

Aware Of God Amongst Us

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I believe in God, only I spell it Nature.

-Frank Lloyd Wright (1869 - 1959)

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Abstract

Can nature (or reconstructed nature) elements in architecture make us more aware of God and his presence amongst us in a worship space?



Abstract

Why do people attend church? Is it because they feel that they must due to moral, traditional, or family obligation or is it because they make the conscious decision that they just want to go? When people go to church what are they going for? Is it for the fellowship with others or is it for the connection they want to have with God? Do they go to talk to God, look for answers, ask him for help; is it because they seek spiritual knowledge, cleansing or healing, or are there other reasons?

This recent summer of 2006 found me pondering what project I wanted to pursue for my fifth year thesis project. Fr. Pery Kavookjian, the head priest at St. Paul Newman Center, the Catholic church that I and my family have attended for the last eight years or so, jested that one day when I become a famous architect that he would have me design a new church for him. Which gave me an idea; the thought of designing a church sounded intriguing as my fifth year thesis project. Recently I have been questioning my connection to God and my Catholic faith and I felt that this would be a great opportunity to try to understand the connections between God and the individual through worship spaces. I asked Fr. Perry if I could "design" a church for him as my fifth year thesis project. He was more than happy to help me with the project and was eager to see the concepts I would come up with.

When I began exploring the topic of God and church for my fifth year thesis project I asked myself the following questions; what or who is God? What exactly is "nature"? What constitutes as a house of God or a place of worship? What helps to connect us to God? Does nature make us more aware of God and his presence? How can the "man-made" such as art, architecture, and design bring us closer to God? Is man-made symbolism more effective than nature in connecting us to God?

In this thesis I ask the question, "Can nature (or reconstructed nature) elements in architecture make us more aware of God and his presence amongst us in a worship space?" With this project I want to know if the inclusion of nature, or reconstructed nature is more powerful than the traditional symbolism in connecting people to God within a worship space. When I say traditional symbolism I am referring to the statues, paintings, and other symbolic effigies generally found in a Catholic church. I want to understand the fundamentals of what it is about a worship space that gives it meaning and sacredness to its worshipers. Are these concepts inde-

pendent of the religion of the people or are they directly related?

Since this is a Catholic church I ask the question, must Catholic churches always harbor the traditional symbolisms for them to "feel" sacred to worshipers or can the church be designed using other elements such as nature and light to effectively connect the worshipers to God. I know that there are Vatican II laws stating what must be in a Catholic church and I will abide by those laws; but for an example, does there need to be a statue of the Virgin Mary within the church or can that element be replaced by something else such as a spring? Many Catholics could mentally connect symbolism of the Virgin Mary with the spring of Lourdes France where the Virgin Mary came to St. Bernadette and told her what to dig to bring forth the miraculous water. Would adding a spring as a design feature within the church better serve than an effigy of the Virgin Mary? It is questions like these that I intend to try to answer with this thesis.



Pieces of Unity

Medium: Stained glass

Objective: An expression of unity and dissimilarity through glass.



In the Beginning

Medium: Abstract watercolor and poem

Objective: A metaphoric exploration of creation and the creator. The convergence of the newly created heavens, earth, light, and dark.

In the Beginning

Author Unknown

In the beginning God created the Heaven and the Earth,
And the Earth was without form and void.
Darkness was upon the face of the deep,
And the spirit of God moved upon the face of the water.
Then God said let there be light,
And there was light.

Then God divided the light from the darkness.
Then God called the light day,
And the darkness he called night.
And the evening and the morning were the first day.

Then God made two great lights.
The greater light to rule the day, the lesser light to rule the night,
He made the stars, he made the stars also.
God set them in the Heavens to give light upon the earth;
To rule over day and night.
And God saw that it was very good.



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Autumn Light

Medium: Acrylic, Chinese maple leaves

Objective: With this project I wanted to bring together both the man-made and the natural to create a design which I will call illuminated nature. I wanted to illuminate the beauty of the natural elements through the man-made elements. The man-made elements are the acrylics, glues, sandblaster, and candles used; the natural elements used are the Chinese maple leaves and the flame from the candles. The red color of the acrylic mimics the warm flame of the candle, the color of autumn; the color of the leaves in the fall. The Chinese maple leaves were glued to the acrylic and the acrylic was then sandblasted to leave the lasting impression of the delicate autumn leaves behind. When illuminated by candle, the leaves come to life as the flame dances behind them. Each leaf is different and unique from another and this is expressed when the candle light illuminates the leaves and they come to life as the flame dances and sways within from within. The back side of the red acrylic was left smooth so that the flames reflect off its surface, giving the illusion of a forest of fire and light within the box.

This design should inspire the viewer to think of nature, the flame, the leaves, and the seasons. Viewers may consider the diversity of nature and humanity by contemplating the variety of leaves and how each leaf is singular and miraculous. Just as no one leaf is the exact same color and shape as another, we can all see and contrast how we are each unique and extraordinary just like nature itself. We all may have different coloration and shapes; but just like the leaves in autumn, on the inside we all have the same things that make us live and thrive



Questions

We must accept that this creative pulse within
us is Gods creative pulse itself.

-Joseph Chilton Pearce



What or Who is God?

In my beliefs, God is the sole omnipotent creator of the universe. God is the source of moral obligations, and is the greatest conceivable existent. God is often viewed as like a force of nature or rather as a consciousness which can be manifest as a natural aspect. Both illuminating light and mysterious darkness are canonical symbols for representing God. Mary Daly is quoted saying that God "is the creative potential itself in human beings that is the image of God".

Fr. Perry Kavookjian (the head priest at the Newman Center) says it best; "from the Christian perspective God is the divine being who is eternal (without beginning or end). God is the author of all life; the creator; in whom all wisdom, power and knowledge reside. In one sense, God is completely "other", that is he different from us creatures. But, in another sense, God is completely intimate with us and can be known and experienced in the created order of things".

Sometimes it can feel like God can be hard to find or it feels that he is so far from us or our comprehension. Most of the time we get so caught up in our daily lives that we forget God's influence in our lives. We tend to forget that God's love and beauty are all around us if we'd only take the time to look. God is the creator of all things; all the beauty, the life, the good and the bad the world has to offer come from him. Without the bad there cannot be good, and without death there cannot be new life. It is the cycles of life that can directly remind us of God and his intimate connection to us. We are his creations and we are a part of his created nature.

In all things of nature there is something of the marvelous.

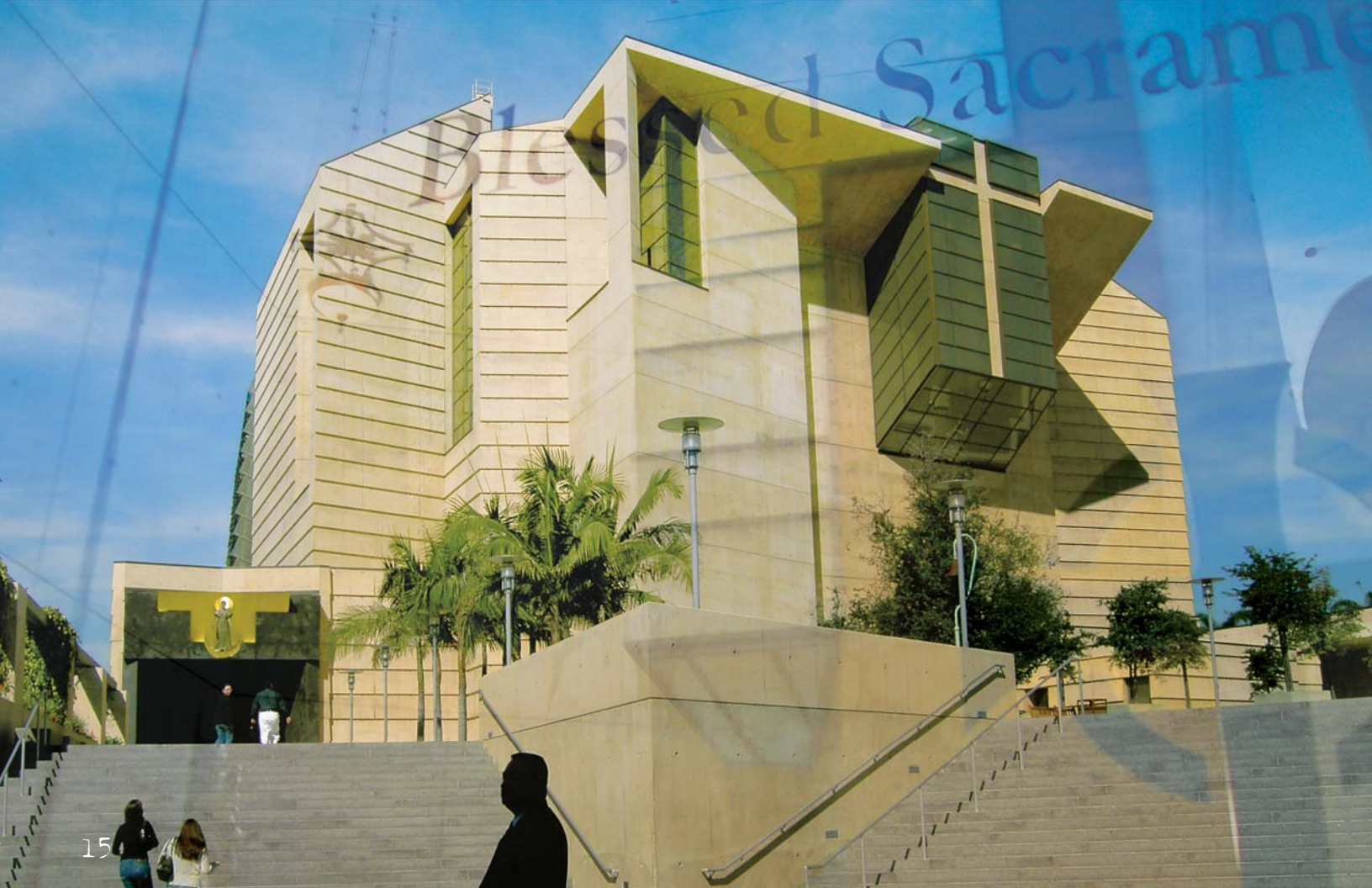
-Aristotle (384 BC - 322 BC), Parts of Animals



What is Nature?

Nature refers to those aspects of the world/universe which did not come from human hands but are derived from God's creative work. Nature can refer to both animate (living) things and also inanimate (non-living) things. Within the various uses of the word today, "nature" may refer to the general realm of various types of living plants and animals, and in some cases to the processes associated with inanimate objects - the way that particular types of things exist and change of their own accord, such as the weather and geology of the Earth, and the matter and energy of which all these things are composed. It is often taken to mean the "natural environment" or wilderness - wild animals, rocks, forest, beaches, and in general those things that have not been substantially altered by human intervention, or which persist despite human intervention. Nature implies a distinction between the natural and the artificial, with the latter being understood as that which has been brought into being by a human or human-like consciousness or mind.

I'd like to define the term "reconstructed nature". Reconstructed nature is the use of nature elements (such as living plants, water, rocks, etc.) in a way that humans define but that does not alter those elements' natural state. For example, I would define man-made parks or gardens as reconstructed nature. The parks and gardens were designed and put together by human intervention but they utilize parts of nature (plants, rocks, water, etc.) in their natural states. A building, in my opinion, is not reconstructed nature, if it is it is in a very loose sense of the term. A building's parts all came from elements found in nature but they have been significantly altered from their original states. The timber used in the framing of a building came from a living tree, now dead and sawn. The timber will never be seen again within the wall, the tree can never live again. Thus the wood from the tree is no longer a living part of nature due to the human intervention imposed upon it.



What is a House of God?

In a simple and literal sense, a house of God or place of worship is a setting where people of similar faith gather to worship God, to thank and praise God in prayer. It can refer to a building but can also be a setting designated by people to be a place where worship occurs. In one school of thought, the church prefigures the Kingdom of God and should be somewhat removed from its surroundings. The other school of thought is that God is creator of the world which is in itself a sacrament of his love. The church building is merely a symbol or sign of God's saving presence. The real living sacrament is the people who worship there. We are in the world as God's people.

Catholic churches have several typological forms of design which are dependant on which Order the church follows. Churches typically reflect the piety of their Orders. Some well known Catholic Orders are Franciscan, Jesuit, and Benedictine. Franciscan churches are simple, open, welcoming, and tend to include nature. Jesuit churches tend to reflect the piety of their congregation or priest(s) and maybe more religiously conservative. Benedictine churches are typically very simple and humble in its design and furnishings. When it comes to other churches, synagogues or temples their theology would be reflected in the building. For instance, Orthodox Christians believe that the sanctuary is the place where Heaven is manifested. Therefore they have beautiful artwork (icons), lots of incense, candles, etc. Also, the average person is not allowed into that area which is separated by a communion rail. Other Christians believe that the sanctuary should be simple and devoid of artwork or anything that might be seen as "competing" with God; the simpler the better.



What helps to connect us to God?

For a simple answer, prayer is the most personal connection we can have with God from the Christian perspective. However, the created world can also connect us to God. For instance, St. Thomas Aquinas wrote that one can look at the beauty of nature or the inherent order of the universe and come to the conclusion that there is a higher power or higher source of wisdom (i.e. God).

The Site

Science without religion is lame, religion without science is blind.

-Albert Einstein, Science, Philosophy and Religion: a Symposium, 1941

History, Puropse, Context

St. Paul's church is a Newman Center which means that the church has a special relationship with the near by California State University, Fresno campus as well as Fresno City College and Fresno Pacific University. St. Paul Newman Center celebrates an openness with people of other faith traditions in a spirit of ecumenical and interfaith dialogue and cooperation as set forth by the Second Vatican Council. St. Paul's Newman Center is named for John Henry Cardinal Newman, a British theologian who championed the ideal of a humanistic and Christian education in his work, "The Idea of a University". Cardinal Newman encouraged the Church to remain open to the modern world; he championed the unity of science and Catholic thought and promoted the idea of freedom in research. In his honor, a Catholic presence on many college and university campuses bears his name "Newman."

In 1953, Fr. Sergio P. Negro, was given the responsibility of starting a Newman Club California State University, Fresno. Plans were already in the making to move the campus to its present site so it was decided that a Newman Center should be built near the new campus. In 1953, the first classes were held on the new campus of Fresno State. Five years later, work began on the proposed Newman Center. Construction was completed in 1964 and the first Masses were celebrated in the Chapel on May 10, 1964. The Newman Center quickly became home to many students and faculty groups. Over the past 41 years, the Newman Center has developed into one of the most active parishes in the Diocese of Fresno. While campus ministry remains integral to the identity of the parish, the Newman Center boasts nearly forty other ministries to people of all ages. Unlike other parishes, it does not have established geographical boundaries in which people must live to be considered "parish members." Catholic college students and faculty are automatically considered parishioners. Others become members by registering— even if they live some distance away or in the boundaries of another parish. Otherwise, the Newman Center is one of 86 parishes that comprise the Diocese of Fresno.

The Newman Center is less traditional than most Catholic churches in that it has some differences in appearance and it is more diverse in its ministries. A few of the visual differences are that there are no pews or kneelers within the church, only chairs. The church was designed primarily for functionality; the chairs can be moved to change the seating, appearance, or use of the wor-

ship space itself. There are also educational classrooms on the church "campus" for Catholic education. Newman Center has ministries on the college campuses which most Catholic churches do not. There is a Campus Ministry in which the Newman Center welcomes students from California State University, Fresno, Fresno City College, Fresno Pacific University, and other area colleges to participate in a variety of social, spiritual, and service activities. The 8pm Sunday college mass is specifically pointed towards local college students with "after hours" after church in which the students usually gather for food and socialization after church. There is a Spanish mass on the first and third Sundays at 5pm. The Catholic Student Association is another ministry that welcomes all college students to a free dinner in the Newman Center Cafeteria on Wednesday nights at 6 PM throughout the academic year. EsTuDios which is a bilingual Catholic student organization at Fresno State which meets Wednesday evenings at 7pm. bible study on Monday nights from 7pm-8:30pm. The College Confirmation ministry prepares baptized Catholics for the sacraments of Confirmation, Eucharist (First Communion), and Reconciliation. There is an adult ministry called Landings for Returning Catholics which reaches out to adults looking to return to the church community.

The Newman Center complex sits nestled in a residential neighborhood. On the north and west side are single family detached homes, to the east are affordable apartments for low income families and college students, to the south is a barrier of trees with the main street of Barstow on the other side. Across Barstow is Bulldog Stadium, Fresno State's football stadium. Along Cedar are apartments for college students. Fresno State is located off Cedar and Barstow. On the corner of Cedar and Barstow is a small market square with The Bulldog Shop, a mini-mart, a popular sushi restaurant, and some other small businesses and eateries.

The site itself is primarily flat for the most part and only half of it is currently developed. Parking is located near the offices and next to the side church entrance. People also park along the back of the church and on the street. More parking would be needed no matter what program is adopted for the complex. The trees and shrubs on site are mature. There is a sporadic crop garden at the back of the church which gets planted or tilled over at an inconsistent rate through the years. Local residents seem to be in charge of the gardening and the church allows their extra open

Church Statistics

General Overview

Organization: St Paul Newman Center
Street: 1572 E. Barstow Ave.
City: Fresno
Zip: 93710
Phone: 559-436-3434
Fax: 559-436-3430
Website: www.csufnewman.com

Statistical Overview for 2005

Catechesis/Religious Enrollments

Enrollments in the Elementary Students: 156
Enrollments in the High School Students: 117
Total Enrollments: 273

RCIA Program Enrollments

Enrollments in the Adult Education program: 80
Enrollments in the Campus Ministry program: 150
Enrollments in the High School program: 100
Enrollments in the Jr. High program: 17
Enrollments in the Elementary program: 156
Enrollments in the Sacrament classes: 85
Enrollments in the Family Life program: 227

Number of paid, full-time ministry personnel

Sisters: 1
Lay Ministers: 4

Receptions to the church

Infant Baptisms (up to age 7): 83
Minor baptisms (ages 7-17): 5
Adult Baptisms (ages 18 and over): 9
Received into Full Communion: 9
Total First Communions: 70
Total Confirmations: 84

Marriages

Catholic: 19
Interfaith: 27
Total: 46

Other Statistics

Number of registered parishioner households: 1202
Estimated number of individual Catholics: 3000
Total Deaths: 39

Parishioner Household Enrollment Numbers by Zip-Code

| | | |
|------------|------------|-------------|
| 93234: 1 | 93656: 1 | 93722: 48 |
| 93428: 1 | 93657: 3 | 93723: 1 |
| 93611: 156 | 93662: 2 | 93725: 3 |
| 93612: 67 | 93664: 1 | 93726: 83 |
| 93613: 6 | 93667: 1 | 93727: 40 |
| 93619: 39 | 93702: 4 | 93728: 7 |
| 93625: 4 | 93703: 13 | 93729: 8 |
| 93626: 2 | 93704: 87 | 93730: 4 |
| 93631: 2 | 93705: 22 | 93734: 1 |
| 93636: 1 | 93706: 3 | 93744: 1 |
| 93637: 4 | 93710: 184 | 93747: 1 |
| 93638: 18 | 93711: 154 | 93755: 2 |
| 93650: 3 | 93716: 1 | 94025: 1 |
| 93651: 3 | 93720: 214 | 94550: 1 |
| 93654: 1 | 93721: 3 | Total: 1202 |

These statistics show that the St. Paul Newman Center has a healthy parishioner base drawing mostly from the 93611 (Clovis), 93710, 93711, and 93720 zip-codes. The 93710, 93711, and 93720 zip codes are the nearest zip-codes to the church. Many parishioners within the 93710 zip-code are students or residents near the college and church who are within walking distance of the church.



East side of the existing church







Front of the existing church (above)





East side of the church looking at surrounding
neighborhood (below)



Inside the church



Inside the church



Childrens garden



Front garden

Interior courtyard



Case Studies

Richard Meier: Jubilee Church

The Jubilee Church (Dio Padre Misericordioso) is located in Tor Tre Teste, Rome and was opened for public mass for the first time on Sunday, October 26th 2003. The church was designed by Richard Meier & Partners and is said to be an iconic landmark of contemporary architecture in one of the world's most historic cities. Its white concrete "sails" soar into the Roman neighborhood in which it sits.

The church sits on a flat, triangular site in Tor Tre Teste (named for a bas relief of three heads carved in a medieval guard tower dating back to the 4th Century) about six miles east of central Rome. It is adjacent to a lower/middle-income housing complex built in the 1970s on the boundary of a public park. The 108,414 square-foot complex contains both a church and a Community Center, connected by a four-story atrium. At night, light emanates from within creating an ethereal presence and animating the landscape. The main nave seats 240 people, and a day chapel seats 24 people.

The plan relates to the triangular site. The sacred realm to the south, where the nave is located, is separated from the secular precinct to the north; pedestrian approaches are from both the housing complex to the east and the parking lot to the west. Three circles of equal radius generate the profiles of the three shells that, together with the spine-wall, make up the body of the church nave - and discretely imply the Holy Trinity. The four-level community center functions as a key gathering place for social, educational, and recreational activities. A paved pedestrian approach or sagrato (churhyard) on the east, near the center of the adjacent Tor Tre Teste housing project, encourages parishioners to gather in the piazza as was done in the sagrati of medieval Italy.

A question and Answer with Richard Meier from ArchNewsNow.com:

Question: The Jubilee Church is situated in the outskirts of Rome in Tor Tre Teste, a middle-income housing project built in the 1970's. How does this new church relate to that neighborhood?

Richard Meier: The purpose of this church is to weave an isolated residential district back into the communal fabric of Rome. I hope we accomplished this architecturally by creating a sense of appropriateness, flow, and movement throughout the site. The

Jubilee Church and Community Center will provide the more than 8,000 residents of the immediate area a space for ritual, play, and celebration. Hopefully, the more than 25,000 residents of the larger area of Tor Tre Teste will avail themselves of the church facilities as well. The placement of the building in the area where apartment buildings fan out from the main street of the complex creates an anchor for the area. As one approaches, the lines of access are so visually clear that one is drawn directly into the church.

Personally, I like the fact that the church is seated as an anchor within its community. If the goal was to bring together the community then isn't setting the church an anchor to the community the best way to do it? Not only is the church the focal point down the main vehicle avenue, it is the focal point for the community, the focal point of the people's spirituality, and a focal point of the Catholic Church in the new millennium.

Richard Meier's goal of the church was to weave an isolated residential district back into the communal fabric of Rome by creating a sense of appropriateness, flow, and movement throughout the site but did he do so effectively? Just by looking at the juxtaposition of the church and the residences you can see a vast contrast in the styles of the church and the 1970's housing project but in my personal opinion I don't think that this is necessarily bad. For some reason I actually like the contrast. First of all, it sets the church as being a separate and a special place aside from the rest of the community which is what I would expect from a church; after all, it is the house of God isn't it? Shouldn't the house of God be someplace special? I also agree with the color of the church. The color white implies purity, holiness and that which is new (it was built as a symbol of the Catholic Church in the new millennium). I feel that the Jubilee Church sits as a dignified and holy jewel at the heart of the neighborhood. I also think that it effectively draws together the Tor Tre Teste in which it sits as well as it draws Tor Tre Teste back into the overall spiritual and communal fabric of Rome.



Fay Jones: Thorncrown Chapel

The Thorncrown Chapel is like a diamond nestled in the Eureka Springs Arkansas woodland. Constructed in 1980, it is an elemental, man-made temple married to the nature which surrounds it. It rises with the authority of nature in the Arkansas forest from a stone foundation to wood columns and layered branches to folded roof. In plan it is simply a single room, in form it is no more than a gable shed, the small building draws visitors with the magnetic, irresistible force of truth.

Fay Jones recognized the chapel's potential as a piece of magnetic architecture. He saw it as a distillation with the power to "move people in a special way," as poetry distills language. Although the building's dialect is drawn from Wright, Maybeck, and the Greene brothers (with and intangible debt to Japanese tradition), Thorncrown's magnetic strength comes from Jones's own voice speaking through the discipline of wood construction. The chapel's language is American, it is tied to place and time, and it emerges from and evokes the American landscape and experience.

Thorncrown is a pilgrimage chapel, it is a place set apart in the landscape for meditation. Its peaked roof seems like a part of the forest, its glass walls are dematerialized by light and shadow. Around a bend in the path, the chapel appears, caught by the sunlight like the largest tree. It seems both man-made and natural. Light and shadow dapple the glass end wall; outside and inside, beginning and end are blurred. An angular Gothic doorway opens in an interior forest of ascending wood. Overhead crosses of wood bracing fools the eye, extending a patterned perspective through the entire chapel.

The chapel founder Jim Reed could not have foreseen the finished building's richness when he first commissioned "a little chapel ... to provide wayfarers a place for relaxation." Fay Jones transformed restrictions into opportunities. In order to save trees, "... [we decided that] no structural member, for example, could be larger than what two men could carry through the woods," he said. Southern pine 2x4's, 2x6's and 2x12's were used. Larger structural elements such as trusses were assembled on the floor slab of the chapel and raised into place. Unified simplicity is achieved through the interlocking of individual pieces. Jones reduced the amount of materials used to an absolute minimum: stone (flagstone floors and fieldstone perimeter walls), wood (structure), clear glass (walls), blue cloth, oak pews, and sculptural metal in incidental pieces (alms

basins, door handles, lighting grates).

Jones replaces exterior Gothic buttressing with interior interlocking wooden arms to keep the exterior walls upright. The result is a reversal of the Gothic. Jones's often expressed the "operative opposite" in his work. The interior diagonal cross-bracing, which one critic called "a great lattice storm," carries the eye upward in the animated room. Hollow steel joints link the opposed cross-braces like bracelets. Repeated down the nave, these lozenge-shaped "oculus" produce a diamond fretwork of light; collectively they create the illusion of infinity.

This small building has brought Jones international recognition. The 1981 AIA Honor Award jury noted, "One experiences pleasure and a sense of discovery upon arriving. Using minimal means, this chapel is a spiritual space." Newsweek reported, "In the terms made famous more than 20 years ago by philosopher Mircea Eliade, Jones has reared a 'sacred' structure... a space that is not just physical, but metaphysical."

People are attracted both by the building and by the harmonious truth the building points to; nature is manifested through Jones's architecture. Jones said "I saw an opportunity here to create architecture. The distinction I'm making is that all building isn't architecture, just as all writing isn't literature or poetry, even though the spelling, grammar, and syntax might be correct. There is something in architecture that touches people in a special way, and I hoped to do that with this chapel."





The goal of life is living in agreement with nature.

-Zeno (335 BC - 264 BC), from Diogenes Laertius,
Lives of Eminent Philosophers

Lloyd Wright: Wayfarers Chapel

The Wayfarers Chapel began as a dream in the mind of Elizabeth Schellenberg, a member of the Swedenborgian Church who lived on the Palos Verdes Peninsula in the late 1920s. The Peninsula was largely open farmland; the site on which the church sits now is on 3.5 acres of that land. Mrs. Schellenberg dreamed of a little chapel on a hillside above the Pacific Ocean where wayfarers could stop to rest, meditate and give thanks to God for the wonder and beauty of creation.

The Wayfarers Chapel is a spiritual center for the Swedenborgian Church and was dedicated to the memory of Emanuel Swedenborg when it opened in 1951. Emanuel Swedenborg was a famous Swedish scientist, philosopher and theologian of the early 1700's. His personal experience of God and spirit provides the perspective of the Swedenborgian Church today. Organized in England in 1787, this Protestant Christian church believes that religion is the life they live, and the life of a religious person is to do good. The goal of the Swedenborgian Church is to support and celebrate God's blessing with others.

The Wayfarers Chapel and its ministry are committed to encouraging inquiry, respecting differences and honoring diversity in life and religion. Designed by architect Lloyd Wright, the son of Frank Lloyd Wright, the Wayfarers Chapel gives glory to God by opening onto the beauty and wonder of God's creation. The chapel offers a place of peace and refuge for all people, wayfarers on life's journey, to meditate, pray and rest in the spirit. The power of Wayfarers Chapel is a blend of the sacred purpose and the beauty of nature that people experience. The quiet beauty is emphasized by the openness and echoing of nature in the elegant glass structure. The Wayfarers Chapel was conceived as a respite for all wayfarers on the journey of life. Here all people may sit and be nurtured by the beauty of nature and enjoy peaceful meditation.

When Lloyd Wright took on the project he had found himself in complete agreement and understanding with the positive outlook of the Swedenborgian Church and its emphasis on the harmony between God's natural world and the inner world of mind and spirit. His vision for Wayfarers Chapel was a sacred site within a redwood forest. Wright, had been inspired by the cathedral-like majesty of the redwood trees in northern California. When the chapel was built in 1951 it stood alone like a precious jewel on a deserted dusty knoll overlooking the Pacific. It was soon to be

known as "the glass church" after its most prominent architectural feature. Today, what you see is not a glass church but a "tree chapel." The redwood trees that surround the chapel are forming living walls and roof over the chapel as time marches on. Lloyd Wright said, "I want the trees and their trunks to be seen and the space beyond, so that those who worship in the sanctuary will perceive the grandeur of the world around them... I used glass so that the walls and the roof are transparent... The glass provide protection but at the same time gives the congregation a sense of outer as well as inner space."

In the design of the chapel, Lloyd Wright used 30/60-degree angles because they occur naturally in snowflakes, crystals and tree branches. At night indirect lighting in the Chapel create a candlelight effect. The round windows over the front entrance and the altar symbolize the inclusiveness of Wayfarers Chapel and the Swedenborgian Church which welcomes all people. The circle reminds the worshipers at the Swedenborgian Church of the oneness of God, the circle of life and the striving toward wholeness. In the Swedenborgian tradition water symbolizes divine truth that enables them to lead creative and useful lives. The triangular shape of the reflection pool in the garden symbolizes one of the basic teachings of Christianity: God as a triune being and individuals as having a soul, mind and body. From the beginning Lloyd Wright considered the chapel structure and its gardens to be integrated to form a whole rather than two entities. Lloyd Wright stated about the Wayfarers Chapel, "I wanted to get away from the concept of the sepulcher. The churches that we built in Europe are based mainly on the concept of the sepulcher; that is, the grave. I wanted the living thing, not the burial crypt."



Rafael Moneo: Our Lady of the Angels Cathedral

Our Lady of Angels Cathedral in Los Angeles, California is the third largest cathedral in the world. The main sanctuary is 333 feet long; intentionally built one foot longer than St. Patrick's Cathedral, New York. It is also the first cathedral to be built in the United States in over a quarter of a century. The cathedral complex sits on a site of 5.6 acres and the cathedral itself is 195,000 total square feet.

Cardinal Roger Mahoney was the visionary of this cathedral. He dreamed of a cathedral that would rival any of the wonders in Europe; a cathedral that would stand for centuries and give comfort to all that entered its doors. Mahoney carefully chose the design architect Jose Rafael Moneo, executive architect Leo A. Daly, and structural engineer Nabih Youssef. The general contractor for this project was Morley Construction Company.

The Our Lady of the Angels cathedral replaced the smaller, former Cathedral of Saint Vibiana, which was severely damaged in the 1994 Northridge Earthquake. The project team utilized advanced strategies to achieve a lifespan of no less than 500 years for the structure and building systems. Nabih Youssef designed 149 elastomeric base isolators that would support the 125 million pound building. These isolators were designed to allow the cathedral to move 27 inches in all directions and moderate earthquake forces by 75%. The cathedral is also built to withstand an earthquake of an 8.4 magnitude.

Moneo was very conscious of not wanting the entrance to the cathedral to be directly on the street. From Temple Street visitors will travel a spiritual path, each step a transition from the secular to the sacred, through a lower plaza, up the grand staircase, through the upper plaza and on toward the great 25-ton bronze doors crowned by a contemporary statue of the Virgin. The monumental doors, designed by Los Angeles sculptor Robert Graham lead into the 200 feet long ambulatory which runs the length of the cathedral from east to west. Passages between the row of asymmetrical chapels lining the ambulatory allow for framed views of the main sanctuary. The 58,000 square foot nave accommodates seating for 3,000 people. The walls of the nave are polished concrete, the 85 foot high ceiling is clad in cedar wood, and the floors are made of Spanish sand-colored limestone. The soaring nave space is illuminated by windows composed of 24,000 feet of thinly veined Spanish alabaster. The organ at the front of the nave is the larg-

est pipe organ west of the Mississippi. Also on the cathedral site is an educational center, a 156 foot tall bell tower, a 2 ½ acre outdoor plaza, and the burial place for actor Gregory Peck. Cardinal Mahoney resides on the grounds of the cathedral he dreamed of, planned for, and oversaw for the three years. It took to complete the project at a total cost of \$200 million.





Concept

Goals and Objectives

I know that there are two general reasons why people go to church; one is because they feel obligated, the other is because they want to. My goal is to create a worship space that appeals to both audiences. Some people feel uncomfortable with organized religion but still manage to come to church for Christmas and Easter out of a feeling of obligation. Maybe they just don't like organized religion, maybe they don't like the fellowship of going to church, or maybe they just feel uncomfortable being in a house of God because they feel as if they're being judged. Whatever the reason may be, I want the people who only come to church out of obligation to feel more comfortable about going to church so that perhaps they'll begin going more often. I also want to keep the interest and devotion of the people who go to church because they want to.

I have been attending this church for the last eight years as a high school senior and as a college student. My mom and uncle were the choir directors of the 8pm college mass for the last five years and now they are directing the 9am mass as of this last September. I liked the 8pm college mass because it was more laid back, the music was upbeat, and there were a few more people my age who attended it. There was also "after hours" which meant going to a nearby Starbucks for coffee after mass.

Because I have been a member of this church for the last eight years, I think it is fair to say that I have a firm grasp of the congregation who attends the church and the participation of the various age groups. Despite the fact that the Newman Center is near to the Fresno State campus there is still a lack of student presence. Most of the parishioners at St. Paul Newman Center are middle-class families with children, the elderly, and a sprinkling of college age students. Unfortunately, despite a separate mass and activities geared toward college students there still aren't many who attend St. Paul Newman Center. This is one of the things I'd like to change.

The council of Vatican II wanted the church and the mass to be more inclusive, encompassing, and welcoming. I feel that a new worship space can be created for St. Paul Newman Center which seeks to draw in more students and the "twice-a-year" Catholics. I'd like to create a worship space that feels more accessible and open to everyone. I propose to do this by including nature and reconstructed nature, along with the religious symbolisms

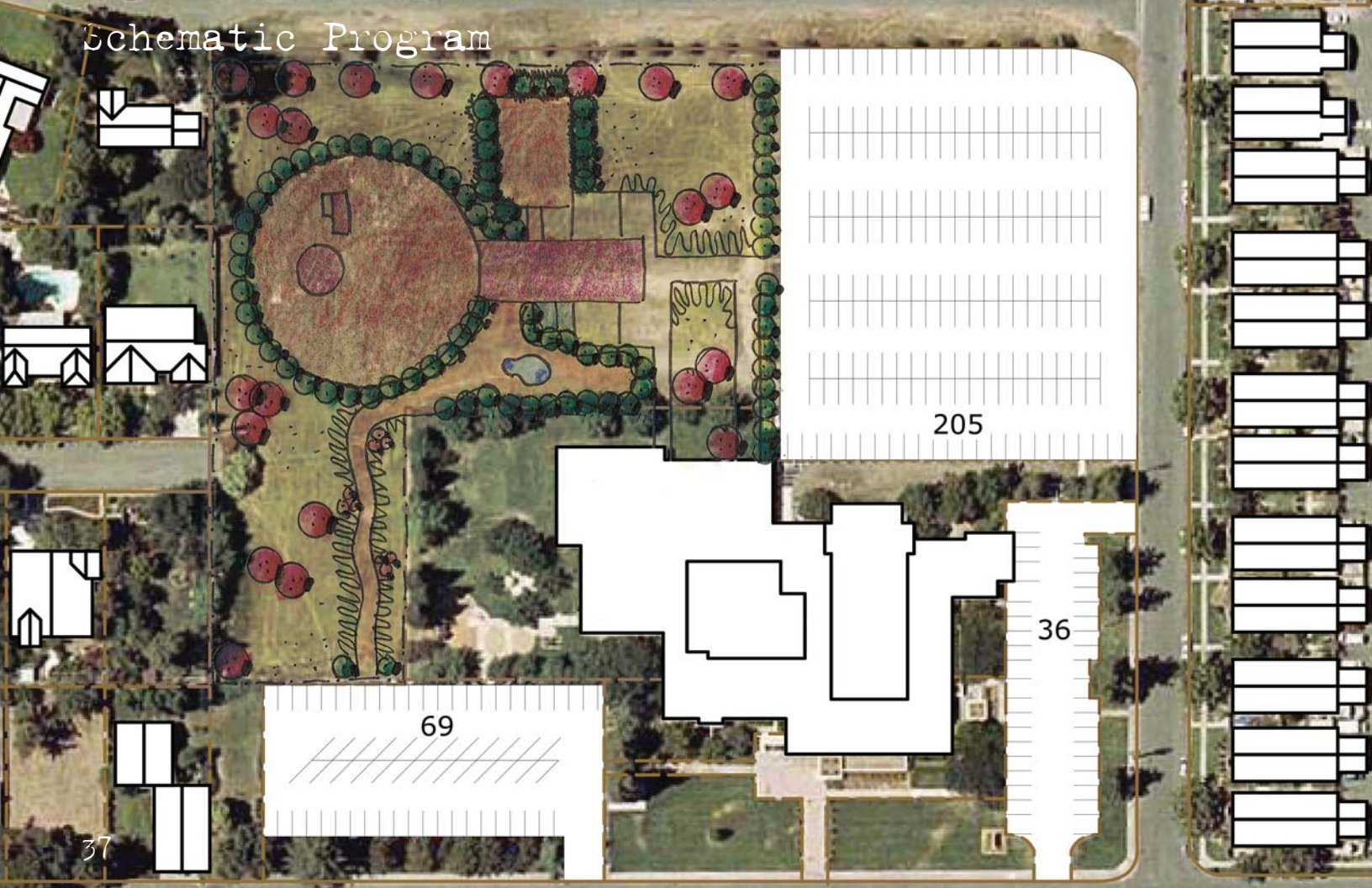
which are necessary as defined by Vatican II, to create a more spiritually welcoming worship space.

It is my hope that not only will this new worship space reach out and bring in students and non-devout Catholics, but that it will provide people with a more profound connection to God. I feel that nature is the fundamental understanding of creation. As Catholics, we believe that God created the universe, the world, you, me, and everything that we see and cannot see. He is the ultimate creator. What better symbolism could you find in connection with the Almighty Creator than nature itself?

CHURCH



Schematic Program



Currently the worship space of St. Paul Newman Center can seat five hundred people with an overflow of about fifty seats in the adjoining dining space. There is also a small reflection chapel with the tabernacle which seats about eight people. The seating is usually full or overflowing during the morning masses with the peak attendance at the 11:30am mass.

The site of St. Paul Newman Center is like a campus of sorts. Aside from the worship space and a small kitchen with its dining space, there is much more to the Newman Center. There is the sacristy, bridal room, the annex (the social spot after mass), bathrooms, four offices, receptionist desk, reception foyer, storage, a library, about eight classrooms of varying sizes and some with kitchenettes, a large central courtyard, and a children's garden and playground.

Constructed in 1964, the church is built primarily out of modular CMU block which has been painted white. It also is clad with orange overhangs. The church design is somewhat in the style of Frank Lloyd Wright's prairie designs. The church's horizontality is expressed, it has long overhangs, a central courtyard, a wrap around veranda for socialization, and it utilizes windows and clear-stories for natural lighting. One thing I like best about the church is its beautiful stained glass windows. I also like the covered veranda, even when it is raining you can still stand outside and talk to people or just listen to the rain without having to get soaked. Underlying Must: The new church must accommodate 1000 people seated.

Program: Construct a larger adjacent free-standing worship space

With this program the current church complex will remain but a larger worship space will be incorporated onto the site. The goal would be to incorporate the old complex with the new building. The offices, library, classrooms, and playground wouldn't be needed in the new building since they'd remain intact in the current complex. The current worship space would be used as a meeting hall or multipurpose room

The new worship space could have the following program elements:

1. Accommodate 1000 seated persons.
2. Round/Amphitheatre seating design with the sanctuary space for

the altar, priest chair, and pulpit at the center. Seating on the three sides of the altar, inclined from altar to the back of the church so that those at the back also have a view of the altar.

3. Ample space in front of the altar for ceremonies such as marriages and funerals.

4. Courtyard and/or open space connecting all buildings and various building functions.

5. Spacious entry within the church from a large outdoor social-plaza, NOT an entry directly off the parking lot.

6. Baptismal pool or font in the entry and at the central isle of the worship space.

7. Musician area, an area near the front of the nave but off to the side so that it does not interfere with the altar area. No choir or musicians behind the altar.

8. Priest sacristy

9. Bridal room

10. Sound room which is to be situated off of the main body of the congregation with audio-visual equipment and a place for a person to monitor sound. Therefore that room needs, at least, window access into the main church.

11. Storage space

12. Restrooms

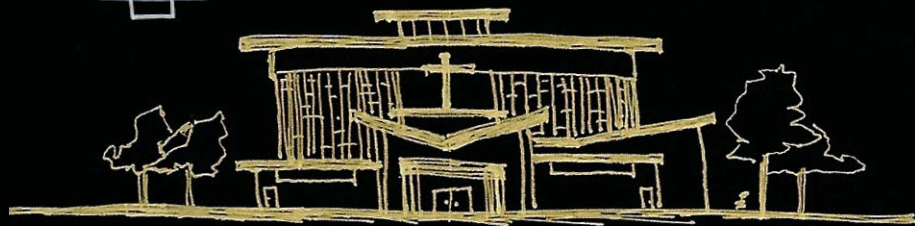
13. Reflection/meditation gardens with mature trees, foliage, reflecting pools. The gardens should utilize water runoff for irrigation.

14. (Small chapel for daily services. This should accommodate about 100-150 persons. It could be a place where people gather for prayer, smaller ceremonies, etc.

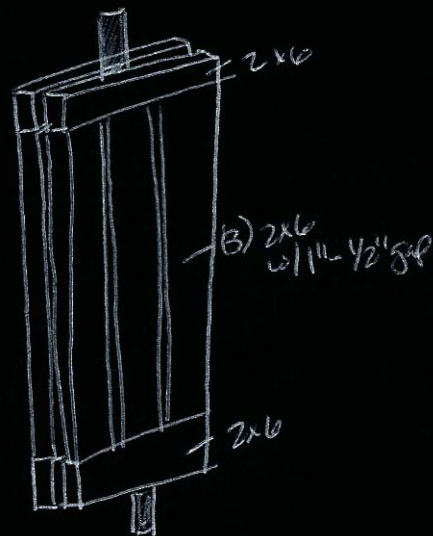
15. Reconciliation room adjoined to the smaller chapel.

16. Tabernacle adjoined to the smaller chapel

Conceptual Sketches

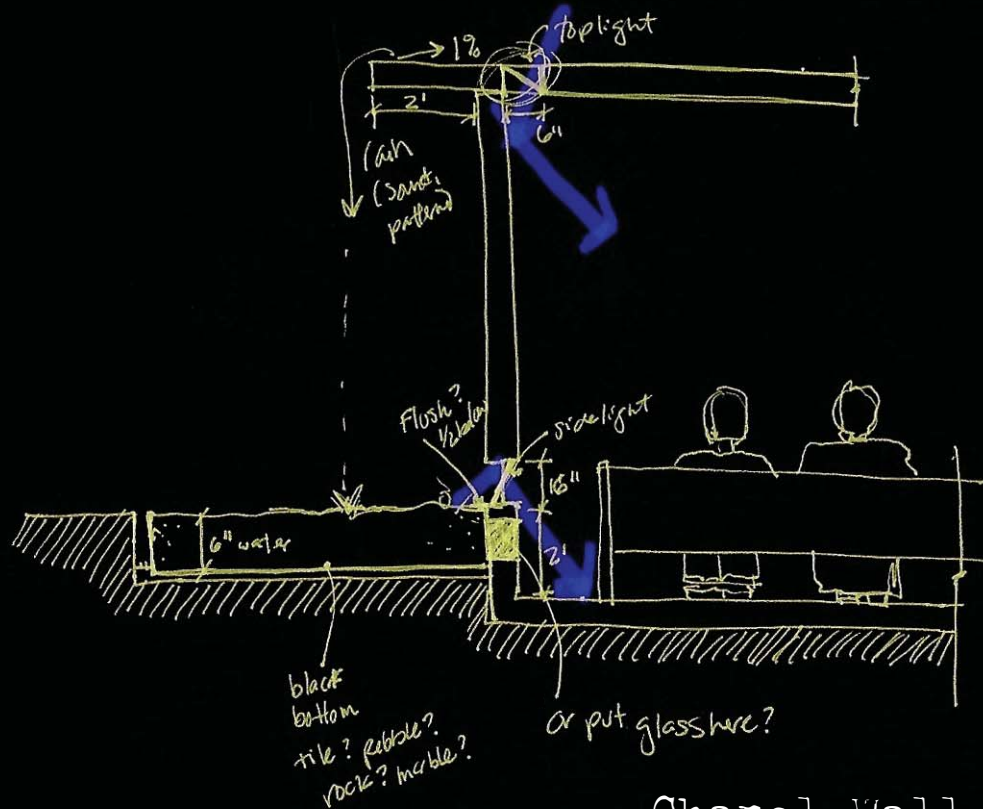


Pool Form Sketches



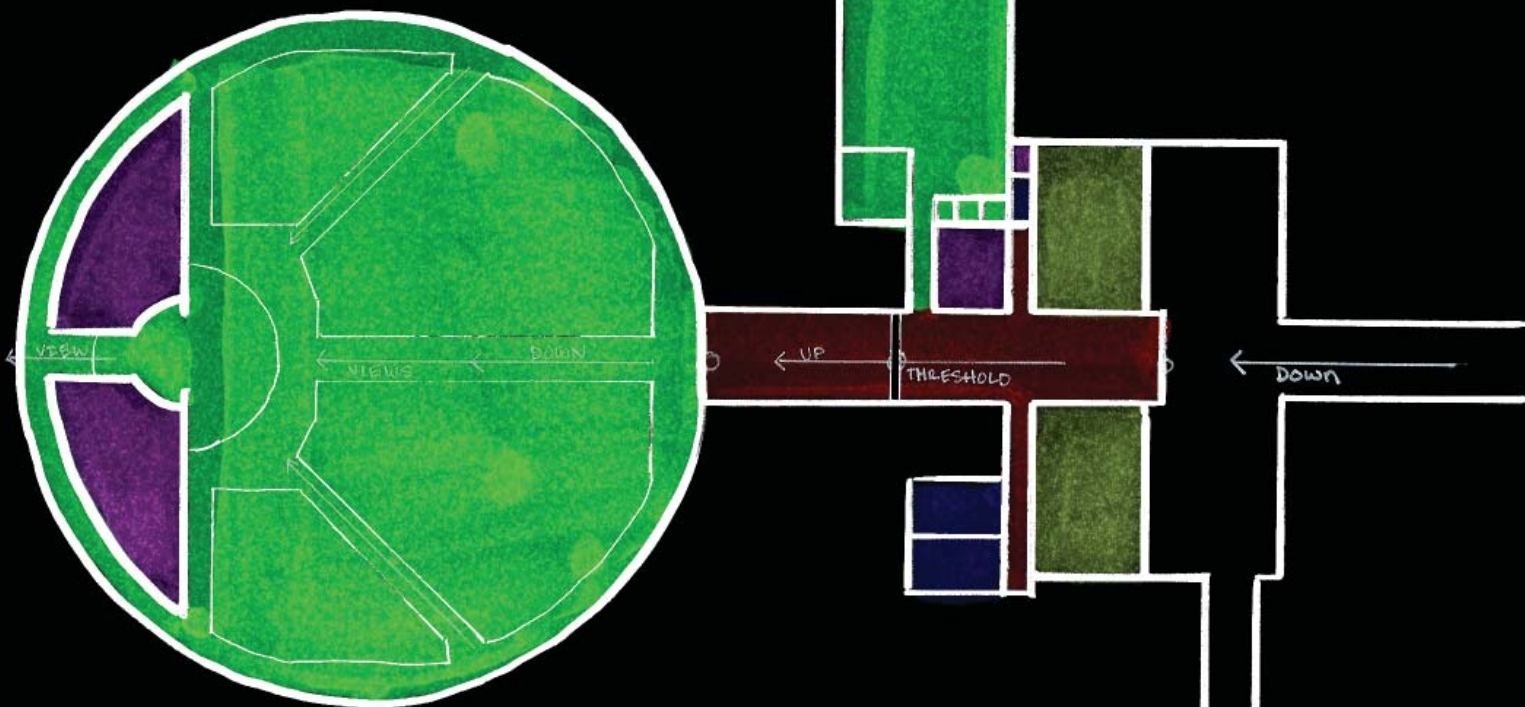
Wood Fin Detail
Sketch

2/25/07
Chapel



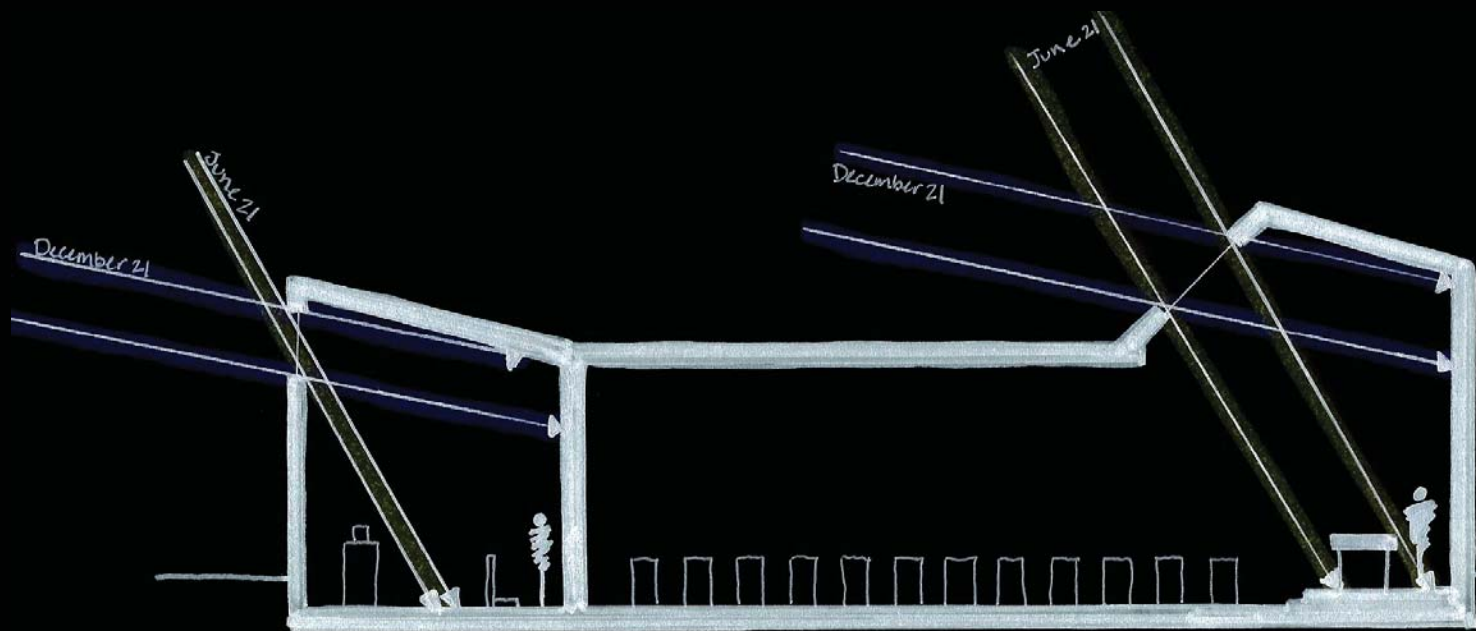
Chapel Wall Concept Sketch

Conceptual Sketches



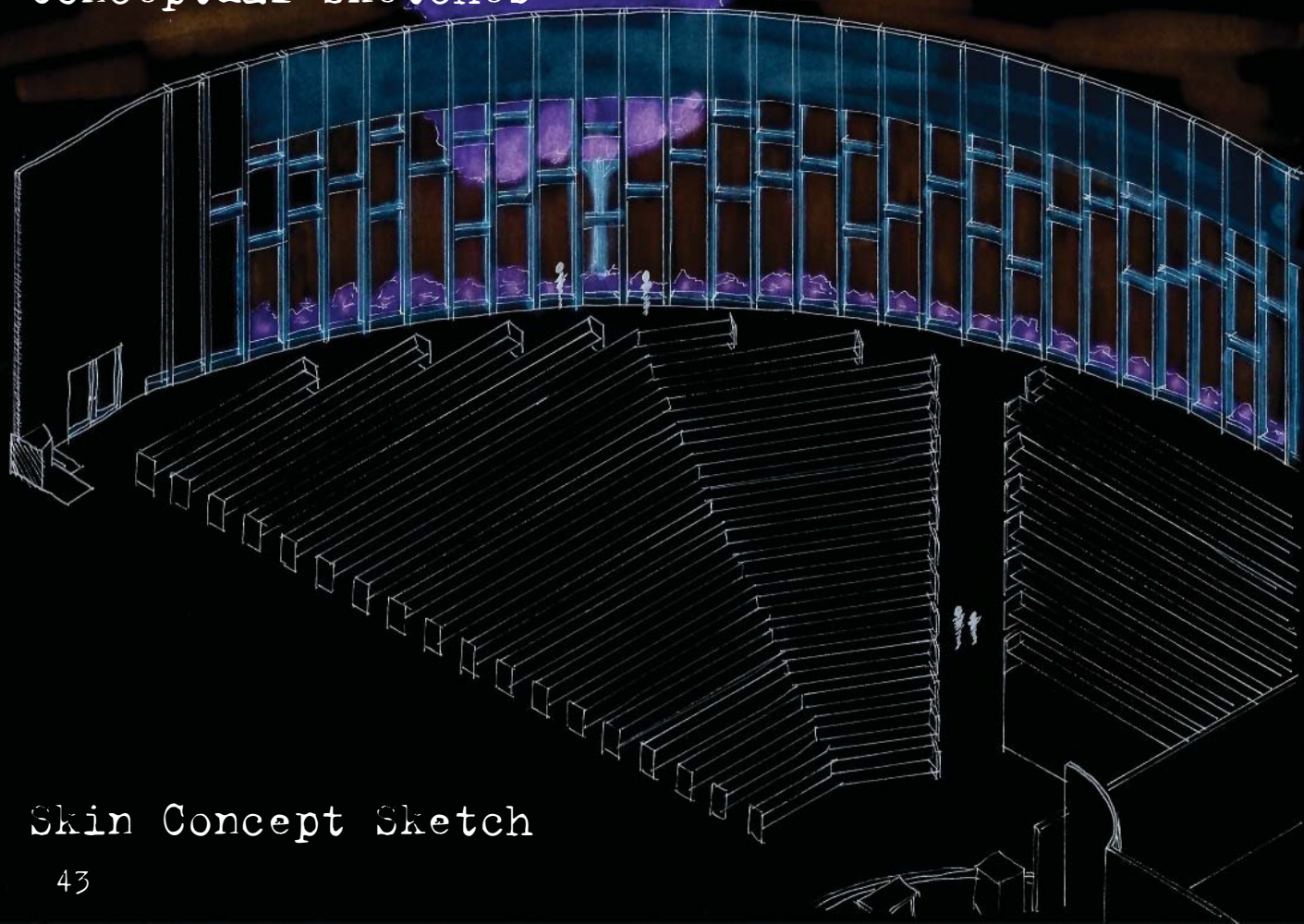
Red: Lobby and General spaces
Tan: Bridal / Multipurpose rooms
Green: Worship / Holy spaces
Purple: Storage spaces
Blue: Restrooms

Plan Diagram



Chapel Sun Diagram

Conceptual Sketches



Skin Concept Sketch

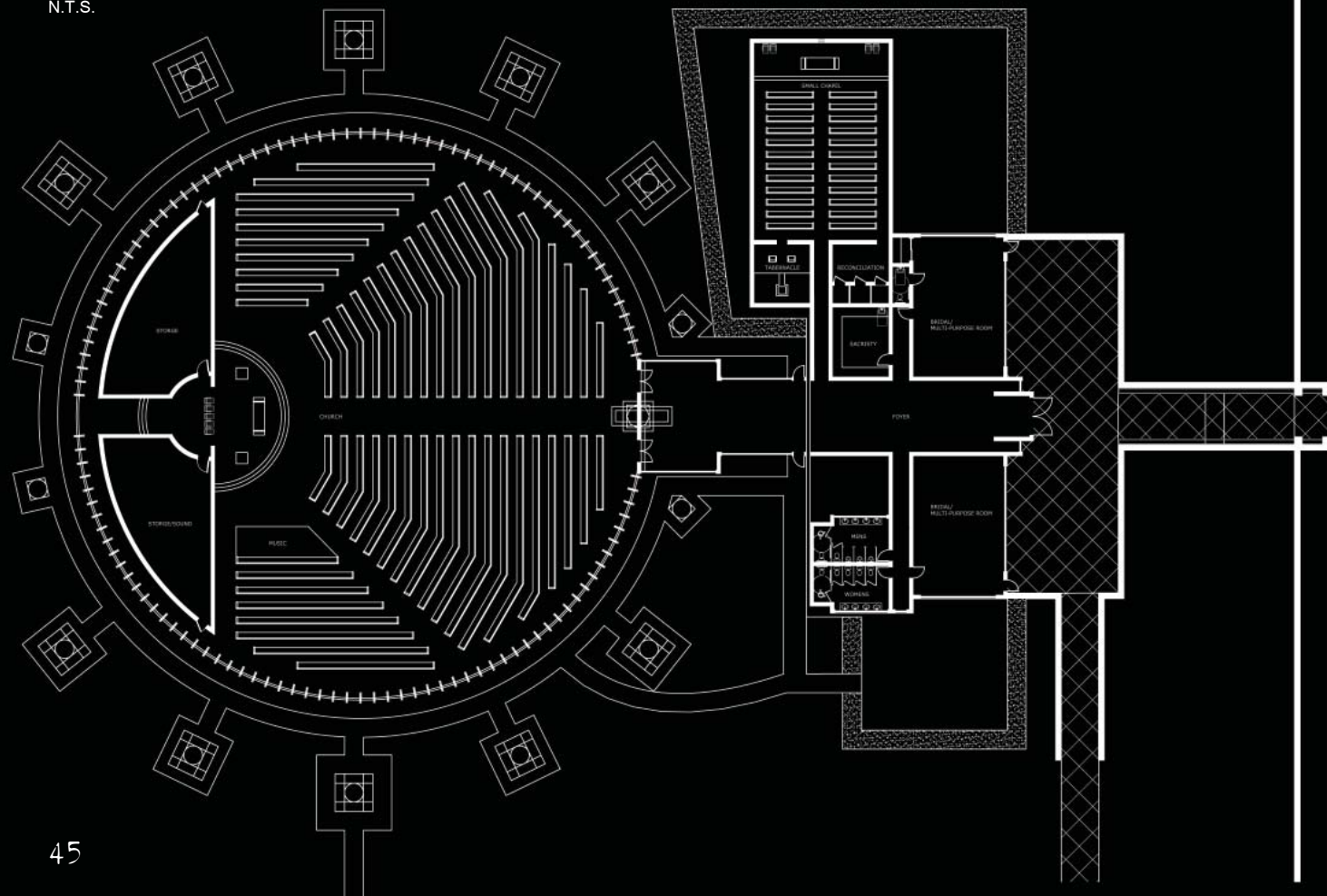


Landscape Concept Sketch

Process Design

Floor Plan

N.T.S.



This floor plan shows the front courtyard, which is initially greeted with two pairs of light posts and the promenade which slopes downward into the earth four feet, is flanked by the sound of running water and the sight of water plantings growing on either side. The courtyard leads into the grand church foyer. The foyer is flanked by necessary spaces such as bridal/multi purpose rooms, the sacristy, and the restrooms.

Attention was paid to the views out of the bridal/multipurpose rooms and down the hall to the restroom. Reflecting pools lap against these spaces at a height of four feet within these areas. Since these spaces are set down four feet below grade, the pools are able to be viewed at this level from the inside of the spaces. The chapel, which seats 100 to 150 people, is also surrounded by a reflecting pool but it is for a much different reason. At a height of eighteen inches above the floor within the chapel there are windows spaced between the brick courses which allow the refracted light from the sun as it passes through the water to illuminate the flanking walkways within the chapel.

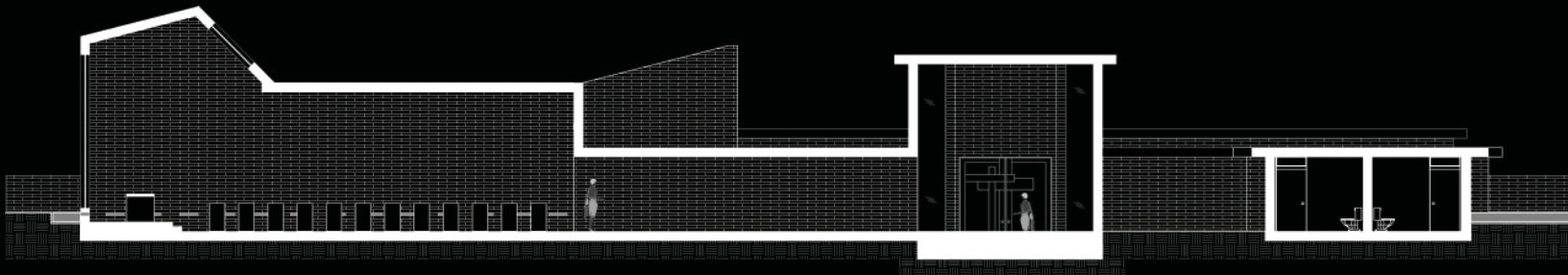
The water from the reflecting pools bridges through the main foyer, subtly reminding worshipers that they are crossing over and approaching a sacred space. The water is also a reminder of the proverb by John the Baptist "I indeed baptize you with water; but one mightier than I cometh, the latchet of whose shoes I am not worthy to unloose: he shall baptize you with the Holy Ghost and with fire" (The Holy Bible). At the entrance to the main sanctuary there is a baptismal font which greets the worshipers before they enter the space. The font is also on the other side of the wall within the worship space so that baptisms can be celebrated here within the sanctuary and also so that worshipers can bless themselves as they leave.

The sanctuary seats up to one thousand people and is round in design so as to give everyone a clear view of the altar and of the musicians to the left of the altar. There are two storage areas flanking the altar which are both functional spaces and they provide a visual aesthetic as they focus the worshiper's view to the altar. The sanctuary floor is sloped downward four feet towards the altar giving a theater like view for everyone; it also makes the space feel more intimate.

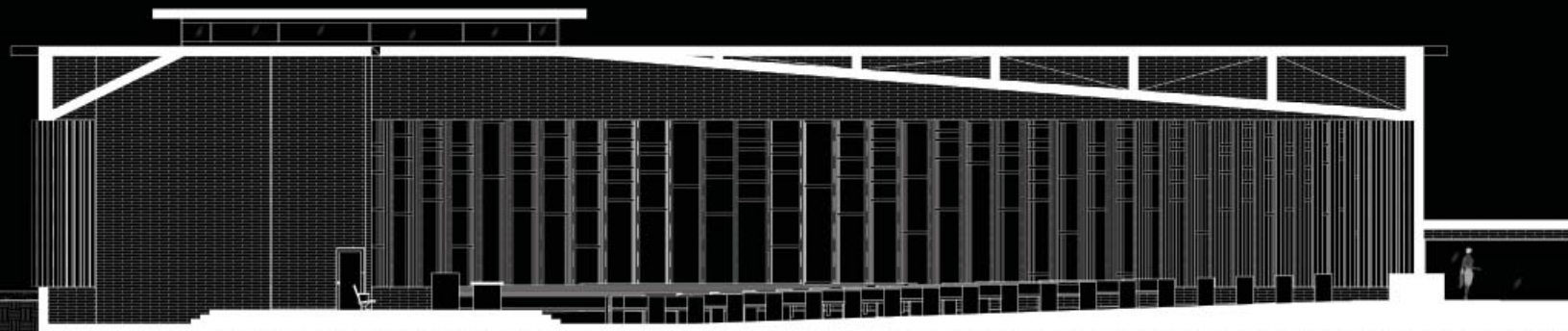
Outside surrounding the sanctuary are the gardens and the fourteen Stations of the Cross. The promenade to the gardens begins at the doors located near the water feature in the foyer and wraps around the sanctuary. The Stations of the Cross are light pillars within the garden which both illuminate the garden and sanctuary at night and they also serve points for reflection.

Sections

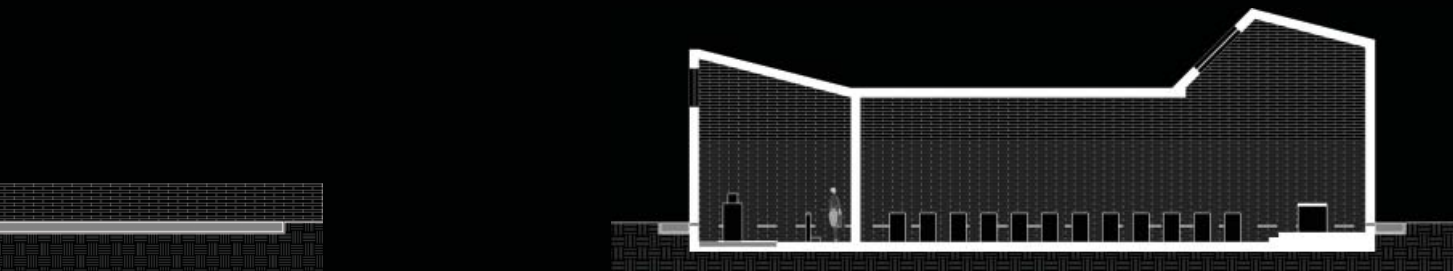
N.T.S.



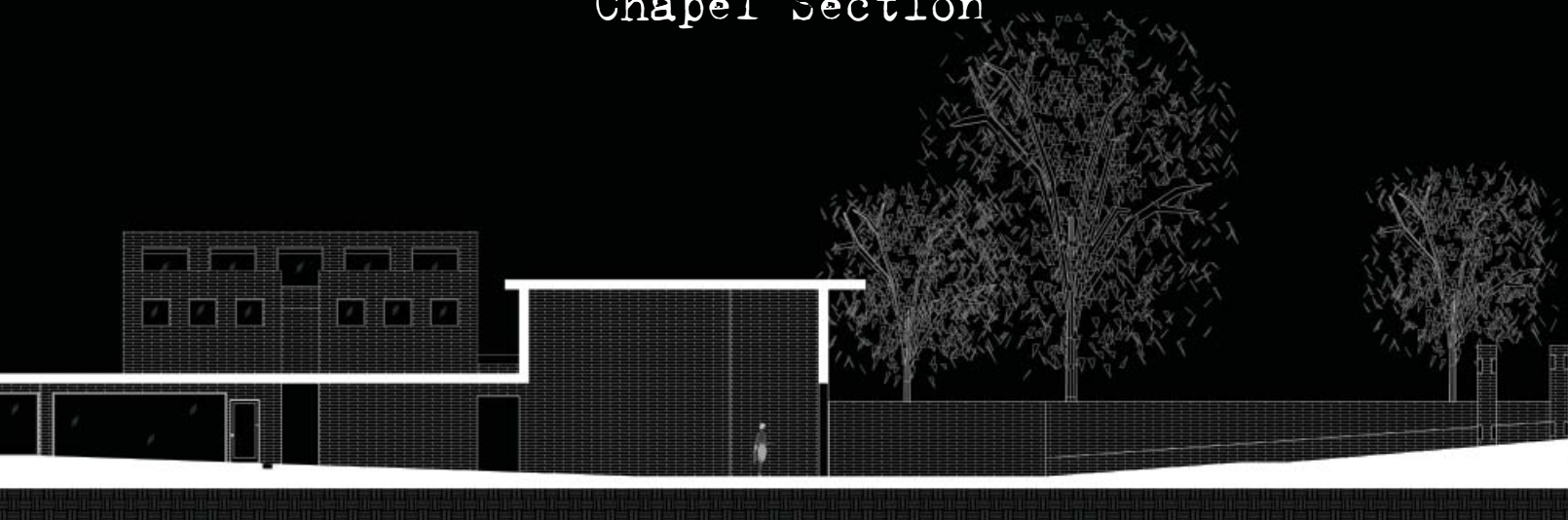
N-S Section

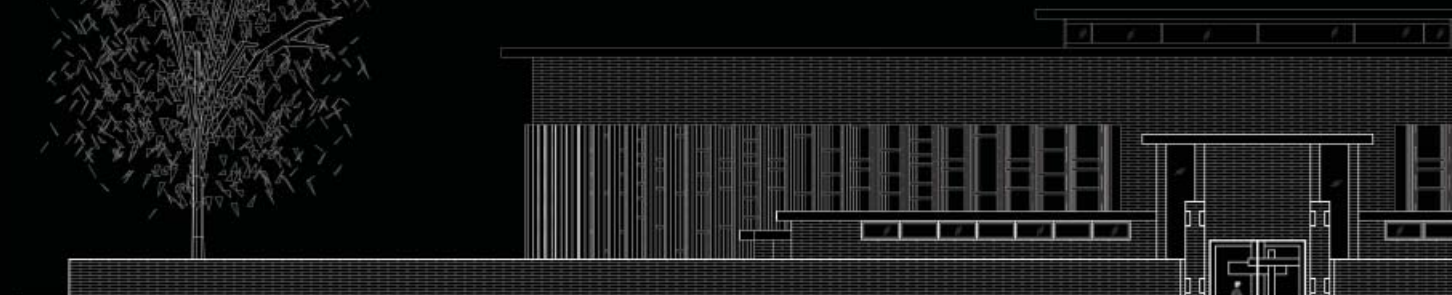


W-E Section

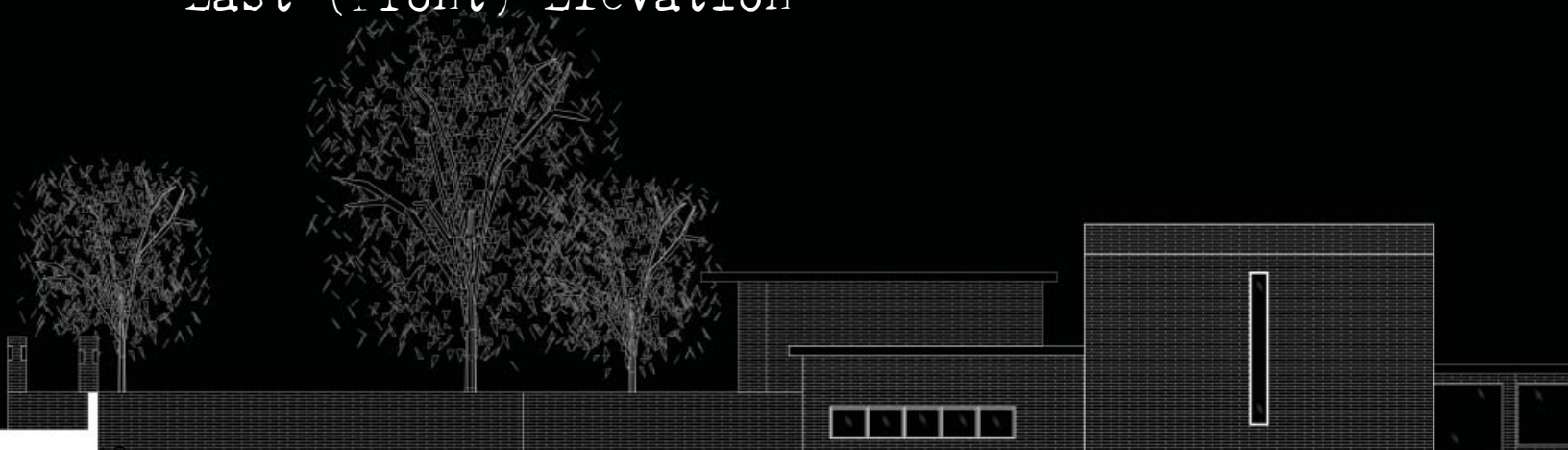


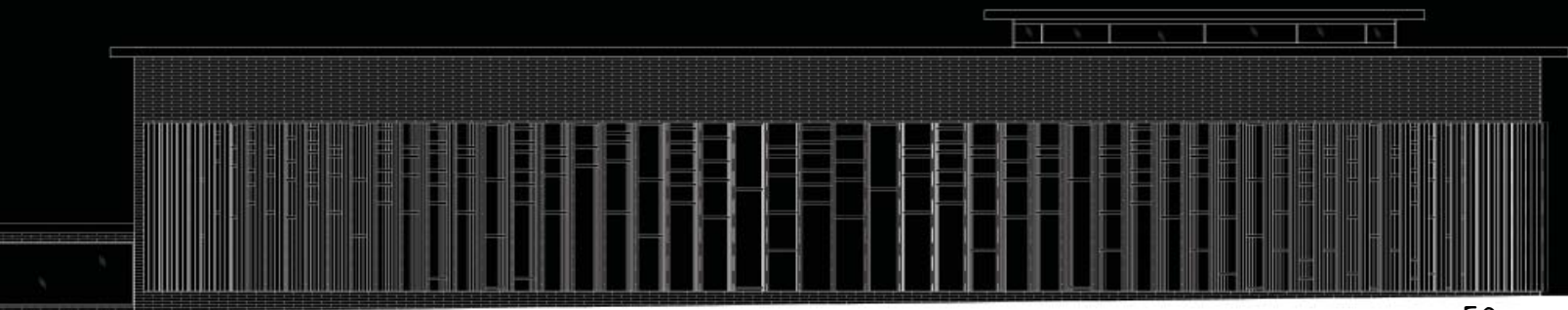
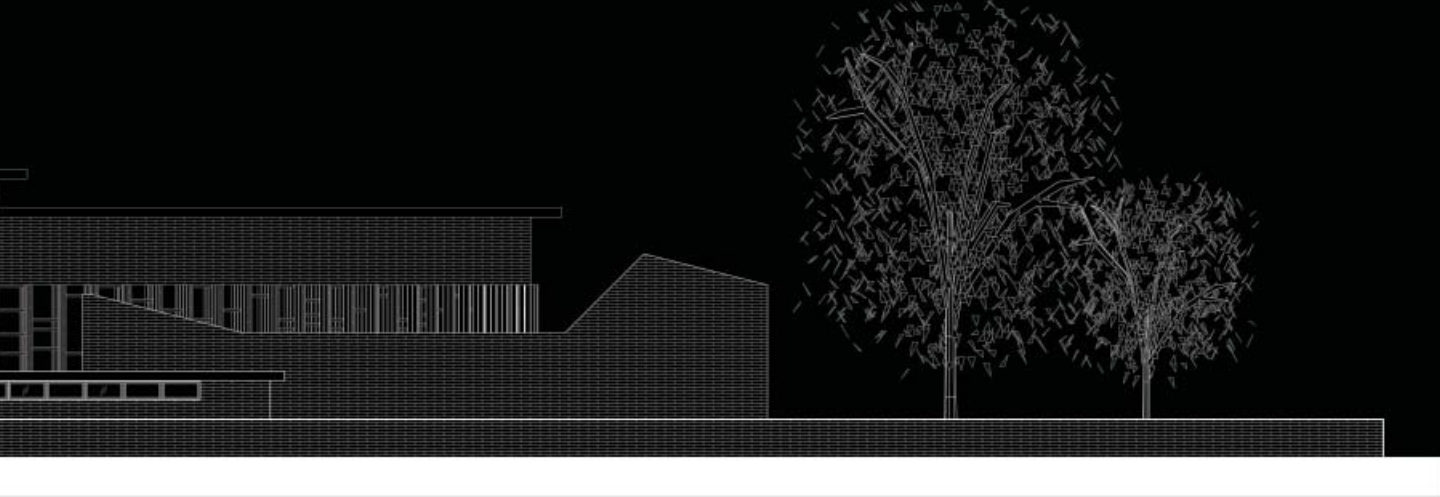
Chapel Section





East (Front) Elevation





Process Model





My religion consists of a humble admiration of
the illimitable superior spirit who reveals
himself in the slight details we are able to per-
ceive with our frail and feeble mind.

-Albert Einstein (1879-1955),

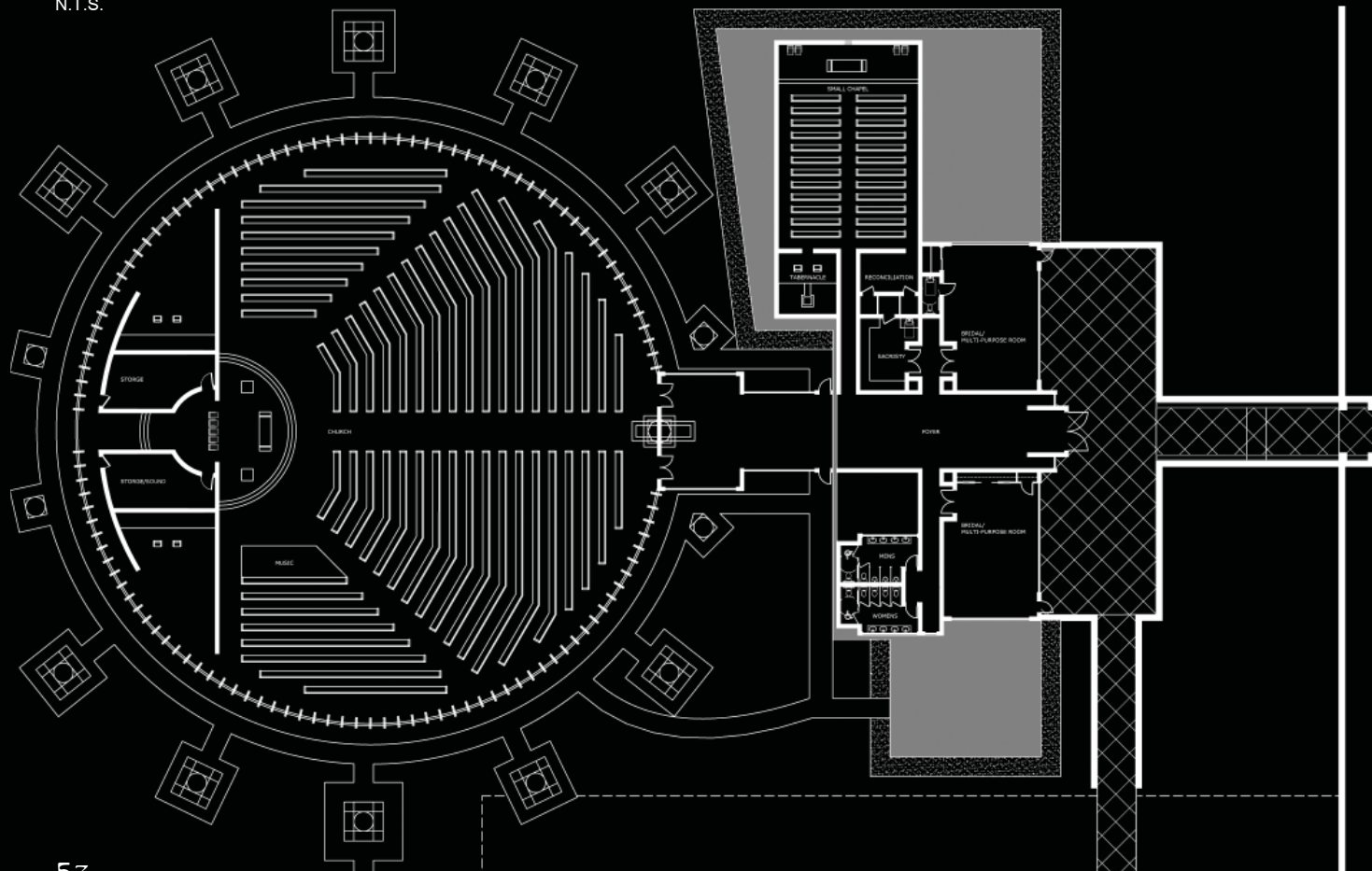
Final

Design



Floor Plan

N.T.S.



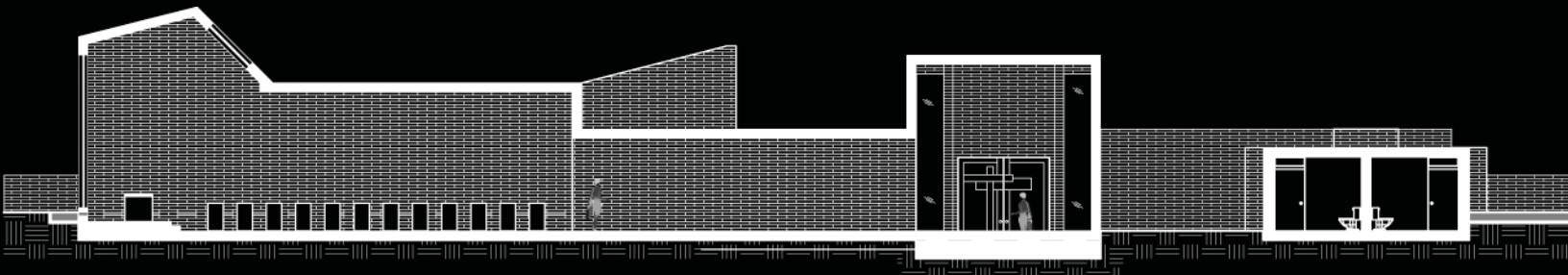
Not much about the plan was changed since the process design phase but I did refine the sanctuary space quite a bit, though it doesn't look that way in plan. I scaled down the amount of storage space which flanks the alter and created prayer and reflection alcoves. These alcoves are semi-translucent and allow the candle light from prayer candles to play on the semi-translucent wall which faces the sanctuary. The semi-translucent wall also allows the sunlight from the back of the church to filter into the sanctuary space. Ideally, one of these rooms would be a "crying" room for children who are being fussy while the other room would be a prayer alcove.

The roof structure within the sanctuary was also changed a bit from the process design phase. I decided that a steel square/box truss system was better suited. Wood acoustic paneling would cover the steel roof structure to aesthetically and materially match the rest of the sanctuary while providing better sound quality within the space. In elevation there is an addition of a wood band which wraps around the sanctuary. This helps to break up the visual massing of the design and it gives continuity to the vertical wood fins which also wrap around the sanctuary.

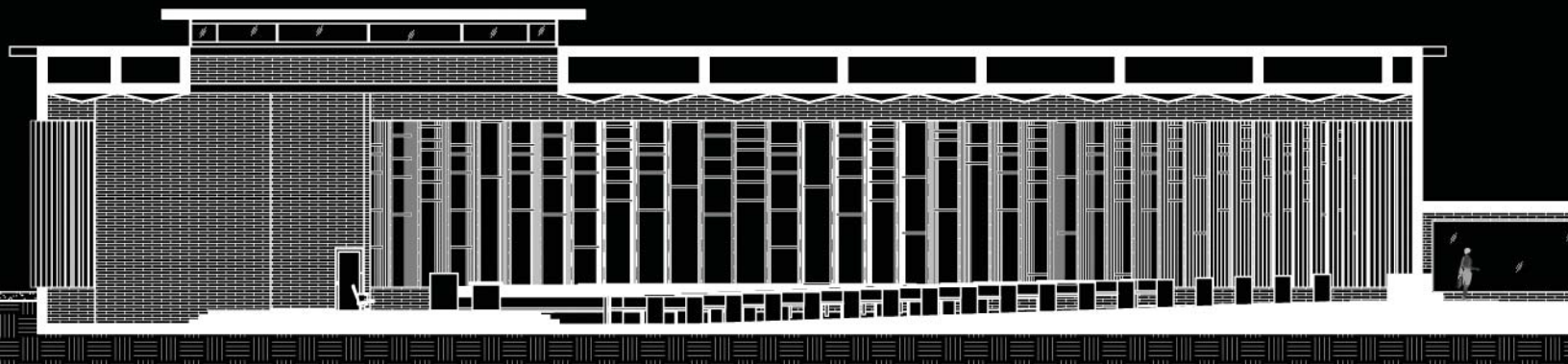
Another alteration was to the reconciliation rooms located in the chapel. While visiting the Cathedral of the Angels in Los Angeles I noticed a particular feature of the reconciliation rooms there. The priest had a separate entrance than did parishioners. I decided that this feature would be better suited in my chapel design. This way the priest enters from the sacristy, a service space for the priest and alter-servers, while parishioners enter from inside the chapel. Because of this design change, the priest remains separate from the chapel where parishioners may be praying and reflecting. It creates a sense of mystery and sanctification for the parishioners receiving the sacrament of reconciliation.

Sections

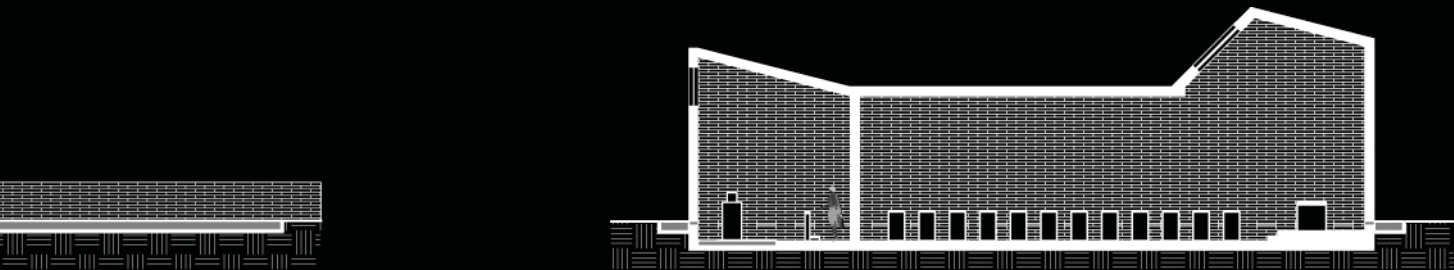
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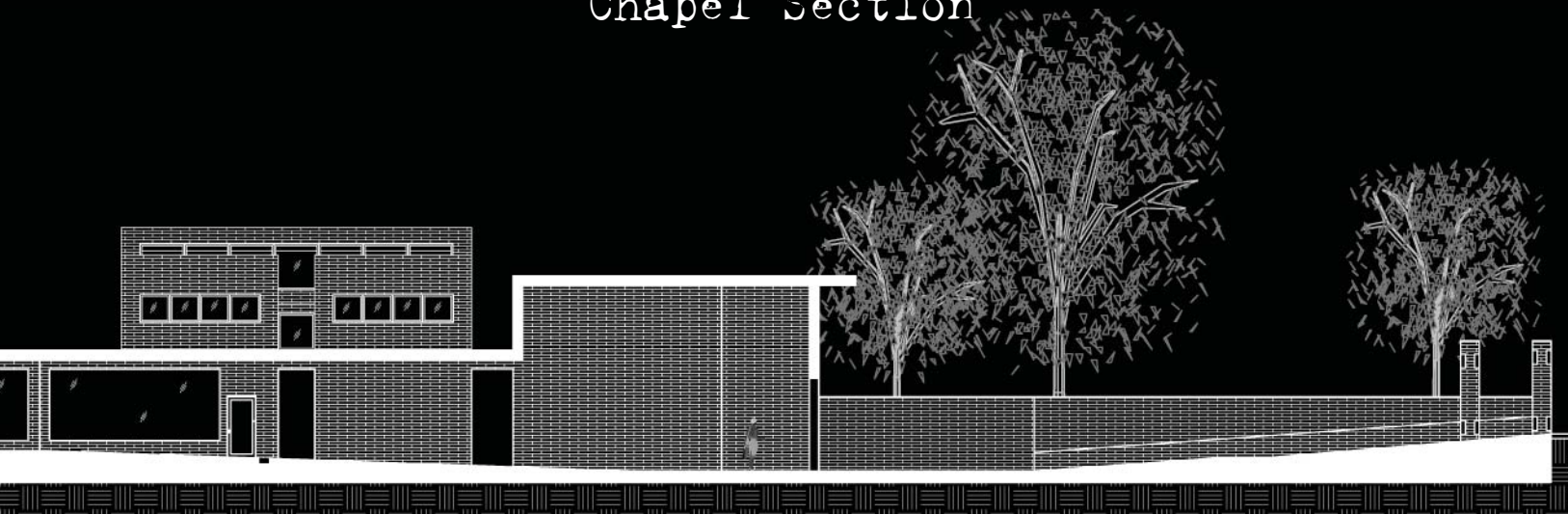
N-S Section

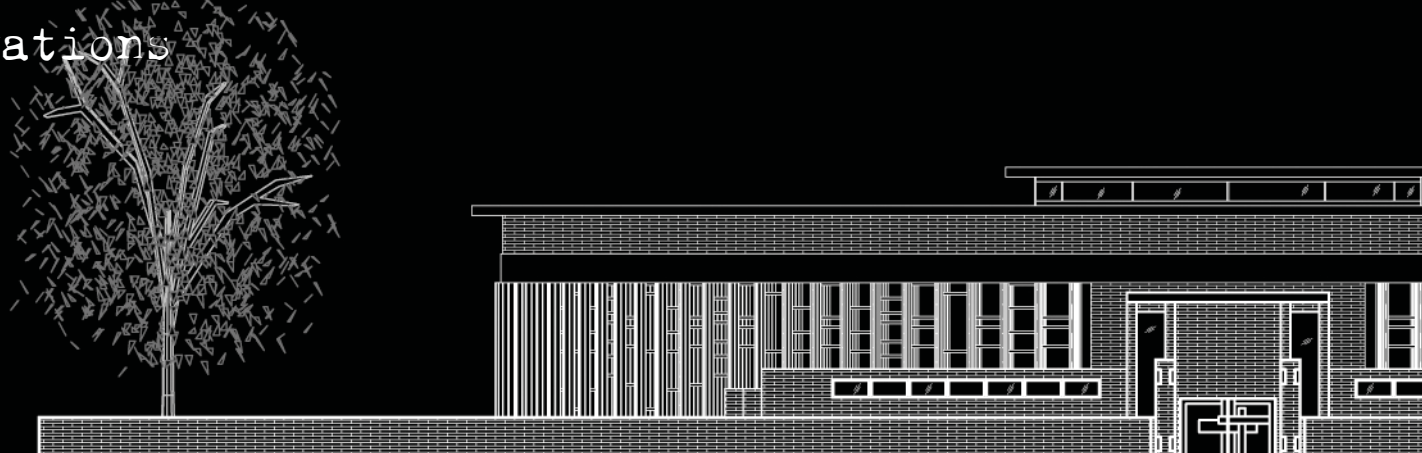


W-E Section

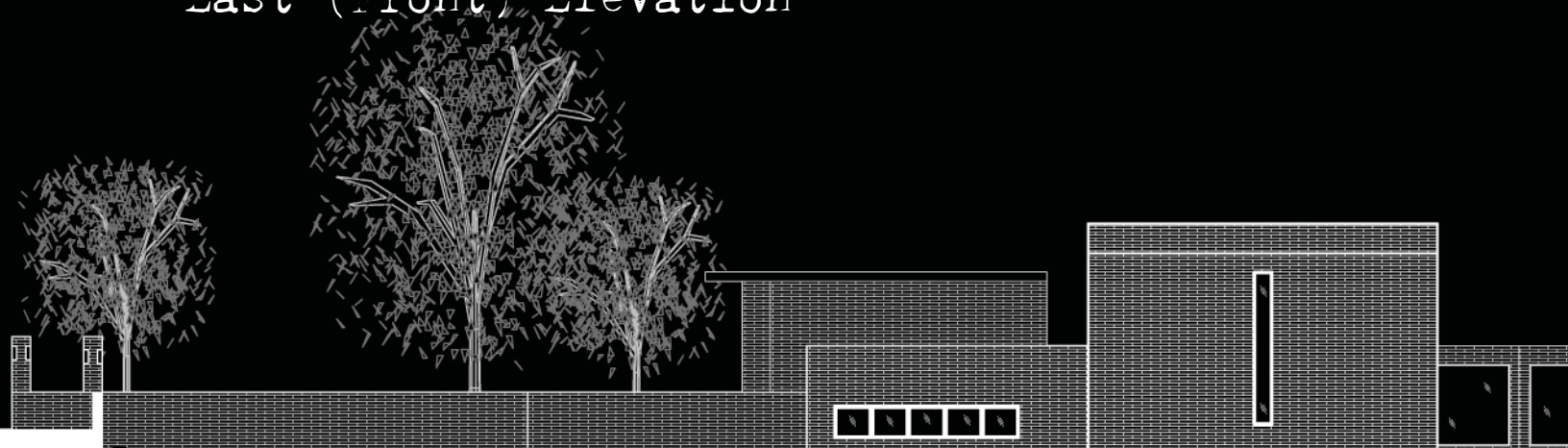


Chapel Section

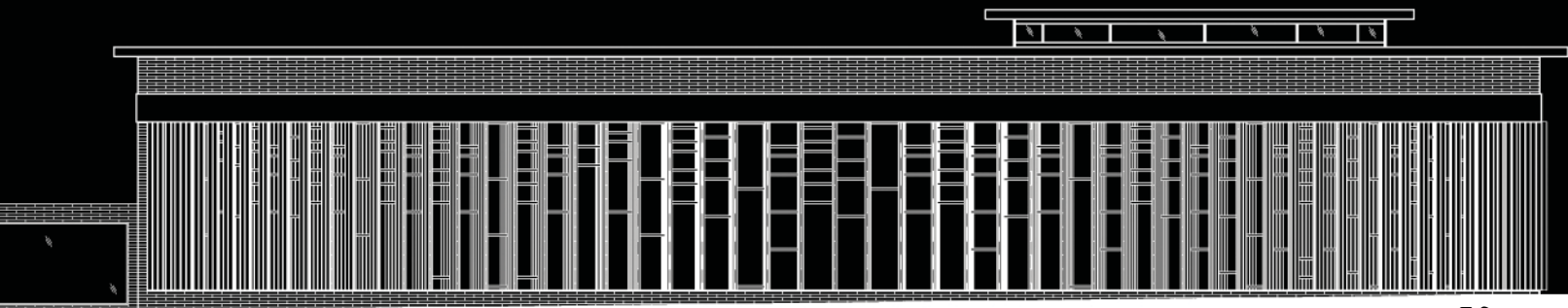




East (Front) Elevation

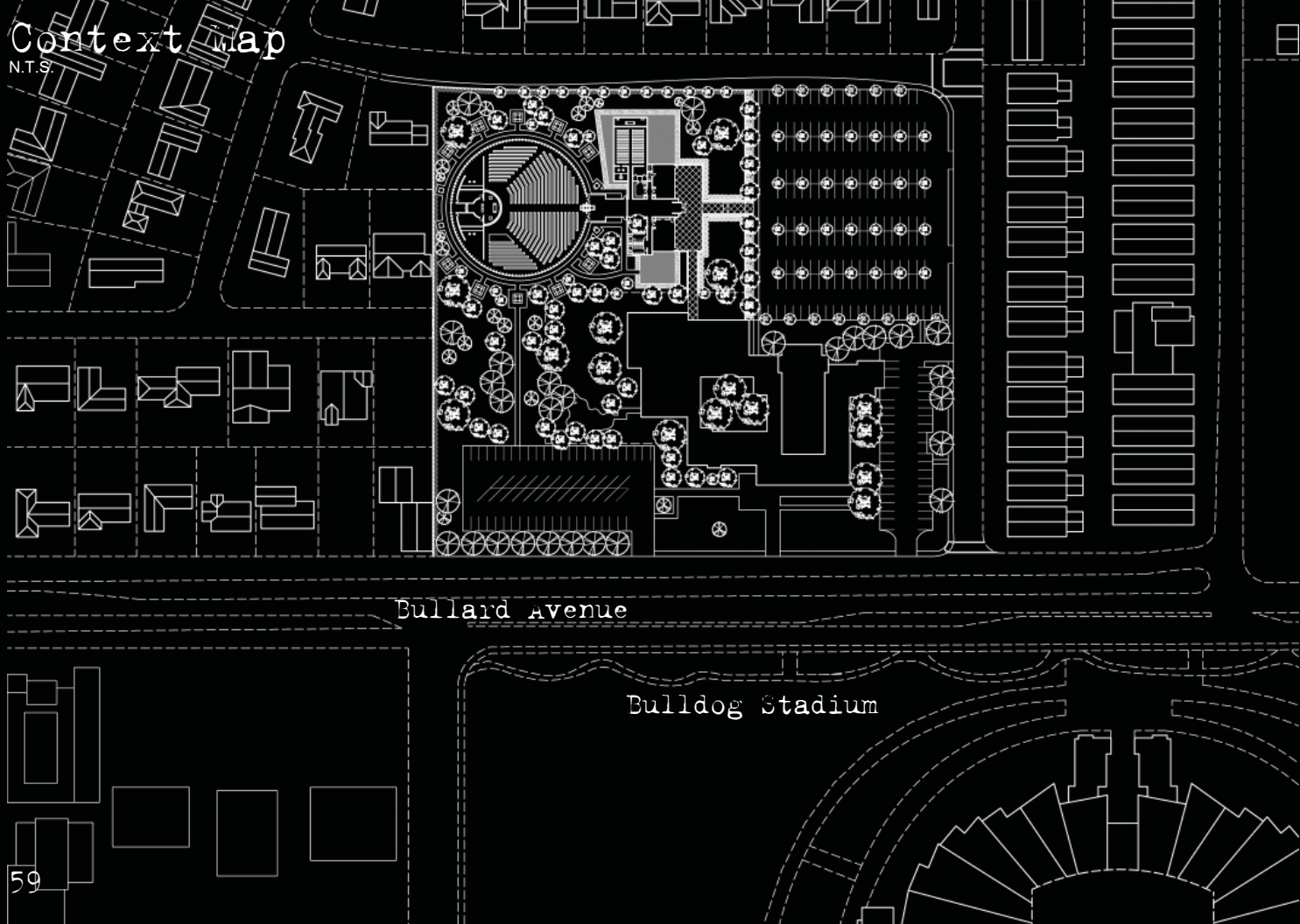


57 North Elevation



Context map

N.T.S.

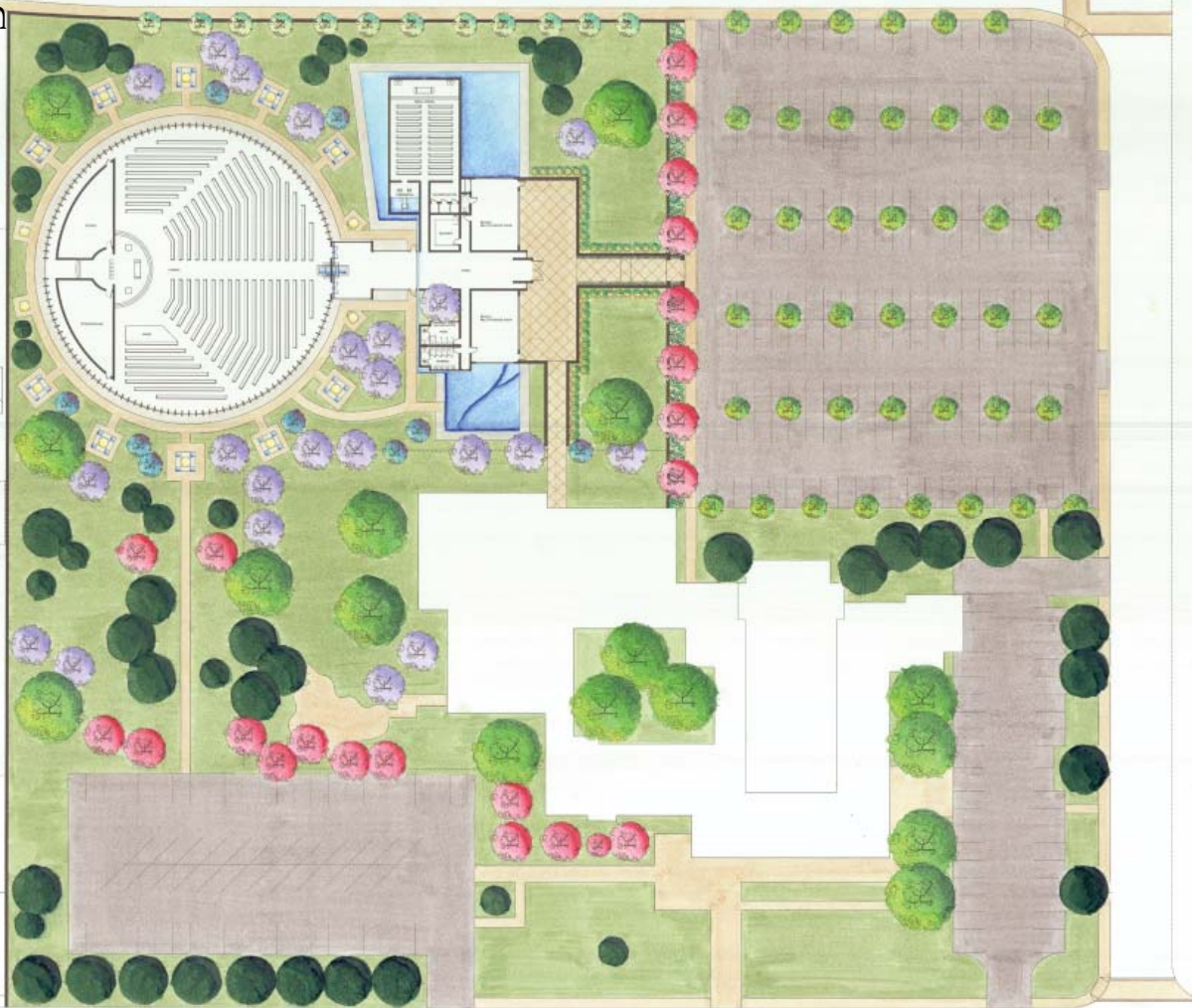


The site is located on a side street that runs along Bullard Avenue. Across Bullard Avenue is the Fresno State, Bulldog Stadium. On rare occasions is the stadium noise loud enough to disturb the church. When mass is held at 8pm on Sundays there are occasionally football games or events during that time.

One can easily see that the Newman Center is nestled in a residential neighborhood on its North, East and West sides. To the East are low income apartments and student housing. To the North and West are single family detached homes. A fair amount of parishioners live close enough, including the priests, which are able to walk to church instead of driving. The site accommodates for 310 parking spaces, 10 of them are handicapped. There are also parallel parking spaces along the perimeter of the site. The parking lots are to be permeable surfaces to help prevent storm water runoff. The water will be collected through drain under the parking surfaces to be cleaned and then used as grey water for irrigation.

Site Plan

N.T.S.



Site Plan

61 scale: 1/16" = 1'-0"

This is a comprehensive site plan which illustrates the walkways, reflection pools, the Stations of the Cross locations, general plantings, and overall landscape design of the site. All of the mature existing deciduous and evergreen trees surrounding the existing church will be kept. Horsetail would make a fine addition to the gardens around the reflection pools as it has a sound "quality" when the wind strikes it that many plants do not provide. A variety of deciduous and evergreens trees will be used in the gardens. Flowering deciduous trees (similar to) Jacarandas, Magnolia (Soulanguiana or Grandiflora), or Chinese Wisteria (tree form) are preferred as they have both a vibrant color presence during spring and they have an abundant canopy. Dogwood (white, pink or red) is also a beautiful flowering tree. Red Maple, Sugar Maple and White Oak are good shade trees and they provide seasonal color. Japanese Red Maple, Olive and Arbutus Unedo are good to use as ornamental accent trees. Native trees and plantings should be used but there should also be paid an attention to seasonal color, shade/canopy cover, and possible bird/animal habitat.

Final Model

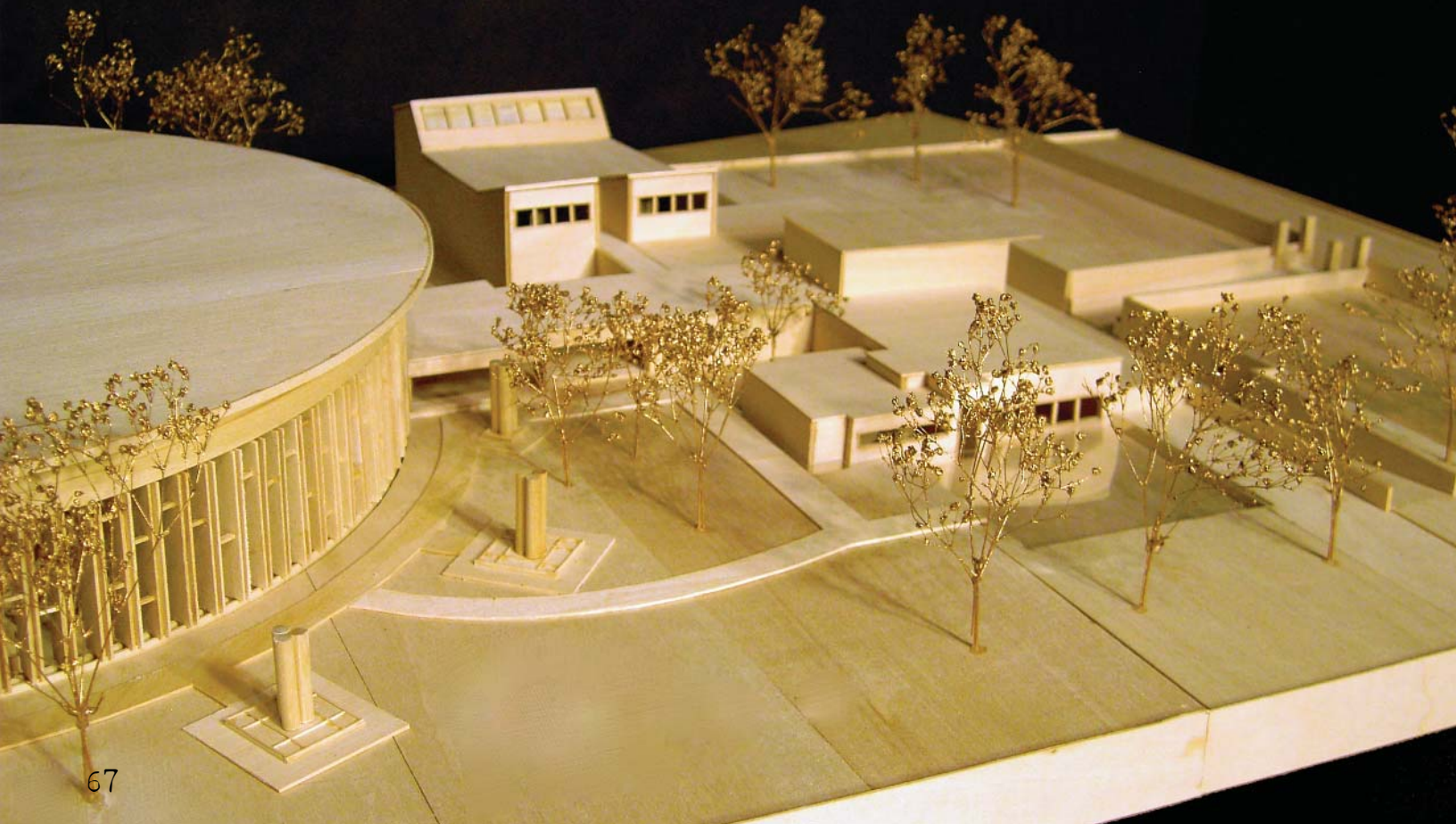




Front Entrance





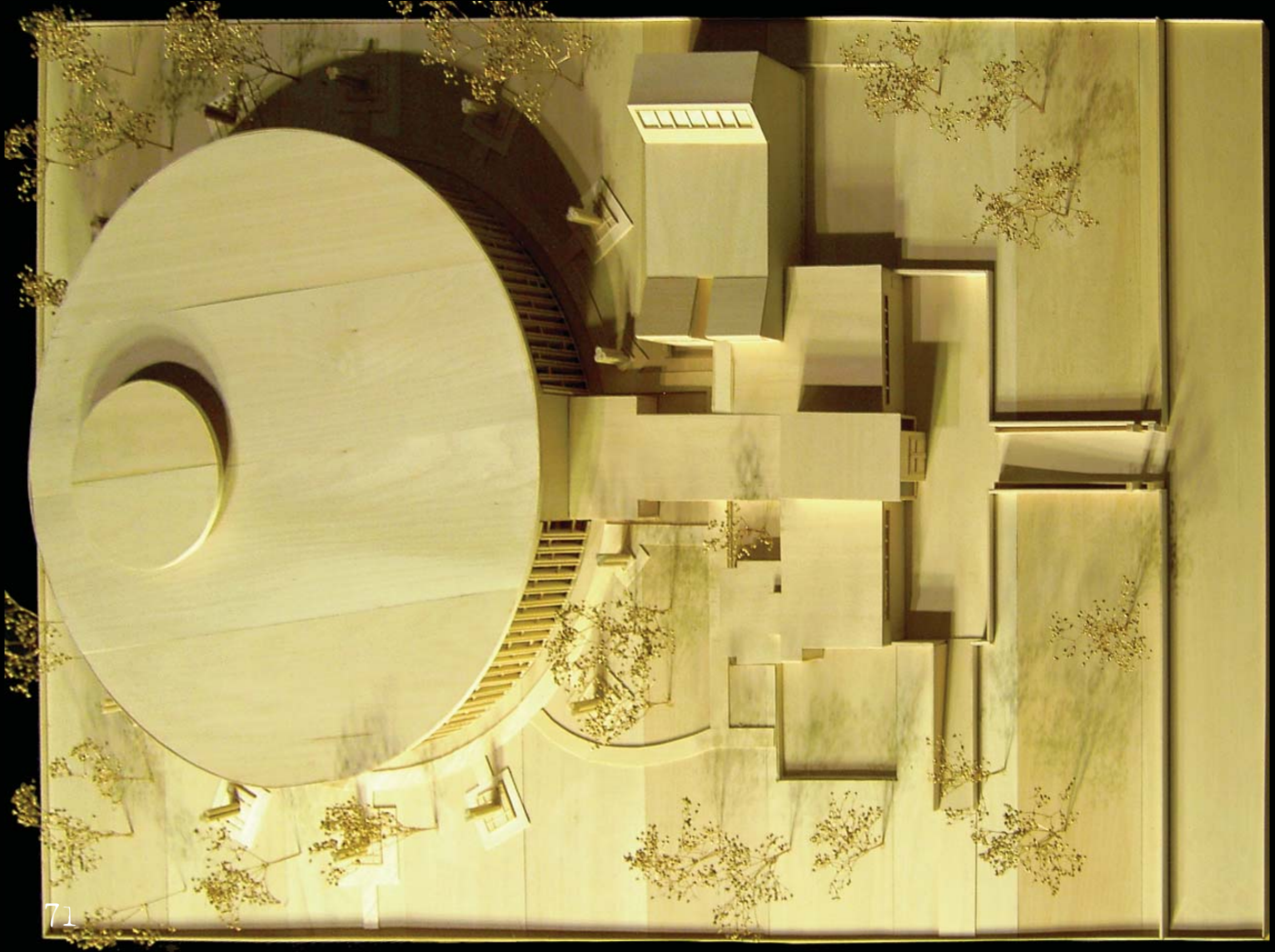




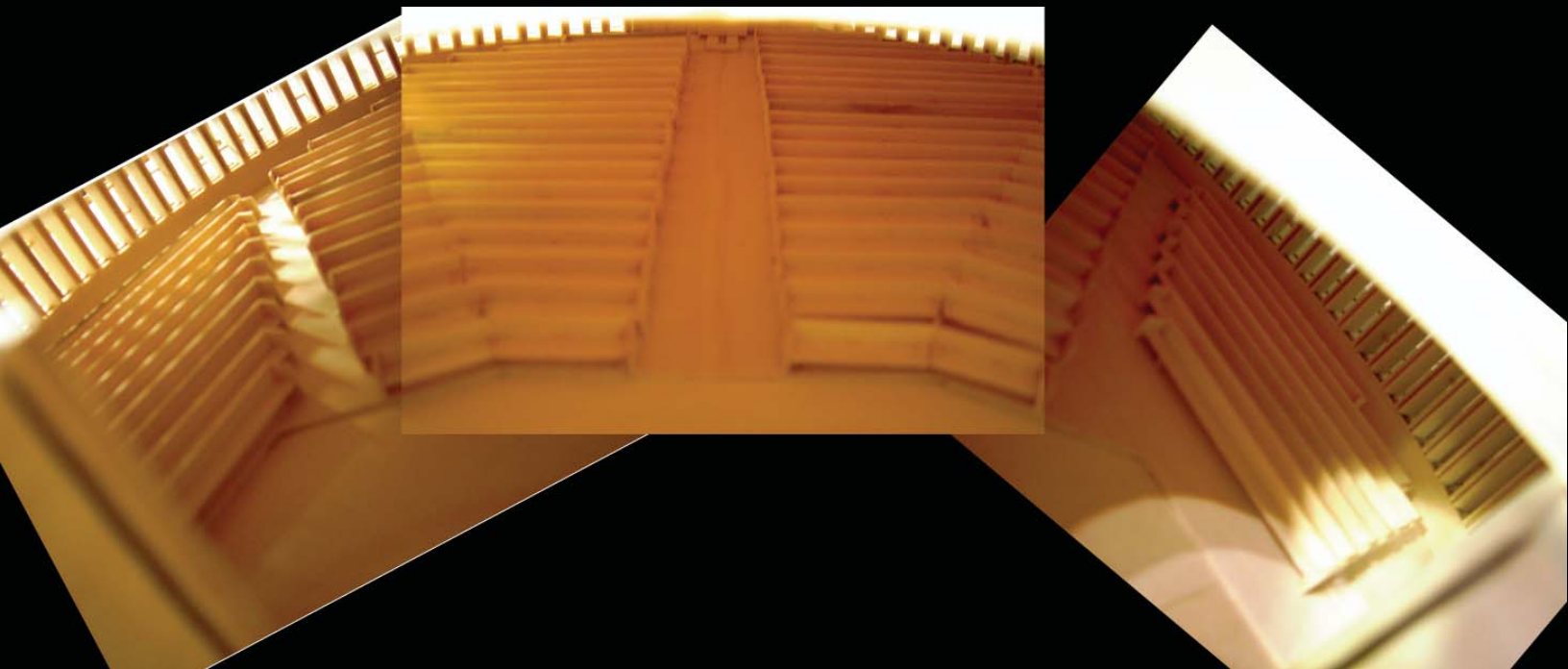
From the outside looking in







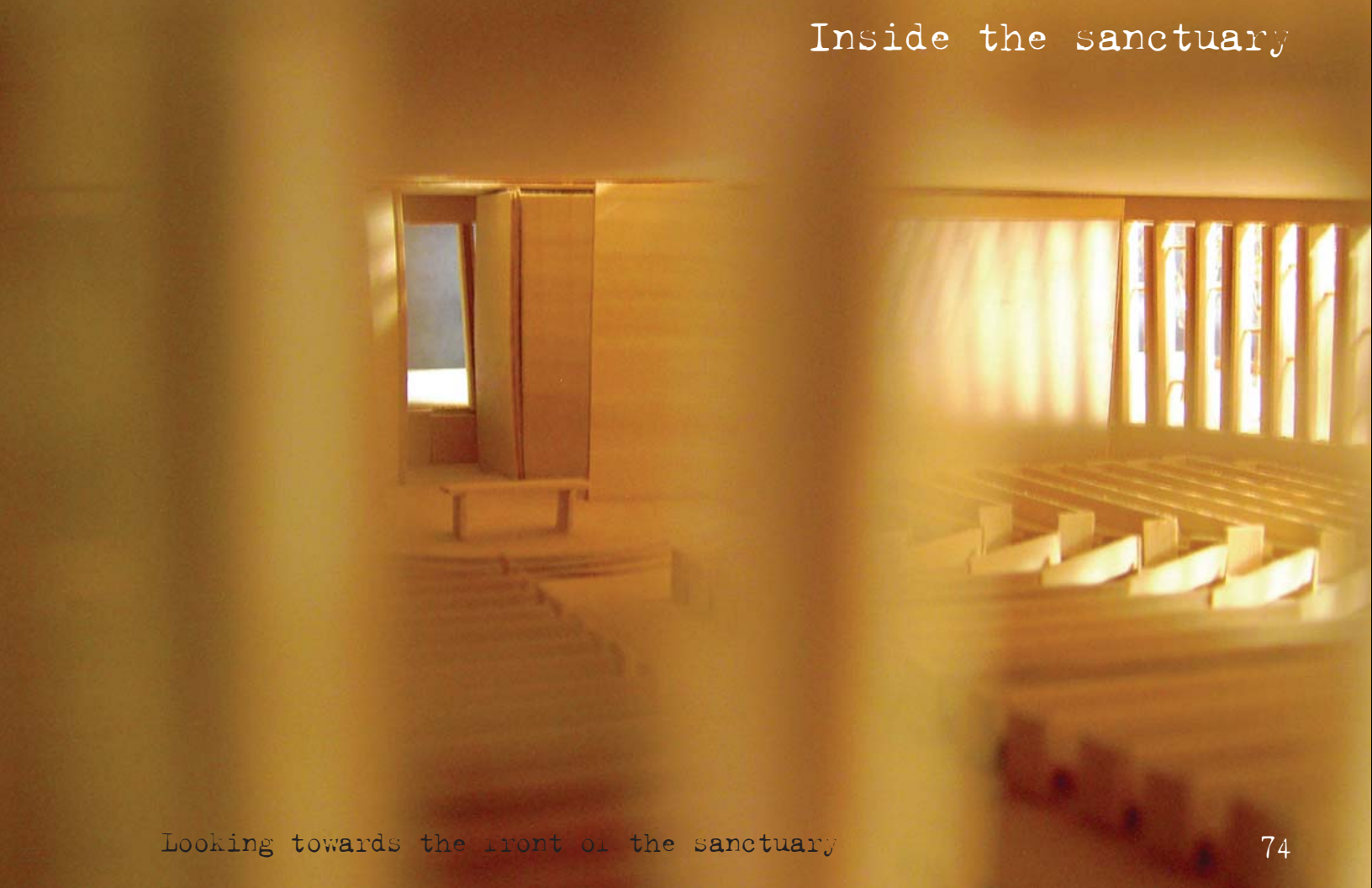
A view from above



Looking down on the congregation

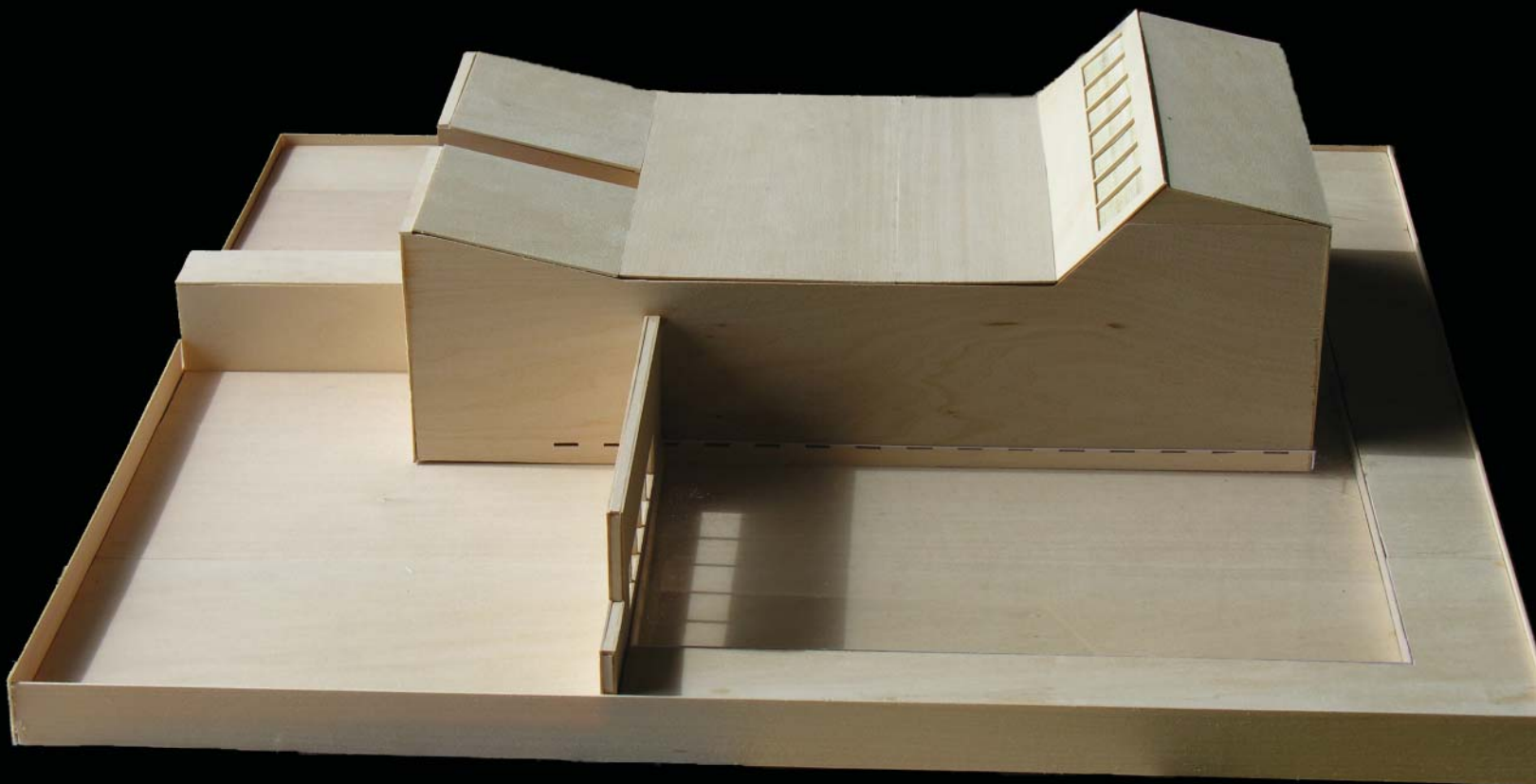


Inside the sanctuary

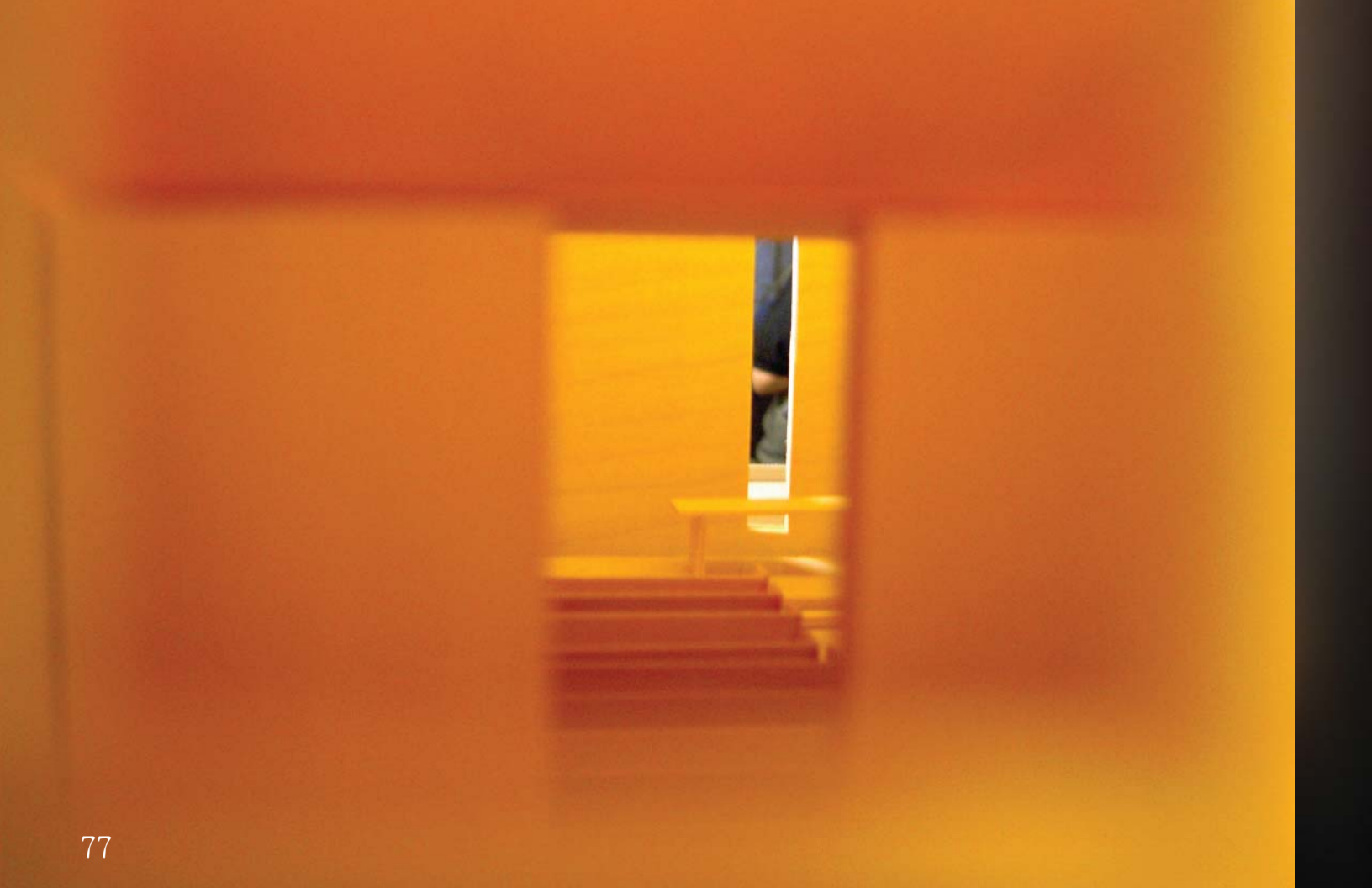


Looking towards the front of the sanctuary

Chapel Model







Spaces within the chapel



Images of Intentions

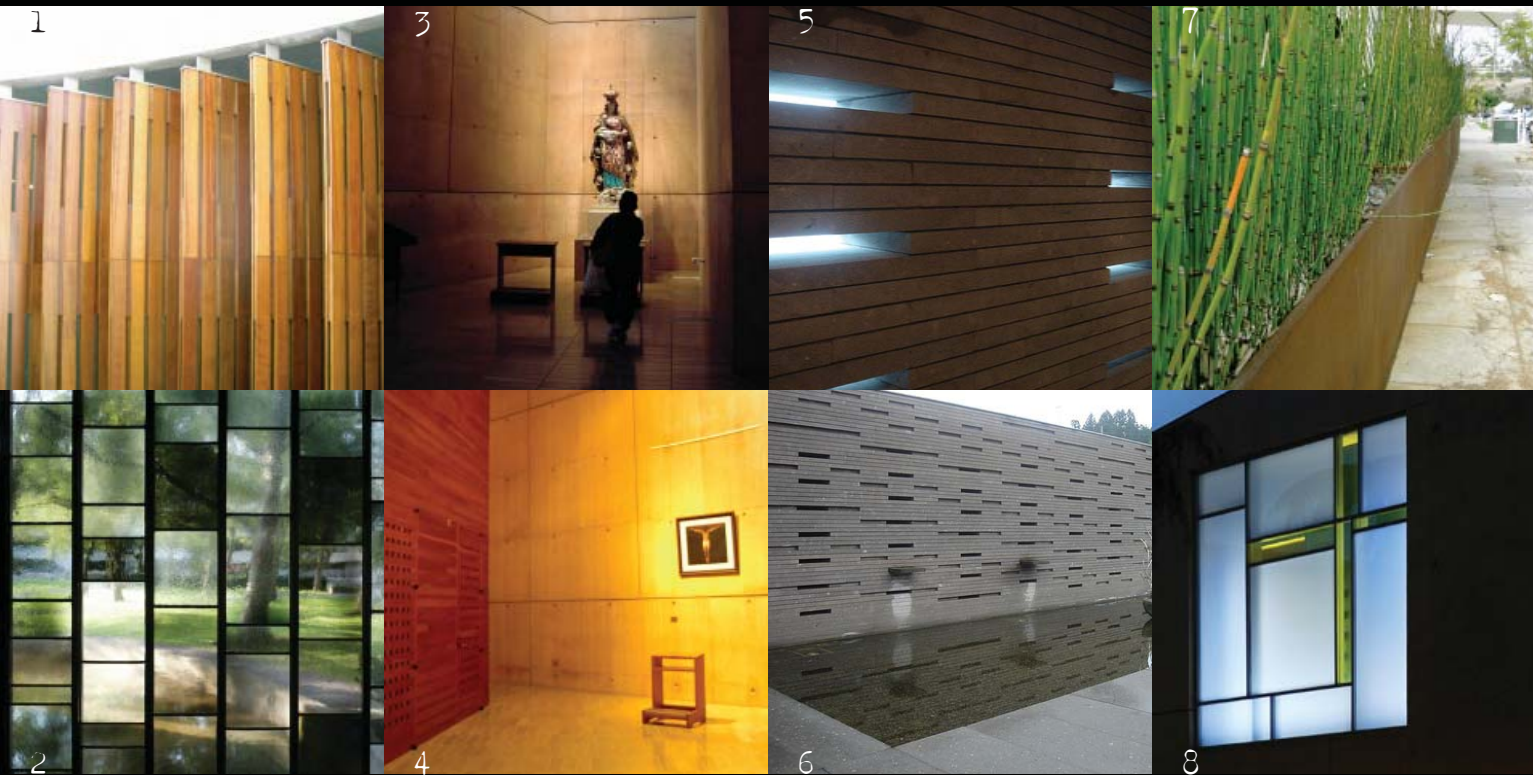




Image 1:
8"x3'x21' composite wood fins with a 4"x12" steel member inside for structural stability. These will line the sanctuary to both provide support and filter in light.

Image 2:
Suggested glass tempering between the wood fins along the perimeter of the sanctuary.

Image 3:
Suggests the quality of light and space within the tabernacle room.

Image 4:
Suggests the quality of light and space within the reconciliation room.

Image 5:
Suggests the type of material and the quality of light as it enters the chapel space. This rock material will be the main material other than wood (and structural steel) used for the church.

Image 6:
Suggests that the chapel will be seated in a pool as this image suggests.

Image 7:
Shows the type of planting to be added along the main walkway from the parking lot to the church.

Image 8:
Displays the pattern and material which is suggested to be used for the church entrance doors.

Image 9:
Combined with the plantings seen in image 7, there will be a water feature along the main walkway from the parking lot towards the front doors of the church

Image 10:
Displays the type of windows to be used along the main foyer before entering the sanctuary.

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Thanks and Gratitude

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