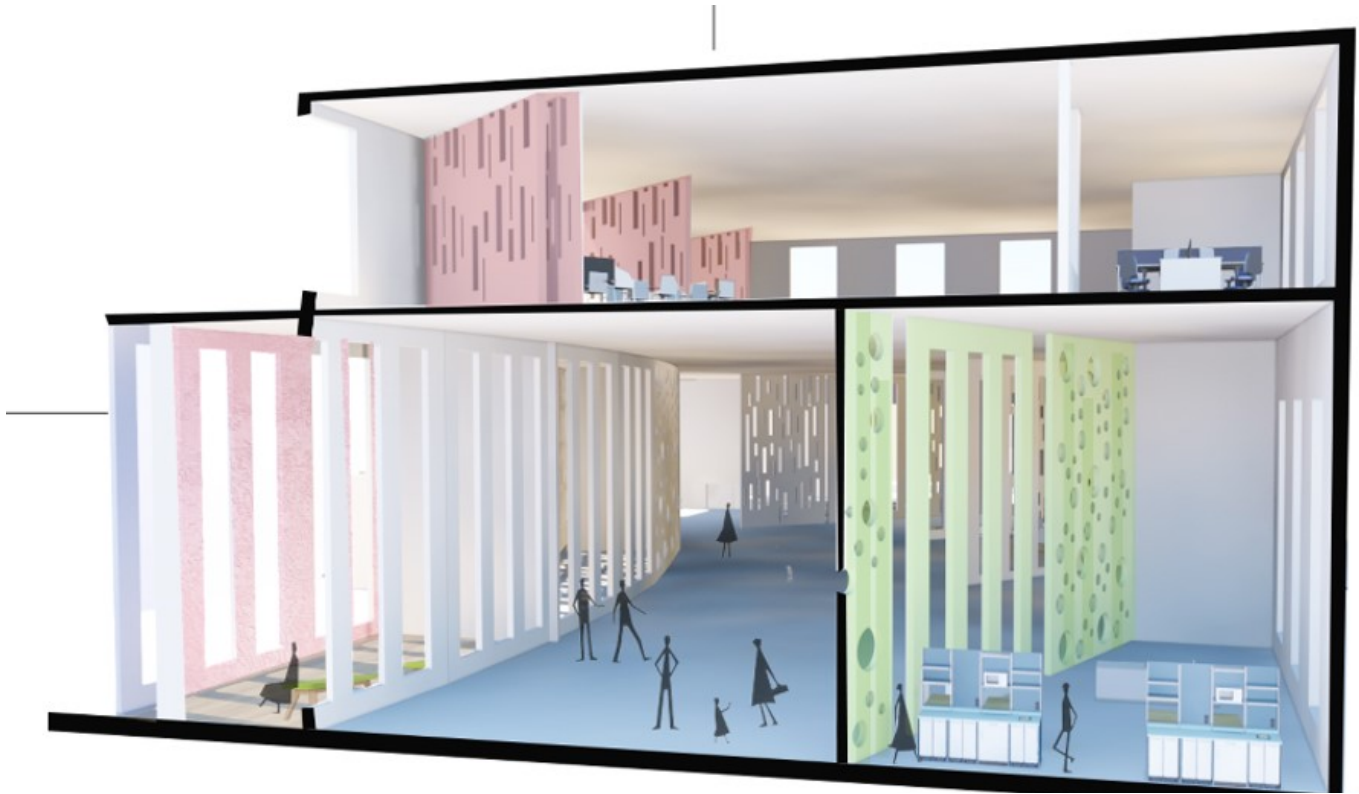


Figure 36. Cooking class, Classrooms, and Contemplation area

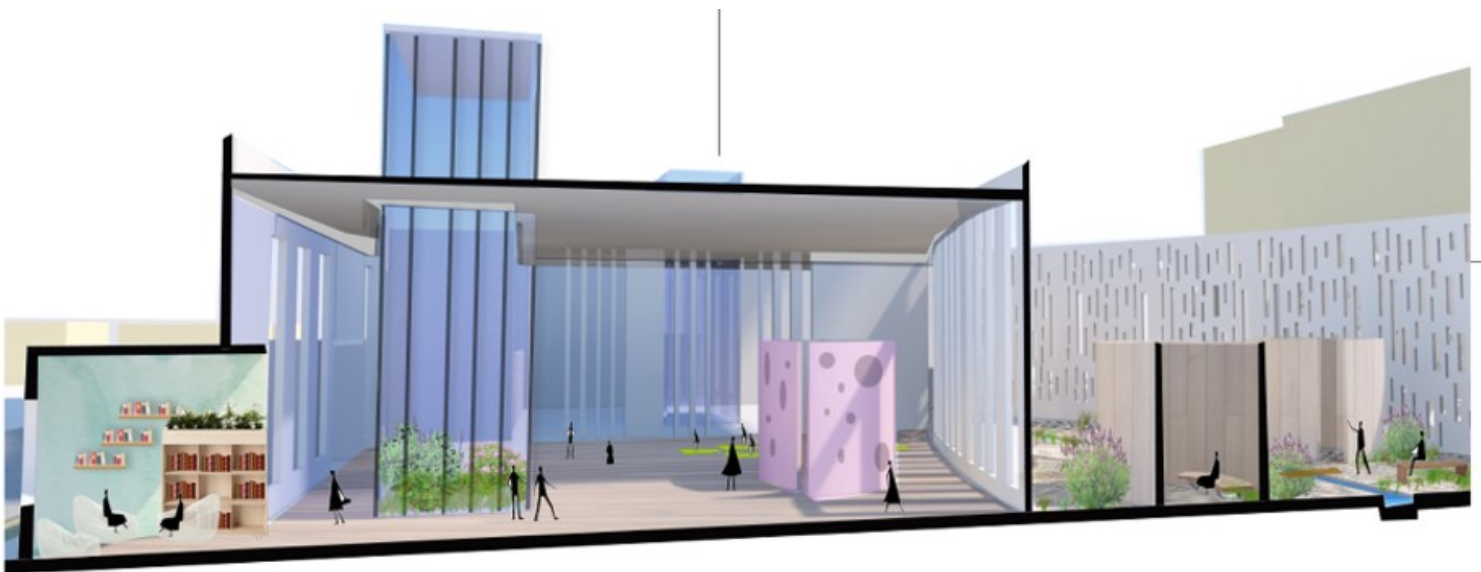


Figure 37. Reading area, Mediation Area, and Meditative Garden

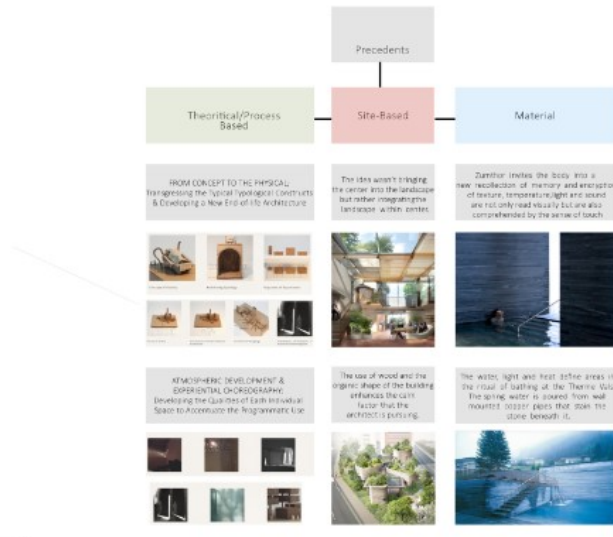
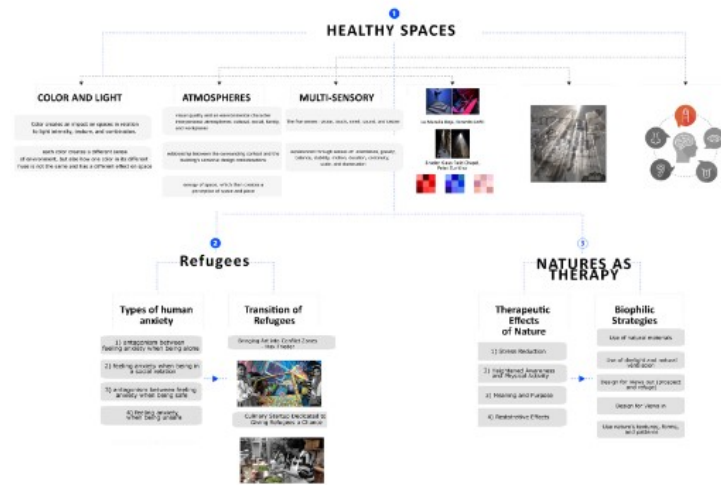
CHAPTER 8

CONCLUSION

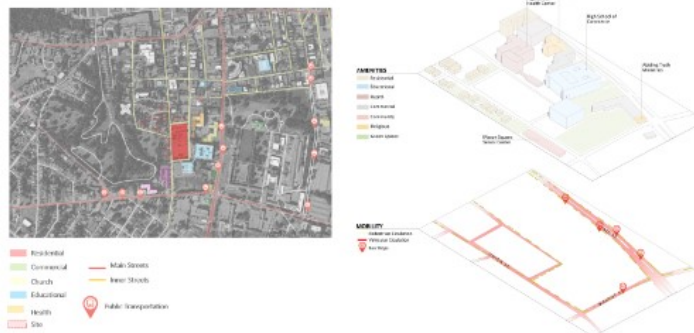
In conclusion, the project was appreciated by the reviewers. As they stated “it is a very real project that targets a modern-day issue”. The methodology was highly recognized as a form of molding the experiences within the building and also as a process that led to the design of the building form. However, it was noted that one should design the experiences on all sides of the exterior of the building in addition to the garden entry space. Moreover, it would be interesting to see how the experiences will differ if the roof was not flat and also to develop a sense of modulation might make the program more rhythmic. All in all, the project was a very fruitful experience and eye opening to the potential possibilities that become possible with an experiential approach to the design of buildings.

APPENDIX

ORAL DEFENSE PRESENTATION BOARDS



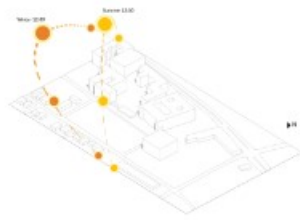
SITE



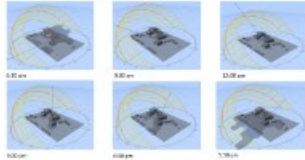
THERAPEUTIC COMMUNITY FOR REFUGEES

RAGHAD ALRASHIDI

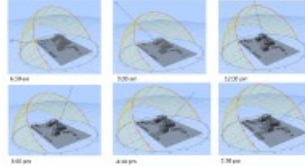
SUN PATH DIAGRAMS



Winter Sun Path Diagram



Summer Sun Path Diagram



REFUGEES

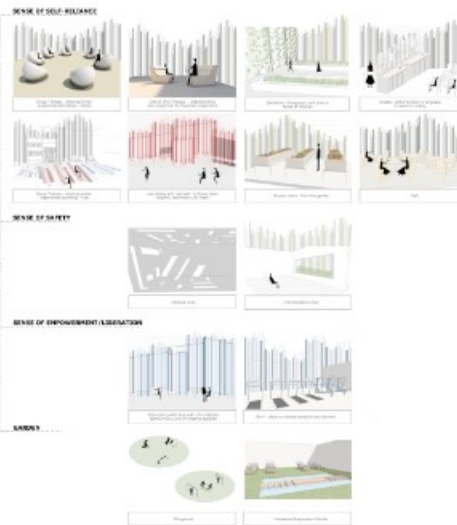
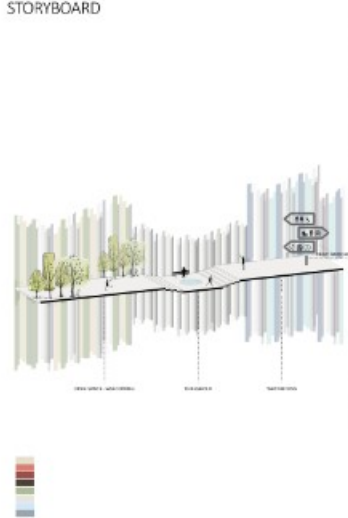
WHERE ARE THEY FROM?



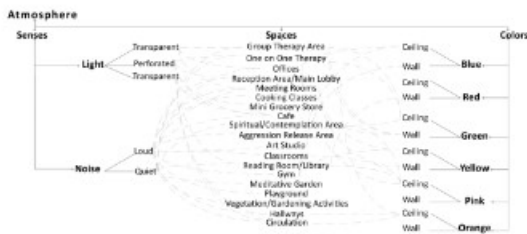
SUCCESSFUL REFUGEE TRANSITION



STORYBOARD

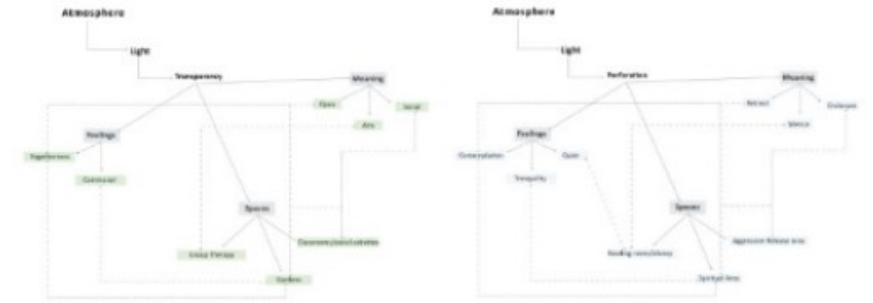
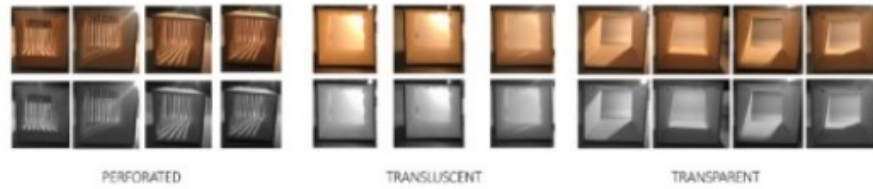


PROGRAMMATIC MAPPING

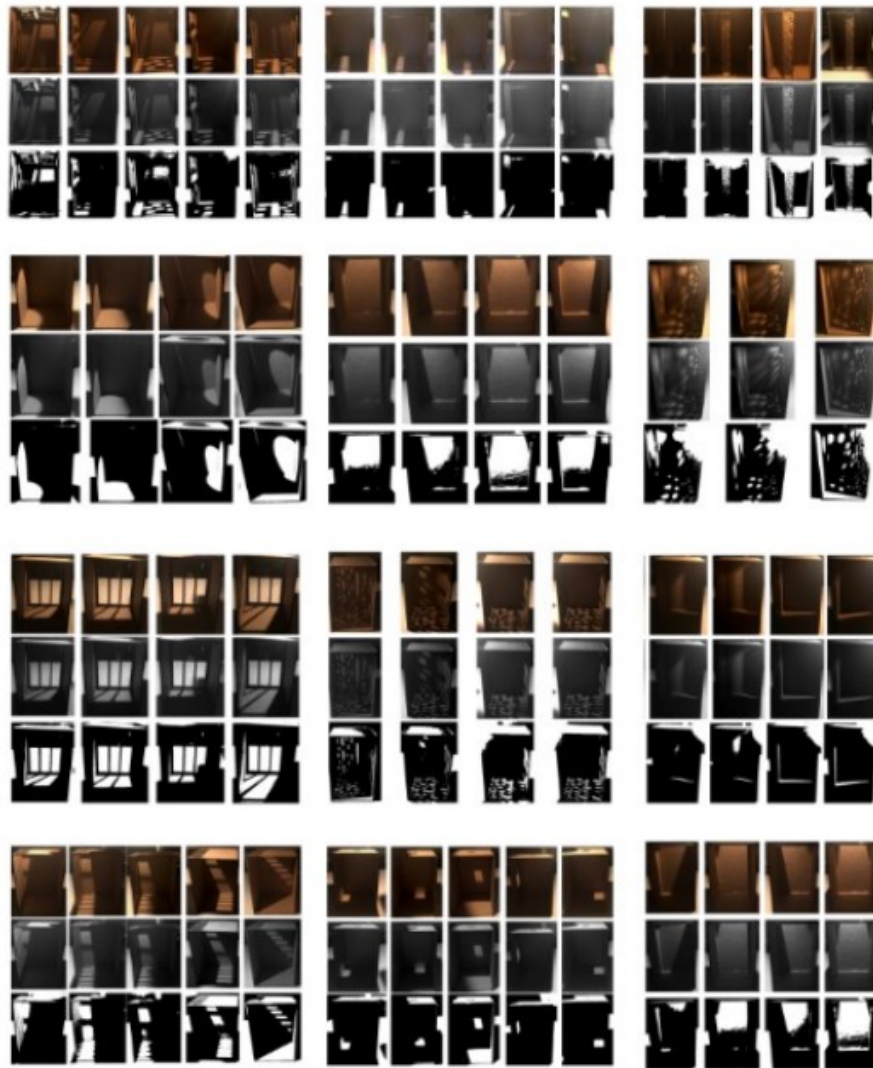


Space	sqft
Office (1)	900
Car Wash Station	400
Cooking Class	2500
Mini Grocery Store	1000
Cafe	1800
Art Studio	1500
Gym	3500
Classroom (2)	3300
Reading Area (1)	750
Women's Health Studio	1500
Workshop	1800
Reception	300
Spiritual Contemplation Area (1)	1500
Meditation Garden	400
Playground	2500
Vegetable/Floral Garden	3000
Subsided	2500
Circulation	40% of the total building Area
Swimming	1200
Pool	5800
Total	39025

ABSTRACT MODELS:-exploring perforated, transparent, and translucent spaces



LIGHTING STRATEGIES

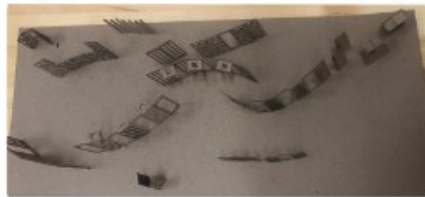




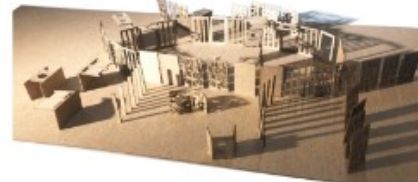
INTEGRATION

CONCEPTUAL EXPERIENTIAL MODEL

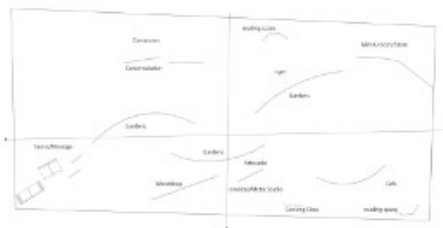
DEVELOPED EXPERIENTIAL MODEL WITH SUN STUDY



CONCEPTUAL EXPERIENTIAL MODEL



MORNING SHADOW EXPERIENCE



PLAN



NOON SHADOW EXPERIENCE



SECTION



LATE AFTERNOON SHADOW EXPERIENCE



THERAPEUTIC COMMUNITY FOR REFUGEES

RAGHAD ALRASHIDI



SITE PLAN 1/4"=100'



ENLARGED SITE PLAN 1/4"=40'



FIRST FLOOR PLAN 1/32"

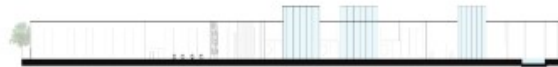


SECOND FLOOR PLAN 1/32"

SECTION A-A 1/32"



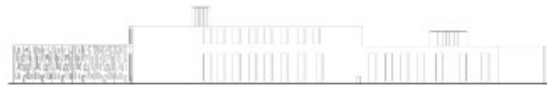
SECTION B-B 1/32"



SOUTH EAST 1/32"



NORTH WEST 1/32"



FINAL MODEL SUN STUDY

SUMMER



8AM Morning



12PM Noon



3PM Afternoon

WINTER



8AM Morning



12PM Noon



3PM Afternoon

EXPERIENCES WITHIN THE BUILDING



Entrance



Reception and Playground



Art Studio , Metal Studio, and Contemplation Area



Cooking Class and Contemplation Area



Reading Area, Meditation Area and Garden



Gym and Aerobics

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