Espace de l’Espérance
Espace de l’Espérance

Collin Michael Flesner

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Master of Architecture
in
Architecture

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Abstract

Religion (and misunderstanding of religion) plays a large role in the current state of global social unrest. In particular, tension between practitioners of Islam, Judaism, and Christianity seems to be unavoidably high. Not only that, but populations declaring themselves as followers of these three organized religions are expected to increase significantly over the next 50 years. This thesis aims to address the underlying tensions between Islam, Judaism, and Christianity through the use of architecture. It is an experimentation with architectural forms, spaces, and elements that can be seen as relatable and understandable to all three religions. At the same time, the thesis also searches for the sublime (as tends to be the case with religious architecture). It is an experimentation with ineffable space, space that communicates deeply with human emotion and aspiration. The design is meant to provide a ‘window to the sacred.’ In this way, contemporary religious architecture can act as a catalyst for education and unification in the hopes of the banishment of ignorance and hatred and the prosperity of peace and understanding.
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Abstract (General Audience)

Religion (and misunderstanding of religion) plays a large role in the current state of global social unrest. In particular, tension between practitioners of Islam, Judaism, and Christianity seems to be unavoidably high. Not only that, but populations declaring themselves as followers of these three organized religions are expected to increase significantly over the next 50 years. This thesis aims to address the underlying tensions between Islam, Judaism, and Christianity through the use of architecture. It is an experimentation with architectural forms, spaces, and elements that can be seen as potentially relatable and understandable to all three religions. At the same time, the thesis also searches for the sublime (as tends to be the case with religious architecture). It is an experimentation with ineffable space, space that communicates deeply with human emotion and aspiration. The design is meant to provide a ‘window to the sacred.’ In this way, contemporary religious architecture can act as a catalyst for education and unification in the hopes of the banishment of ignorance and hatred and the prosperity of peace and understanding.
Acknowledgments

Family, thank you for the support you have given me throughout my architecture studies.

Friends, thank you for the much-needed breaks and leisure time.

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Figure 2. Front entrance of church in Nuremberg, Germany
Introduction

My interest in the subject arose from a variety of factors: my trip to Germany and visiting various churches, reading about the rise of anti-Semitism in line with modern political administrations, the Syrian refugee crisis, watching the news, and more.

I started to question what it was that made people so in awe of spiritual architecture. What were the specific elements or strategies that provoked certain feelings within people visiting sacred spaces? What kinds of architectural elements could be appreciated by Jews, Muslims, and Christians alike? How could I make a space where all religions could worship, and what might that say about the religions themselves?
Introduction

I began by researching the general outlook on Judaism, Christianity, and Islam in the world. I wanted to make sure that the tension I was hearing and reading about seemingly constantly was as relevant as I thought.

What I found is that there is definite evident tension between and about these three religions. The following is a series of charts, quotes, and pictures that I found particularly telling during my research, and proved to me that the project was definitely relevant in today's world.
"Indeed, in the days following the Charlie Hebdo attacks, perpetrated by three terrorists claiming ties to both ISIS and Al-Qaeda in Yemen, local French press was littered with stories of violent prejudice against Muslims. A plaster grenade hit a mosque in Le Mans and shots were reported fired at several mosques across the country. Arson badly damaged a mosque in Aix-les-Bains. Several mosques were vandalized with spray-painted slogans ranging from “Arabs Get Out” to swastikas and an ominous “Ich Bin Charlie.” In Corsica, intestines and the head of a wild boar were reportedly found hooked to the door of a Muslim prayer room.”

-Daily Beast, 2015
Figure 3: Graffiti outside mosque in France following Charlie Hebdo attacks
Many Europeans concerned refugees will increase domestic terrorism

Refugees will ___ in our country

<table>
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<th>Country</th>
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<th>Not increase the likelihood of terrorism</th>
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<tr>
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<td>59%</td>
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Source: Spring 2016 Global Attitudes Survey.

PEW RESEARCH CENTER

Figure 4. Chart on refugee link to domestic terrorism
Many Europeans see refugees from Syria and Iraq as a major threat

% saying large number of refugees leaving Iraq and Syria is a major threat to their country

<table>
<thead>
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<th>Country</th>
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Source: Spring 2016 Global Attitudes Survey.

PEW RESEARCH CENTER
Few Europeans say growing diversity makes their country a better place to live

Overall, do you think having an increasing number of people of many different races, ethnic groups and nationalities in our country makes this country a better place to live, a worse place to live or doesn’t make much difference either way?

<table>
<thead>
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<th>Doesn’t make much difference</th>
<th>A better place to live</th>
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Source: Spring 2016 Global Attitudes Survey.
PEW RESEARCH CENTER

Figure 6. European view on diversity's link to country
Figure 7. European views on Jews chart
“Though they may be modest trends, in light of the dark history of anti-Semitism in Europe, any uptick is surely troubling. Moreover, rising anti-Jewish views are part of a broader pattern of increasing xenophobia; European attitudes toward Muslims have also turned more negative over the last few years. And in Western Europe, the same groups tend to have the most negative opinions of both Jews and Muslims: the less educated, those over fifty and people on the political right. All these features combined lead to a troubling trend it would be unwise to ignore.”

-Pew Research Center, 2008
Islam Growing Fastest

*Muslims are the only major religious group projected to increase faster than the world’s population as a whole.*

**Estimated change in population size, 2010-2050**

- **Muslims**: 73%
- **Christians**: 35%
- **Hindus**: 34%
- **Jews**: 16%
- **Folk Religions**: 11%
- **Unaffiliated**: 9%
- **Other Religions**: 6%
- **Buddhists**: -0.3%

Source: The Future of World Religions: Population Growth Projections, 2010-2050

PEW RESEARCH CENTER

*Figure 8. Chart on religious growth*
Long-Term Projections of Christian and Muslim Shares of World’s Population

If current trends continue, Muslims would outnumber Christians after 2070

Source: The Future of World Religions: Population Growth Projections, 2010-2050

PEW RESEARCH CENTER

Figure 9. Chart on Muslim and Christian population
Program

The combined tensions (both modern and historical) between Christians, Jews, and Muslims in Western Europe, increased population projections, a general interest in questioning standardized religious architecture, and an interest in the pursuit of architecture of peace led me to focus on the Abrahamic religions.

From there, it became necessary to understand how the religions functioned. What did the architecture look like for each of them, and how did it contribute to their prayers and worship? What elements could the buildings not function without?

This began a study into mosques, synagogues, and churches. Their orientations, seating, podiums, musical elements, light, and countless other factors came into consideration. Knowing that I was essentially trying to combine these programs, I thought it best to focus on the most essential elements of each building, hoping to find commonalities and links between them.
There are several vital components that mosques can't function without. First, prayers need to face towards Mecca, so the building itself will typically orient in that direction. The mihrab, often shown as a decoration or change of materials or indentation in the wall, is meant to signify this direction. The prayer hall faces the mihrab so everyone is praying in the same direction.

Women are separated from men during prayer.

Historically, a courtyard was placed next to the prayer hall with a fountain (many mosques originated in hot environments). A vestibule separates the prayer hall from the building entrance.
Synagogues also have several important features that are necessary for prayer. The most important element is the ark, which houses the Torah scrolls. These will be taken out and read from during ceremonies. Synagogues often face or reference Jerusalem. Genders are sometimes separated in Judaism, as in Islam. Although it isn't required, balconies often appear in synagogues as parishioners prefer ceremonies where they are facing one another.

**Synagogue**

- ark
- women's quarters
- balcony
- balcony
- balcony
- vestibule
Church

Churches have historically faced East. The altar is a place where Christians can "connect" to heaven. A central nave and aisles often appear in historical churches (especially in cruciform style plans like this one). The crossing is a break between the aisles, transept, and altar.
I began to try and understand these programs as a unified space. What were the elements and spaces common amongst all three religious structures? It became clear that there were a lot of similarities between the architectural languages, but that it would be difficult to unify all three into one space.

My solution was to establish a church, mosque, and synagogue as separate buildings on the site, which will be seen later. These spaces would feel comfortable and familiar to visitors and attract people who might even seem hesitant to the idea of a unified sacred space at first. Then, the main space would be for multi-denominational worship. It would be set up in a way that all three religions would be able to use it on their individual time. However, it would also be possible to have joint community gatherings, individual worship when ceremonies weren't scheduled, or just a place to sit and rest on the site. In other words, I wanted it to be as multi-functional and multi-faceted as it was multi-denominational.

Figure 10. Overlayed plans of Basilica di Santa Maria Maggiore (432 AD), Basilica of San Vitale (537 AD), and Al-Aqsa Mosque (700 AD).
Site Selection

Where would this kind of program be relevant? What kind of place could contribute to the overall idea of the project? I began by searching for cities in Western Europe, a region of the world where I felt this tension amongst religions was particularly evident. Religious populations were the first determinant, as I wanted the design to be an architectural offering for large amounts of people, if necessary. I wanted the populations to be able to sustain such a spiritual campus.

Marseille was special in that its religious structures were fairly dispersed throughout the city, whereas others tended to group or cluster in certain areas. Not only that, but the three religions all have different stories to tell within Marseille. Christianity has long reigned over the city and makes up most of the population there. However, the city's Muslim population is the second highest in France (only behind Paris), and third largest in Europe at around 80,000. Finally, Marseille played a legitimate part in the re-settling of Jews after World War II, but has since seen incidents of anti-Semitism and hate. Given the population and cultural diversity, Marseille seemed like the perfect place to construct this kind of program.
Site Attributes

The site selected is just outside of the city center in Marseille, France in the aptly named Parc de l’Espérance (Park of Hope). An abandoned housing structure sits on the exact plot, so there would be no need to tear down existing structures or trees.

Marseille is also an interesting case study in that there is little chance for urban sprawl. To the east of the city is the Mediterranean, and the west is home to several mountain regions. Thus, the natural beauty of the site was another factor in choosing the site.

Finally, there is direct visual access to the city center down one of Marseille’s main highways. This allows for an important connection and site relevance to the rest of the city and its other religious buildings.

![Aerial view of Marseille with illustrations](image1.png)  
![Aerial view of Marseille with illustrations](image2.png)

![Aerial view of Marseille with illustrations](image3.png)  
![Aerial view of Marseille with illustrations](image4.png)
Precedent

Precedent studies became extremely important to my understanding of religious and spiritual architecture, including programs that felt or had spiritual aspects but weren’t at all religious. It was a chance for me to discover what I thought was beautiful, what I thought provoked certain emotions within me, and what I was moved by.

The projects varied, and came from studies of contemporary and historical churches, museums, mosques, galleries, and synagogues. The following are a series of photographs of those projects that particularly moved me.

Figure 19. Abbey of Our Lady of Nový Dvůr interior, John Parson, Germany
Precedent

New Church in Foligno, Doria e Massimiliano Fuxas, Italy
Precedent

Simon Ungers, Seven Sacred Spaces, Unbuilt
Precedent

Bishop Edward King Chapel, Niall McLaughlin Architects, United Kingdom
Precedent

Sancaklar Mosque, Emre Arolat Architects, Turkey
Precedent

Don Bosco Church, Dans arhitekti, Slovenia
Precedent

Double Church For Two Faiths, Kister Scheithauer Gross Architects And Urban Planners, Germany

Figure 25: Double Church for Two Faiths interior.
Precedent

Bagsvaerd Church, Jørn Utzon, Denmark
Design
Site

The campus site only consumes part of the overall park plan, allowing for the rest of the park to exist naturally. Below, the black dots represent metro access points including bus, train, and car.

These were starting points when thinking about how people would arrive on site and view the building(s).
Site Access

It was important for me to keep the existing paths within the park as part of the project. Here, you can see the connection to the site from the north, the main entrance for visitors arriving by car. There is also a path arriving to the site from the south, which would serve as the main entrance for people arriving by most metro stations.
Lower Level Plan

The lower level houses the multi-denominational worship space, educational spaces, kitchen, storage, library, offices, and supporting spaces.

The educational spaces are flexible and allow for people to flow throughout to educate themselves on the history, beliefs, and practices of each of the religions. A large cause of tension between the religions is a direct result of ignorance and lack of understanding about how the other religions operate and what the believe. Though there are significant differences between each of them, there is an unspoken hope that these spaces will influence people to understand that they aren’t as different from one another as they may have thought.

The multi-denominational worship space is the main focus of the entire project. Thus, it makes sense that its form totally defies the rest of the architecture. It is a wholistic, all-encompassing blank slate for people to worship how they wish. It is my hope that the space will allow for interactions and conversations that otherwise wouldn’t happen. It can be accessed by ramp directly from the first level, the rounded strip surrounding the space. There are also stairs and elevators from each of the spaces upstairs, as well as a ramp on the west side of the building that goes from the ground floor to the underground level.

The library serves those who wish to study holy books further. The kitchen is another community space, where all can cook and share.
Ground Level Plan

The ground level houses the individual religious buildings (church, mosque, and synagogue) and adjoining gardens.

Each of the buildings orients to its respective direction, (church faces east, synagogue faces Jerusalem, mosque faces Mekka) a definite driving force behind the architecture. The buildings also boast individual structural systems in columns, walls, and beam combinations.

The supporting spaces frame these buildings, which rise out of the ground as large masses. There is a clear distinction between the sacred and the profane. Walls change thickness, and a small piece of glass separates the surrounding walls from the main walls of the worship spaces.

Subtle gardens separate each of the buildings, which can be easily accessed by all. Windows are placed in other areas of the buildings to frame specific views from both the interior and exterior. A large, circular garden exists above the multi-denominational worship space. It acts as the perfect counterpart to that space on the ground level, where people can enjoy the outdoors and beautiful views of the Mediterranean, mountains, and city center.
Level Two Plan

The second level houses the religious spaces’ balconies, which are only for women in the case of the synagogue and the mosque.

Women have not been treated as equals in historical religious architecture, and I wanted to address that with the project. The women are given equal space in the synagogue with an entrance and circulation that mimics that of the men’s. In the mosque, the women are placed on a platform above the men, and have an completely different view of the mosque. They are also given equal washing and preparation space as the men, as opposed to being set aside like in many other mosques.

From this level, it is also easy to begin to understand the structures and window placements. There are even skylights in specific areas to allow for specific light.
3D Isometric Section

Here, one begins to understand the structure of the spaces and the overall site layout. The individual religious spaces rise out of the ground, their structures spanning from lower level to the roof.

The synagogue houses a beautiful semi-transparent roof, held by large, deep beams that create beautiful streaks of light inside the space. The columns inside frame concrete wall panels and benches on the first floor where visitors and practitioners are encouraged to sit. The seating is arranged in a specific pattern so to be able to worship facing each other.

The church houses a fantastic barrel vault not visible from the outside. The side chapel is a lovely addition to the space, which looks out onto the garden shared with the mosque. A hallway of the supporting space has a wonderful view out to the east side of the site.

The mosque is home to a series of columns that hold up two separate sections of roof. A glass box hovers above the women's area, and can be adorned with patterns to cast beautiful light patterns throughout the space. A series of small windows look into the washing spaces.

The multi-denominational space boasts large concrete beams that hold up the floor of the garden on the lower level. The circular wall that surrounds the space gives way to the main entrance of the space and allows for a direct view to the city center. You can also begin to understand the materiality by noting that the thickness of the walls in the supporting spaces is thinner than that of the main worship spaces. The supporting spaces are designed with a rougher, darker concrete, so as to allow the cleaner, lighter concrete to rise out of it towards the sky. This can be seen more clearly in the project visualizations.
East/West Section

This section allows for a view of the church on the ground level and multi-denominational worship space on the lower level.

The church's barrel vault gives way to a series of rounded windows. There is a clear distinction in material between the barrel vault (and walls) in light concrete and that of the furniture and other sacred elements in light wood. Slight steps lead up to the high altar. The educational space lies below, adjacent to the main worship space.

The multi-denominational worship space is highlighted by a series of columns and beams. The beams unite in the center of the ceiling structure and surround a circular skylight that allows light from the garden above. The ramp and handrail can be seen cut through on the right side of the section. The openings in the wall of the garden space allow for views of the surrounding context, including the sea and the city center.
Synagogue & Mosque Section

The synagogue’s concrete panels are highlighted between the columns. Between each is also a small bench for seating close to the floor. Again, the materials of the furniture contrast that of the structural system. The library bookshelves can be seen below. The site’s entrance stairs mirror that of the women’s balcony stairs. The columns extend down to the educational space below.

The mosque’s glass box ceiling with pattern is shown, as well as the concrete wall that allows for privacy in the washing areas. The checkered windows are also visible here. The structure, like the other buildings, extends to the lower level below to give an understanding of the space above. The window opening that acts as the mihrab is clearly visible at the top of the roof.
Reflected Structural Plan

The structural plan of the multi-denominational space is fairly simple, as columns surrounding the glass walls hold up the beams that support the ceiling and floor above. Columns are also placed outside the ramp, which the beams also span over. In this way, the structure becomes visible to the exterior, a beautiful expression allowing people to understand the workings of the space for themselves and emphasizing the circular nature of the architecture.
Visualizations & Model

The following visualizations were rendered as a way of bringing the spaces to life. It is an attempt at expressing the project’s material, light, size, and overall feeling of space.

The construction of the model was a way to better understand the spaces and buildings as a compositional whole in terms of scale and placement.
Church Main Space
Church Side Chapel
Garden Between Synagogue and Church
Women’s Entrance Hallway
Lower Level Educational Axis
Lower Level Educational Axis
Multi-Denominational Worship
Overall Site
Project Model - Lower Level
Project Model - Lower Level
Project Model - Lower Level
Project Model - Ground Level
Project Model - Ground Level
Project Model - Ground Level
Project Model - Church
Project Model - Mosque
Project Model - Synagogue
Conclusion

Working on this project was immensely challenging and beautifully rewarding. I went through countless iterations and there was always something that didn't look or feel right. I think the final design is an excellent start to a program that could learn to take on many forms in the future. Unfortunately, we won't be able to tell how socially successful these kinds of projects are until they are constructed and immersed into society. I look forward to the day when they are no longer pointless tensions between these groups who share so many of the same values and beliefs. Though the project has a sort of ambition and optimism that borders on naiveté, I think that architecture does play a role in these kinds of issues and will continue to play a critical role in the coming years.
Bibliography


Image Credits

The images listed below are for academic purposes only and were reproduced according to fair use law. All other images, drawings, and illustrations were produced by the author.

Figure 1. Column in Theatine Church, Munich, Germany.
Author’s personal photograph

Figure 2. Front entrance of church in Nuremberg, Germany
Author’s personal photograph

Figure 3. Graffiti outside mosque in France following Charli Hebdo attacks. Web. May 1 2018.

Figure 4. PEW Chart on refugee link to domestic terrorism Web. May 1 2018.

Figure 5. Chart on European views of refugees as major threat. Web. May 1 2018.

Figure 6. European view on diversity’s link to country. Web. May 1 2018.

Figure 7. European views on Jews chart. Web. May 1 2018.

Figure 8. Chart on religious growth. Web. May 1 2018.
<http://www.pewresearch.org/fact-tank/2017/04/06/why-muslims-are-the-worlds-fastest-growing-religious-group/>

Figure 9. Chart on Muslim and Christian population. Web. May 1 2018.
<http://www.pewforum.org/2015/04/02/religious-projections-2010-2050/>

Figure 10. Overlayed plans of Basilica di Santa Maria Maggiore (432 AD), Basilica of San Vitale (527 AD), and Al-Aqsa Mosque (700 AD). Web. May 1 2018.
<https://commons.wikimedia.org/wiki/File:Dehio_17_Santa_Maria_Maggiore.jpg>

Figure 11-14. Various aerial images and illustrations captured from Google Earth.
Google Earth

Figure 15-18. Aerial view of Marseille with illustrations.
<http://www.som.com/ideas/research/timber_tower_research_project>
Figure 19. Abbey of Our Lady of Nový Dvůr interior, John Parson, Germany. Web. May 1 2018. 

Figure 20. New Church in Foligno interior. Web. May 1 2018. 

Figure 21. From Simon Ungers’ Seven Sacred Spaces. Web. May 1 2018. 
<http://nostalgiaforthefutures.blogspot.com/2013/06/the-name-of-infidel-simon-ungers.html> .......................................................... p. 21

Figure 22. Bishop Edward King Chapel Interior. Web. May 1 2018. 

Figure 23. Sancaklar Mosque interior. Web. May 1 2018. 

Figure 24. Don Bosco Church interior. Web. May 1 2018. 

Figure 25. Double Church for Two Faiths interior. Web. May 1 2018. 

Figure 26. Bagsværd Church interior. Web. May 1 2018. 