

excellent light

an exploration in the divine and sacred

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A photograph of a person's profile in silhouette, looking towards a wall. The wall has a shadow of the person's hand cast upon it. The lighting is soft and directional, creating a contemplative atmosphere. The text is overlaid on the image in a light blue color.

Lighting certainly affects one's perception of their surrounding environment. Everyone has experienced the effect of lighting from various sources (sun, moon, etc.), but the impression that it leaves will vary depending on multiple factors. Questions arise when trying to understand the affect that lighting has on one's experience. How do the different factors (culture, society, etc.) influence the way one may experience light? Can the experience of a particular space be altered by varying the source of light or other influences? How does the lighting affect the manner in which we behave or act in a certain environment? What feelings occur when experiencing a variation in the quality of light? If excellent light is achieved, how will using the same elements in various settings impact the way we experience architecture?

In the attempt to gain a more thorough understanding of how people experience light in a certain setting, a phenomenological investigation of the relationship between the person and tectonics will be necessary. In some cases, one may experience a sense of nostalgia. The connectivity of the person to their surroundings when having this feeling becomes a possible route of exploration. Using light as a form of communication also creates a whole new opportunity to better define the relationship between people and light. The architect can use light and shadows to express and/or communicate certain qualities of the building/space. Manipulating the light and shadows will allow the architect to create a certain visual experience and emotional reaction, but how it is achieved becomes another exploration in itself.

**thesis
paper**

It may be safe to say that most people, at one point in their life start to question many things including their faith and beliefs, why they are here and why do humans exist, or what is the purpose of life? These may be the broad version of what the person is actually asking, but overall the question presents a problem. How does the individual find what they are seeking? Can such a deep question be answered? The meaning of life is usually connected to the spirituality that exists within the person. As man controls the operations of their religions, through churches, mosques, temples, etc the connection to the person's spirit may be lost or too influenced.

My response becomes my thesis project. The project will embark on the journey to assist the individual in their search for a deeper meaning. The project will consist of providing a means, whether it be an alternative or additional for the individual to use. For those who regularly attend service at their church or mosque, the project will become the next step in the fulfillment of the person's search. Light becomes a vessel within the project to facilitate the experience and bridge the connection of the individual to the divine or sacred.

There are several influences in regards to my thesis work. Through my personal experiences, historical and precedent research, and the profession of architecture itself, I have been able to find my motivation or rather inspiration to work on this project.

In my own personal experience, I have found there is a point in someone's life where they find themselves spiritually. As a child, I was raised in the Greek Orthodox traditions, mostly due to my mother's wishes. My father was agnostic, but it was not until later that I found out that he felt that way due to his father's death during childhood. I always felt that I was looking for something more and I was never satisfied spiritually. At the age of fifteen, I accepted Christ into my life, leaving behind the traditions of the Greek Orthodox faith and my family to start my own. This in a sense became my main source of inspiration. I wanted to use architecture in some way to become a facilitator or vessel in which a person can use to find that higher state of being in which many are in search of but with a few stipulations. The religious barriers that are created due to the influences of one's experiences with others and the limited exposure to other religions would be removed. It would come down to the choice of how open the person chooses to be to allow them to reach a transcendental state, and in the best case, find themselves spiritually.

Another strong influence is the ever present conflict between the different religions of today and even the denominations or sects of those religions. I know personally, I have seen the conflict especially within the Christian faith. There are so many denominations, yet all claim to have the correct interpretation of God's word and the entire Christian doctrine. This conflict is also prevalent within other religions, including Islam. The battles seem to take place more so within the Middle East among the three sects Shiite, Sunni, and Kurdish. The tension

between the three sects can be seen or heard on a daily basis being that the War on Terrorism/ Gulf War II is all over the media. In this case, the lack of separation of church from state is not acceptable, and all sects are in a continuous struggle to gain power and control of the Iraqi government.

A major conflict has been prevalent for over a millennium between the Western society, predominantly of the Christian faith, and the Middle East, pre-dominantly of the Islamic faith. The two faiths have fought for various gains, but the most significant is the acquirement of territory within the Holy Land and other parts of the world. Responding to this conflict is one of my aspirations that I would hope to accomplish with this thesis. An important aspect to me would be to remove the religious boundaries that separate the individual, which would then help to develop the community by a means of the individual.

Light has always held some significant meaning since our primitive times. The meaning has varied among the different cultures and societies, but there is a consistency in the belief light holds a strong relationship with a more divine or higher power.

Looking at light in a historical context, light was used to express this relationship in the architecture of ancient civilizations including that of Egypt, Greece/Rome, and into the Early Christian era. Egyptians used various means to distinguish the divine light (light of the stars, moon, and sun) and that of the worldly light. By using a glossy limestone exterior and capstones made of precious metal, the

pyramids created a visually powerful object that could be seen from a far distance in during the various times of day (sunset, sunrise, night, etc). In a practical sense, the pyramids were used as astronomical tools and became a model of the universe by connecting the earthly and heavenly spheres through the use of light.

In the ancient Greek culture, there were similar values in which light was used although the methodology was quite different. The Greek temples separated the earthly light from the divine light by enclosing the sacred space. This was accomplished by creating a colonnade on the outside of the walled enclosure of the sanctuary. The conceptual thought was to separate the inner (divine) light from the outer (worldly light).

Early Christian architecture gave a more literal translation of the relationship between light and that of the divine or sacred power. The worshippers using the space were able to interact with both the divine and earthly light being that everything was in within the structure. The divine light would be represented in the figures of Christ, the Cross, the Dove, and the twelve apostles.

The precedent studies became a very strong influence in the sense that it gave me a clear direction to where I wanted to take the project. The studies were exemplary by drawing a strong connection of light to the divine or sacred power. The decisions from the concept to the detailing of the building form were carefully thought out in terms of accomplishing their main goal; to create the connection.

The forms are simple, yet elegant and the approach towards addressing the issues of creating a spiritual place is very appropriate.

Precedent Study: Church of Light, Ando
Located within a residential community in Ibaraki, Japan, Ando's Church of Light resembles a simplistic concrete box with a wall slicing through at an exact and precise 15 degree angle. The relatively small form (113 sq. meters) is very well integrated within the community but is still able to separate the experience within the building.

After passing the ministers house, the person arrives at the "back" of the church. The slicing wall through the main form creates a courtyard before entering the building. One of the signature aspects of the piece of architecture is the cross-like form cut into the wall, allowing natural light to enter the sacred space only through the void. The church becomes successful in the sense that the concept is in the choice of materials, details, and quality of light. There is no ornamentation on the concrete wall, disallowing anything to lessen the experience. This also creates a sense of isolation from the outside world.

Much of the design was decided on the fact that there was lacking funds, rather than a choice in the design phase. The formwork used for the concrete was reused to form the pews within the sacred space. Ando is

well known for his preciseness in each detail, allowing everything to be extremely ordered and fitting.

Precedent Study: St. Ignatius Chapel

As described by Stephen Holl, the St. Ignatius Chapel is “a stone box, containing seven bottles of light.” The concept was derived from the teachings and writings of St. Ignatius which interpreted the spiritual life as “a series of lights and darkness.” Ignatius stated that the “light from above is a manifestation of the divine.” Using the bottles of light as a main theme for the building form, each bottle becomes a representation of the Catholic mass.

- 1. Procession - natural sunlight**
- 2. Narthex - natural sunlight**
- 3. Nave - yellow field with blue lens (east); blue field with yellow lens (west)**
- 4. Blessed Sacrament - orange field with purple lens**
- 5. Choir - green field with red lens**
- 6. Reconciliation Chapel - purple field with orange lens**
- 7. Bell Tower and pond - projecting reflecting night light**

The exterior and interior do not have a strong relationship being that the exterior consists of hard, angular shapes while the interior is countered with soft pigmented lighting.

Precedent Study: Chapel at Ronchamp, Le Corbusier

The chapel focuses on interacting with the elements of nature. The program of the building was to create a chapel of pilgrimage. A quote by Le Corbusier establishes the main theme of the building:

“Here we will build a monument dedicated to nature and we will make it our lives’ purpose.”

The building is a sculpture-like form, with thick walls and roof, punctured by windows. The windows create a mysterious experience within the interior of the building, allowing natural light to enter in a variety of openings.

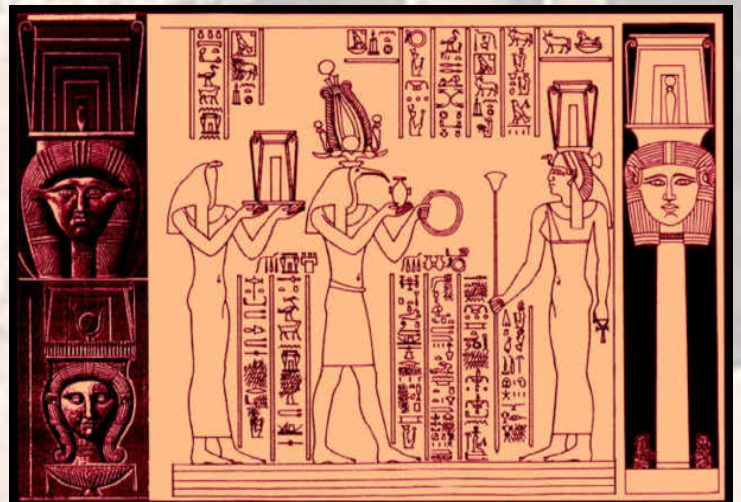
Lighting, color, and the architectural elements work in accordance with one another which are controlled by various tectonic features including walls, roof, floor, ceiling, textures, and materials. Each aspect has its own role, but is dependent on the others to create the experience within the spiritual and physical spaces.

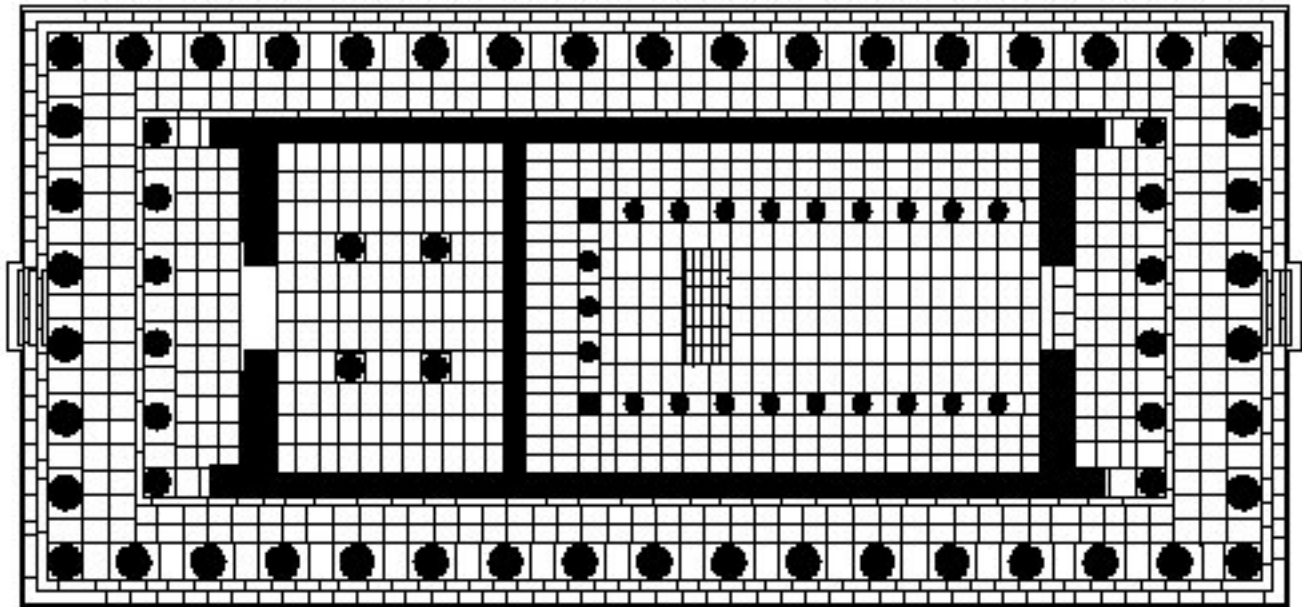
The thesis focuses on the strong connection between the individual and their spirituality as well as light to the divine. In accordance with the various mediums, the person’s will to be open (in mind and spirit) will truly help the person find what they are looking for.



Light has always held some significant meaning since our primitive times. The meaning has varied among the different cultures and societies, but there is a consistency in the belief light holds a strong relationship with a more divine or higher power.

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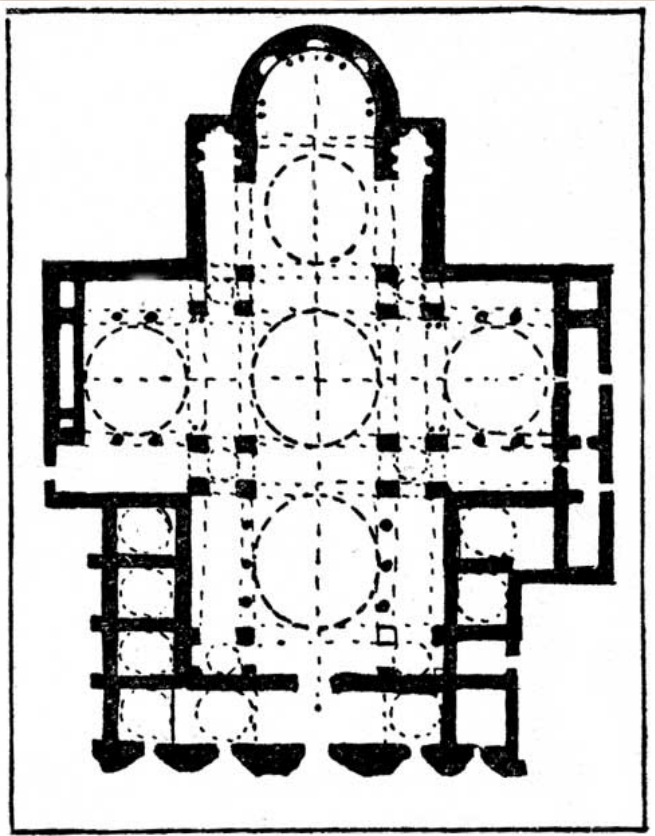
In the ancient Greek culture, there were similar values in which light was used although the methodology was quite different. The Greek temples separated the earthly light from the divine light by enclosing the sacred space. This was accomplished by creating a colonnade on the outside of the walled enclosure of the sanctuary. The conceptual thought was to separate the inner (divine) light from the outer (worldly light).

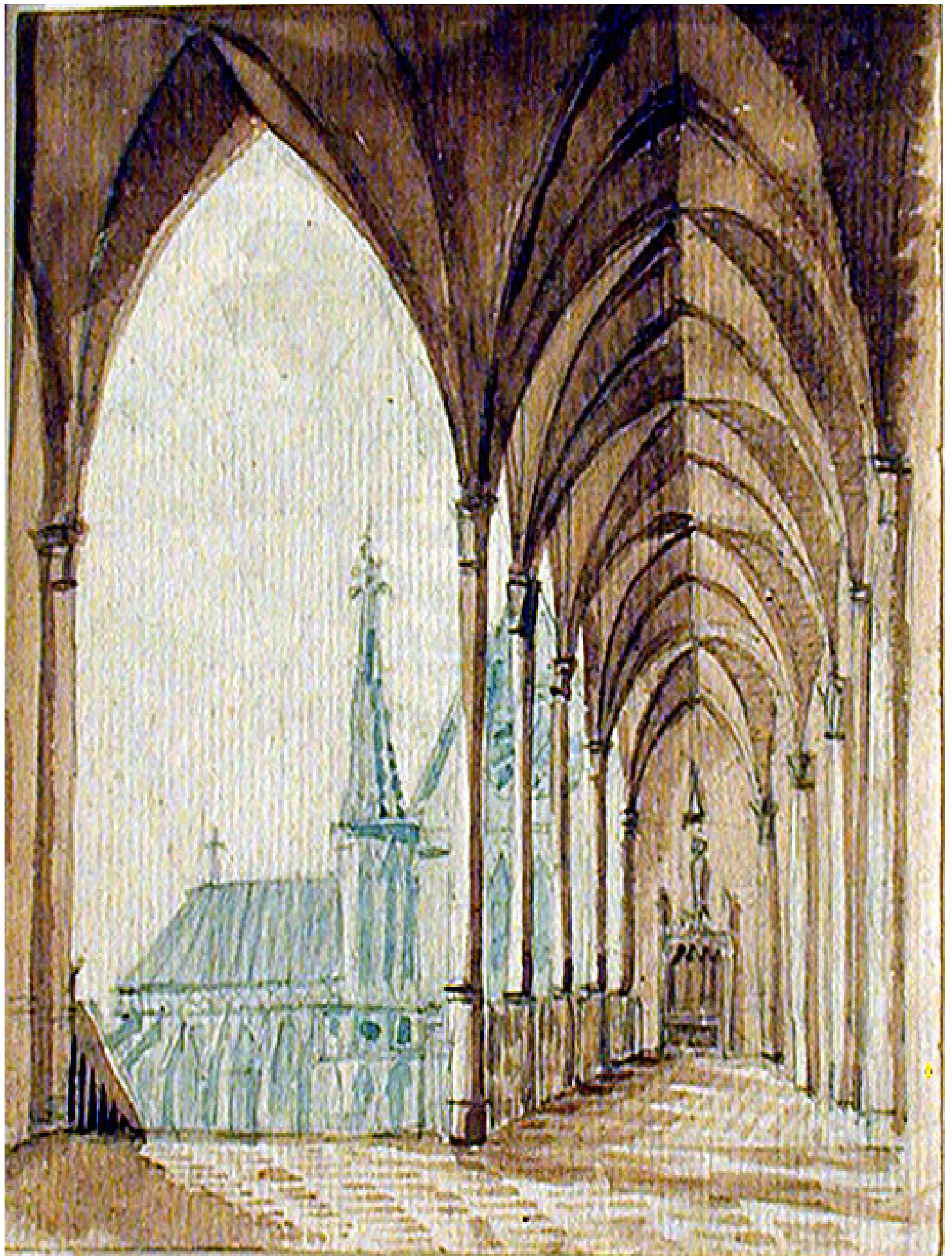
The temple allows the worshipper to approach the walled sanctuary both visually from a distance and physically upon entry. Using precise calculations and engineering, the Greeks were able to manipulate the amount of light entering the space at specific times of the day.





The ancient Romans used similar principles (almost identical) as those of the Greek culture. One of their most noted accomplishments and successful attempts to integrate light into the form, the Pantheon is able to “make form from light, celebrating the duality, separating daylight and sunlight as distinct components of the same force.”





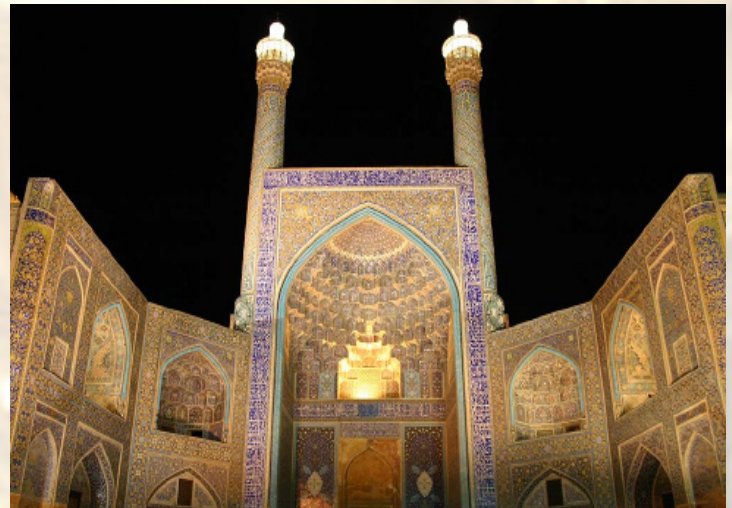
Early Christian architecture gave a more literal translation of the relationship between light and that of the divine or sacred power. The worshippers using the space were able to interact with both the divine and earthly light being that everything was in within the structure. The divine light would be represented in the figures of Christ, the Cross, the Dove, and the twelve apostles.

In the Baroque era, light was still the main means to represent the divine, although it became more ambiguous or vague.

“ The sensuous is no longer used as a step in the soul’s gradual ascent to the divine ... Instead art points to the sacred by expressing the desire which relates man to the sacred not as to something known but as to something unknown.”

- Karsten Harris

The intent is not associate the meaning of light with the divine, instead it assists the person in creating a desire or need to obtain an understanding of the unknown.



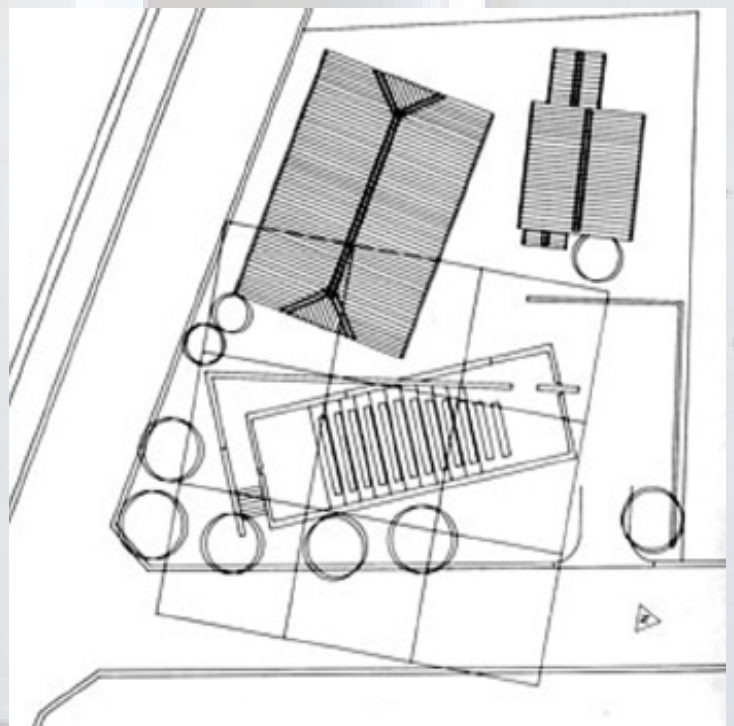


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Precedent Study: Chapel of Nôtre Dame, *Le Corbusier*

The chapel focuses on interacting with the elements of nature. The program of the building was to create a chapel of pilgrimage. A quote by Le Corbusier establishes the main theme of the building:

"Here we will build a monument dedicated to nature and we will make it our lives' purpose."

The building is a sculpture-like form, with thick walls and roof, punctured by windows. The windows create a mysterious experience within the interior of the building, allowing natural light to enter in a variety of openings.

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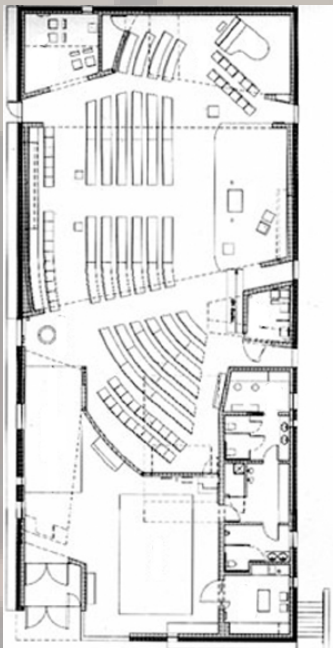
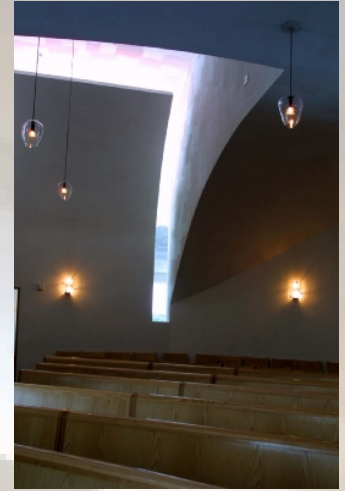
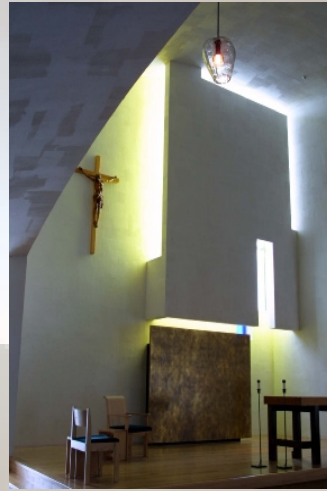


Precedent Study: St. Ignatius Chapel, *Holl*

As described by Stephen Holl, the St. Ignatius Chapel is “a stone box, containing seven bottles of light.” The concept was derived from the teachings and writings of St. Ignatius which interpreted the spiritual life as “a series of lights and darkness or rather consolations and desolations.” Ignatius stated that the “light from above is a manifestation of the divine.” Using the bottles of light as a main theme for the building form, each bottle becomes a representation of the Catholic mass:

1. Procession – natural sunlight
2. Narthex – natural sunlight
3. Nave – yellow field with blue lens (east); blue field with yellow lens (west)
4. Blessed Sacrament – orange field with purple lens with purple lens
5. Choir – green field with red lens
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7. Bell Tower and pond- projecting reflecting night light

C





site an analysis is

Located in downtown Cleveland, Ohio the site is situated in an urban environment creating a broad range of demographics. The site is also located near a high active area with multiple points of access. The current function of the site is being used for parking.

The parking spaces will be replaced with a new parking structure along with the new building. The surrounding area consists of mixed use buildings, residential (apartment complex), commercial, and recreational.

The site itself is relatively flat in regards to the topography, presenting no challenges. The site and surrounding area contains a very small amount of vegetation and wildlife.



points of access



Site Location



Located in the Theater District, the area is full of activity and provides a substantial amount of circulation near the site and surrounding areas.

Another key aspect of the site is the proximity to the Erie Street Cemetery. The cemetery creates a point of connection both physically and conceptually to the chosen site. Life and death is certainly a crucial aspect when reflecting on one's spirituality. The chapel located within the site and the cemetery gives a symbolic meaning to the dialectical relationship through the connectivity as well as the separation. The pathway through the cemetery coming from the site will represent the journey that one will embark in their search to find themselves on a deeper spiritual level.

The cemetery today has more of a historical meaning to the city of Cleveland, having been founded in the early part of the 19th century. Originally named Ontario Cemetery, the purpose of the location served to distance itself from the main population at the current time. The cemetery provides resting places for various mayors and important people of the city.





figure ground 1: existing buildings



figure ground 1: primary roads

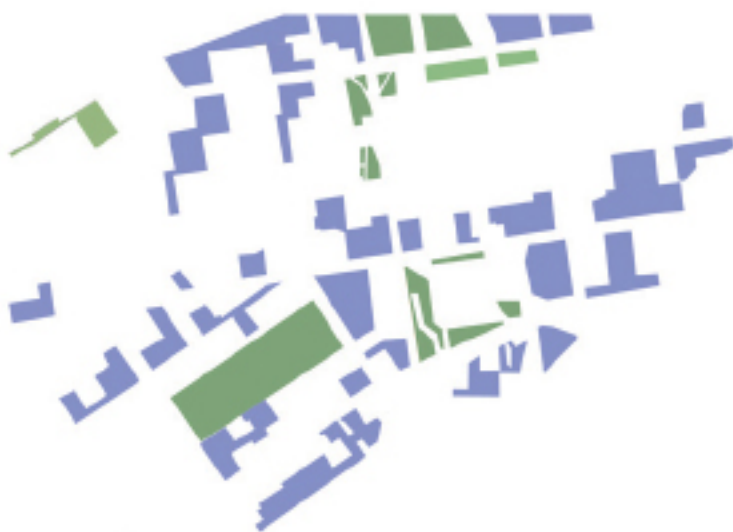
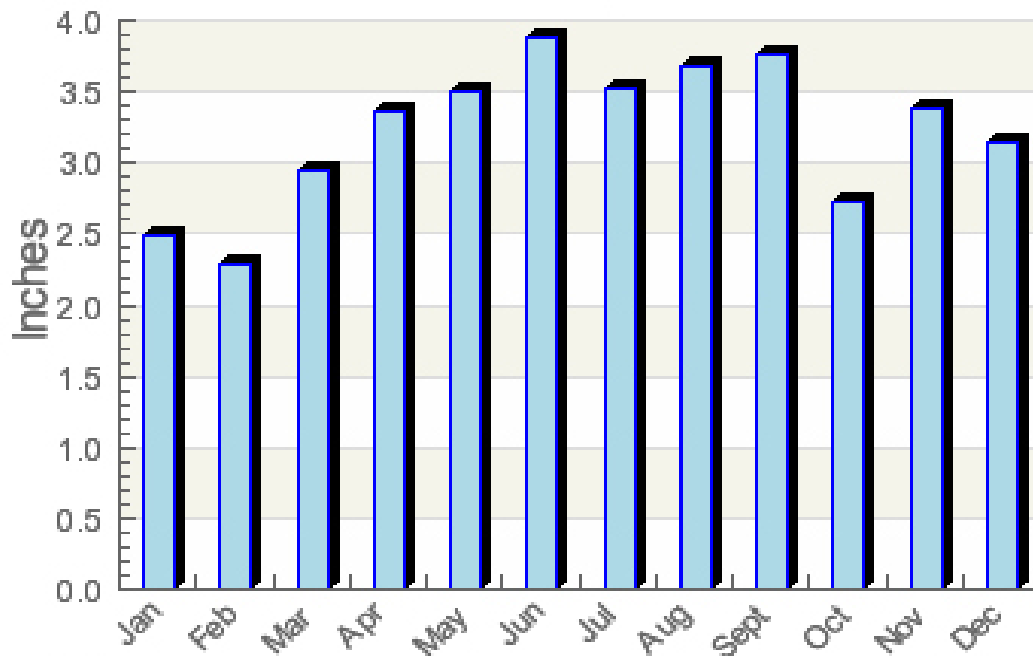


figure ground 1: parking and green

Average Monthly Precipitation

Cleveland, Ohio

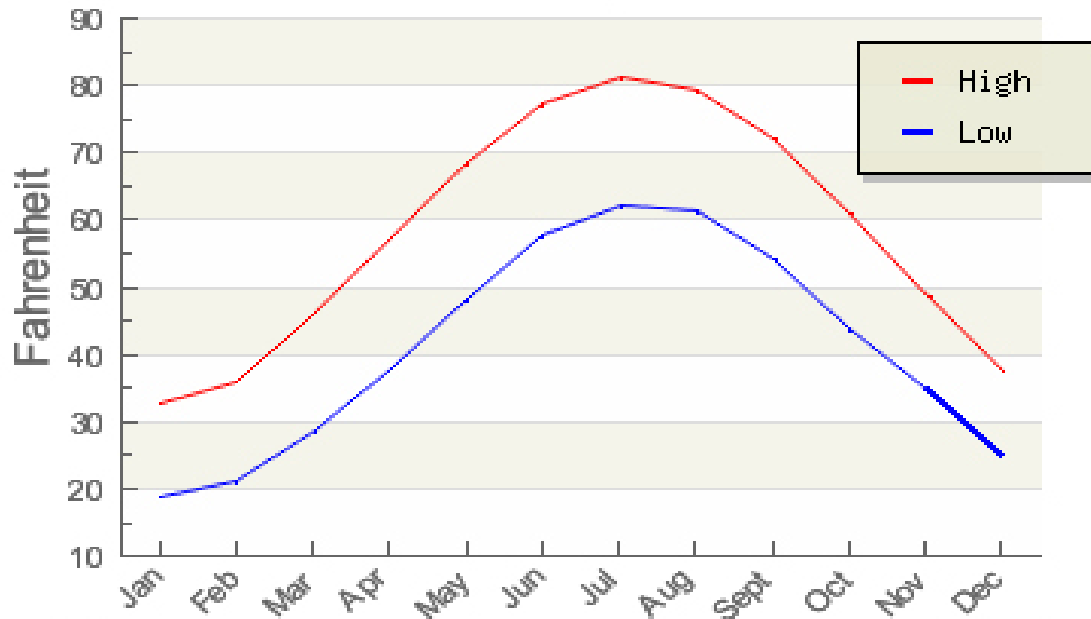


1971-2000

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Average Temperature Range

Cleveland, Ohio



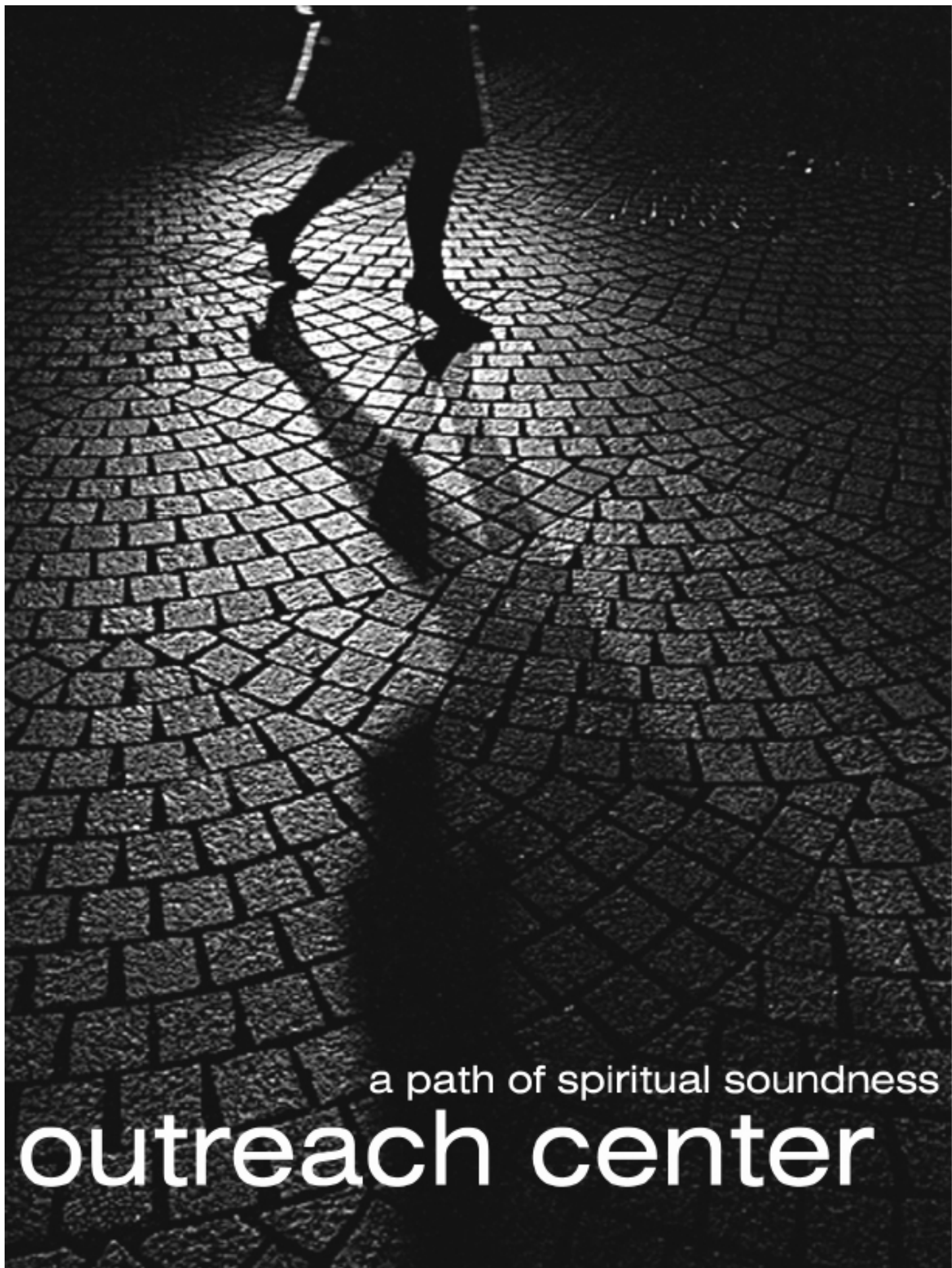
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a path of spiritual soundness

outreach center

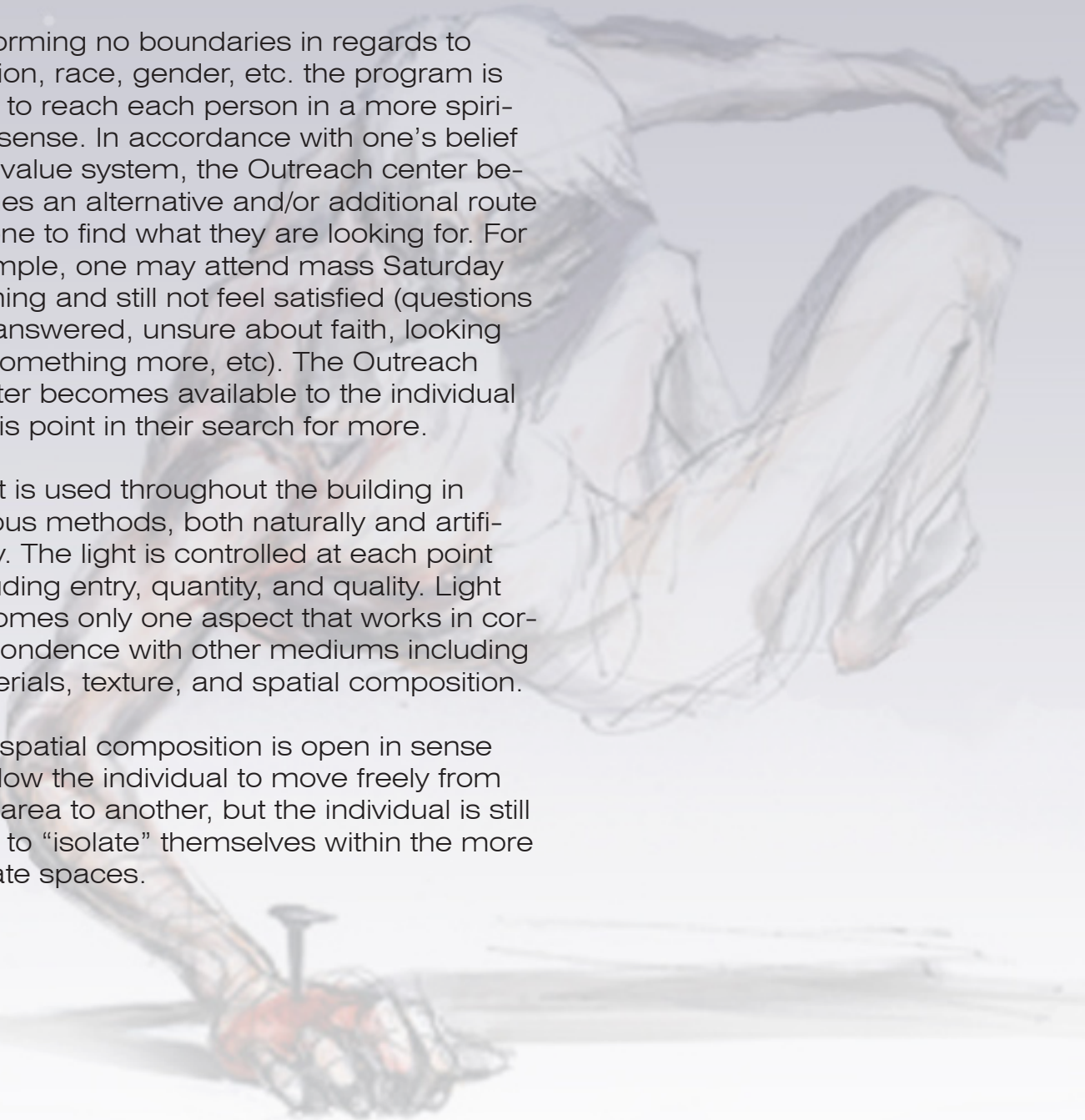
The intent of the program is to provide the individual with an opportunity to find themselves on a spiritual level and help to develop the community through the individual.

The focus of the Outreach Center is placed primarily on providing a means to assist the person who is in need. This is accomplished through the use of events, literature, meditation, and guidance.

By forming no boundaries in regards to religion, race, gender, etc. the program is able to reach each person in a more spiritual sense. In accordance with one's belief and value system, the Outreach center becomes an alternative and/or additional route for one to find what they are looking for. For example, one may attend mass Saturday evening and still not feel satisfied (questions not answered, unsure about faith, looking for something more, etc). The Outreach Center becomes available to the individual at this point in their search for more.

Light is used throughout the building in various methods, both naturally and artificially. The light is controlled at each point including entry, quantity, and quality. Light becomes only one aspect that works in correspondence with other mediums including materials, texture, and spatial composition.

The spatial composition is open in sense to allow the individual to move freely from one area to another, but the individual is still able to "isolate" themselves within the more private spaces.



Purpose

The main entry is located in this space. The space is used to welcome the users of the space and provides a waiting area for events. Information is obtained in through the use of the digital media.

Space (size):

500 sq. ft.

Activities:

The receptionist is available in this area and serves the guests by answering any questions pertaining to the building itself, as well as setting up meetings, conferences, and events. The digital media provides a basic means of assisting the individual.

Adjacencies/spatial relationships:

- Reception/ Employee area
- Circulation



welcome area

Purpose

The space serves as a lounge area and office. Basic administration duties are handled and addressed within the space.

Space (size):

500 sq. ft.

Activities:

The space will hold all pertaining information to the building facilities, counseling services, and basic managerial files. Employee meetings and breaks will most likely take place here.

Adjacencies/spatial relationships:

- Principal Office
- Employee Restroom
- Circulation

reception/employee office

Purpose

The space will serve as an office space for the manager of the Outreach Center.

Space (size):

360 sq. ft.

Activities:

The manager will be able to facilitate the Outreach center from this office. Meetings will also take place here

Adjacencies/spatial relationships:

- Employee Restroom
- Reception/Employee Office



principal office

Purpose

The space provides a facility for restroom use, specifically for employees.

Space (size):

180 sq. ft.

Activities:

Basic restroom facilitation

Adjacencies/spatial relationships:

- Principal Office
- Reception/Employee Office
- Storage



employee restroom

Purpose

The space provides storage for office and maintenance supplies

Space (size):

160 sq. ft.

Activities:

NA

Adjacencies/spatial relationships:

- Employee Restroom
- Office (1)
- Business circulation



storage (office)

Purpose

The space provides an office space for the administrative employees.

Space (size):

320 sq. ft.

Activities:

Administration duties will take place on a day-to-day basis. Meetings and counseling services will be provided by professional staff.

Adjacencies/spatial relationships:

- Storage
- Office (2)
- Business circulation

office (1)

Purpose

The space provides an office space for the administrative employees.

Space (size):

320 sq. ft.

Activities:

Administration duties will take place on a day-to-day basis. Meetings and counseling services will be provided by professional staff.

Adjacencies/spatial relationships:

- Gathering/lounge
- Office (1)
- Business circulation

Purpose

The space provides a gathering area for both groups and individuals

Space (size):

640 sq. ft.

Activities:

Groups and individuals will be able to gather here for the studying of scripture, fellowship, and pre-event gatherings

Adjacencies/spatial relationships:

- Men's room
- Office (2)
- Circulation



gathering area

Purpose

The space provides facilitation of restroom use for males.

Space (size):

320 sq. ft.

Activities:

NA

Adjacencies/spatial relationships:

- Women's room
- Gathering area
- Circulation



men's room

Purpose

The space provides facilitation of restroom use for females.

Space (size):

320 sq. ft.

Activities:

NA

Adjacencies/spatial relationships:

- Men's room
- Reading area (LL)



women's room

Purpose

The space provides a space for the individual to study and read literature.

Space (size):

1920 sq. ft.

Activities:

The individual is able to read and study literature. The space also serves as a reflection area and resting place.

Adjacencies/spatial relationships:

- Women's room
- Circulation



reading area (LL)

Purpose

The space provides an intimate space for the individual to assist in the reflection of their experience

Space (size):

960 sq. ft.

Activities:

The individual is able to reflect and meditate within the space.

Adjacencies/spatial relationships:

- Waiting area

meditation space (1)

Purpose

The space provides an area for waiting as well as vertical circulation by means of stair and elevator.

Space (size):

640 sq. ft.

Activities:

People use this space primarily for circulation and waiting for the use of the adjacent spaces.

Adjacencies/spatial relationships:

- Meditation (1,2)
- Circulation



waiting area (LL)

Purpose

The space provides an intimate space for the individual to assist in the reflection of their experience

Space (size):

960 sq. ft.

Activities:

The individual is able to reflect and meditate within the space.

Adjacencies/spatial relationships:

- Waiting area

Purpose

The space is intended for the use of hosting events and lectures.

Space (size):

1024 sq. ft.

Activities:

Events, conferences, lectures, services, and large group gatherings will take place within the space.

Adjacencies/spatial relationships:

- Lecture (2)
- Circulation

Purpose

The space is intended for the use of hosting events and lectures.

Space (size):

1024 sq. ft.

Activities:

Events, conferences, lectures, services, and large group gatherings will take place within the space.

Adjacencies/spatial relationships:

- Lecture (1)
- Circulation
- Waiting (UL)

Purpose

The space provides an area for waiting as well as vertical circulation by means of stair and elevator.

Space (size):

1024 sq. ft.

Activities:

People use this space primarily for circulation and waiting for the use of the adjacent spaces.

Adjacencies/spatial relationships:

- Lecture (2, 3)
- Circulation

waiting (UL)

Purpose

The space is intended for the use of hosting events and lectures.

Space (size):

1024 sq. ft.

Activities:

Events, conferences, lectures, services, and large group gatherings will take place within the space.

Adjacencies/spatial relationships:

- Lecture (4)
- Circulation
- Waiting (UL)

Purpose

The space is intended for the use of hosting events and lectures.

Space (size):

1024 sq. ft.

Activities:

Events, conferences, lectures, services, and large group gatherings will take place within the space.

Adjacencies/spatial relationships:

- Lecture (3)
- Circulation

Purpose

The space provides a space for the individual to study and read literature.

Space (size):

3072 sq. ft.

Activities:

The individual is able to read and study literature. The space also serves as a reflection area and resting place. The space is open to the green roof which provides for another resting and reading area.

Adjacencies/spatial relationships:

- Green Roof
- Bridge (to Library)



reading area (UL)

Purpose

The space provides a broad collection of literature to assist the needs of any individual.

Space (size):

3072 sq. ft.

Activities:

Users are able to find a wide range of literature and provides some area for reading.

Adjacencies/spatial relationships:

- Bridge (to reading area)



library

Purpose

The space below grade is an open area that allows for various activities.

Space (size):

5888 sq. ft.

Activities:

Within the space users may find a place to relax and isolate themselves from their surroundings.

Adjacencies/spatial relationships:

- Overlooking spaces (above grade)



lounge (below grade)

Purpose

The exterior area exposes the individual to the natural elements and creates a connection to the cemetery across the site.

Space (size):

NA

Activities:

People are able to find an area to rest, or they may choose to walk within the area.

Adjacencies/spatial relationships:

- Exterior (building)



green area (exterior)

final presentation

