

**Maintaining the Sacred: Adapting to a 'Post-Religious' Society  
Through the Reprogramming of the Early Church in Montreal**

by

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Submitted in partial fulfilment of the requirements  
for the degree of Master of Architecture

at

Dalhousie University  
Halifax, Nova Scotia  
March 2018

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## **ABSTRACT**

This thesis is a study of the architectural qualities that correlate with the sacred, while addressing the growing problem of underused and dissolving religious buildings in Canada. The initial argument puts forth the idea that a building can be described as sacred because of its architectural qualities rather than its affiliation with a religious organization. It superimposes the architectural qualities of a sacred building with a social program in order to evoke thought in everyday life. Lower interest in religion is widespread across Western societies and with a generational change it is leaving many places of worship obsolete or vacant. Historically, the church was not only a place of gathering but was responsible for the teaching and well-being of its community. Through the adaptation of existing church buildings in Montreal, they can be linked back to their history as a support for health and education, while also preserving their sacred architectural qualities.

## **ACKNOWLEDGEMENTS**

I would like to thank Cristina Verissimo for her enthusiasm and extraordinary support during this process, as well as Diogo Burnay for his advice throughout the thesis. I would also like to thank my family back home for their help and encouragement. And finally, my wife Sarah, for her patience and constant encouragement and support while completing this project.

## CHAPTER 1: INTRODUCTION

### Question

How can the re-use of vacant and diminishing church buildings in Montreal preserve their sacred value, while maintaining a link back to their purpose as a social support for the health and education of their community?

### The Decline of the Church

The research began by looking into the current status of religious buildings in Canada. The face of religion has gone through a large shift in the past half a century in Canada. But more recently a demographic and generational change has affected Canada's largest religion. A large reduction in attendance, together with a reduction in government funding, has led to economic issues for the ecclesiastical church Canada wide.

Mapping the current status of church buildings in different cities in Canada led to the conclusion that the problem fluctuated between provinces and cities. A comparison of Vancouver, Ottawa, Montreal and Halifax can be seen in Figure 5. As Natalie Bull states in her article on religious buildings in Canada, "the tsunami will only get bigger. Faith groups are the second largest real-estate holder in Canada, second only to the Government of Canada itself. We may be talking about more than 27,000 buildings, and it is expected that at least 30 percent of them will be on the chopping block in the next few years."<sup>1</sup> A survey done by the Canada General Surveys looked at the recent trends in Canadian religious attendance and compared it to the attendance in 1988 (Figure 1). The outcome suggested that Quebec has seen the greatest decrease in religious attendance since then. This graphic also suggests that this trend will continue in the future. A number of articles suggested that part of the reason the attendance is decreasing is due to a generational shift, as seen in Figure 2. Further research led to a conclusion that the Christian religion was suffering the most, with Protestants and French Catholics seeing the largest decrease in attendance rates. Quebec saw the greatest attendance decrease in recent years, and Montreal has the largest number of closing churches in the province.

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<sup>1</sup> Natalie Bull, *A Hope and Prayer for Places of Faith* (Ottawa: National Trust for Canada, 2016), 1.

Montreal was not only the top in currently closed churches, but it was also the place where the churches have seen the greatest shift in program. For this reason Montreal was chosen as an example for this thesis. Montreal and Quebec have seen the largest shift regarding the Catholic religion in Canada. The Roman Catholic church went from a social institution that once exercised the greatest influence in the province to one with nearly no influence, and in recent decades is threatened by record low attendance and interest from the community.

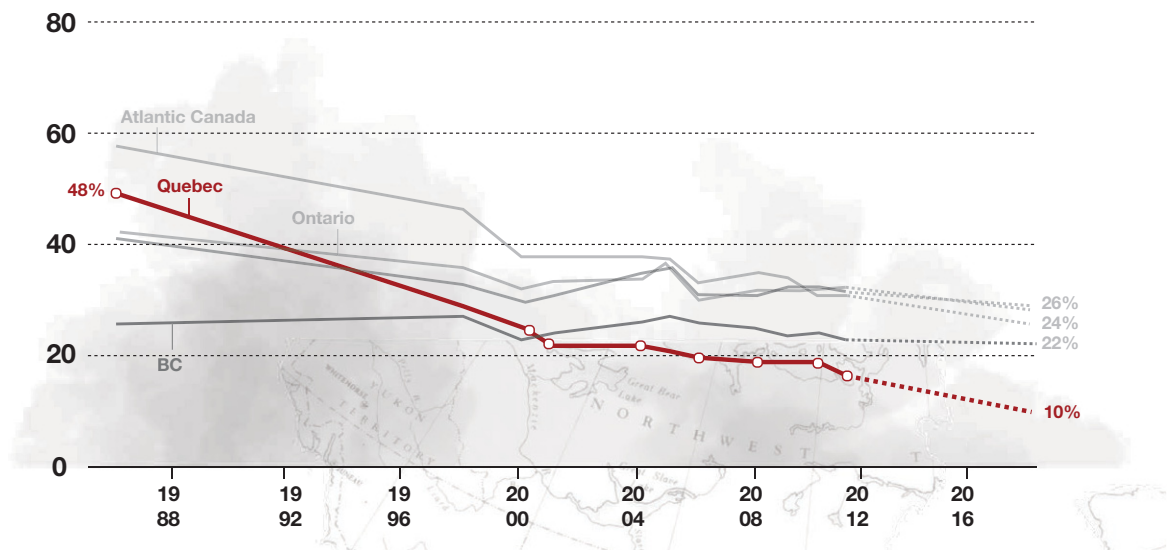


Figure 1: Trends in Canadian religious attendance  
Data from "Changing Patterns of Attendance at Religious Services in Canada" (Canada General Social Surveys + Pew Research Center)

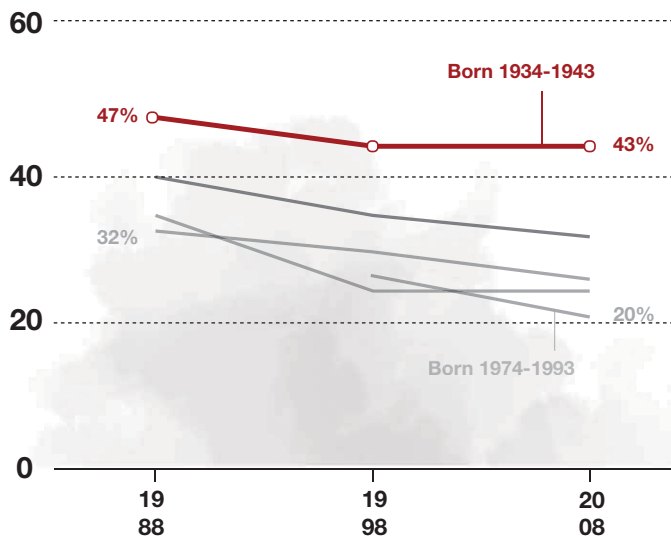


Figure 2: Generational decline in religious attendance  
Data from "Changing Patterns of Attendance at Religious Services in Canada" (Canada General Social Surveys + Pew Research Center)

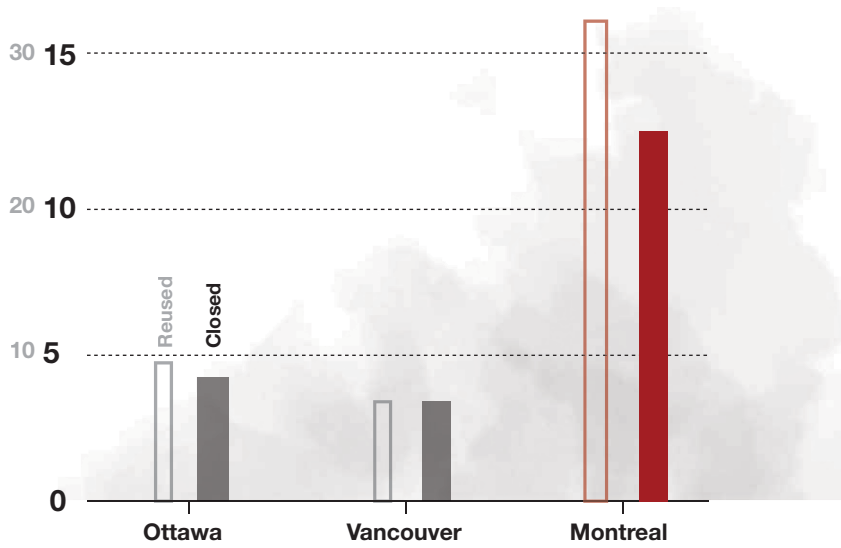


Figure 3: Religious attendance by denomination

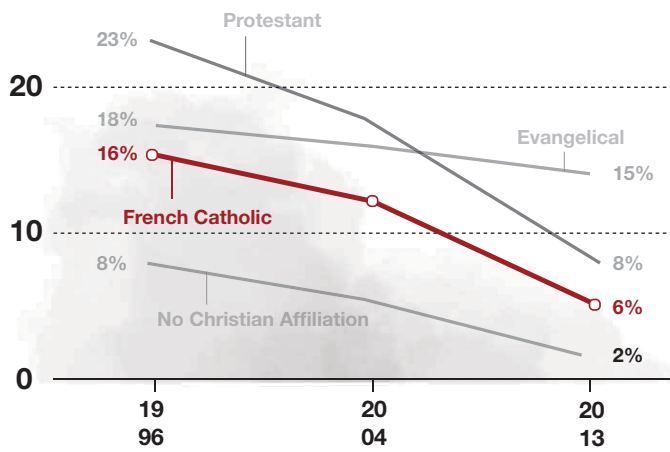


Figure 4: Closed and reused churches in Canada  
 Data from "Religion and Faith in Canada Today" (Angus Reid Institute)

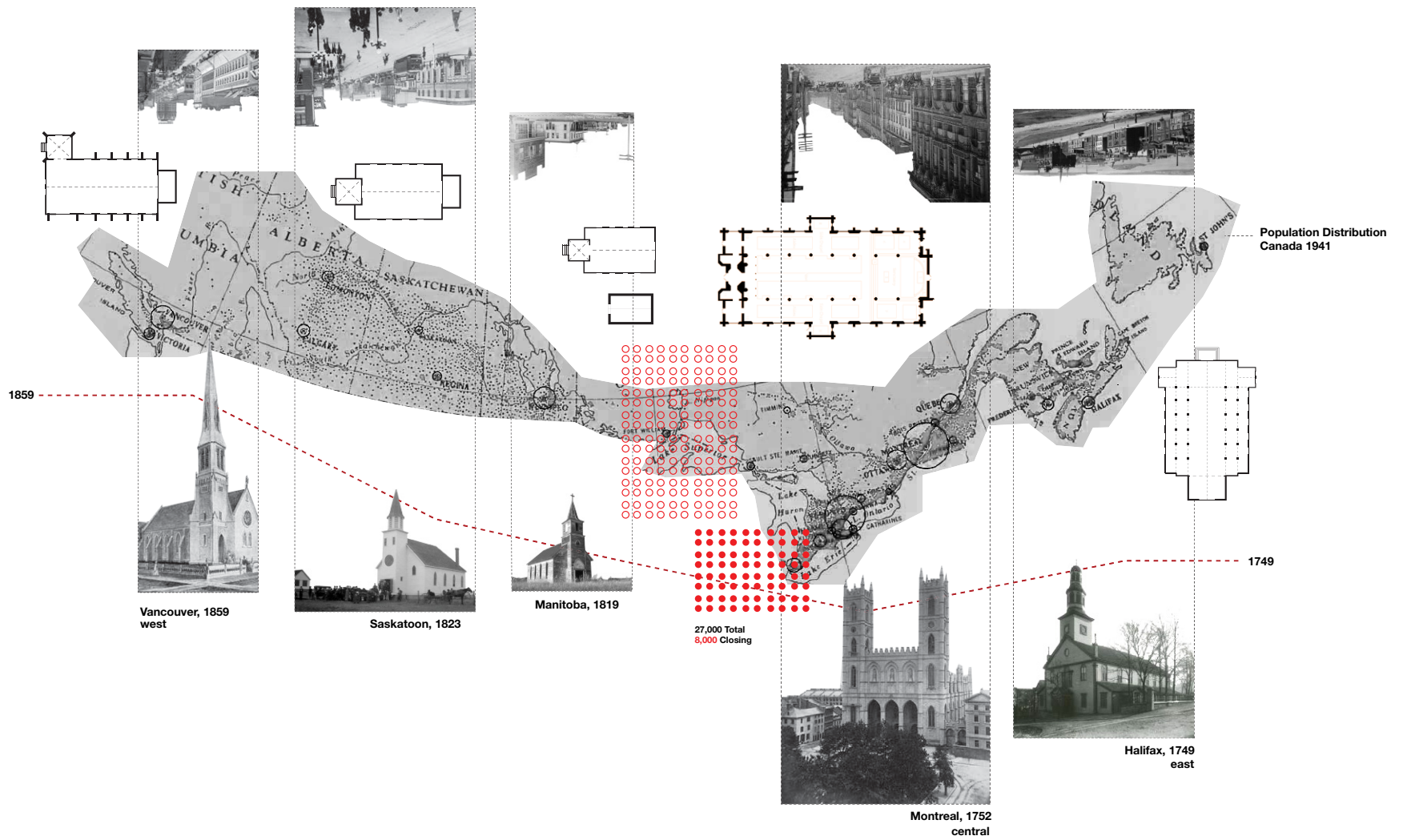


Figure 5: Typology of Canadian Church buildings





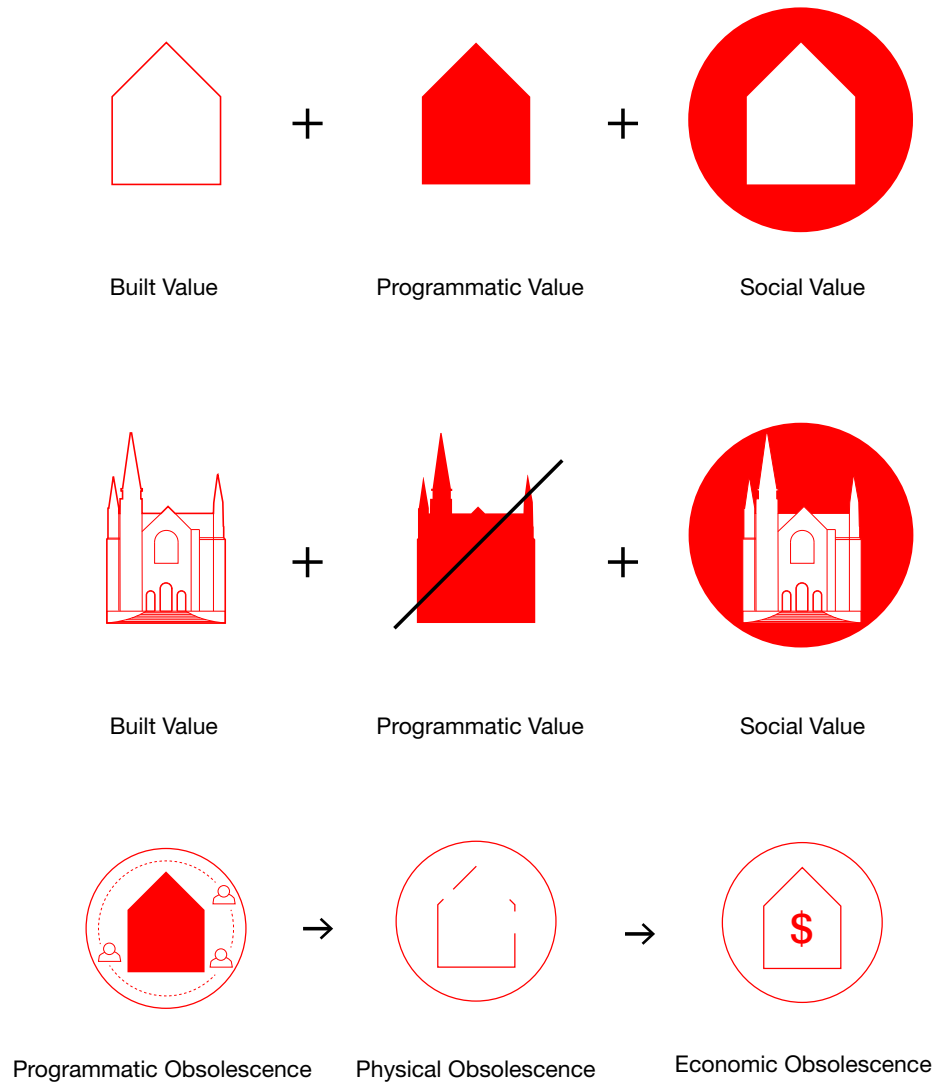


Figure 7: Church Buildings' value in a city and society  
 Information retrieved from: Civic Assets Report, Andrea Savard-Beaudoin

## Maintaining the Sacred

### *A Definition of Sacred Architecture*

This thesis requires research from both a specific typology and a broader definition. The first exploration relies heavily upon Rudolf Schwarz's *The Church Incarnate* and his breakdown of the Catholic church typology. His explanation of the Catholic typology is highly regarded in the architecture world, with architects such as Mies van der Rohe complimenting Schwarz's work as a must-read for architects and architecture students. The second pool draws upon texts that are not specific to a religion, and largely consists of two recent books that hold many essays from contemporary architects writing about sacred architecture. The first is Julio Bermudez's *Transcending Architecture: Contemporary Views on Sacred Space* with essays from well known architects and writers such as Juhani Pallasmaa. The second is *Constructing the Ineffable: Contemporary Sacred Architecture*, edited by Karla Cavarra Britton, which compiles essays from architects and writers such as Kenneth Frampton, Rafael Moneo and Peter Eisenman, to name a few. Many consistent architectural qualities can be seen in the writings and examples which these texts provide. These qualities can be compiled and organized to create a framework for what qualifies a space as sacred.

To create a definition of sacred architecture, the distinction should be made between a sacred object and sacred space. For instance, a religious building will house individual artifacts which are titled as "sacred" because of their significance towards the specific religion. The objects are symbols referencing a certain ritual or historically significant object, moment or story. The building which houses these artifacts is also given a title as a sacred object. In the Catholic church, for instance, a bishop or priest must go through a ritual of sacralizing a church and its objects for the space to be used. The opposite process proceeds when the building is deserted by its congregation and the church becomes desacralized. But where architecture interjects is in its ability to provoke an individual or communal sacred thought, experience or action. The accumulation of built form and social program creates a sacred space. Paul Goldberger suggests that historically, sacred architecture's design basis was ritual and metaphor. In his essay *On the Relevance of Sacred Architecture Today*<sup>2</sup> he continues by saying that the idea

<sup>2</sup> Paul Goldberger, "On the Relevance of Sacred Architecture Today", in *Constructing the Ineffable: Contemporary Sacred Architecture*, ed. Karla Britton (New Haven: Yale University Press, 2011), 224.

of space was to abstract an idea historically, but now, with the support of modernist architecture work, we can use the idea of space which is not logical.

A place or object used by the Catholic Church, in most cases, goes through the process of sacralizing, which makes it holy through prayers and ritual. These objects or spaces act as symbols for the church and all people to reflect on, with the intent to point to a higher existence. The very act implies a sacred quality to the object. Christine Macy's thesis is a study of two parishes in San Francisco, with a clear intent to understand the community created by the institution and how its architecture facilitates this community. Macy talks about the symbol as being an object that is only understood by very few people. "A symbol does not have to be understood or experienced continuously to be effective, this in fact diminishes its strength and reduces it to an analogy; when accepted" Macy continues by quoting Mircea Eliade in *Patterns in Comparative Religion*: "it makes the human being one with the cosmos and the community to which he belongs."<sup>3</sup> This can be applied to the building, especially the church, and its built up components as a series of symbols compiled to depict the sacred. We can then assume that, even though the church has gone through a process of clear desacralization, this will strip the sacred meaning of the building away from only the few who were able to interpret the symbol in the first place. And for the majority who are left over, the symbol remains as a marker towards the sublime or unknown. As Juhani Pallasmaa suggests, it is not only the ritual that signifies a space as sacred, yet even in the representations of explicit religious content, the actual experience of sacredness usually arises from the artistic qualities, emotions and associations, irrespective of canonical symbolization.<sup>4</sup>

In an interview with Clad Global, Peter Zumthor described the vision for the LACMA building in Los Angeles "You'll have this almost sacred, sublime kind of experience, but I would also like to accommodate the profane, the dirty, the normal, the everyday."<sup>5</sup> In

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3 Christine Macy, *How Community is Expressed in Place; Spatial Manifestations of Two Parishes* (Cambridge: Massachusetts Institute of Technology, 1985), 18.

4 Juhani Pallasmaa, "Light, Silence, and Spirituality in Architecture and Art" In *Transcending Architecture: Contemporary Views on Sacred Space*, ed. Julio Bermudez (Washington: Catholic University of America Press, 2015), 20.

5 Peter Zumthor and Magali Robathan, "Zumthor Explains Design for 'Sacred, Sublime and Profane' LA County Museum of Art," *Clad Global*, no. 1 (2016): 1.

this museum his intent was to combine a secular program with a sacred architecture. His elemental design combines the two by using the ground as a large dirty surface, almost as a large sand pit, but as you approach the building the museum sits on a pedestal of glass. The expansive interiors humble the viewer but also appeal to the smaller scale with the thin lines of the earthy interior walls. Zumthor goes so far as to compare it to an Inca temple.

As we've seen, the word "sacred" can be defined in several different ways. The most conventional and commonly used suggests something is "dedicated or set apart for the service or worship of a deity".<sup>6</sup> In Gretchen Buggeln's article, she divides the definition of the sacred between generic and particular. The distinction is that a particular sacred is one that refers directly to a specific religion or belief, conversely, a generic definition of sacred is one that does not clearly depict a recognizable image but is a symbol that is intended to evoke a sense of sacred. Buggeln's essay breaks down the "tradition of museum architecture that tacitly or deliberately creates spaces that are impressive, challenging, tranquil, and sublime—spaces that intend to evoke the sacred." The definitions are not necessarily dichotomous, but can have different meanings to a variety of people.

After spending a few emotionally exhausting hours crawling our way through the three dark and crowded floors of the permanent installation, we passed some time sitting in silence in the vast, open, light space of the Hall of Remembrance. The other visitors in that space at the time were similarly respectful and contemplative. This space felt sacred, rendered so by the weight of human tragedy and the promise of hope, as well as by the lofty and luminous architecture and a verse from Genesis inscribed on the wall.<sup>7</sup>

The widespread examples of different programmatic buildings ranging from religious, memorials, and museums being described as sacred in Karla Britton's *Constructing the Ineffable: Contemporary Sacred Architecture* is an example of the numerous definitions of sacred that can be made. This begs the question, how did the generically sacred buildings achieve this title? Furthermore, architect Mario Botta, as summarized by Michael Lang in *What Makes Architecture "Sacred,"* states,

In a lecture given at Zurich a few years ago. Botta observes that buildings have the capacity of communicating "Values" that transcend their proper function. One such value is the sacred, which he describes as the realization of a connection that leads us beyond the technical or functional aspects of a building and allows us to recall an experience of a

<sup>6</sup> Gretchen T Buggeln, "Museum Space and the Experience of the Sacred" in *Material Religion* (Indiana: Valparaiso University, 2012), 8: 33.

<sup>7</sup> *Ibid.*, 33.

reality that transcends what is immediately perceptible to the sense.<sup>8</sup>

One example of this, although its program is still a religious one, is Steven Holl's Chapel of St. Ignatius in Seattle. It would be hard to find someone who would not describe this space as sacred. Although the original intent of the space was to be specifically Catholic, it is now used by Muslims, Buddhists and various Christian groups. The space has a similar effect on all of these groups, including the Catholics, and I would argue that the space feels sacred to each group. To push this one step further, the building may have the same effect on a person who is completely non-religious. At the very least, the experience would not be an ordinary one.

Thomas H. Beeby's chapter in *Constructing the Ineffable* compares Mies van der Rohe's work to Rudolf Schwarz's reading of the sacred in his book *The Church Incarnate*. Beeby's chapter called "Rudolf Schwarz and Mies van der Rohe: The form of the Spirit," gives a clear interpretation of what is sacred, using Romantic paintings as an illustration. His interpretation of these paintings, and more specifically Caspar Friedrich's painting shown in figure 8, is that the painter uses great detail to paint the foreground of the image, giving the viewer a clear understanding of the subject. Friedrich uses the same care with the distant image of the "sacred landscape" beyond giving the viewer a picture of where the wanderer is headed. But the interesting portion of the painting is in the middle ground, where he glosses over the path the wanderer must take, leaving it up to the viewer to interpret the path.<sup>9</sup> But as you examine the painting, you can conclude that there are actually three levels of clarity rather than two, as Beeby would suggest. The foreground is the most detailed by far and the middle ground the least detailed, but the "sacred landscape," Beeby describes, fits somewhere in between. Beeby would suggest that in order to symbolize the sacred we must present a clear picture of the world and the sacred landscape we seek, while leaving the pathway towards the known up for interpretation. In order to suggest any notion of the sacred, we cannot speculate on the unknown sacred landscape beyond. We must, through architecture, leave the path and goal up for interpretation. We must create a canvas to inspire thought and contemplation.

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8 Michael Lang, "What Makes Architecture "Sacred"?" *Logos: A Journal of Catholic Thought and Culture*, (2014): 17:4:47.

9 Thomas H Beeby, "Rudolf Schwarz and Mies Van Der Rohe: The Form of the Spirit" In *Constructing the Ineffable*, ed. Karla Britton (New Haven: Yale School of Architecture, 2010), 95.

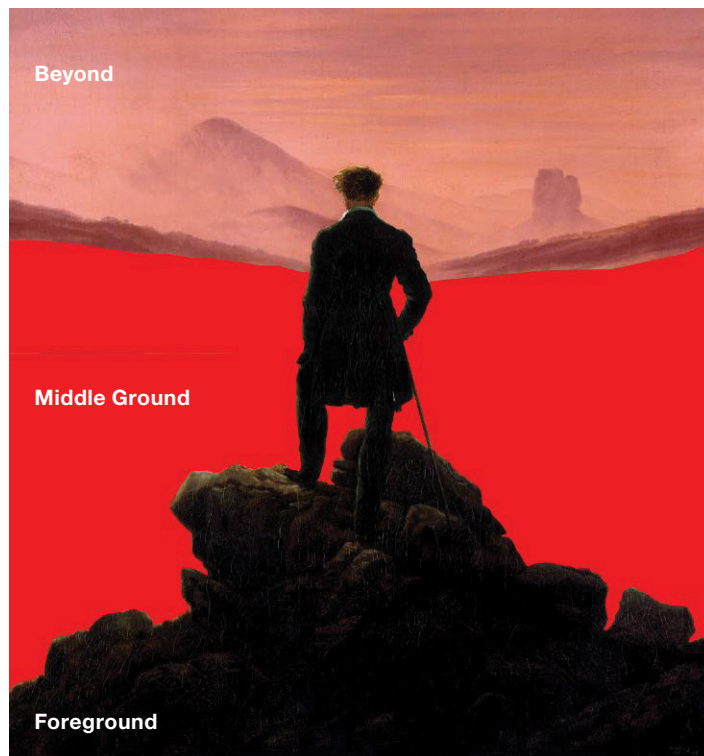
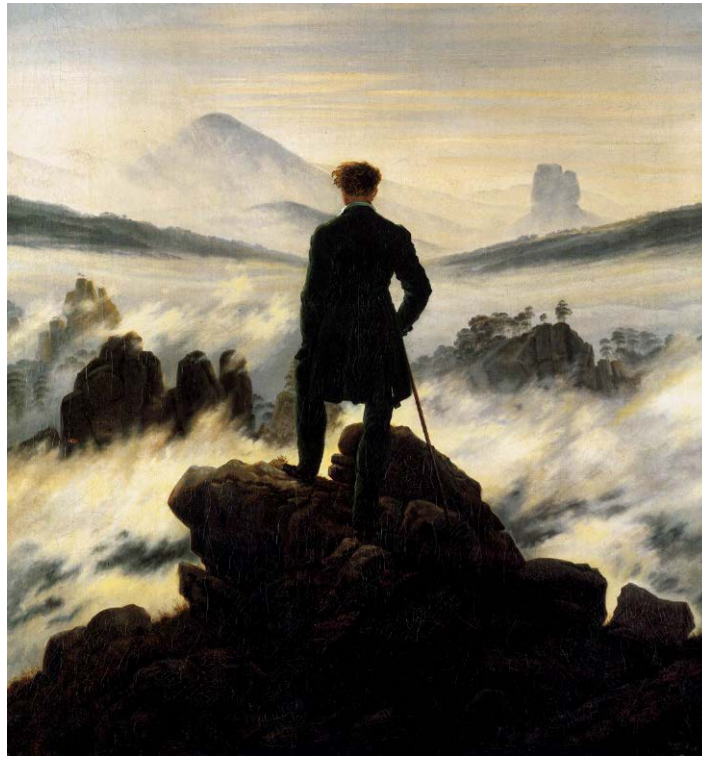


Figure 8: Caspar David Friedrich, *Der Wanderer über dem Nebelmeer*, 1818, *Received from Constructing the Ineffable*, 95.



Furthermore, Moshe Safdie's essay *The Architecture of Memory: Seeking the Sacred* describes his many examples of architecture that call forth the sacred and elaborates that "Architecture, on the other hand, comprises the sacred places of worship, culture and government through which we aim for the sublime."<sup>10</sup> Safdie does not subject the word "sacred" to one definition, or a religious symbol, but rather extends it into society and culture.

In the same book which Moshe Safdie describes his architecture of memory, Steven Holl explores his buildings from the point of view of the *Theistic-Polytheistic-Non-Theistic*. He discusses how his buildings all share similar qualities expressed through light. "Where questions of perception at first was the basis of the Chapel of St. Ignatius (a theistic building), the same themes have proven to be successful for many of our secular projects, which often have sacred spaces infused by light." He later continues by concluding, "The examples here move from Theistic to Polytheistic to Non-Theistic, while the sense of sacred space can be uniquely and individually experienced."<sup>11</sup>

Finally, Paul Goldberger summarizes the argument for a secular sacred architecture in his concluding essay in *Constructing the Ineffable*,

The ability of architecture to create the sacred, and not merely to enclose it, so to speak that is to say, the ability of architecture to create a sense of awe, regardless of whether one comes to it with the rituals of religious practice in mind is borne out, paradoxically, by non-religious buildings since they are places to which no one brings an expectation for ritual or a predisposition to religious experience. Where in the realm of sacred space are we to place, say, Jefferson's Lawn at the University of Virginia, or Sir John Soane's Breakfast Room, or the Farnsworth House? There, architecture is transcendent, as surely as in the chapels of Tadao Ando.<sup>12</sup>

### ***A Need for the Sacred***

Sacred space plays a large role in shaping today's culture, and has an effect on a wide range of societies, demographics and cultural experiences. These descriptions of the "sacred" have very similar characteristics to the impact that art can have on a viewer. A

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10 Moshe Safdie, "The Architecture of Memory: Seeking the Sacred", in *Constructing the Ineffable: Contemporary Sacred Architecture*, ed. Karla Britton (New Haven: Yale School of Architecture, 2010), 193.

11 Steven Holl, "Theistic-Polytheistic-Non-Theistic" in *Constructing the Ineffable: Contemporary Sacred Architecture*, ed. Karla Britton (New Haven: Yale University Press, 2011), 190-191.

12 Goldberger, *On the Relevance of Sacred Architecture Today*, 228.

piece of art requires that the reader slow down and translate or interpret what is meant, simultaneously prompting thought of one's self existence or meaning. The architect Juhani Pallasmaa compares art to architecture that produces transcending qualities. In his chapter *Light, Silence, and Spirituality in Architecture and Art* he states that "a profound piece of art is always about something other than its apparent subject matter or physical essence."<sup>13</sup> The difference between art and architecture, is that architecture has the task of presenting a physical reality. Architecture deals with the atmospheric qualities in a building but must also address the function. This gives architecture the ability to provide a service, which may also be considered "sacred". As Bermudez states, "architecture pursuing goodness (eg., social justice, human dignity) probably could be considered "sacred" despite its imminent goal, service or deployment."<sup>14</sup> He continues to reiterate in his introduction,

We only have to look at our world obsessed with speed, consumerism, technology, entertainment, and economic growth...to realize the value and timing of an architecture that transcends.<sup>15</sup>

In today's busy world, we often don't get a chance to slow down and think, which sacred architecture can provide. With the decline of organized religion we are losing the opportunity to think or question, and we are losing the built environment that can provoke thought. It is important that we preserve these environments, and give the opportunity for the public to rediscover these spaces.

## **Catholic Typology**

The first analysis is specific to the Catholic church, and how the architecture defines the space as sacred. Again, I will make the distinction between a sacred object and sacred space; with the latter as the particular interest here. The Catholic church is one of the most decorated of all religions, when it comes to sacred objects. With a long history of pilgrimages, crusades and collections of symbols that represent their religion. Arguably as much effort is placed in creating an architecture to match the importance of these sacred objects. This can be seen in the impressive scale and detail placed into the thousands

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13 Pallasmaa, *Light, Silence, and Spirituality in Architecture and Art*, 22.

14 Julio Bermudez, *Transcending Architecture : Contemporary Views on Sacred Space* (Washington: Catholic University of America Press, 2015), 4.

15 Ibid., 17.



of Catholic cathedrals across the West. There is no exception to this rule in Montreal's cathedrals. This section of the chapter is dedicated to understanding the architecture of these buildings, and how architecture qualifies them as sacred.

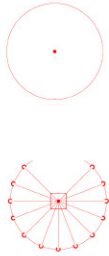
For this analysis I primarily use Rudolf Schwarz's *The Church Incarnate* where he structures his book by dividing it into chapters, each describing a particular part of the architecture as sacred. He begins with a chapter on the "Sacred Inwardness" and ends by summarizing and combining each of the six sacred forms in his last chapter titled "The Cathedral of All Times." In order to understand these architectural forms further I have simplified each by diagramming the architectural elements that imply the sacred. Beginning with the center, or origin, which comes from his first plan titled "Sacred Inwardness: The Ring." This chapter emphasizes the form of the circle and the familiar and common shape that it implies. His specific symbol in this chapter is the altar and that the people stand in a ring around a common idea. Schwarz describes this space created by the people and plan as "sacred abundance".<sup>16</sup> The second plan is then titled "Sacred Parting: The Open Ring." Again in this plan there is a circle created by the people gathering with a common cause. The the circle is now opened, creating a semicircle, "meant to weave into a unity inwardness and remoteness, a sheltering and an opening up, existence and way, and it is meant to open up a space into the infinite."<sup>17</sup> This opening implies a direction and visual connection in the distance, to the infinite, but the beginning or end of that direction starts at the center where the axis crosses. Schwarz goes on to describe this as a window "into a great archway and constructed behind it a series of arches of ever-decreasing diameter."<sup>18</sup> He also creates an image of pointing into the infinite which can be similarly compared to Friedrich's painting of the wanderer pointing to the sacred landscape in the distance. The next chapter describes the Third plan as "Sacred Parting: The Chalice of Light" which emphasize the vertical elements of the architecture. This is seen in the dome which sits on top of the circle formed in the first chapter; this dome is representative of summoning, sheltering, and directing. Rather than pointing towards the horizon it points towards something that is unreachable and not part of this world.

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16 Rudolf Schwarz, *The Church Incarnate; the Sacred Function of Christian Architecture* (United States, 1958), 35.

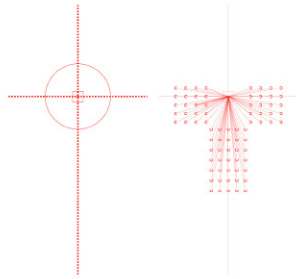
17 Ibid., 68.

18 Ibid., 85.



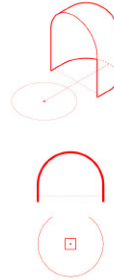
**Center Origin**

Inward Facing  
Altar  
Destination



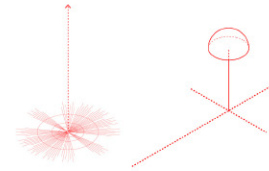
**Axis**

Visual Connection  
Journey  
Pull  
Allows both individual  
+ Public Worship  
"We must, as it  
were, be able to see  
through the building  
to the source of this  
blessed end"



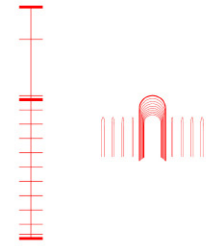
**Void**

Dwelling in Emptiness  
Not Accessible  
Other World  
End of Procession



**Vertical Axis**

Summoning + Sheltering  
Points Attention Upwards



**Arcade**

Portal  
Gateway w/o Blocking  
Passage

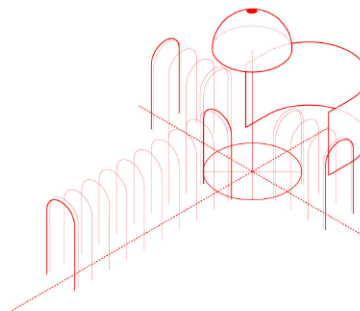


Figure 9: The Cathedral of All Times  
Received in part from *The Church Incarnate*  
by Rudolf Schwarz

The fourth plan implies movement in Schwarz's chapter, "Sacred Journey: The way."

The way-form has no real, continuing space. Its net-like structure interlaces a world which is travelled and yet not experienced, which completely loses itself in the uncertain...It en girdles the sacred way with the fence work of piers which then intertwine the form the network of the vaulting...At the same time the vaulting represents the world through which the procession is journeying, since, for the train, this world is a path and gateway, too.<sup>19</sup>

Schwarz suggests that procession is a necessary part of the sacred journey and at the end of the journey there is nothing which leads into the next plan "The Sacred Cast: The Darkest Chalice." Just as quick as the journey began it ends in a void that casts the viewer back into the world. Schwarz suggests that end of the journey also incites the beginning, with the return of the semi-circle plan projecting the journey out towards the world. The sixth plan, "Sacred Universe: The dome of Light," once again suggests a vertical axis as explained earlier; "It preserves the moment of epiphany as a memory and as a pledge up until the final day when the eternal city will come down to earth."<sup>20</sup> All of these earlier plans combine to create the seventh plan, "The Cathedral of All Times: The Whole." The book ends with a question of whether or not the sacred can be measurable. Schwarz summarizes that these seven forms act as a method of accomplishing the sacred and they can be studied with much greater detail.<sup>21</sup> Schwarz's breakdown of the Catholic cathedral has similarities to a more generic secular architecture and links can be made between the two.

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19 Schwarz, *The Church Incarnate; the Sacred Function of Christian Architecture*, 35.

20 Ibid., 185.

21 Ibid., 226.

## CHAPTER 2: TOPIC

### Qualities of Sacred Architecture

Because of the nature of this thesis, and the superposition of two seemingly opposing elements, it was clear that I needed to create a framework to define which architectural qualities and principles constitute a sacred space. Through research and architectural examples, I composed the framework into three categories as shown in Figure 10. The architectural, programmatic and processional. First are the architectural elements, light, silence, void and scale; these can then be applied to, the programmatic: an individual or communal room. A space designated for an individual or more private program has differing uses of these architectural elements than a space intended for gathering. Finally, the transition between these spaces, and the order in which they are experienced, creates a procession which must be specifically designed in a space meant to evoke the sacred. As the sacred can be experienced in many different ways, it would be impossible to calculate the exact formula for what defines a sacred architecture. However, through readings and study of previous architectural work I was able to find consistencies and overlap between the architecture and atmospheres that evokes thought, prayer and meditation.

#### *Procession*

The transition between the world and a sacred space emphasizes the threshold. This procession or journey does not start in the building but begins at the street, which represents the world. The threshold, or door, into the space represents a heavy or clear separation from this world. Botta describes the procession of his sacred spaces with the idea of threshold as a the key point of transition from the normal world to another world or dimension.

One can well see the close relationship that exists between a secular space - let's say: the rest of the world – and the ecclesiastic dimension, therefore internal, that brings with it a whole series of elements: the “ecclesia” entails the idea of the threshold – you must enter in this space – the threshold as a moment of transition between two realities.<sup>22</sup>

Another example of this is the separation that Eero Saarinen's MIT chapel has from the rest of the campus. First it is surrounded by water as a permanent separation but there is

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<sup>22</sup> Mario Botta, “Mario Botta: To Be an Architect: Sacred Architecture” (Switzerland, Università della Svizzera Italiana, 2018): 1.

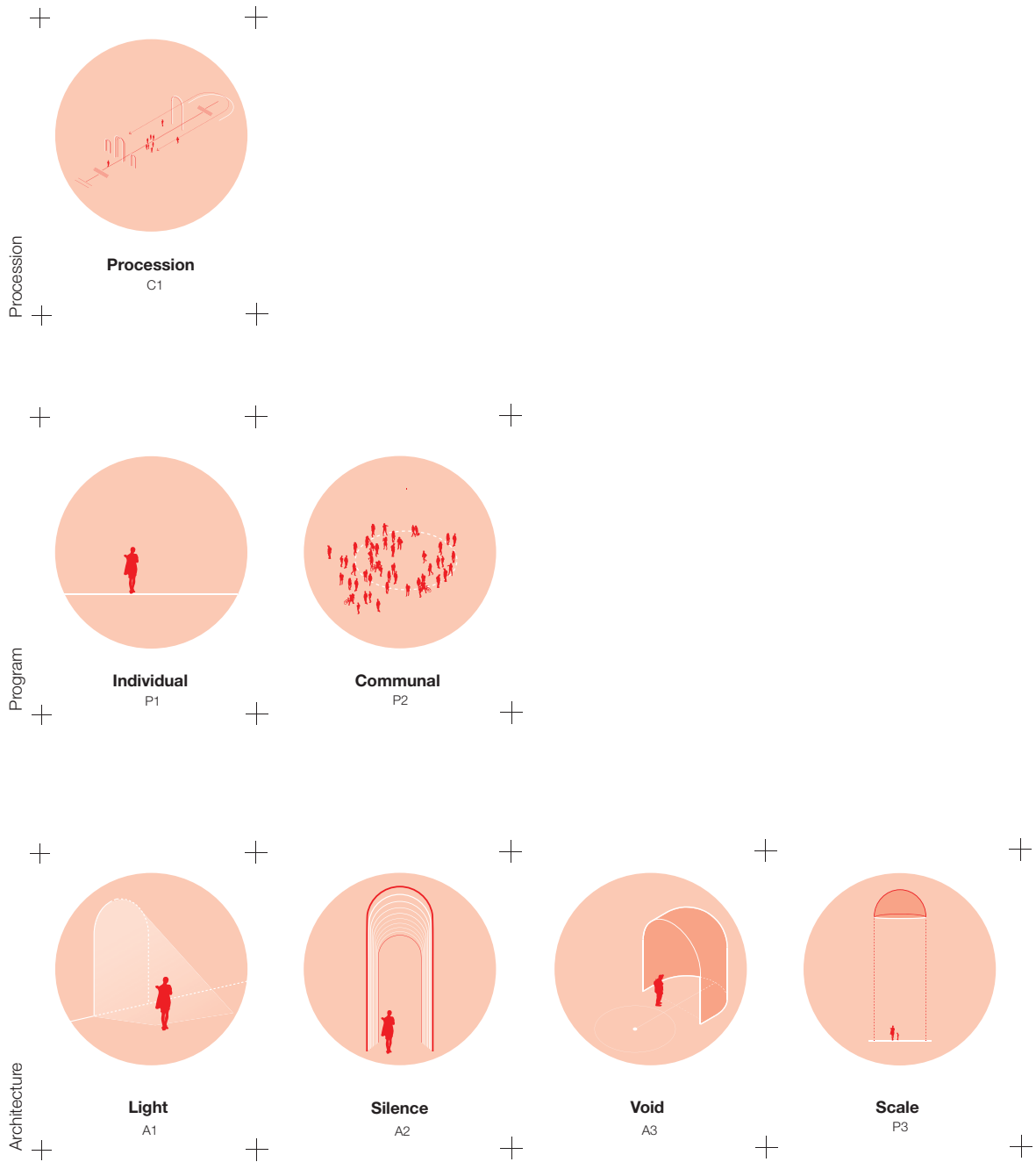
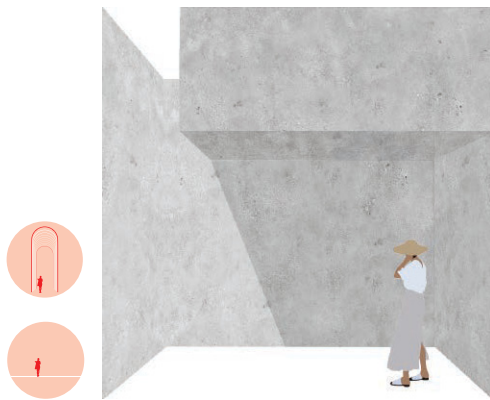


Figure 10: Qualities of Sacred Architecture Framework



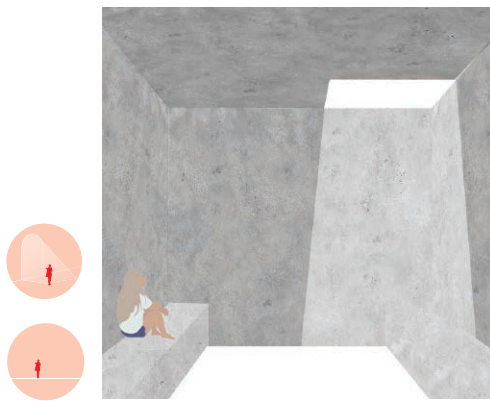
**Individual + Void**  
P1 A3

Framed  
·  
Unknown  
Space



**Individual + Silence**  
P1 A2

Refuge  
·  
Eliminate  
Distractions



**Individual + Light**  
P1 A1

Figure 11: Qualities of sacred architecture (Individual)



**Communal + Void**  
P2 A3

Large  
·  
Inbetween  
Space  
·  
Unreachable



**Communal + Silence**  
P2 A2

Horizontal  
·  
Rhythm  
·  
Repetition



**Communal + Light**  
P2 A1

Figure 12: Qualities of sacred architecture (Communal)

a bridge that marks the transition from one place into the next. Complimentary to this Erik Gunnar Asplund's Woodland Chapel begins with an approach through a wooded forest which acts as a cleansing and humbling experience. Once again there is a threshold past the split wall and through the iron door into the bright chapel.

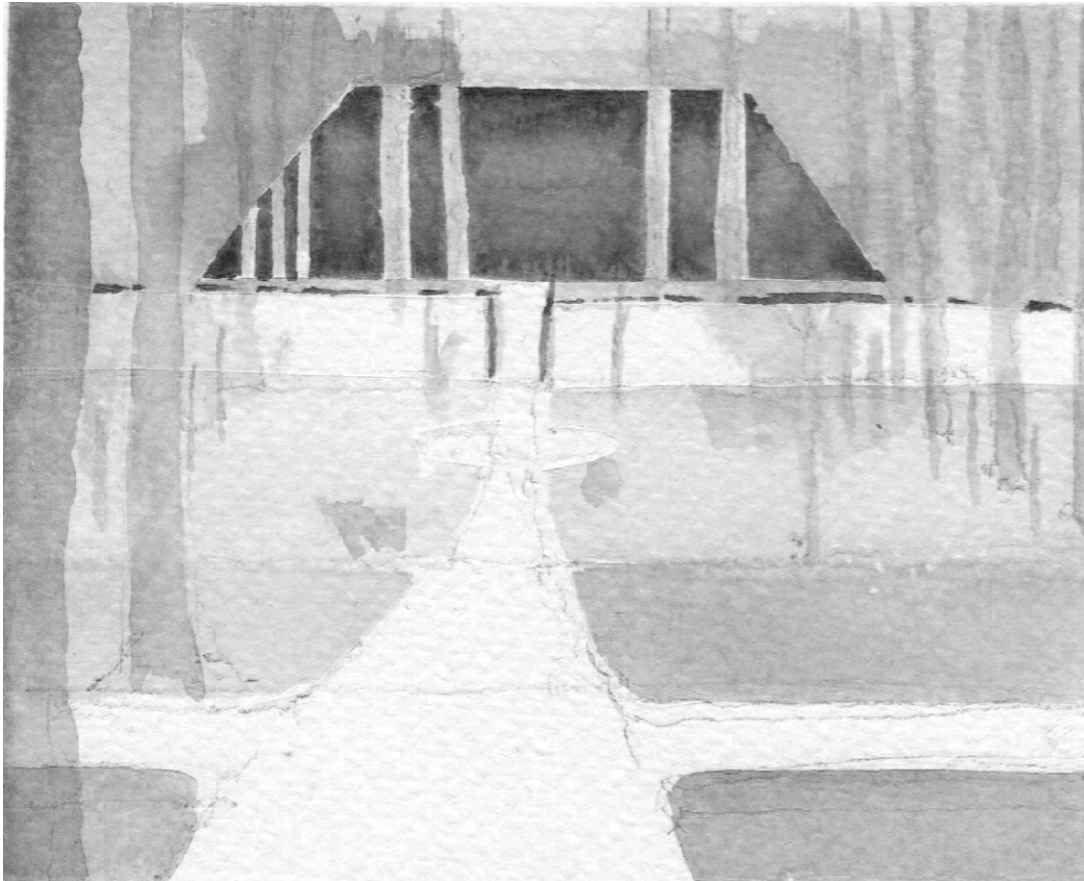


Figure 13: *Procession*

Watercolour painting of:  
Woodland Chapel by  
Erik Gunnar Asplund

Description: Landscape,  
Forest and Clearing, Quiet,  
Healing, Approach, Threshold



### ***Individual vs Communal***

There is a clear difference between a space intended for communal gathering and a space used for individual thought. David Adjaye uses the metaphor of the chamber as opposed to the tent.<sup>23</sup> This is emphasized with Saarinen's distinct difference in his MIT Campus between the auditorium and the chapel. The auditorium is a place of gathering and discussion, "the tent," and the chapel is a place of intimacy and the inner world, "the chamber." This difference can be further defined as public and private spaces, and through my research I have found that these spaces are treated differently when pertaining to sacred architecture. For example, at Rudolf Reitermanns and Peter Sassenroths Chapel of Reconciliation in Berlin, the intimate space is protected by the ambulatory space that surrounds it. These two spaces compliment each other but are vastly different; the one is a diffused rhythmic space and the other is an enclosed refuge with a singular void as the source of daylight similar to Saarinen's chapel. From here on I will separate the architectural elements between individual and communal to understand each further.

### ***Light***

The reason for beginning with an analysis of light as a sacred architectural element, is because of its ability to define a space's mood through the addition or subtraction of natural light and its articulation of spaces. Pallasmaa connects light to a dimension other than our own, "Natural light connects us with cosmic dimensions and brings life into architecture."<sup>24</sup> He later goes on to talk about the power of one lit candle in a space and notes how Gaston Bachelard wrote an entire book on the light of the candle. Pallasmaa continues by stating that light is a material thing and how James Turrell holds the light for our physical senses. Pallasmaa goes so far as to say that "Light controls the processes of life and even many essential hormonal activities depend on light. As a consequence, it has a deep effect on our activeness and energy level in addition to conditioning our mood."<sup>25</sup>

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23 David Adjaye, "Featured Video: David Adjaye's Appreciation of the Mit Chapel," *States News Service* (Cambridge), December 19, 2016.

24 Pallasmaa, *Light, Silence, and Spirituality in Architecture and Art*, 23.

25 *Ibid.*, 23.



Figure 14: *Individual and Communal*

Watercolour painting of:  
MIT Campus by Eero  
Saarinen

Description: Chamber and Tent,  
Gathering and Singular,  
Open and Closed, Public and Private



Figure 15: The Education of a Virgin by Harry N. Abrams, 1996  
 Retrieved from: Art in The Frick Collection: Paintings, Sculpture,  
 Decorative Arts, New York.

### *Individual Light*

The conditioning of light in an intimate space when it comes to the sacred should demand focus from the viewer. Pallasmaa writes that light “directs our movements and attention creating hierarchies and points of foci and importance.”<sup>26</sup> This ‘foci’ can be seen in architecture such as Saarinen’s MIT Chapel where the hanging sculpture holds the light for the viewer to look at, or in Peter Zumthor’s Bruder Klaus chapel where the light pulls your focus upwards. In Figure 15 ‘The Education of a Virgin’ by Georges de La Tour the use of one focused light creates a hierarchy of attention and “creates an air of significance and holiness”<sup>27</sup> Georges paintings describes the same qualities that Max Picard writes in his book dedicated to the light of a single candle. In order for there to be a direct singular light it requires the rest of the room to be dark. For an individual space to evoke the sacred it must first be filled with darkness; this darkness should support the light vessel in order to direct our attention on the light rather than the rest of the world.

<sup>26</sup> Pallasmaa, *Light, Silence, and Spirituality in Architecture and Art*, 24.

<sup>27</sup> *Ibid.*, 24

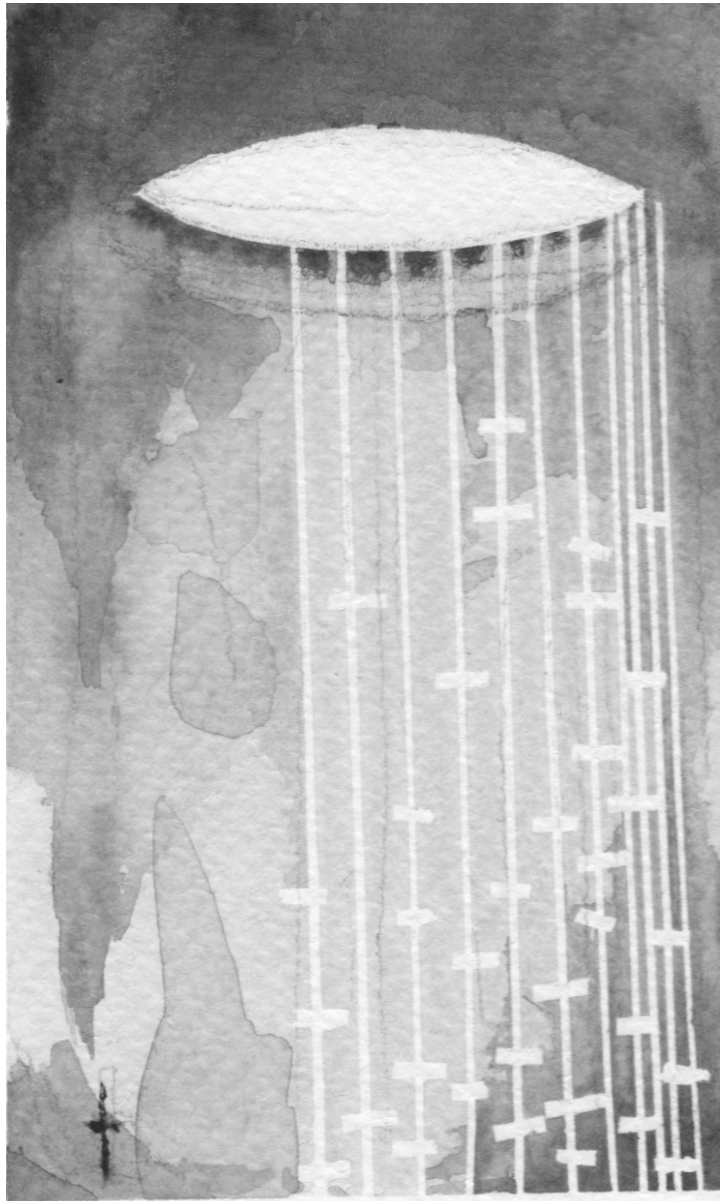


Figure 16: *Individual Light*

Watercolour painting of:  
MIT Chapel by Eero  
Saarinen, 1955

Description: Vessel, Closed  
Chamber, Inner, Focused,  
Singular, Darkness

### *Communal Light*

A communal space meant for thought and discussion of the sacred, share some of the light qualities described in an individual space. But contrary to light in an intimate space, a communal light should not be singularly direct but rather multidirectional, to almost dematerialize the space. As seen in Yad Vashem's Holocaust Museum reception building where the light falls through the skylights and trellis. This dispersed light creates a sense of mystery and aura posing a question to the viewer. In Holl's essay on Theistic and Non-Theistic buildings he describes his Nelson Atkin's Museum as a cloud like building. Having earlier suggested that this space has a sense of the sacred, he goes on to describe the light as being "mysterious, without a beginning, without an end... without an absolutely defined direction."<sup>28</sup> Le Corbusier's Chapel at Ronchamp is another example of a communal space filled with multidirectional light emphasizing the sculptured interior walls as seen in Figure 17.

Schwarz begins to define the rules of what type of light creates a sacred space relating it back to the axis he talked about earlier in his book. The planar view that one has at the entry of a sacred space should not have any windows looking directly out of the building, as it "would distract from the inwardness of the building: through the windows the sun would shine in, whereas the true meaning of this plan is the ultimate presence of light."<sup>29</sup> Although Schwarz is talking about a specific type of religion his analysis of light is similar to other analyses of light for sacred architecture, for instance Pallasmaa's summary of Louis Kahn's light as the "giver of all presence" and how Turrell's holds the light for the audience. In Andrea Piotrowski's *Architecture of Thought* he analyzes the old Byzantine churches and their effect on anyone entering the space. He talks about the chapels having the ability to hold light by using the material and the depth of the gallery spaces above. "The building appears to have been deliberately designed to do exactly that: to capture, condense, and hold daylight."<sup>30</sup> Piotrowski goes into further detail in how Hosios Loukas is able to distribute light and hold it without revealing how it did this.

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<sup>28</sup> Holl, *Theistic-Polytheistic-Non-Theistic*, 190.

<sup>29</sup> Schwarz, *The Church Incarnate; the Sacred Function of Christian Architecture*, 157.

<sup>30</sup> Andrzej Piotrowski, *Architecture of Thought* (Minneapolis: University Of Minnesota Press, 2011), 14.





Figure 17: Communal *Light*

Watercolour painting of:  
Chapelle Notre Dame Du Haut  
by Le Corbusier, 1954

Description: Sculptured,  
Mysterious, Heavy, Darkness,  
Rich Illumination

Light-colored and matte surfaces reflect a high percentage of light energy, but in the process of doing so they appear bright. In Hosios Loukas these surfaces were hidden from the view of a person standing in the naos and even from a person on the gallery level looking across the naos. Beams of direct sunlight entering via the gap windows would hit these lighter surfaces or move across them during the day and the high percentage of their light energy would be evenly dispersed in the space of the galleries. Surfaces above vertical walls and vaulted ceilings were painted with colors resembling polished stones. Due to their finishes, they also bounced a lot of light energy back into space, but they operated like imperfect mirrors their smooth surfaces reflected speckled light without appearing bright.<sup>31</sup>

The gallery spaces act as a vessel to distribute the light into the glowing nave and provide a depth and void in which the light can sit. He also says how in these spaces “unfiltered or direct sunlight could never reach the floor” and how “light represented divine qualities because the presence of light is revealed only as an after effect we do not see the light, but only the way it transforms materials.”<sup>32</sup>

### **Silence**

We cannot talk about silence without mentioning noise which is the destruction of silence. Max Picard talks about how “noise is manufactured in the city, just as goods are manufactured.”<sup>33</sup> Within the city, fragments of silence still remain, glimpses can still be found during the night or early morning, but during the day the church is a place of refuge from the destructive noise, by providing a sanctuary of silence. This is an important tool to maintain in the building even if it is only in glimpses, these refuges from the city are necessary.

Nothing has changed the nature of man so much as the loss of silence...Man did not need to know everything; the silence knew it all for him. And as man was connected with the silence, he knew many things through the silence. “In silence” we are confronted once again by the original beginning of all things: everything can begin again, everything can be re-created.<sup>34</sup>

A busy and loud world only allows us to listen to our exterior experiences and things that are happening around us. The presence of silence allows us to listen to ourselves and place our attention onto our own existence.<sup>35</sup> This is evident in the action of prayer in

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31 Piotrowski, *Architecture of Thought*, 15.

32 Ibid., 16.

33 Max Picard, *The World of Silence* (Chicago: H. Regnery, 1952), 210.

34 Ibid., 145.

35 Pallasmaa, *Light, Silence, and Spirituality in Architecture and Art*, 29.

many religions. Our attention is focused away from worldly things to thoughts which can not be seen or heard. “Whenever we are struck by a profound piece of art, architecture, painting, or music, the work silences us and we find ourselves listening to our own existence.”<sup>36</sup>

### *Individual Silence*

When describing silent architecture in a private setting the emphasis is on eliminating distractions and directing attention on ourselves. This also suggests being in an enclosed space safeguarding ourselves from the noise of the world. A literal translation could use walls that surround the viewer in order to protect against distraction. This can be seen in Luis Barragan’s house where the courtyard protects from the busy world and focuses attention inwards as seen in Figure 18. Another example of silence can be seen in Peter Zumthor’s Thermal Baths where he creates pockets of refuge within the larger space, forcing the user to listen to themselves.



Figure 18: Terrace Casa Luis Barragan, 1947  
Retrieved from <http://www.casaluisbarragan.org/lacasa/terraza.html>

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36 Pallasmaa, *Light, Silence, and Spirituality in Architecture and Art*, 29.



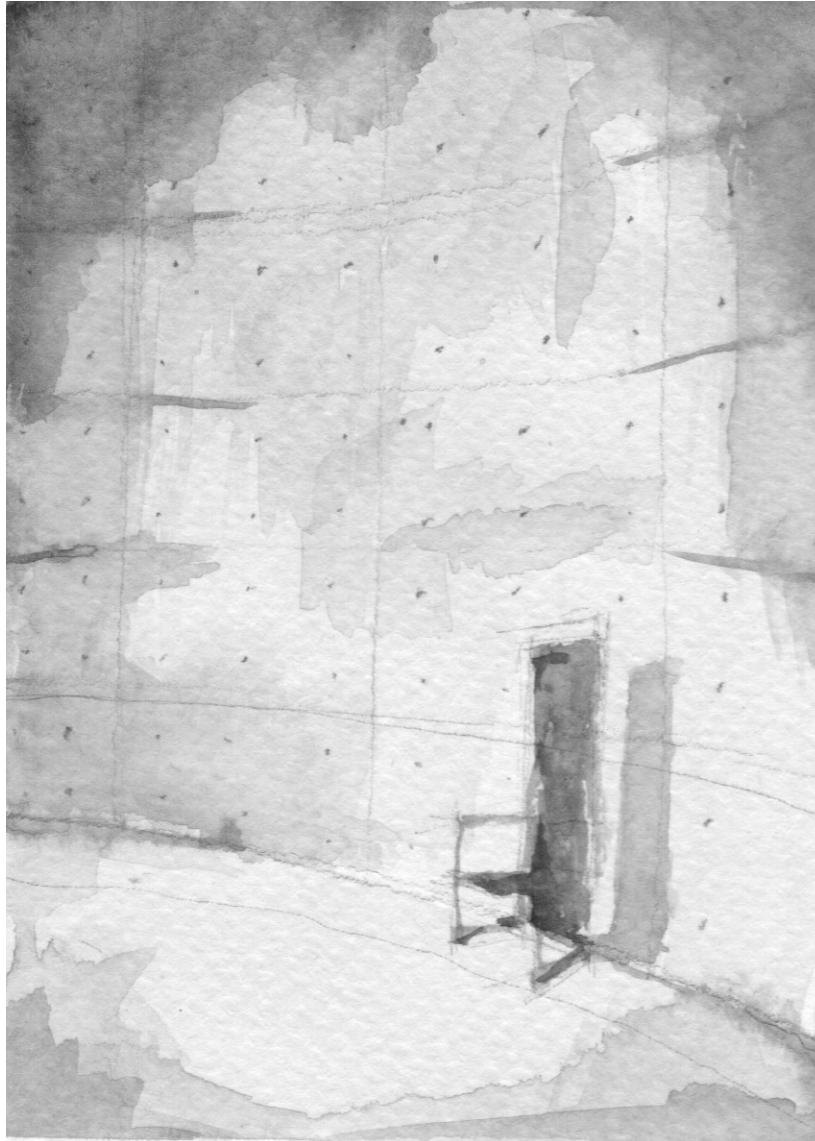


Figure 19: Individual *Silence*

Watercolour painting of:  
Meditation Space Unesco  
by Tadao Ando, 1941

Description: Receptacle,  
Refuge, Closed, Awareness  
of Surroundings

### *Communal Silence*

In an interview, Peter Zumthor describes different kinds of silence and he talks about the “anonymous sound” of a city, where it is also possible to find calm in “a protective ocean of sound.”<sup>37</sup> Picard suggests, in the presence of the Greek temples “wandering amongst the Greek pillars is a wandering in a radiant silence”<sup>38</sup> This last example of the Greek colonnades suggests repetition just as Schwarz talks about when describing the arcades of catholic cathedrals. Picard makes the comparison between ivy growing slowly on a wall to the cathedrals being built around silence.<sup>39</sup> Finally, the forest being a sink for silence is another suggestion towards repetition that Picard describes.<sup>40</sup> The use of repetition, void, scale and material can all contribute to the forming of silence in architecture and therefore point our attention away from worldly physical thoughts and create a “protective ocean of sound” in which to concentrate. This can be clearly seen in Rafael Moneo’s Museum of Roman Art in Merida, Spain shown in Figure 20. His rhythmic and ordered arcade creates a full silence in which to concentrate on the art and the space.

### **Void**

When I speak about void I am referring to space that is unoccupied by a physical object. It can however be occupied by light or the absence of light: darkness. In *Architecture of Thought*, Piotrowski talks about the mosaics in the Byzantine cathedrals but rather than discussing the subject of the artwork he refers to the empty space in front of the painting, as having a “magical presence”. He speaks of “the void space in front of the mosaic” as having “a quality that I have called non figurative representation” he continues “By simply being present in the church, a believer becomes a part of this “sacralized space.”<sup>41</sup> He distinctly refers to the space as being sacralized rather than the content of the mosaics themselves. Mario Botta describes light as the element that creates space, but it is the void that creates the spatial relationships. This void gives direction to the user and visually connecting the spaces allowing for interpretations, emotions and thought.

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37 Peter Zumthor, *Different Kinds of Silence*, Interviewed by Marc-Christoph Wagner (Louisiana: Museum of Modern Art), March 12, 2015.

38 Picard, *The World of Silence*, 161.

39 Ibid., 168.

40 Ibid., 139.

41 Piotrowski, *Architecture of Thought*, 9.



Figure 20: Communal *Silence*

Watercolour painting of:  
Museum of Roman Art by  
Rafael Moneo, 1986

Description: Rhythmic,  
Timeless, Simplicity,  
Ordered, Repetitive

*Individual Void*

The main difference between the void in an individual or communal sacred space is scale, and whether the void is apparent or hidden. This can be seen in Mario Botta's Church of San Giovanni where behind the altar Botta places a concave archway pointing and implying direction. Behind the archway a dark void is strategically placed to provoke thought or contemplation as seen in Figure 21. Again Botta does not create a sacred object but uses the architecture to create void space allowing for focused and directed thought. The element of void was also talked about in the fifth plan of Schwarz's interpretation of the Catholic Church. In Botta's church of San Giovanni he uses the material to almost detract all the light pointing at the altar and create total darkness in the void beyond. His use of pattern and material make it impossible for light to make its way to the void. An opposing approach is used by Steven Holl in his St. Ignatius Chapel where shafts create strategic voids filled with light held in the space.



Figure 20: Void at Church of San Giovanni, Mario Botta, 1996 Retrieved from *Prayers in Stone*, 42.



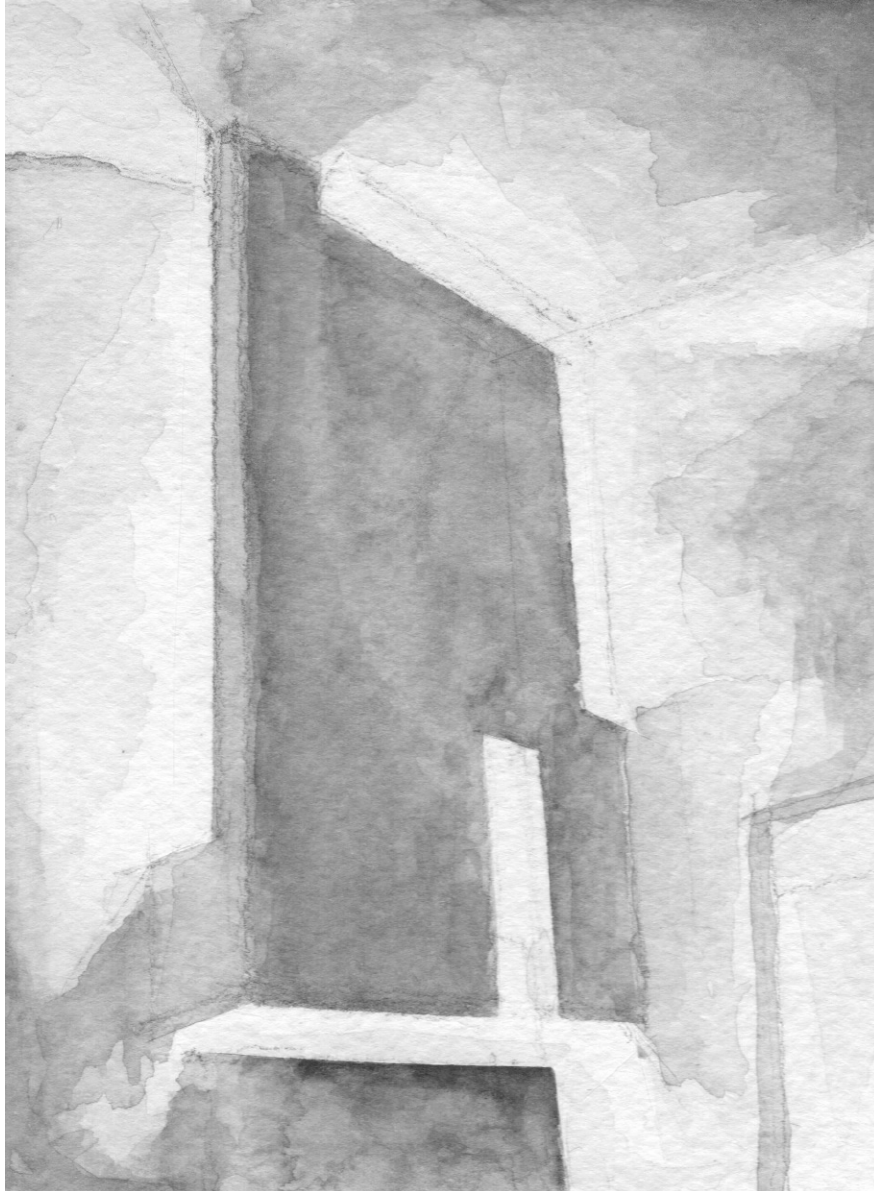


Figure 22: *Individual Void*

Watercolour painting of:  
St. Ignatius Chapel by  
Steven Holl, 1997

Description: Shaft,  
Emptiness, Volume,  
Baffle

### *Communal Void*

The scale of a void in a gathering space should be distinctly larger than that of a singular focused space. It should represent something beyond that is not reachable. It leaves room for interpretation from the viewer and contemplation. Tadao Ando's Church on the Water is an example of a sacred space using void as an architectural tool (See Figure 23). The chapel sits on the edge of an expansive body of water with a forest on the other side of the water. The space beyond is unreachable, and rather than the user focusing attention on the forest you end up thinking about yourself and the water between. Another example of void is the central clearing of the Woodland Chapel described by Rebecca Krinke, "as the symbolic "heart of the cemetery, and [the architects] elevated it above the site's periphery, creating a physical void where key elements of the cemetery emerge."<sup>42</sup> Similarly Freidrich's painting shown earlier, in Figure 8, suggests a void between the explorer and his destination which Beeby describes as sacred.

### **Scale**

Scale also has a role to play in defining a sacred space. Bermudez talks about scale in a sacred architecture and suggests that "Such an experience may arise, for example, from an exceptional atmospheric character of place or space, expressiveness of form, immensity of scale, intense materiality or color, or a transcendent illumination." The threshold between an intimate place and a larger space can also have an impact on the viewer. The transition from a large open space suddenly changing into an enclosed space can evoke an emotion and the same can happen in a reverse instance.

### *Individual Scale*

An individual space should have an emphasis on the vertical plane. This gives the person a clear sense of scale and understanding of their size within the space. Similar to an individual silence, an awareness of ones surroundings is important. This can be seen in Peter Zumthor's Bruder Klaus Chapel in Mechernich, Germany (See Figure 24). As you walk towards the chapel the open field is vast and large but as you transition into the chapel the space compresses on all sides. As you move into the chapel, the space grows

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<sup>42</sup> Rebecca Krinke, "Nature, Healing, and the Numinous," in *Constructing the Ineffable*, ed. Karla Britton, (New Haven: Yale School of Architecture, 2010), 50.



Figure 23: Communal Void

Watercolour painting of:  
Chapel on the Water by  
Tadao Ando, 1988

Description: Expansive,  
Constrained, Background





Figure 24: Individual Scale

Watercolour painting of:  
Bruder Klaus Chapel by  
Peter Zumthor, 2007

Description: Cavity,  
Vertical Shaft, Height

in height, giving the viewer a tall enclosed space in which to pray and think.

### *Communal Scale*

Alternatively the scale in a communal sacred space should humble anyone using the space. For this to happen the space must be stretched in both the vertical and horizontal directions. A grandiose space can suggest the building was constructed for something beyond the human scale. Le Corbusier could see this in his visit to the Acropolis where he suggests that the steps were not cut for humans but for something larger than himself.<sup>43</sup> A large space, whether empty or full of activity, gives room for one to think and wonder. An example can be seen in Eduardo Chillida's installation at Montana Tindaya shown in Figure 25. The installation carves a large void into the mountain with two openings allowing light into the space. Chillida suggests that the empty space will make someone feel the fullness of the space and the smallness of themselves.

### **Material**

Materiality has a role to play in sacred architecture, but cannot be simply narrowed down to a certain material which adds to the sacredness of the space. Rather the material should act as a support for the architectural elements explained above. An example of this is seen in the Byzantine chapel as Piotrowski describes the material as intentionally picked to benefit the light pouring into the gallery space. The white marble is placed on the floor and reflects the light on to the darker and textured marble of the ceiling and walls which disperse the light into the rest of the space. Material also supports the intention of silence in Moneo's museum where the small scale of the bricks create a constant uniform space. This allows the person to focus on the overall space rather than the individual pieces. One could say that the choice of material should reach a point of immaterial as to mold space and focus the attention off the individual elements and onto the light, silence, void and scale. This being said, authenticity is also important when choosing materials for such places. This can range from the precise use of concrete in Tadao Ando's Meditation Space to the hand plastered walls of Holl's St. Ignatius, or the unpredictable burning of the logs to mold the space in Zumthor's Bruder Klaus Chapel. All of these examples use the material to contribute to the atmosphere and space of the building.

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43 Julio Bermudez, "Le Corbusier at the Parthenon" In *Transcending Architecture: Contemporary Views on Sacred Space*, ed. Julio Bermudez (Washington: Catholic University of America Press, 2015), 100.

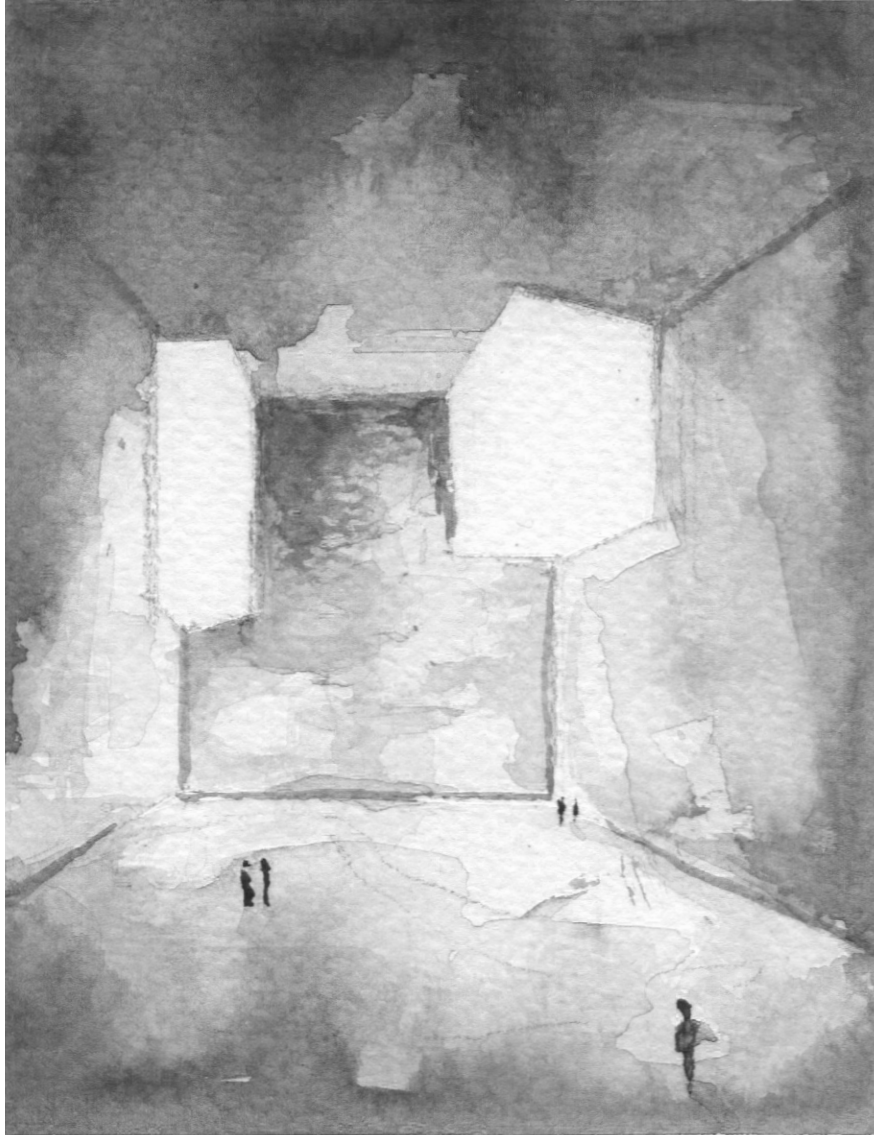


Figure 25: Communal Scale

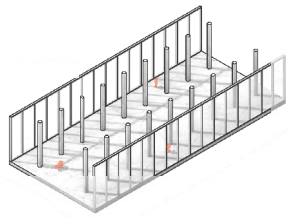
Watercolour painting of:  
Montana Tindaya Installation  
by Eduardo Chillida

Description: Empty,  
Fullness, Human Smallness,  
Grandiose

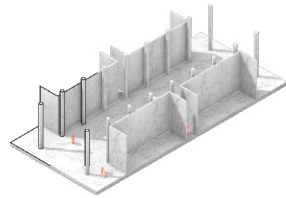
## Case Studies

Now that a definition of what can be considered sacred is set and a need for it has been established, we can begin to qualify the sacred into a set of criteria. A test has to be performed in order to understand how this has been dealt with previously. The case studies I have selected are limited to only previous church buildings that have been changed into a secular programs. I have set this by evaluating each case study using two criteria; criteria A, defines how well the building maintained the sacred architectural qualities talked about earlier and criteria B, sets up definitions of how the original space was either added to or subtracted from. Criteria B is divided into seven categories as seen in Figure 26. After applying both sets of criteria to the case studies, I was able to evaluate each by comparing the two criteria. I could then pair down the list by selecting case studies that fulfilled elements from both criteria A and B. The reason for choosing case studies that add or subtract a substantial amount was so I could start to analyze why they were successful at also fulfilling criteria A, while still adding a practical program into the space.

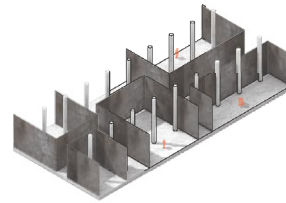
Three examples of the case studies that were successful in maintaining the sacred architectural qualities while still adding program and spaces into the churches can be seen in Figure 28, 29, and 30. One discovery was that they also maintained a sense of the whole in the churches that were successful. They did not overfill the space and lose the churches grandiosity. In Figure 31 an example of a church that lost the sacred qualities can be seen. It also loses the sense of the whole by adding large amounts of program in the center of the space.



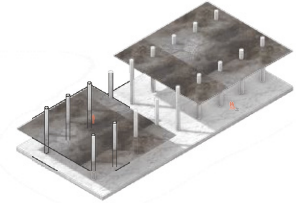
**Exposed**



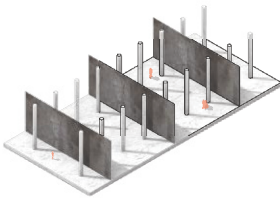
**Similar Materials**



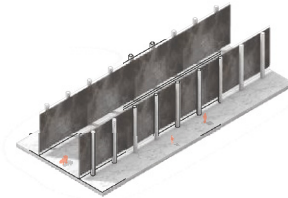
**Eliminating Void**



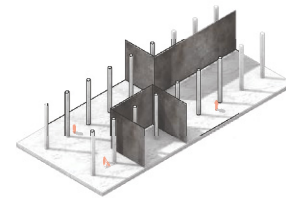
**Vertical Division**



**Transverse Division**



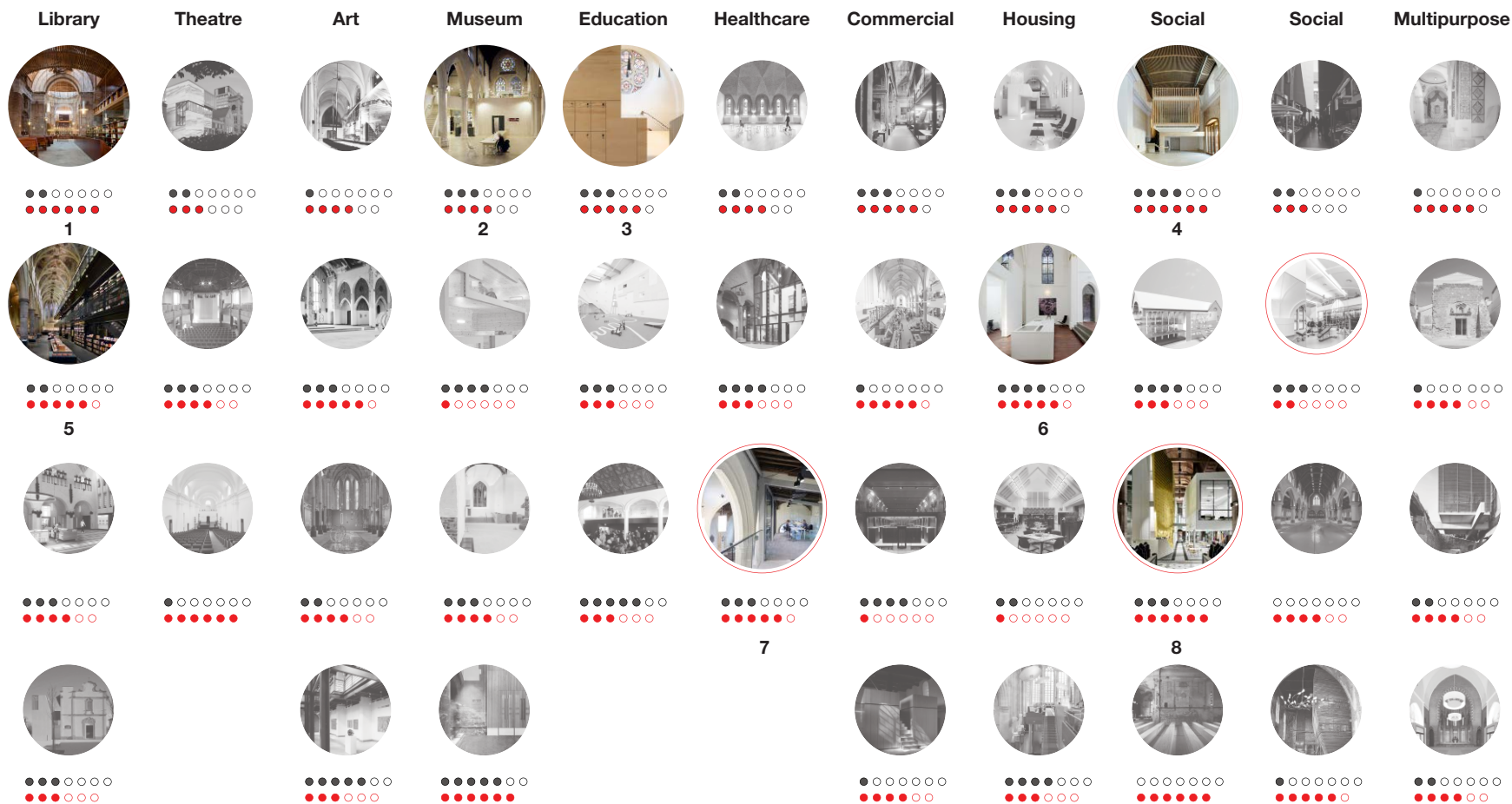
**Longitudinal Division**



**Creating Asymmetry**

Figure 26: Criteria B: spatial additions and divisions





CRITERIA A ● ○ CRITERIA B ● ○

Figure 27: Case study analysis

- 1: View of Cultural Centre of the Piarists in Lavapiés: Photograph by Miguel de Guzman, from linazasoro & sanchez architecture, [www.linazasorosanchez.com](http://www.linazasorosanchez.com) (2004)
- 2: View of Garden Museum Phase 1: Photograph by David Grandorge, from Dow Jones Architects, <http://www.dowjonesarchitects.com> (2008)
- 3: View of Chapel de Zande: Photograph by Hootsmans Architectuurbureau, [www.hootsmans.com](http://www.hootsmans.com) (2014)
- 4: View of Chapel in Brihuega: Photograph by Eugeni Pons, from Adam Bresnick, <http://www.adambresnick.com> (2012)
- 5: View of Librería dentro de una Iglesia: Photograph by Roos Aldershoff, from Merx + Girod Architects, <http://merx-girod.nl/> (2007)
- 6: View of Residence Church Utrecht: Photograph by Frank Hanswijk, <http://www.zecc.nl> (2011)
- 7: View of St Mary at the Quay: Photograph by Andy Marshall, from Molyneux Kerr Architects, <http://www.molyneuxkerr.com> (2016)
- 8: View of All Souls Bolton: Photograph by Andy Marshall, from OMI Architects, [www.omiaarchitects.co.uk](http://www.omiaarchitects.co.uk) (2014)

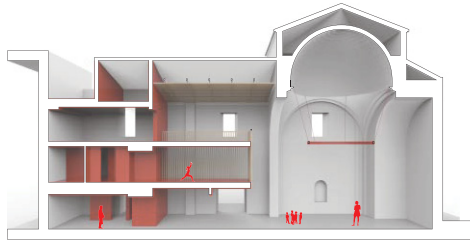


Figure 28: Section: Chapel in Brihuega

Adam Bresick Architects  
Community Space, Multipurpose Studio

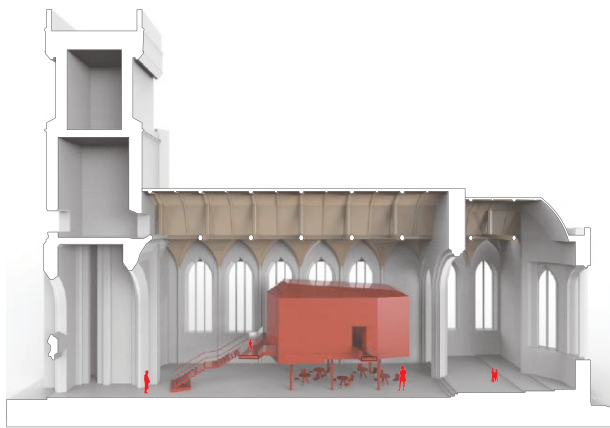


Figure 29: Section: All Souls Bolton

OMI Architects  
Community Center

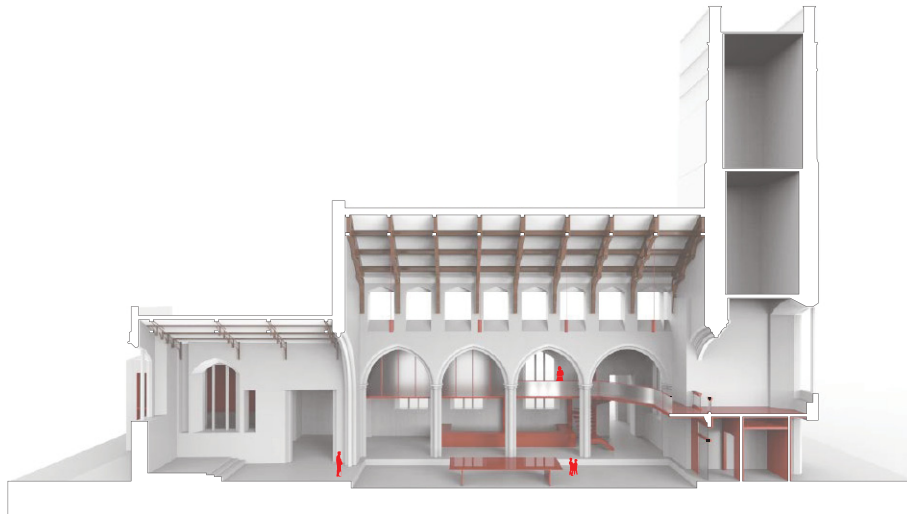


Figure 30: Section: Quay Place

Molyneux Kerr Architects  
Health care / Recovery Center



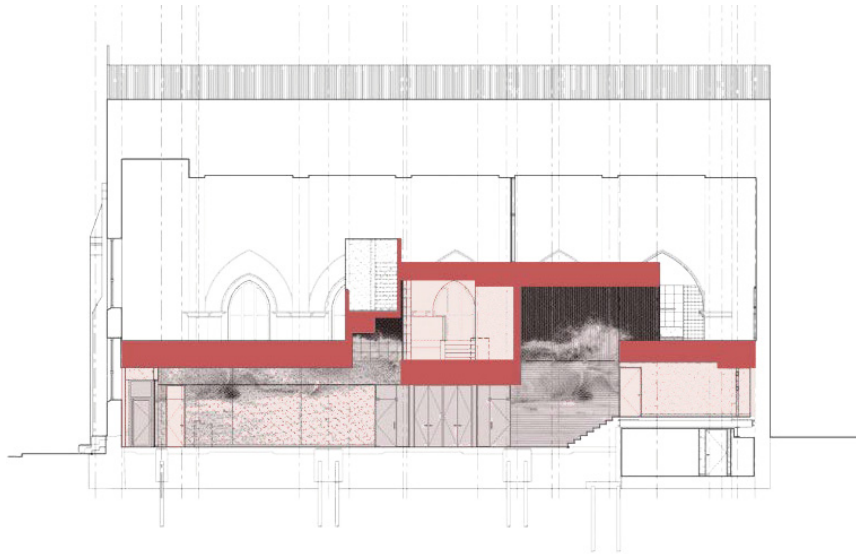


Figure 31: Section: Le Saint-Jude

Thomas Balaban Architect. Description: Spa / Gym

Retrieved from:

<https://www.archdaily.com/474210/le-st-jude-thomas-balaban-architect>

## CHAPTER 3: ROLE IN SOCIETY

### Canada

Canada's origin as a colonial settlement has influenced our history greatly. The European influence has been present since early colonization. At the time when Britain and France first colonized there were two main governing powers. The first being royalty and the second, but no less influential, was the Church. European settlers came for two reasons: to trade and convert. The mission churches had the single purpose of converting the natives, which was relatively successful. By 1871, four years after Canada's confederation, ninety-seven percent of Canada reported to be part of an ecclesiastical or Christian religion in the census of that year.

Since the majority of first settlers in Canada were composed of French Roman Catholics they dominated the religious aspect of society. The dominance of the church continued

through to the mid-twentieth century, having peaked in the late nineteenth century's ultramontane Catholicism of Quebec.<sup>44</sup> A mass devotion led to a great need for churches, with the building acting as a symbol of their faith. This sparked a time of unprecedented church building in Canada. At this time the church and the people thought that the church was inviolable.

Whether it was the Protestant British or the Roman Catholic French, the church was a social and political powerhouse. The role of the church did not change as these two countries colonized. Attendance and participation was high, but in the twentieth-century there was a large shift in society. This shift spread between different ecclesiastical groups. For example the Protestants started to shake after the Second World War but the Roman Catholics, of which the majority were in Quebec, became a larger force. In the 1960's however, the Quiet Revolution changed the opinions of the people towards the church drastically. As Margret Wenté describes in her article about the church in Canada called *The collapse of the liberal church*, "Congregations have shrunk too – but not the churches infrastructure or the money needed to maintain it. Today, the church has too many buildings and too few people to pay for their upkeep."<sup>45</sup> The threat that the church faces today can be directed towards the decline of government funding, the recent demographic change in Canada, and a lack of attendance. These have all lead to many churches being unable to afford maintenance on there buildings and forcing them to sell or close their doors.

## Montreal

Montreal has gone from being described by Mark Twain as "a city where you couldn't throw a brick without breaking a church window"<sup>46</sup> to what The National Trust for Canada now describes as being "the canary in the coal mine,"<sup>47</sup> regarding obsolete places of worship. The Quiet Revolution had a large impact in contemporary Quebec greatly contributed to the decline of the church today and its buildings.

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44 Roberto Perin, "Elaborating a Public Culture: The Catholic Church in Nineteenth- Century Quebec," in *Religion and Public Life in Canada*, ed. Marguerite Van Die, (Toronto: University of Toronto Press, 2016), 89.

45 Margaret Wenté, "The Collapse of the Liberal Church," *The Globe and Mail*, July 28, 2012.

46 Mark Twain, "Mark Twain in Montreal," *New York Times* (New York), December 10, 1881.

47 Bull, *A Hope and Prayer for Places of Faith*, 2016.

The 'Civic Assets Report' by The Commons Inc. created very clear categories to measure a building's value within the city of Quebec. It began by defining a Civic Asset "Civic Assets are defined by the aggregate of their built value, their programmatic value, their social value and the legacy generated through these multiple layers of value through time." <sup>48</sup> If we use the first three categories to assess the churches' status today we can conclude that the reason for their decline is because the programmatic value is lost (see Figure 7). Because the programmatic value is lost it leads to physical decay of the building which inevitably leads to economic obsolescence. Therefore leaving these religious institutes unable to maintain or ultimately keep the buildings.

In 'Architecture of the City' Aldo Rossi explains how memory attaches itself to certain structures and spaces which is evident in the history of the church architecture in Montreal. "One can say that the city itself is the collective memory of its people, and like memory it is associated with objects and places. The city is the locus of the collective memory. This relationship between the locus and the citizenry then becomes the city's predominant image, both of architecture and of landscape, and as certain artifacts become part of its memory, new ones emerge."<sup>49</sup> These historic artifacts arguably hold the most rich memory of Montreal because of their woven relationship with people throughout its history. From the early settlement of Quebec, the church has played a key role in its inhabitants lives, from harbouring a sense of community and educating the young generation to caring for the older population. The church was also integral in sparking a unity in the French population of Montreal after the conquest of Britain. These sacred places play a primary role in contributing to the city as a collective memory.

## **Church and Society**

One of the strengths of the church historically was its ability to provide a social need to the people while also gathering them together with a collective cause. This created a sense of community in society. "Because the church dominated the fields of education, health care, and social services and because Catholicism served as the 'civil religion' of French Quebecers, historians and social scientists have studied in detail the public functions of

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48 Talia Dorsy, "Civic Assets Report," *The Commons Inc (Montreal, 2015)*, 11.

49 Aldo Rossi, *The Architecture of the City*, (Cambridge, Mass: MIT Press. 1984), 130.

the church and its relations with the state from 1840 to 1960.”<sup>50</sup> The churches in Montreal had the ability to adapt to what society needed at the time. As Jean Claude Marsan states when talking about the early church in Montreal, “The churches ability to adapt and to evolve through successive alteration reinforces this feeling.”<sup>51</sup> The combination of these two strengths was what made it so successful. This sense of community can also been seen in the way that the buildings were constructed. They were not simply built by a company but rather everyone in the surrounding community would help as a mutual benefit. This process was a connective task where the community could construct a building that the following generations could be proud of. “Everyone from the Heads of state and religious leaders to architects, craftsmen and labourers joined together to create these monumental structures.”<sup>52</sup> In a way the act of building and community became a sacred activity. It is my intent to match this process by addressing the social needs of today while promoting gathering and community. A hybrid of gathering with a collective goal in mind and a consideration for the physical and social welfare of the community surrounding it.

The church dealt with society as a whole; community, education and physical welfare all added to the social structure of the time. The architecture enables these activities and relationships. A recent article written by Natalie Bull speaking about Canada’s closed church buildings offers an insight into how these places could have deeper meaning if resurrected. “While condos and climbing gyms may offer an easier business model, what a blessing when a former place of faith can offer a sort of spirituality grounded in community service.”<sup>53</sup> What reinforces these spaces as sacred in the community is the social presence and program they added to the community as a public gathering space. Marsan talks about in his book *Montreal in Evolution* the specific contributions that the multifaceted church gave to its community. “The church, was increasingly committed to

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50 David Seljak, “Catholicism’s ‘Quiet Revolution’: Maintenant and the New Public Catholicism in Quebec After 1960.” in *Religion and Public Life in Canada*, ed. Marguerite Van Die, (Toronto: University of Toronto Press, 2016), 259.

51 Jean Claude Marsan, *Montreal in Evolution*, trans. Arnaud de Varent (Montreal: McGill, 1981), 102.

52 Unknown, “How to Leave a Lasting Legacy Cathedral Thinking: Solving Tomorrow’s Problems,” *Unlimited* (Switzerland), October 10, 2016.

53 Bull, *A Hope and Prayer for Places of Faith*, 2016.

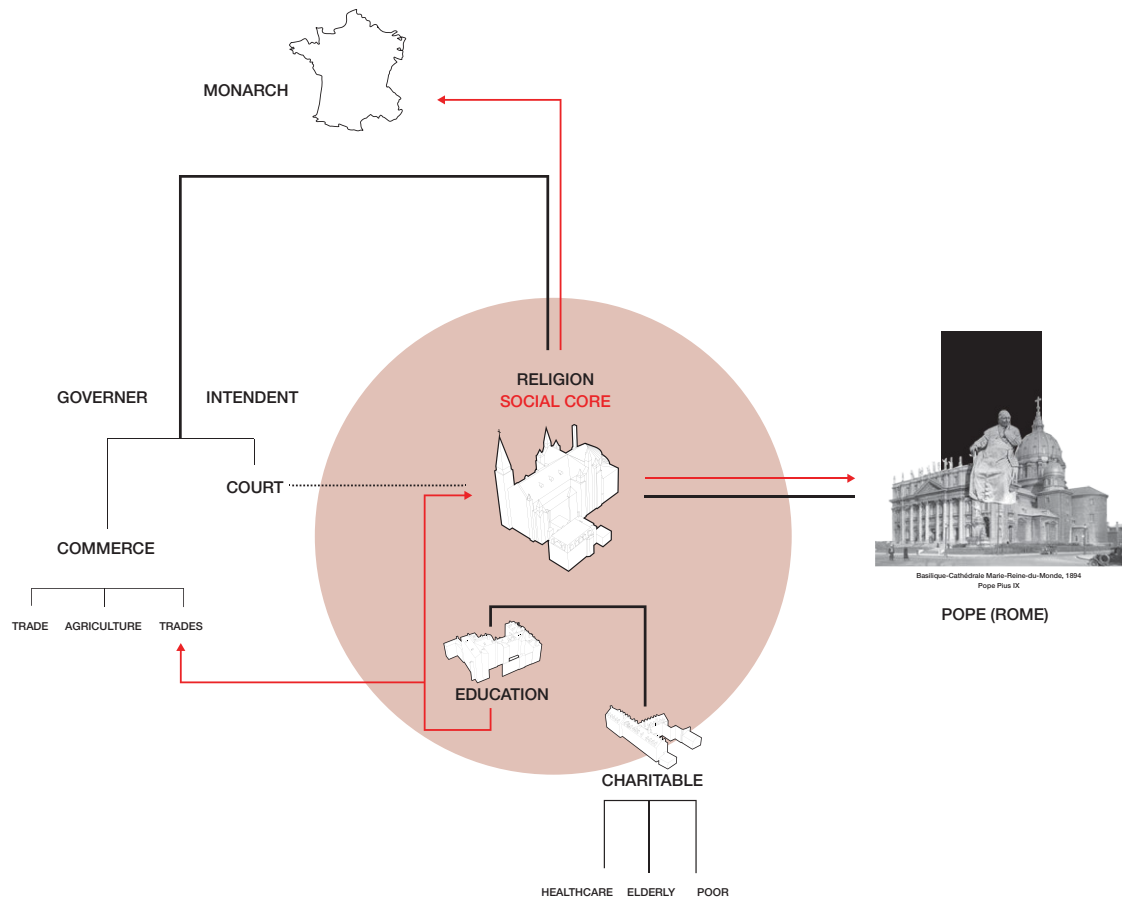


Figure 32a: Historic role of Churches in society (Quebec)

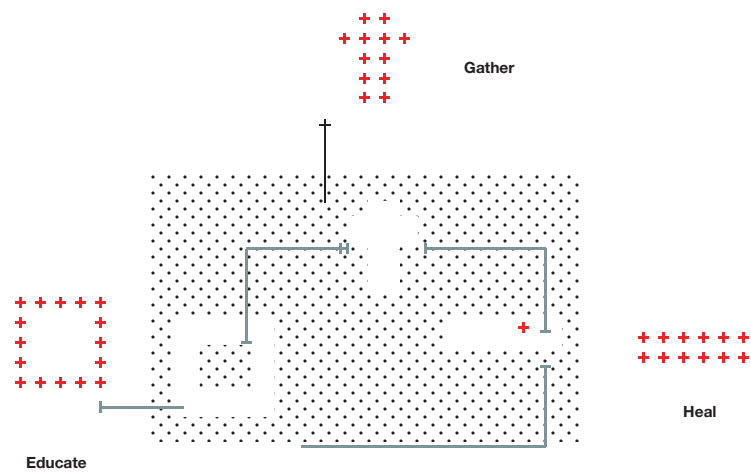


Figure 32b: Diagram of restored program for the Church

answer the various social needs of the small community” he continues, “the churches role was not limited to the spiritual work...the church in New France and in Montreal took care of the physical and social welfare of the community...clearly points to the irreplaceable role of the church in the organization of the social structure of those days.”<sup>54</sup>

Although the relationship between the church and French Canadians has been greatly damaged since the Quiet Revolution as mentioned earlier, at one point the church had a great influence in bringing the French-Canadian community together in a time when it seemed it would break.

However, with the help of the leading French-Canadian political party, the church created an institutional space in this ‘foreign’ territory, providing services by French Canadians for French Canadians from the cradle to the grave. This space had a necessarily physical dimension that gave Quebec cities their ‘French’ character within a North American environment.<sup>55</sup>

At this time, during and after the Quiet Revolution, the people did not want to have anything to do with the church, Catholicism still made great attempts to appeal to the people. One such example of this is the introduction of the journal *Maintenant* which was funded by the church.

For the writers of *Maintenant*, the danger of the Quiet Revolution was that, in the search for rapid modernization, Quebecers would disown their heritage, cutting themselves off from the sources of their own particular genius and creativity. Since Catholicism played such an important role in the heritage, the absence of the church in public debates would allow Quebec society to evolve into a purely technocratic state, a carbon copy of the United States. By outlining the necessity of maintaining a public role for the church, *Maintenant* was instrumental in helping it accept the Quiet Revolution while feeling that it still had an important role to play in the new Quebec.<sup>56</sup>

Although it seems the *Maintenant* was not entirely successful it does outline the church’s important role in society for French-Canadians. Perhaps Catholicism does not have an important role in today’s society but it does represent a great majority of its history and to ignore its original purpose and function, without replacing it, could prove costly in the future.

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54 Marsan, *Montreal in Evolution*, 77-82.

55 Perin, *Elaborating a Public Culture: The Catholic Church in Nineteenth- Century Quebec*, 91.

56 Seljak, *Catholicism’s ‘Quiet Revolution’: Maintenant and the New Public Catholicism in Quebec After 1960*, 257.

While giving the church a new program and purpose there is also a need to maintain a link to its history and past. The need to maintain a 'spirit of place' is essential when repurposing a monumental building such as this. Cathedrals have historically been built to produce a sense of awe when walking through its doors. They are meant to point at something beyond the human scale. The problem which has been defined as a support for education and health care are both very functional and calculable but sacred space appears at first the opposite.

## **Program**

Sacred can be defined in two different ways, the first is through the spatial and sensorial senses and the second is through its function. The second definition is not an opposition to the first but instead a compliment, Julio Bermudez spreads the definition of the sacred even further by not only describing sacred space but also a sacred function. Bermudez continues by saying that there are two ways architecture can have a quality of transcendence the first being the object, which is the space that the architecture creates and forms, and the second is the service that it provides. The buildings appearance and aesthetic can appeal to the cultural "while the ethical attention leans to the functional, social and intersubjective"<sup>57</sup> He states that the building can also have a quality of transcendence by doing something for the greater good when the program has an ethical and social impact to society. This was clear in my consideration for the reprogramming of the churches. Not only does the space need to evoke a sense of sacredness but the program inside can also be considered sacred. Bermudez continues this argument by suggesting that sacred architecture is not only found in religious institutional buildings but rather "architecture pursuing goodness (eg. social justice, human dignity) probably could be considered 'sacred' despite its immanent goal, service, or deployment. Its sacredness would be found in supporting the care and development of other living beings thus partaking in a larger, indeed transcending (religious or not), mission."<sup>58</sup>

Because of the history that the church holds in Quebec the programs that I chose for these spaces had to follow two conditions; they must foster a sense of community, and

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<sup>57</sup> Bermudez, *Transcending Architecture : Contemporary Views on Sacred Space*, 4.

<sup>58</sup> Ibid., 5.



serve a social role in society. For this reason and the historical role of the church spoken about earlier I chose to test my thesis with programs that support education and health care in their community.

### ***Education***

Teaching and learning played a large role historically in the church and as Gordon Lynch suggests it could also be considered a sacred act. A sacred act is also one of service to the greater good as Bermudez points out earlier. In “The Sacred in the Modern World: A Cultural Sociological Approach,” Lynch argues for the sacred, referring to its role in modern days, with the example of the “care of children, which I would argue has become sacralized, to the point right now, in the early twenty first century it would be very hard to say whether that’s a religious or secular form of the sacred.”<sup>59</sup> This program has the potential to fulfill the two considerations by contributing to a social function and fostering community by gathering people with a similar goal in mind.

### ***Health***

While the church historically was the first to introduce education to society, it was also the first to address and care for the sick in its community. The church was the first, and for a long time, the only cultural building that would house the needy or sick. Besides worship its large purpose and goal was to be a place of healing both physically and mentally. As a place that supports health care in its community this program could play a large social role while bringing people together with a collective goal. For this reason the second program chosen for this project is to be a place which indirectly supports the health care institutions surrounding the church, while directly helping the health of the community.

I proceeded to compare these two programs as well as the previous program of the church to evaluated size conditions and find unique and underrepresented types in the community. The breakdown of program types can be seen in Figure 34, 35, and 36. Alternative program types could then be evaluated and tested in the specific sites to find relevant types that would add value to the community and support both education and health.

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59 Gordon Lynch, “The Sacred,” *Religious Studies Project* (Edinburgh), November 5, 2012.



Figure 33: Nuns attending the sick at the Infirmary of the Abbey at Port Royal des Champs, 1710

Retrieved from Canadian Museum of History. <http://www.historymuseum.ca/virtual-museum-of-new-france/population/religious-congregations/>

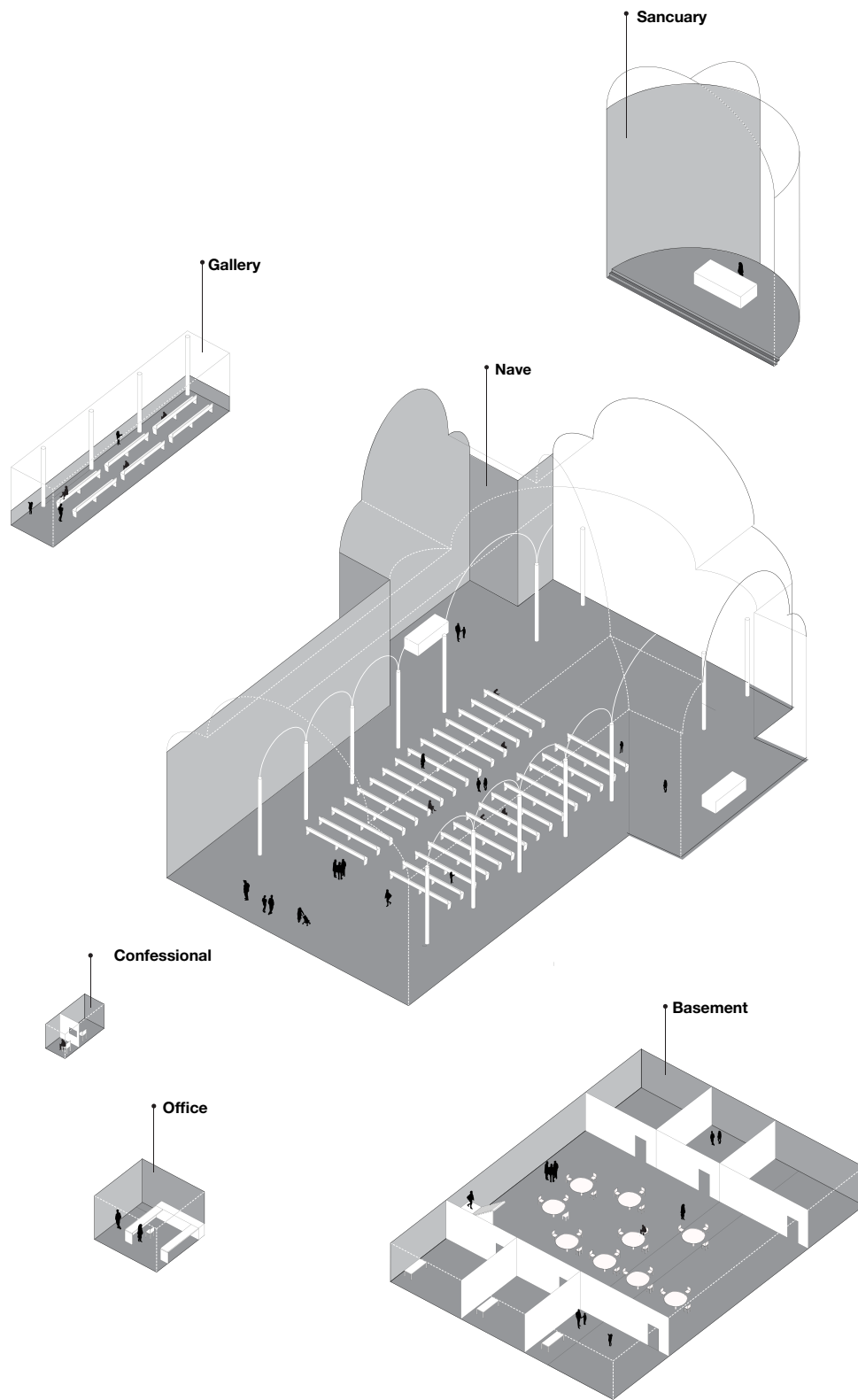


Figure 34: Church program breakdown

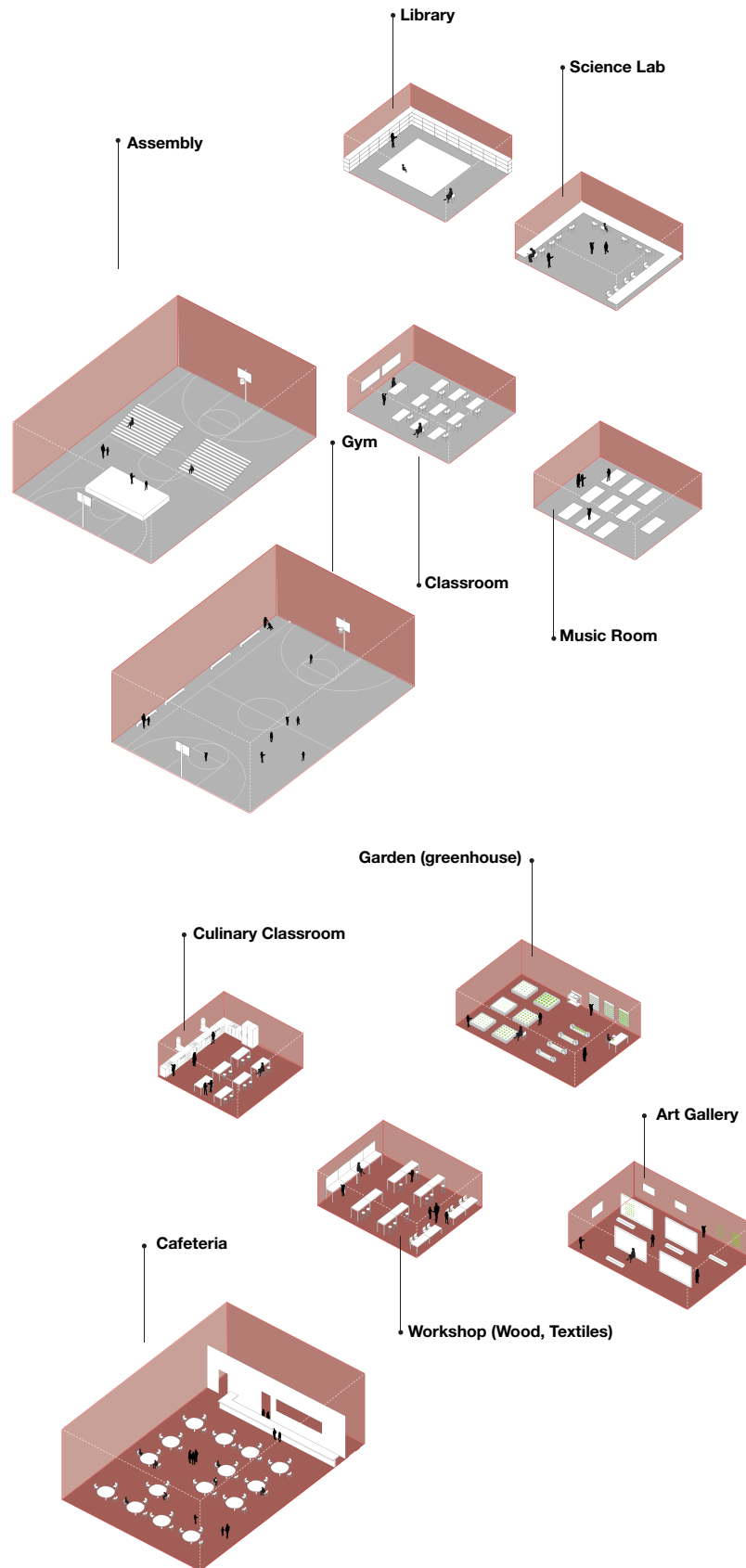


Figure 35: Education program breakdown

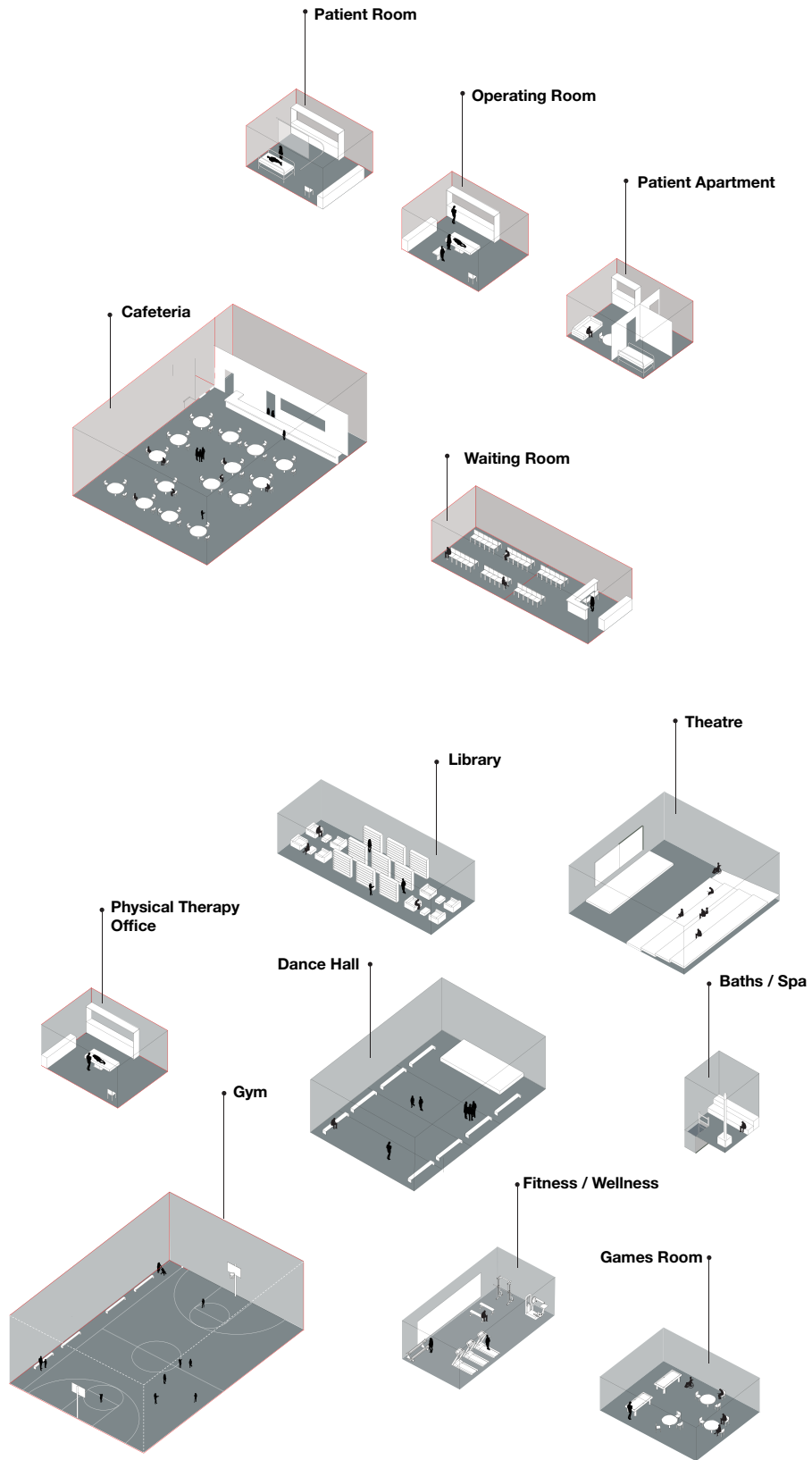


Figure 36: Health care program breakdown

## CHAPTER 4: DESIGN

### Site

Having established Montreal as the location to study and test for this thesis, I studied further the status of the church there. I mapped the historic church buildings which are still in use in Montreal, and compared them to the ones that have been reused or are currently closed (seen Figure 37). One discovery is that the problem of closing churches, avoids the commercial and tourism filled downtown core of Montreal. The largest areas which have been affected are in smaller residential communities. The churches in the downtown core have a large enough community to sustain the issues facing the church, and have a tourist population to subsidize the lost attendance. Therefore, the site I chose for this thesis is in one of those outlying communities.

The two sites are on the northeastern part of the city, connected by the street Rue Fullum which runs east to west. Sainte Marie is a primarily residential neighborhood, and has been overshadowed by a number of large commercial buildings, leaving the residential community neglected. In the last 30 years this lower income community has been overlooked. However, in recent years there has been an initiative by the government to reinvigorate the area. There has been a large push to reintroduce the art scene which once existed here. Both former catholic churches are currently fenced off and are no longer in use. On the corner of Sainte Catherine Street and Rue Fullum is the first church, St. Vincent de Paul. St. Vincent was built in 1928 and closed in 2012, leaving it empty and abandoned ever since. As the congregation of St. Vincent was forced to leave their building they merged with the larger church, St. Eusebe de Verceil. St. Eusebe sits 900 meters northwest on the same street, Rue Fullum and Rue Lariviere. Due to financial reasons and a diminishing congregation, St. Eusebe was also forced to close in 2014. These two vacant buildings act as good examples of the problem facing Montreal and Canada. The two buildings can provide an illustration of how these previous places of worship could adapt to a “post religious” society and maintain their history as a place of community and social support.







**Rue Fullum**



Theatre

Daycare / Park



Daycare / Park

Park

Social Care / Hospice

St. Vincent de Paul

Figure 38: Rue Fullum, Montreal

### ***St. Vincent De Paul***

The smaller of the two churches, St. Vincent (see Figure 39), sits at the end of Rue Fullum close to the St. Lawrence river. A hospice was built simultaneously across the street from St. Vincent. Beside the church is a care home for elderly and three health care related buildings are located nearby. They include a mental health facility, neighboring the care home, and a community health center one block away. Quebec will soon have one of the oldest populations in Canada. With the aging population in the community; and combining the historic role of the church, spoken about earlier, and St. Vincent's location it became clear that this space should become a place for healing, focusing on



Figure 39: St. Vincent De Paul

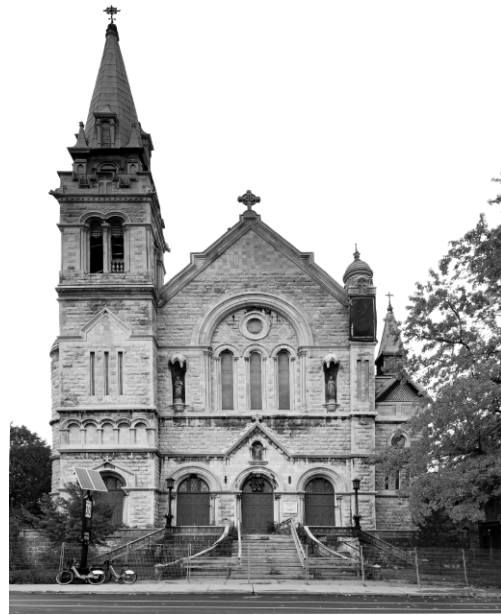


Figure 40: St. Eusebe De Verceil

maintaining both the physical and mental health of it's community. This new wellness center would play a direct role in maintaining the health of the community, while indirectly supporting the health care institution's located next to the church.

### ***St. Eusebe de Verceil***

Complimenting St. Vincent's Wellness Center would be a center focusing on the learning and growing of food. St. Eusebe (see Figure 40) would house this new food hall in its Neo-Baroque building. The former church neighbors a large elementary school which



ⓘ **Montreal**  
**Sainte-Marie**

Figure 41: Site plan Montreal (1:4000)



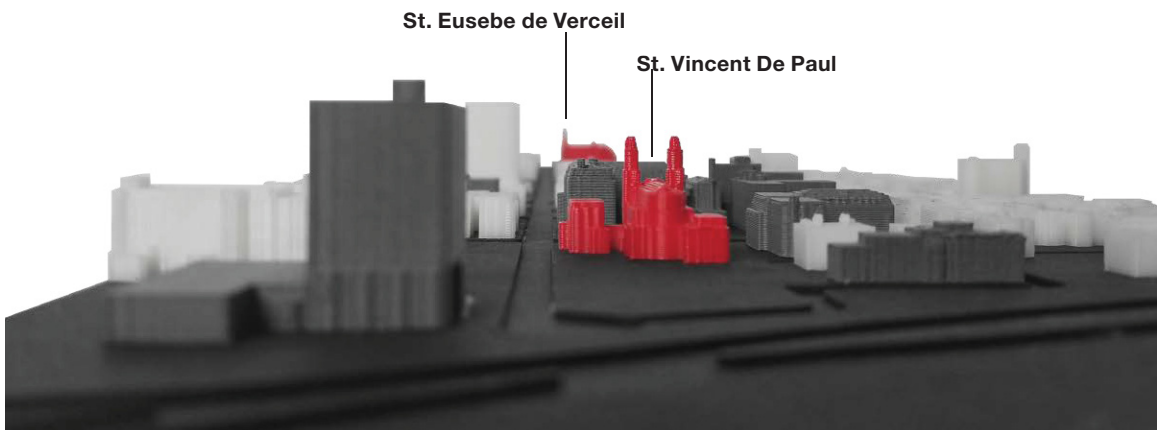
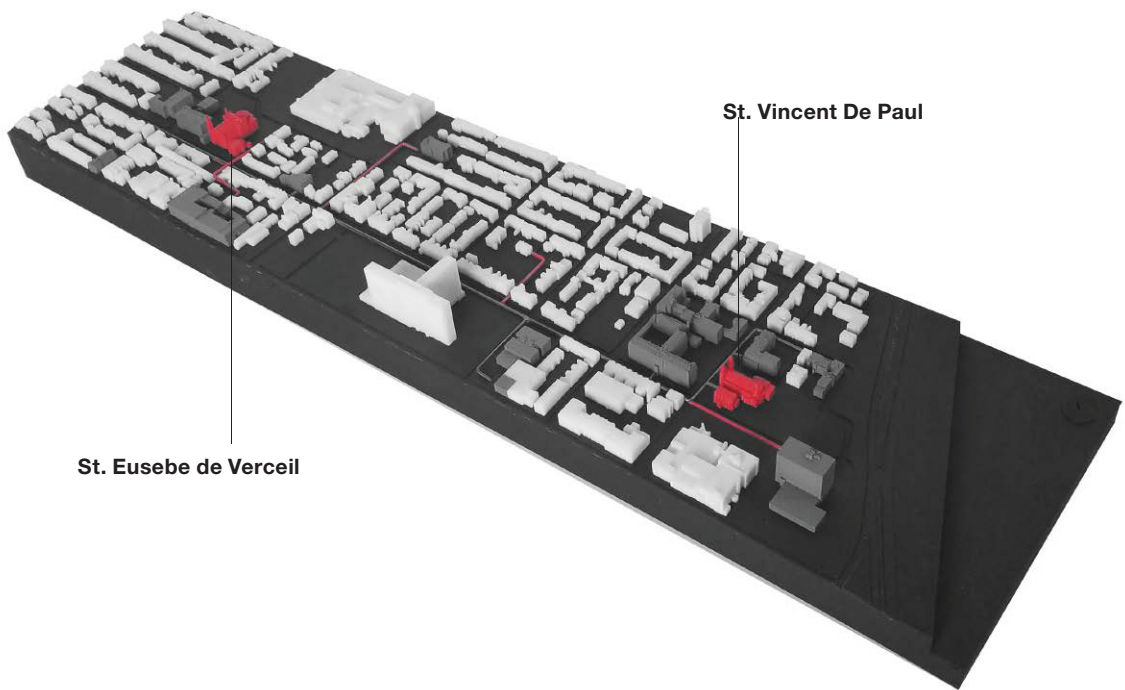


Figure 42: Site model (1:2500)

both share a public park as their backyard. St. Eusebe was strategically located in its community, with seven schools surrounding it, ranging from preschool to college. Its former public garden, located at the back of the church, is now overgrown and neglected. Out of the surrounding schools, only two have a dedicated eating area, with none having a space to learn how to grow or prepare food. This together with the church's history as a place of teaching, informed the program given to the church as a community cafeteria. It would act as a food hub for both the students and the community surrounding it.

St. Vincent's location near many health care institutions informs the new space, which has an emphasis on physical health, as a wellness center. And St. Eusebe's central location next to so many schools, would have an emphasis on teaching, acting as a cafeteria for the schools and community. These two programs compliment each other with an emphasis on the health of their community and gathering people with a collective cause.

## **Application**

I used these two churches as comparative examples, with a minimum and maximum intervention strategy. St. Vincent, the first of the two churches, is an example of how a space could be minimally transformed to reinvigorate it and add value to the community. Conversely, St. Eusebe is an example of how far one can go in adding to the space before it loses its sacred architectural qualities. I focused on developing the second church, St. Eusebe, further, because of its larger intervention strategy.

### ***St. Vincent de Paul***

The new wellness center in St. Vincent delicately adds program to the church, and is intended to be used by the community surrounding it. The individual and private spaces focus on healing of the mind and the public gathering spaces have an emphasis on physical health.

Apart from the entry level, the spa and baths are housed in the front of the church, highlighting the previous life of the space as a cleansing before entering the main area. The ramps, which are used for circulation, emphasize scale as an enclosed space with a vertical void at the bottom, highlighting the height of the church similar to Zumthor's

chapel. This void also signifies a threshold into the public gym below. The qualities of individual silence and void are shared in the meditation room which floats above the sanctuary providing a space for mental healing and refuge.

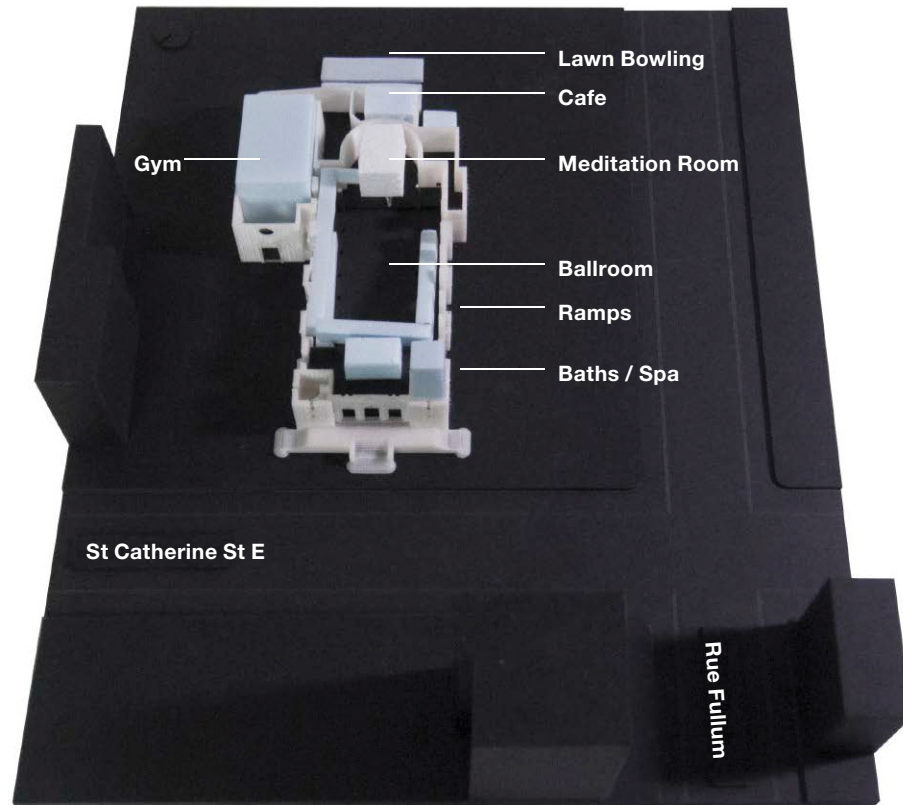


Figure 43: Programmatic model of St. Vincent de Paul, (1:400)

In opposition to the private spaces, the public areas focus on the physical health of the body. An example of communal light enters from the clerestory windows above the gym and fills the large void. Another void is cut into the floor under the sanctuary, acting as an open ceiling for the small auditorium below. The largest space is reserved as a ballroom for people to gather and dance. It preserves the columns and arcades adding to the silence of the place. Finally, the floating meditation room gently hangs above the sanctuary as to not detract from the large scale of the nave which humbles the user and maintains its sense of the whole.

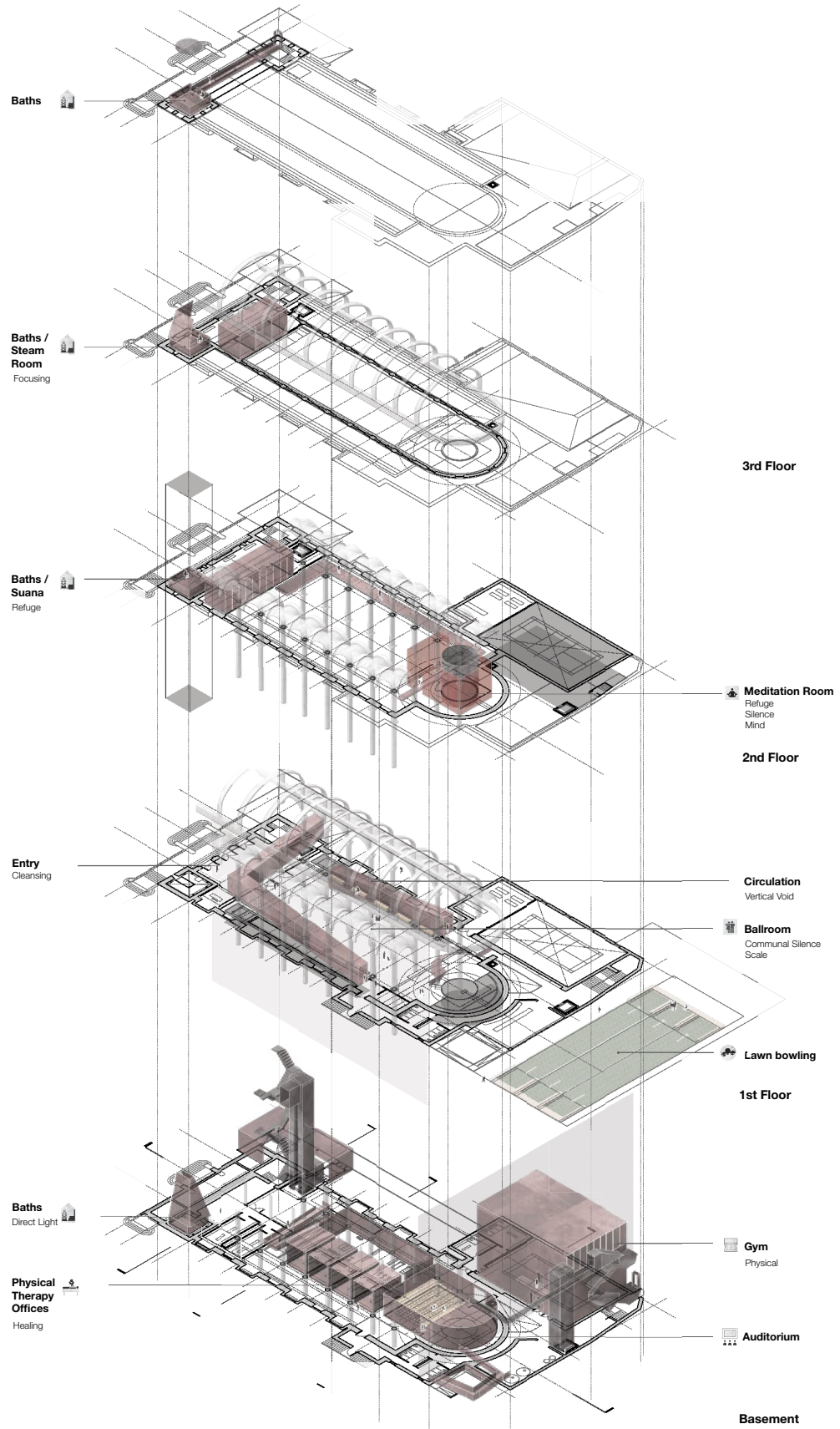


Figure 44: Axonometric of St. Vincent, (1:200)



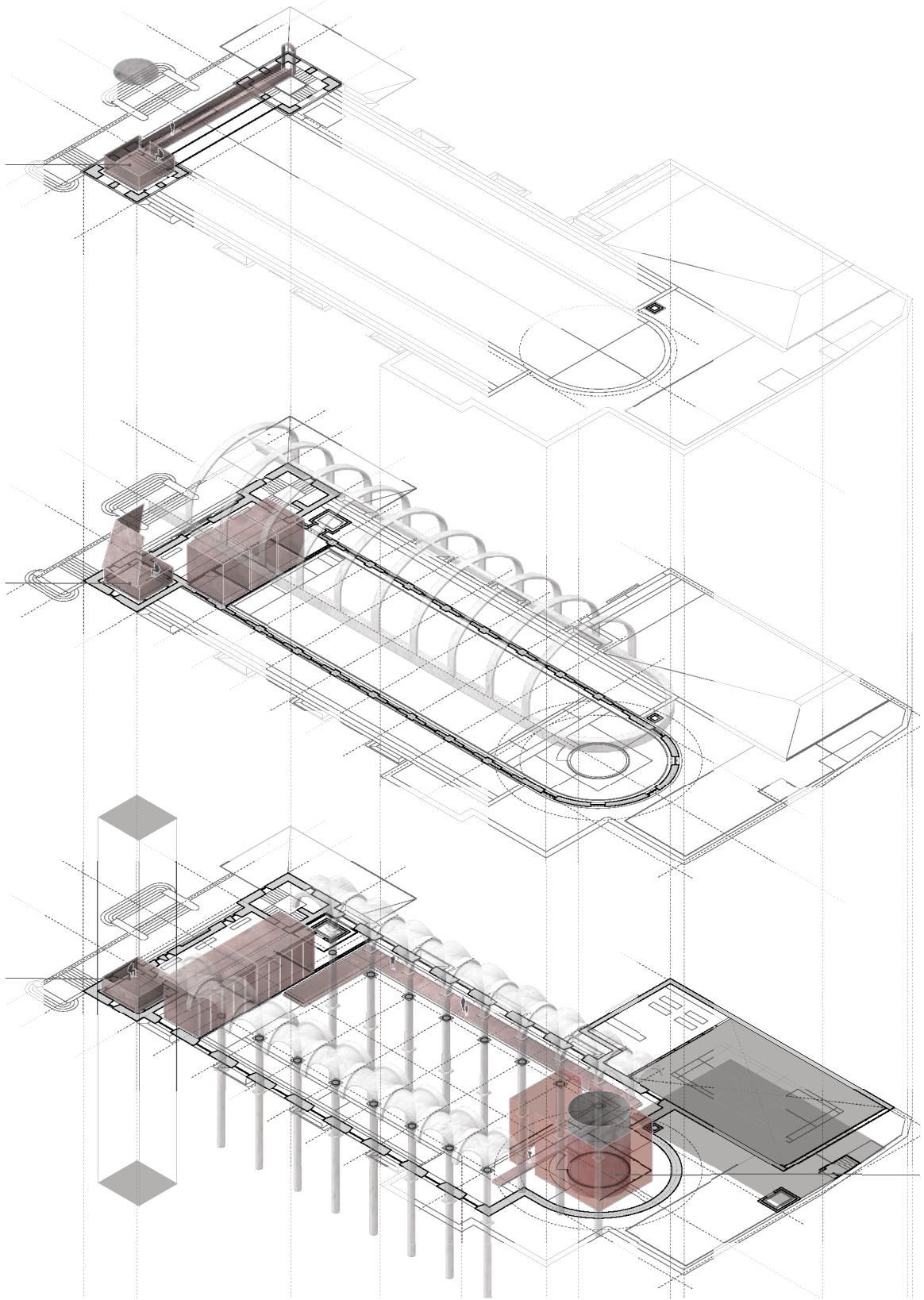


Figure 45: Axonometric: 2nd Floor, 3rd Floor and Roof

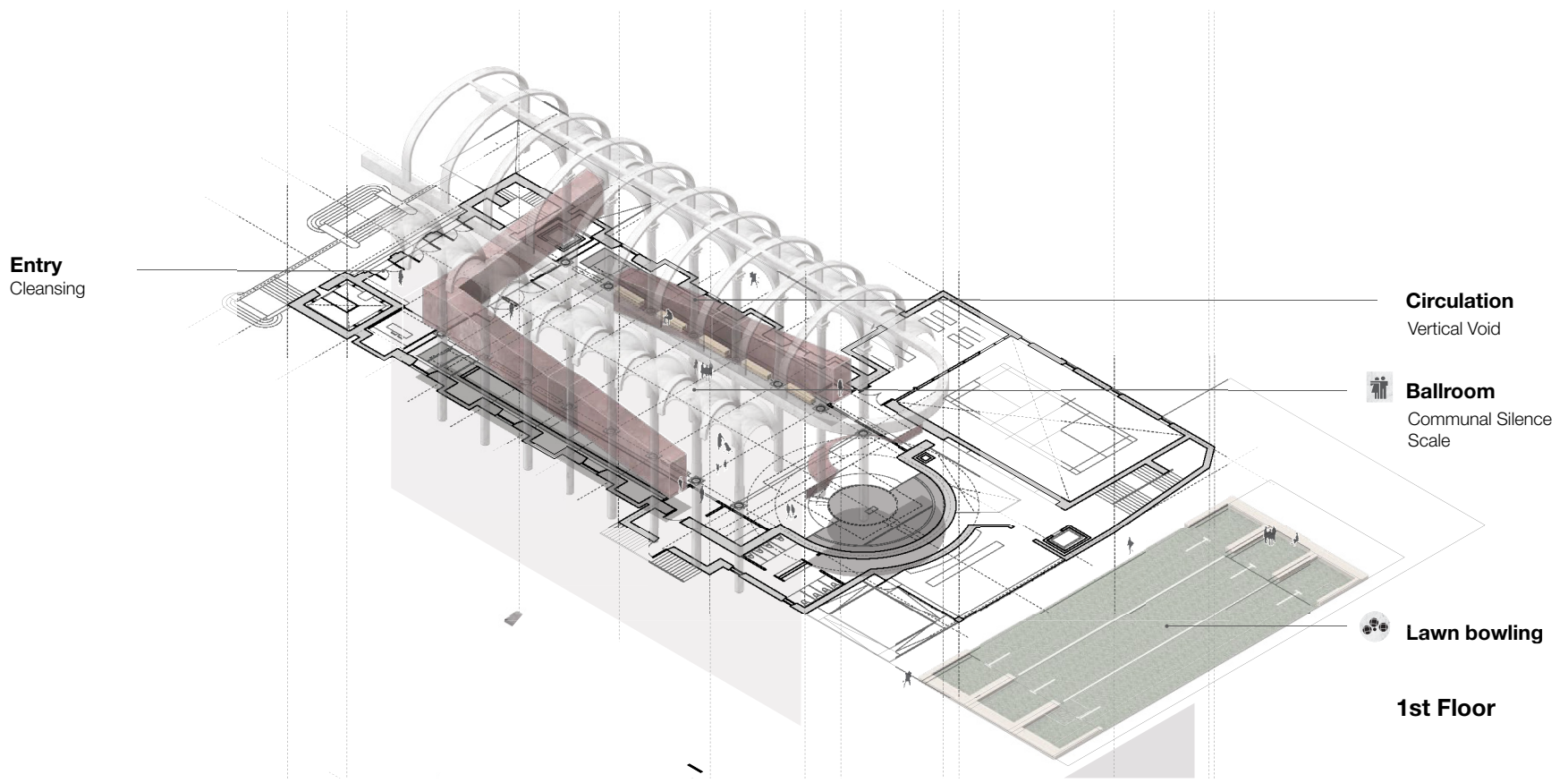


Figure 46: Axonometric: 1st Floor

**Baths**  
Direct Light



**Physical  
Therapy  
Offices**  
Healing



**Gym**  
Physical



**Auditorium**



**Basement**

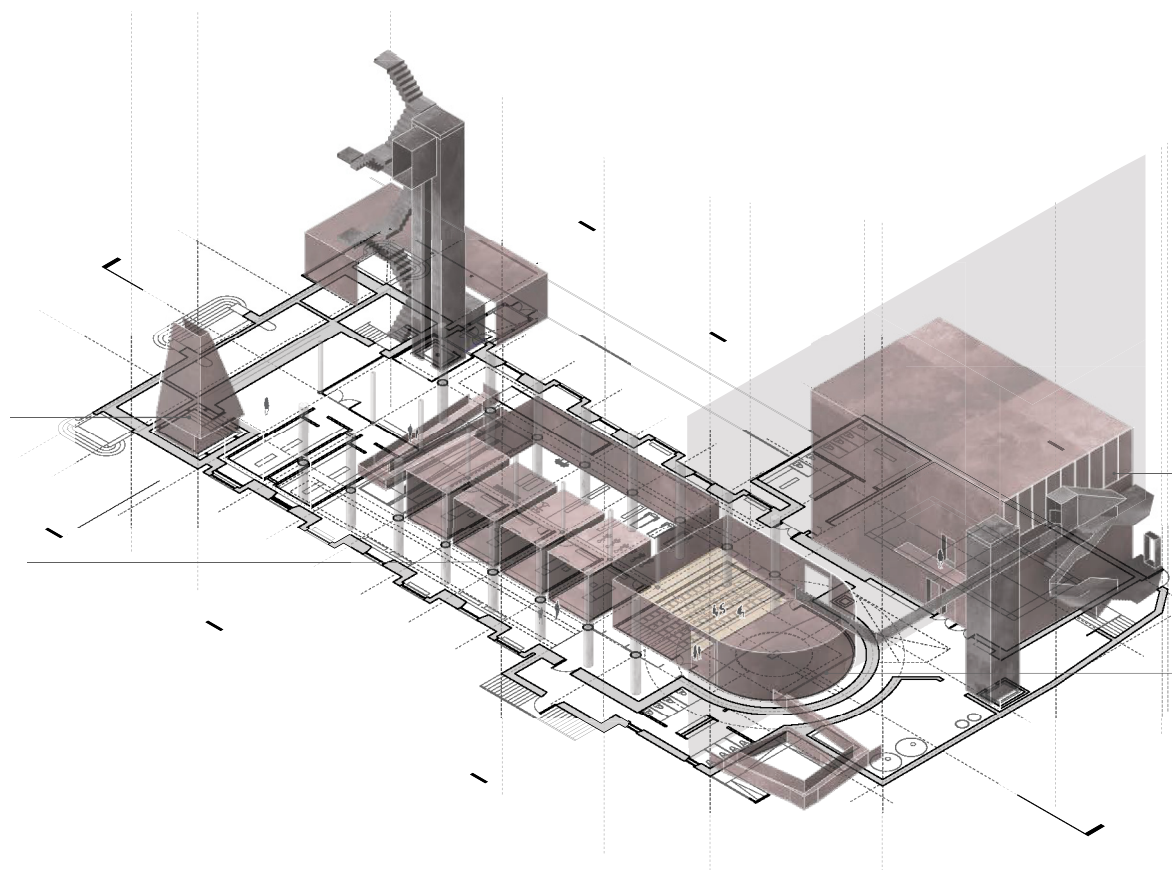


Figure 47: Axonometric: Basement

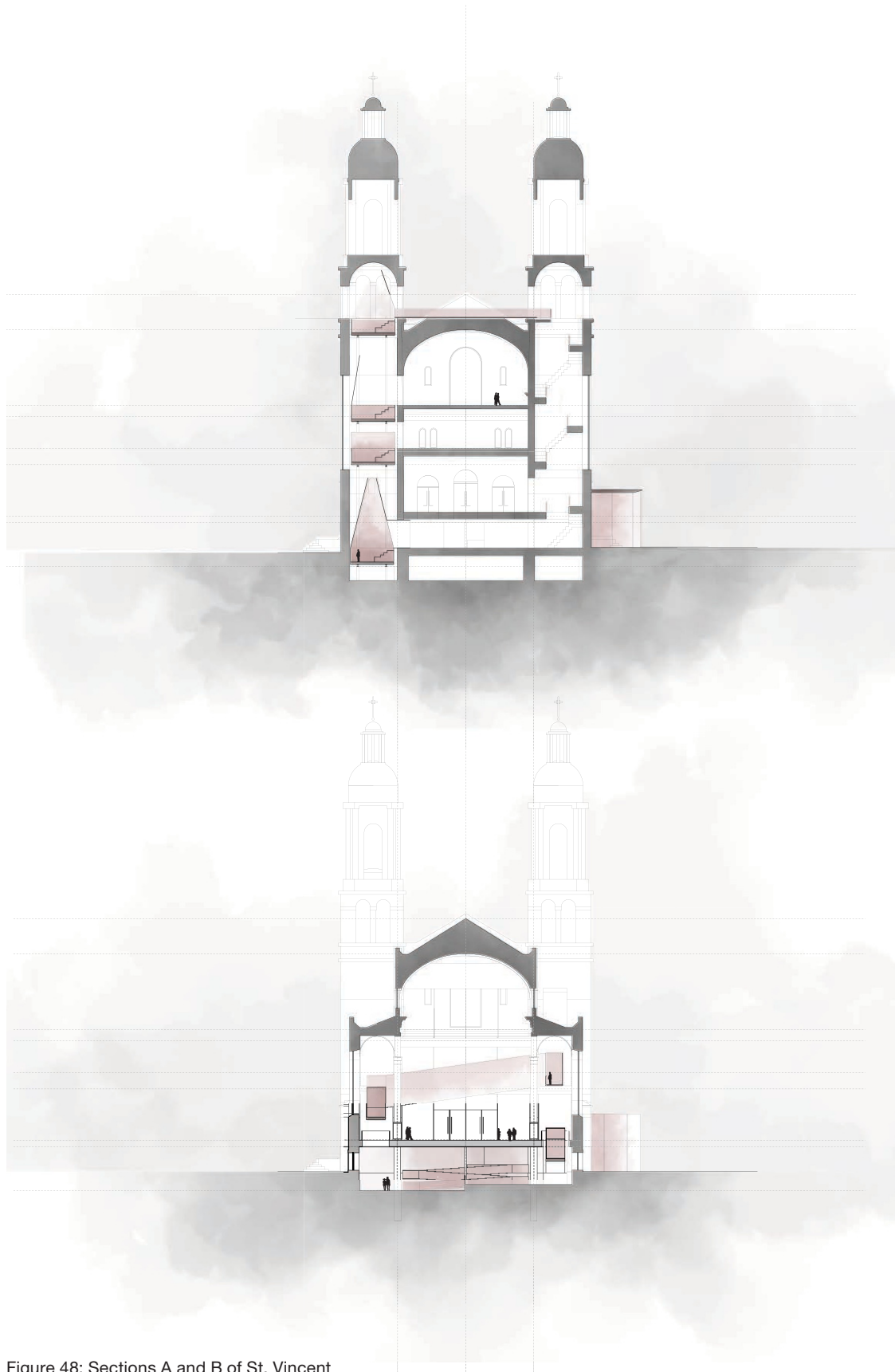


Figure 48: Sections A and B of St. Vincent

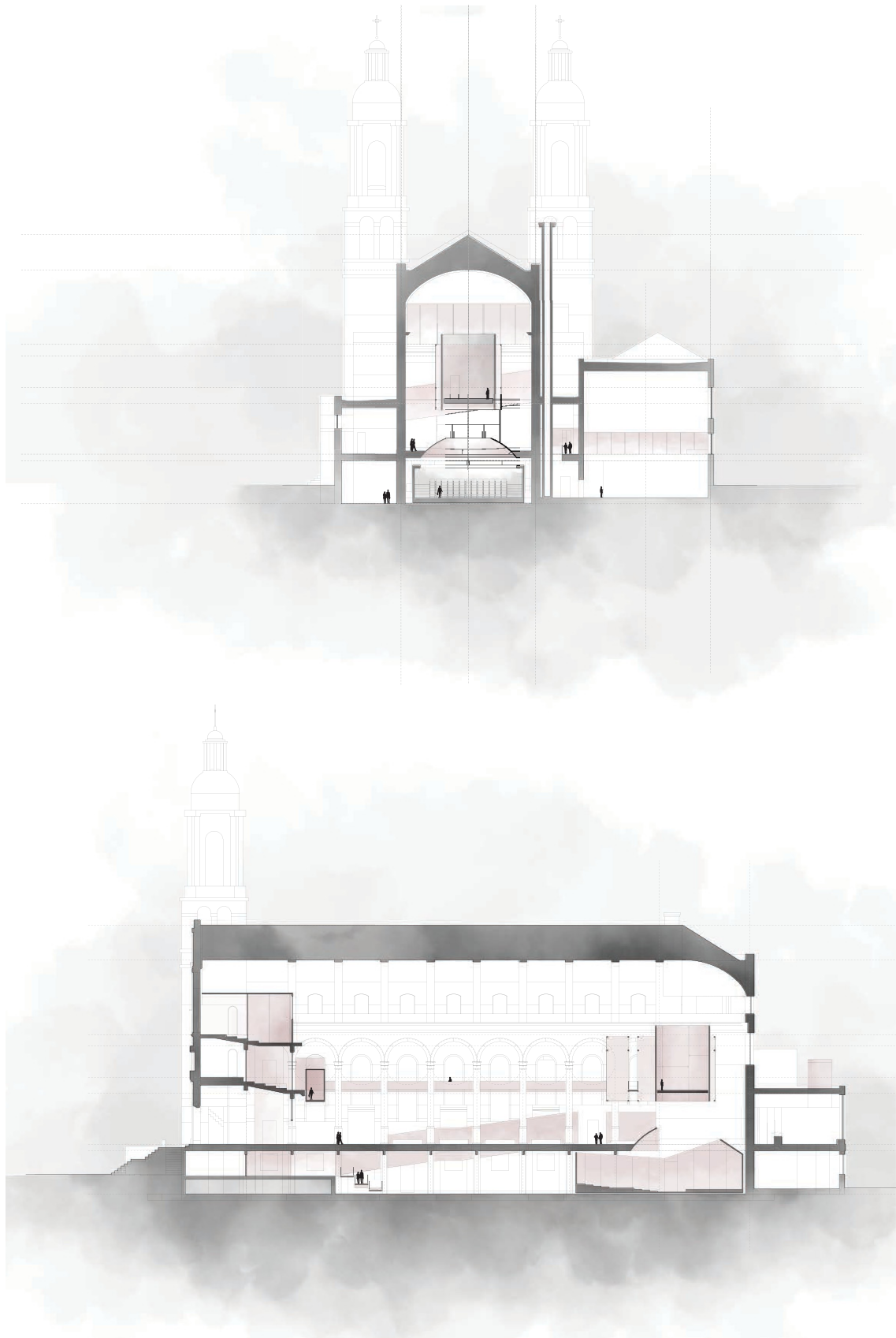


Figure 49: Sections C and D of St. Vincent





Figure 50: Watercolor: Individual Void

Description: Baths  
Framed Void, Singular

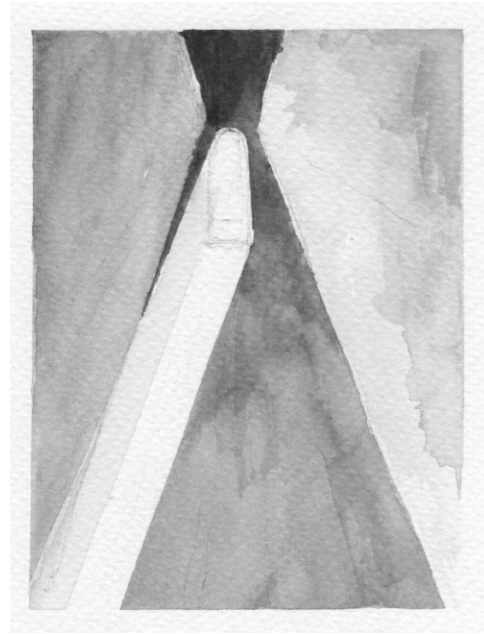


Figure 51: Watercolor: Individual Light

Description: Baths  
Focused, Singular



Figure 52: Watercolor: Procession

Description: Walkway  
Silence, Repetition

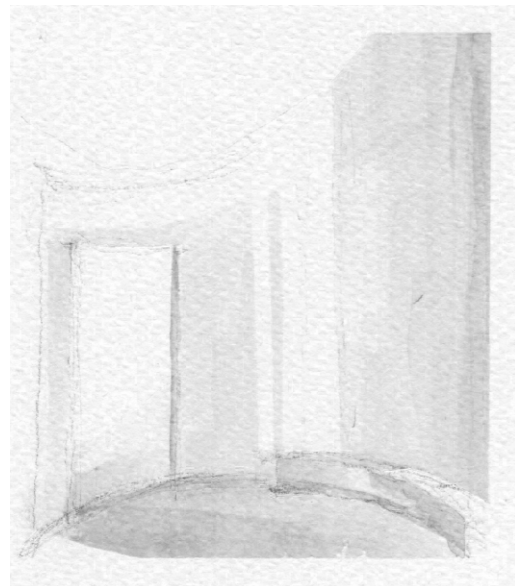


Figure 53: Watercolor: Individual Room

Description: Meditation Room  
Light, Silence, Void, and Scale

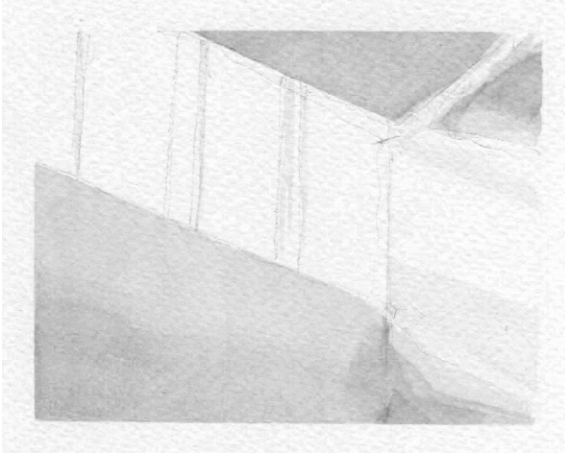


Figure 54: Watercolor: Communal Light

Description: Gym  
Clerestory, Dispersed, Filter

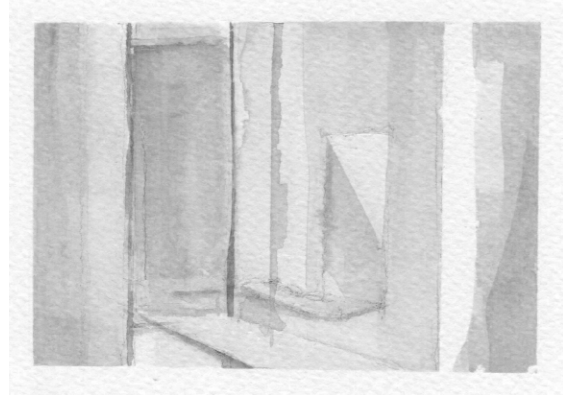


Figure 55: Watercolor: Threshold

Description: Meditation Space  
Transition, Entry, Levels of Exposure



Figure 56: Watercolor: Scale

Description: Ramps  
Circulation, Vertical Void, Threshold

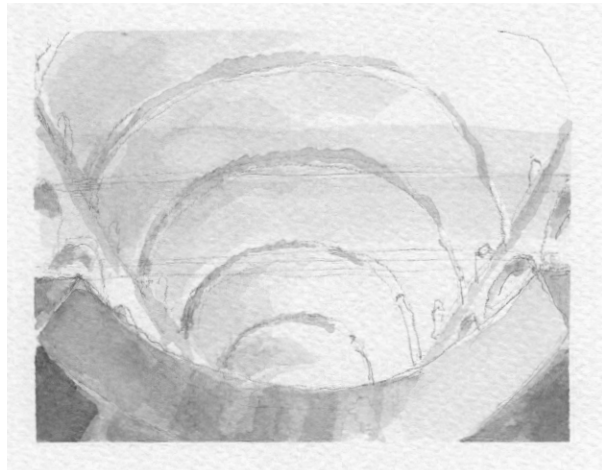


Figure 57: Watercolor: Communal Void

Description: Opening Above



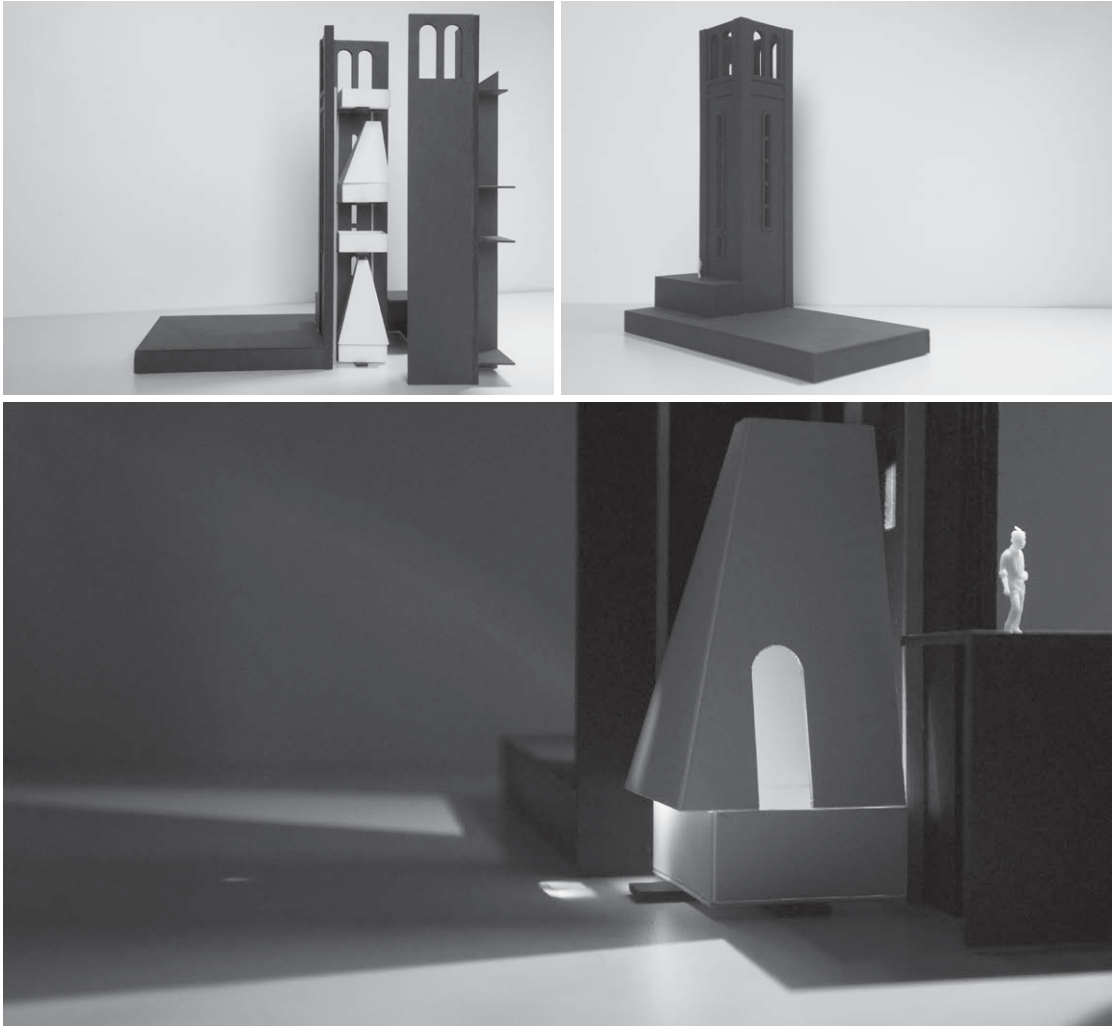


Figure 58: Study model of the baths at St. Vincent

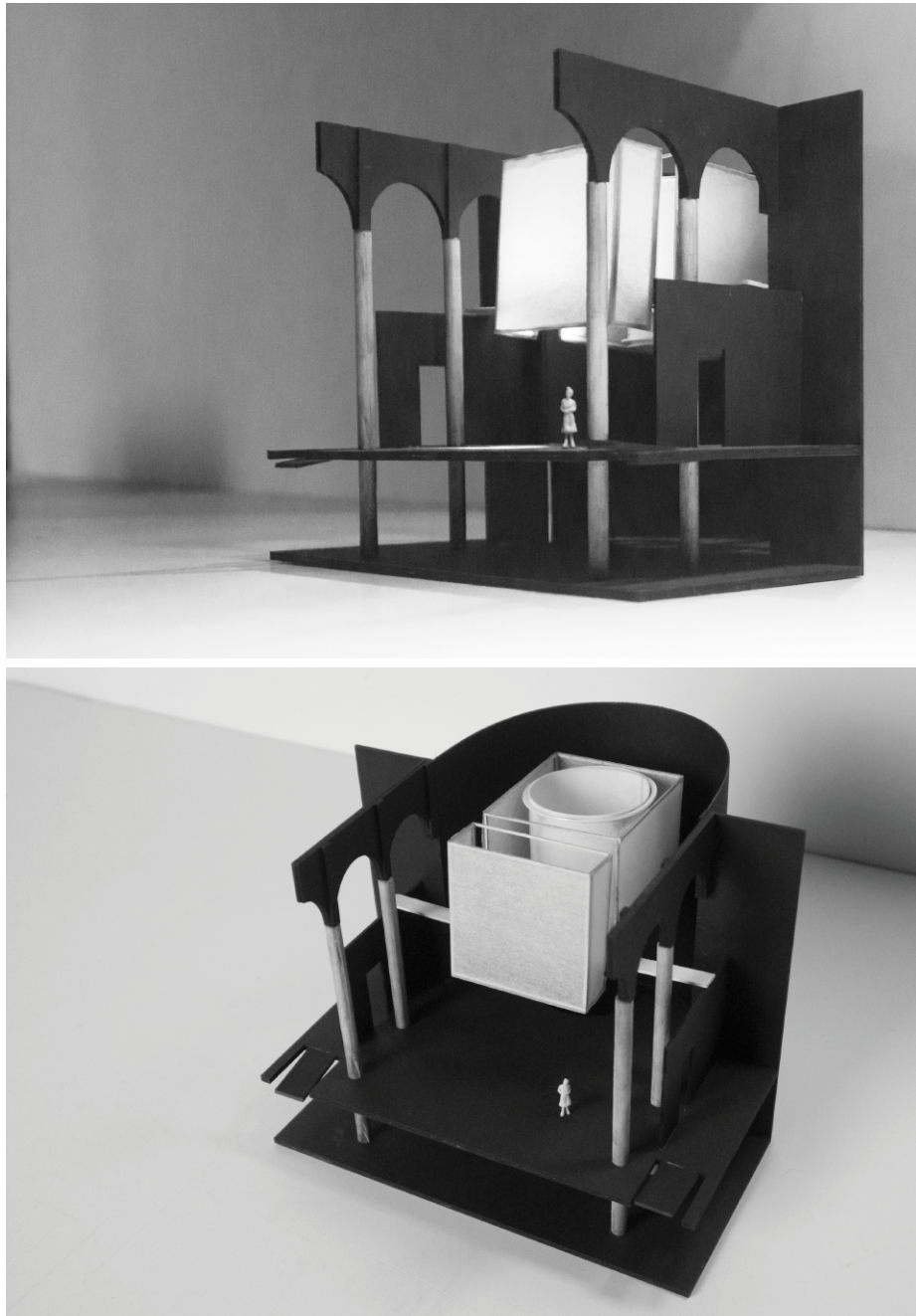


Figure 59: Study model of the Meditation Room at St. Vincent

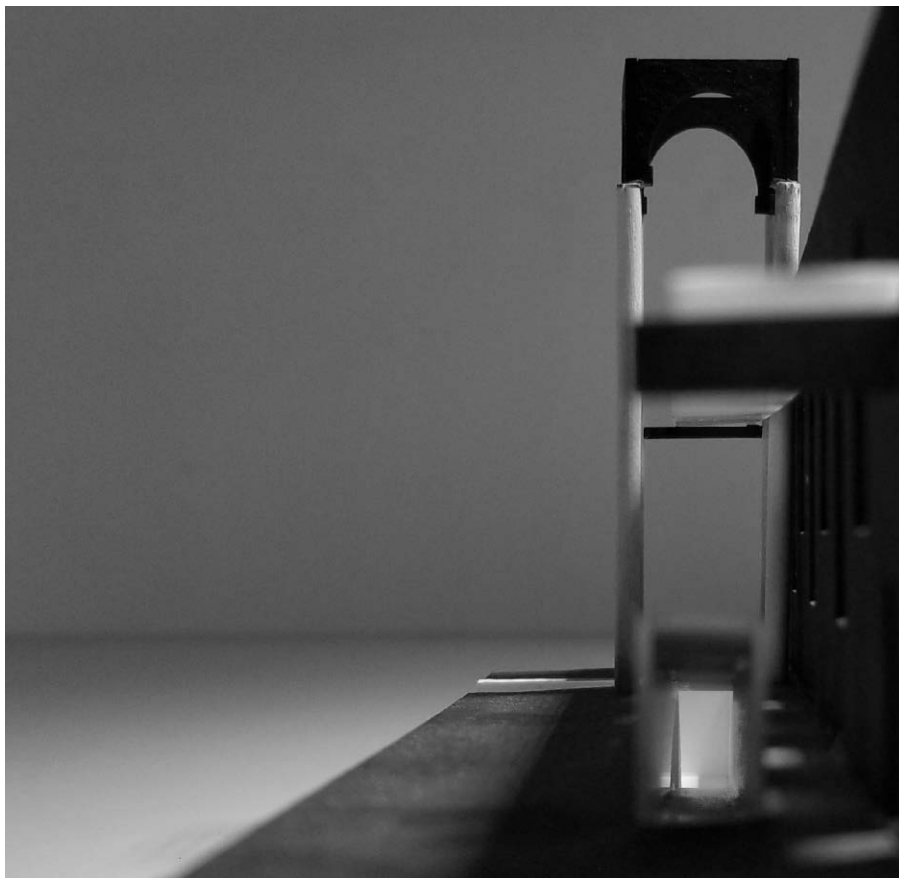
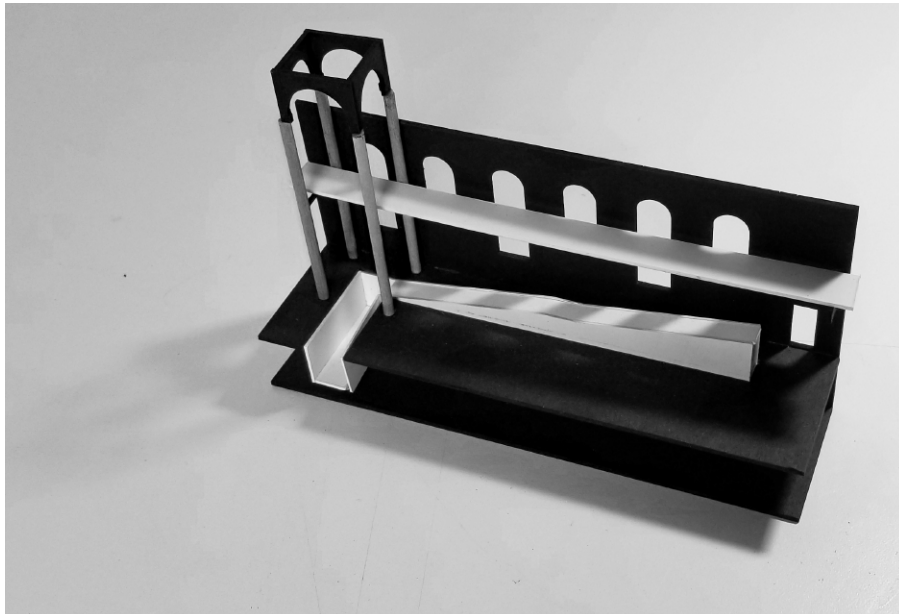


Figure 60: Study model of the circulation and ramps at St. Vincent

***St. Eusebe de Vercell***

The program for this church is a community cafeteria, which acts as a learning center for the students and community. This space would be dedicated to teaching, learning how to grow, prepare and eat food in an urban environment. During the day, it would be used by the surrounding schools, with culinary classrooms and a cafeteria space. In the evenings and weekends it could be transformed into a food hall with the classrooms converting into pop-up restaurants and the cafeteria becoming a market. The new food center focuses on teaching and learning, using food as a medium for healthy living in an urban setting. To describe the program, I categorized the spaces between growing, preparing, eating and teaching. There is a procession through the space, which follows the path of the food, as it moves through its stages of preparation.

Beginning with the growing of the food; the community public garden that historically sat on the property would be resurrected. This public garden would provide the opportunity for the whole community to gather and learn about the growing of food. A large greenhouse building is added to the existing church for the community and students to learn indoors. This gathering space was designed using the sacred qualities mentioned earlier, such as the large void in the center of the space which can be viewed from below. There are also individual learning opportunities such as the aquaponic's herb lab, which provides alternative examples of how to grow food in an urban setting. This dark space only has one opening which funnels the light from the outside into the enclosed space. The greenhouse also acts as a demarcation of the threshold into the church. This second entry creates an open invitation into the building with its transparent entrance that sits flush with the ground. Its five floors consist of walkways where the food is grown; they surround and form a large void in the centre. There is a low lying set of plants sitting on the ground, as well as hanging boxes which can be lowered or raised to provide access to everyone.

Preparation of the food begins with sorting and cleaning. The northern end of the greenhouse leaves room for sorting and preparation. There is a designated cleaning room, which sits in the center of the church, and has an open ceiling into the nave or cafeteria above. The culinary classrooms which act as the hearths of the space use the chimney's to exhaust fumes, symbolizing a cleansing through the making of food. In parallel, they act

as light filters, bringing the natural diffused light to both the gallery above and the ground floor. They also provide a space with a vertical void, giving similar scale as mentioned earlier in the Sacred Qualities Chapter.

Finally the nave is reserved for the eating of the food, and used as a cafeteria space for the students, and a food hall or market for the community in the evenings or weekends. The activity would act in a silencing manner, similar to what Zumthor talks about as an ocean of noise in which to concentrate. The culinary labs in the gallery beside add to the ordered repetition of the space. They also provide the space with a mysterious light which funnels through them. The elevated walkway, at points, punctuates the hearths and provides spaces to eat in smaller groups. These spaces are enclosed on 3 sides, and act as refuge's in the larger space, similar to Ando's UNESCO Meditation Space. Having a dedicated place for eating together is an important part of life; it has a social implication. But the space would be different than the fast paced eating we have come accustomed to in today's society. It encourages interaction and community engagement, through all the stages of preparation and eating. It gives the chance for people to slow down and interact, which is vital in today's busy world.

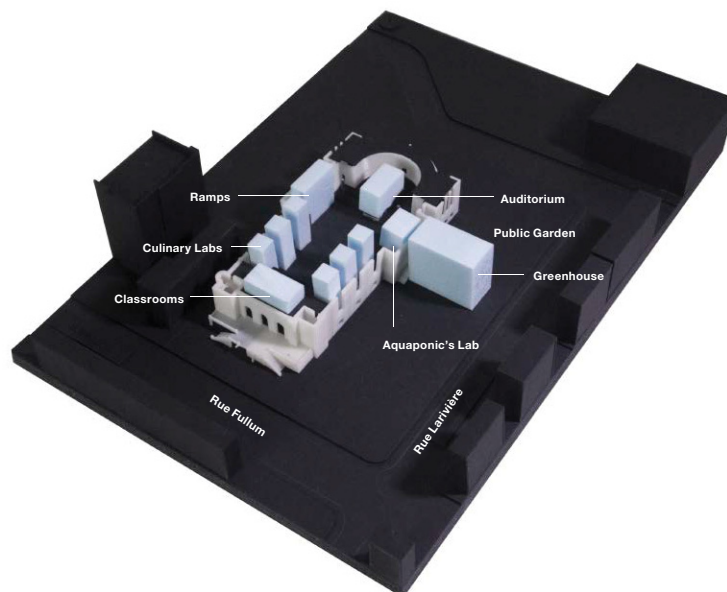


Figure 61: Programmatic sketch model of St. Eusebe (1:400)

There is a procession through all the stages of food, from growing and preparing, before finally entering the larger space to eat (See Figure 62). It starts in the public garden and

greenhouse, where the food is grown. At the end of the green house is a space for washing and cleaning the food before entering into the church and turning into the culinary labs, where the food is prepared. Finally the food reaches the nave where people gather to share and eat.

The sacred qualities, mentioned earlier, can be seen in the design of this community cafeteria. A procession follows the movement of food throughout the building, with a series of thresholds marking the transitions. An example of communal light can be seen in the greenhouse, with its series of elevated walkways filtering light into the space (See Figure 74). Individual silence is achieved in the cleaning room, (See Figure 75) which creates a refuge in the larger space. Figure 76 is an example of communal void, with the vertical shafts of the culinary labs being used as a chimney. The culinary labs also provide the space with a communal light, in Figure 77, filtering and holding the light in the cafeteria space. The repetitive and ordered nature of the space is maintained in the nave, creating communal silence (See Figure 78). Finally Figure 80 shows a direct light from outside being funneled into the enclosed herb lab, giving an example of individual light. Together these architectural qualities create a sacred place in the community, distinguishing it from other buildings around, as a place of gathering and contemplation.

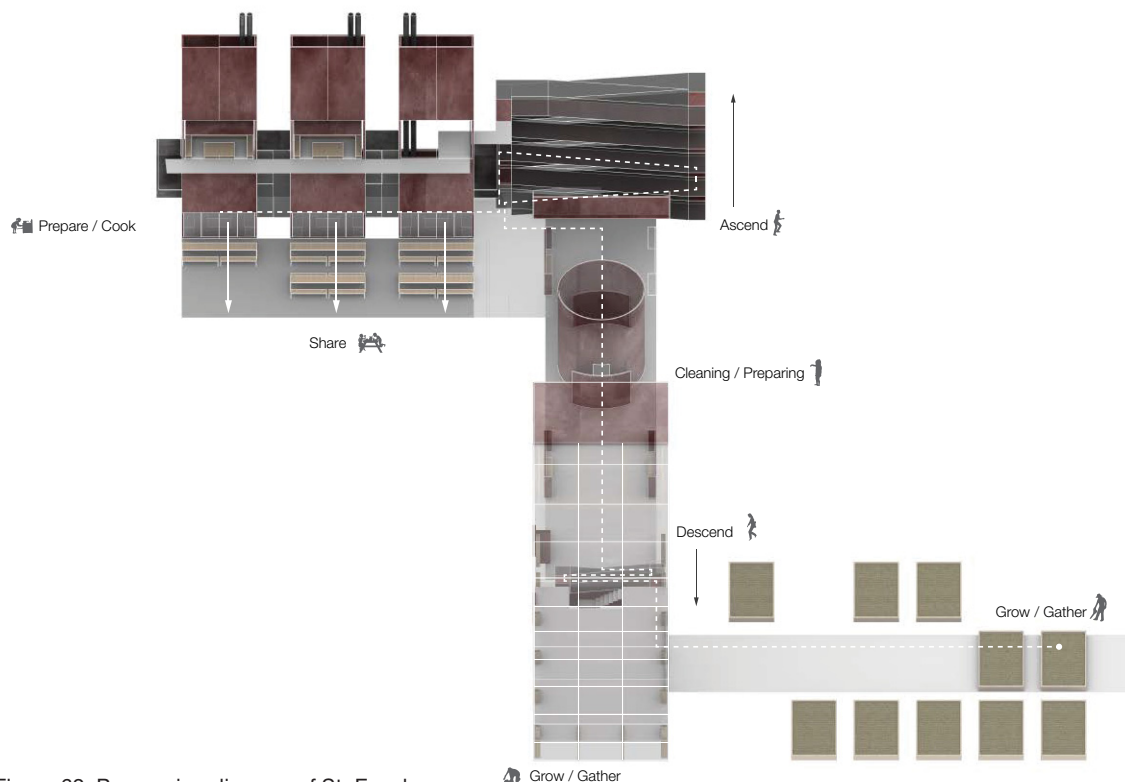


Figure 62: Procession diagram of St. Eusebe



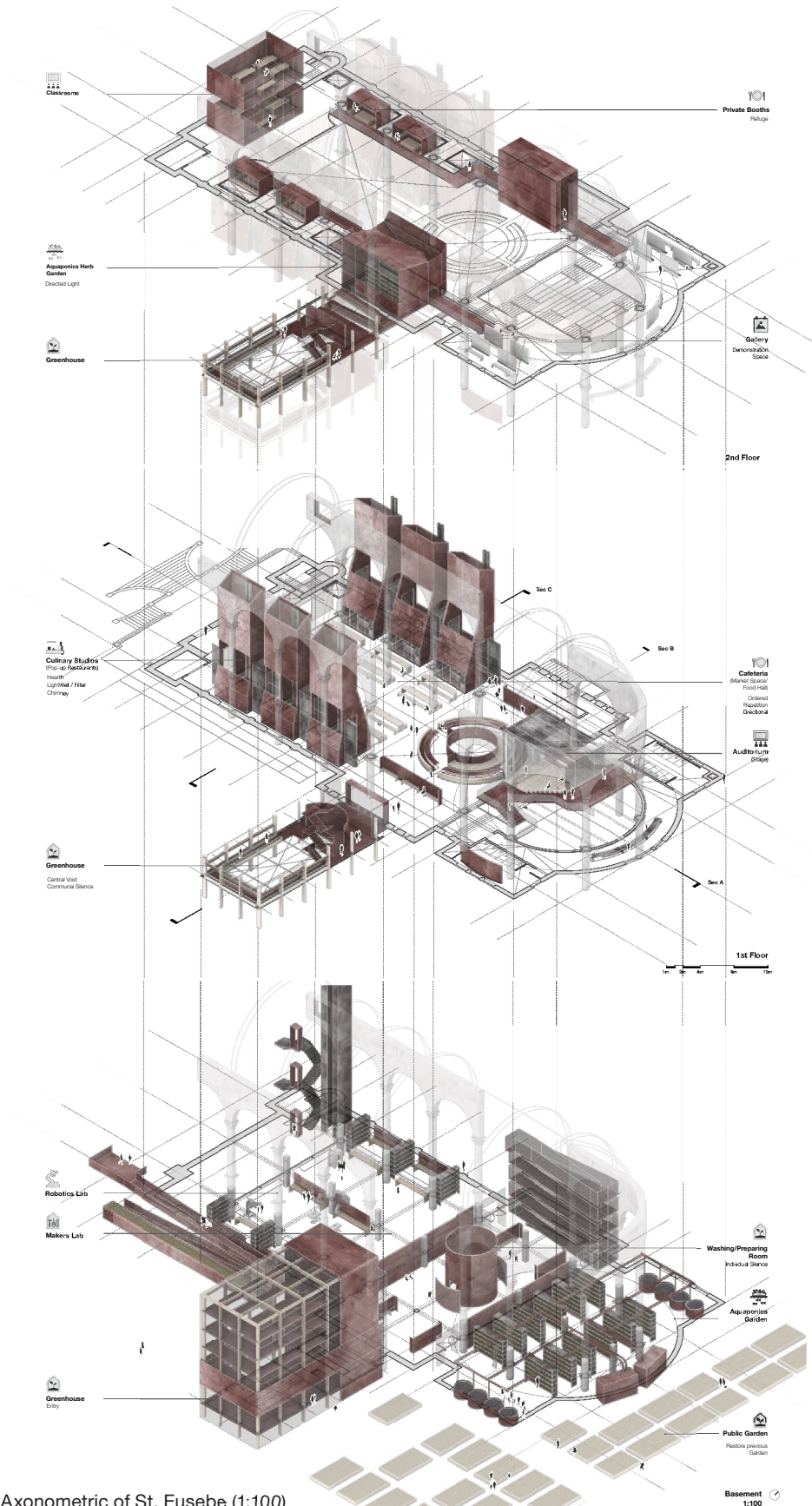


Figure 63: Axonometric of St. Eusebe (1:100)



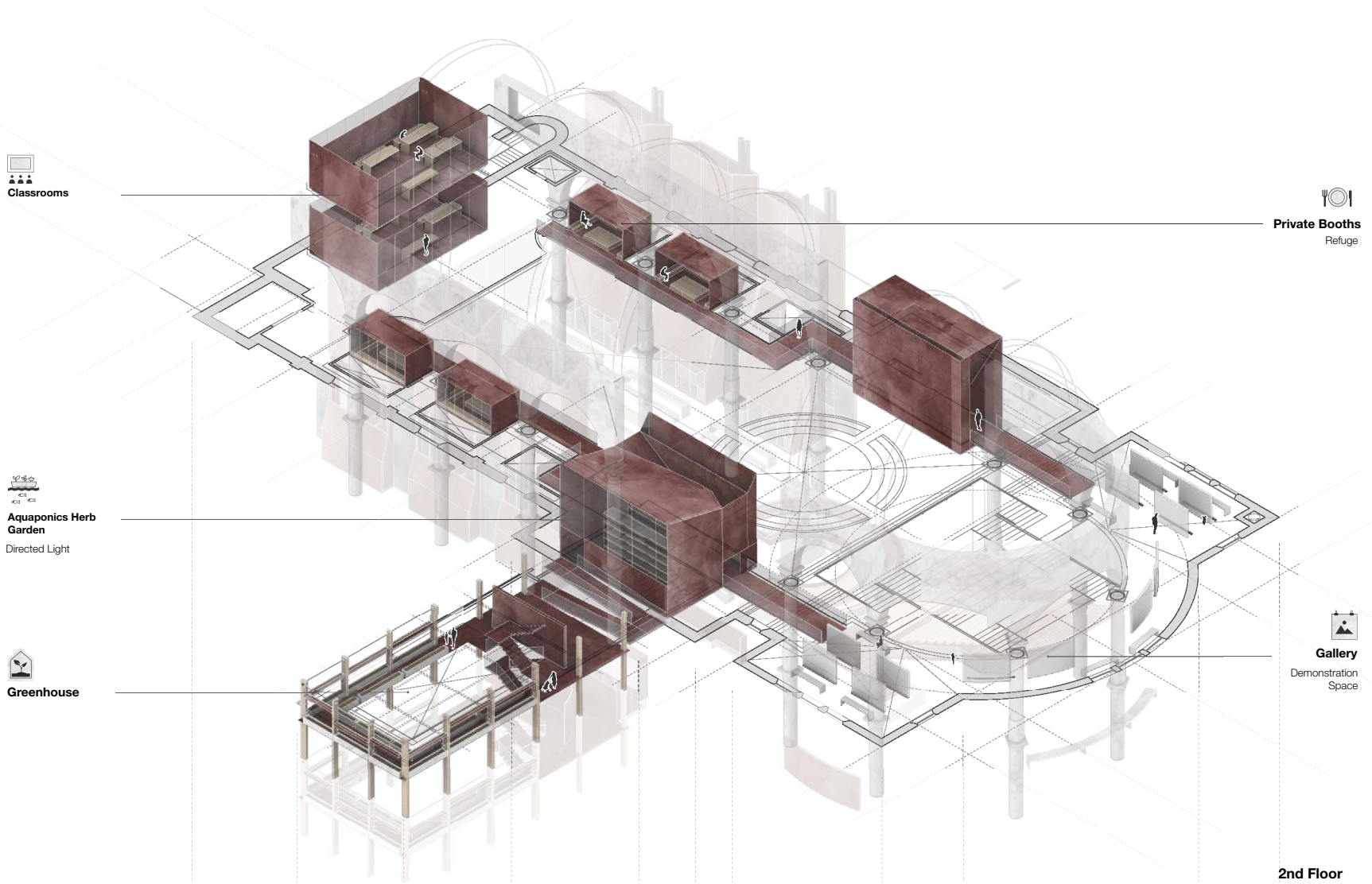


Figure 64: Axo. of the 2nd Floor in St. Eusebe

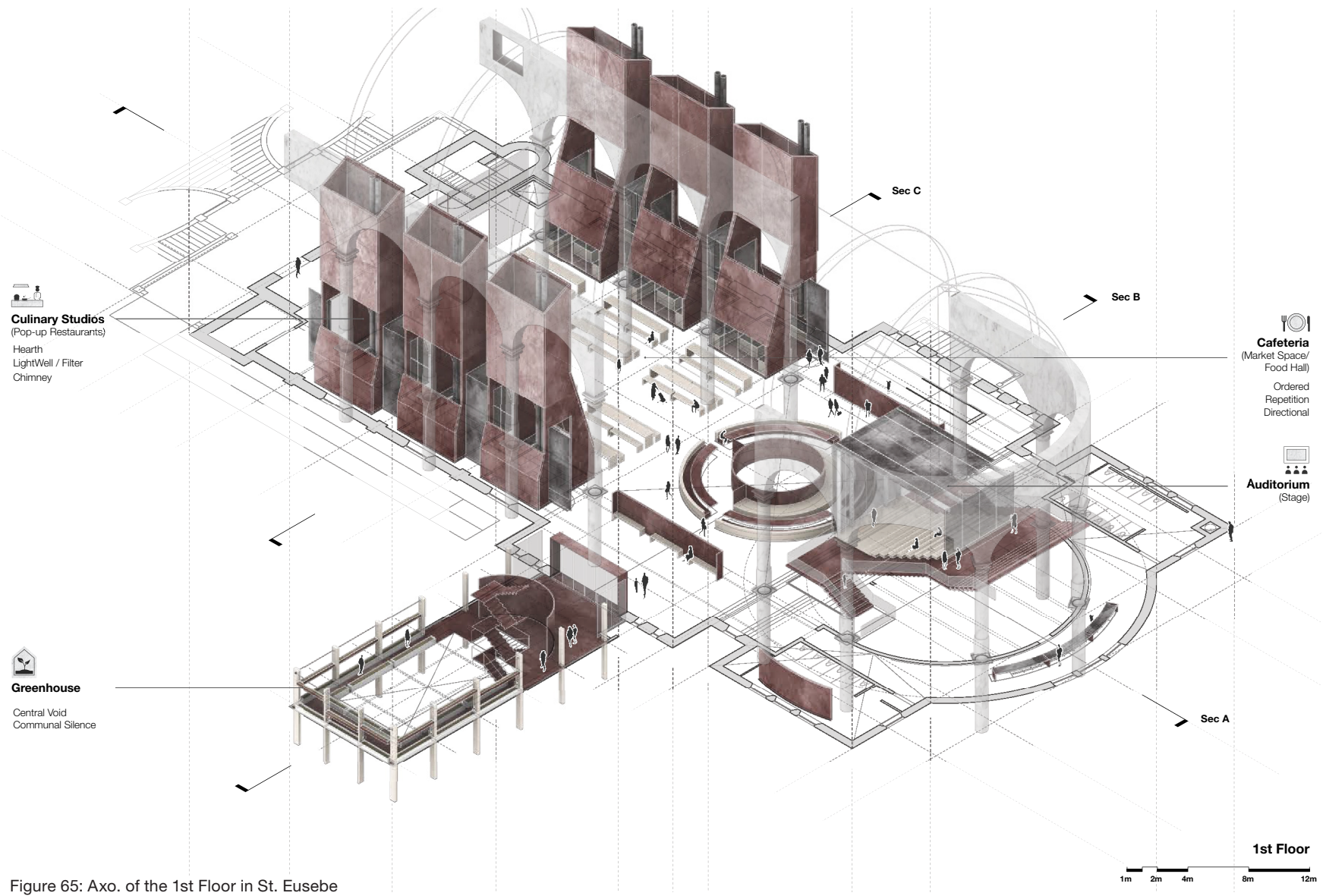


Figure 65: Axo. of the 1st Floor in St. Eusebe



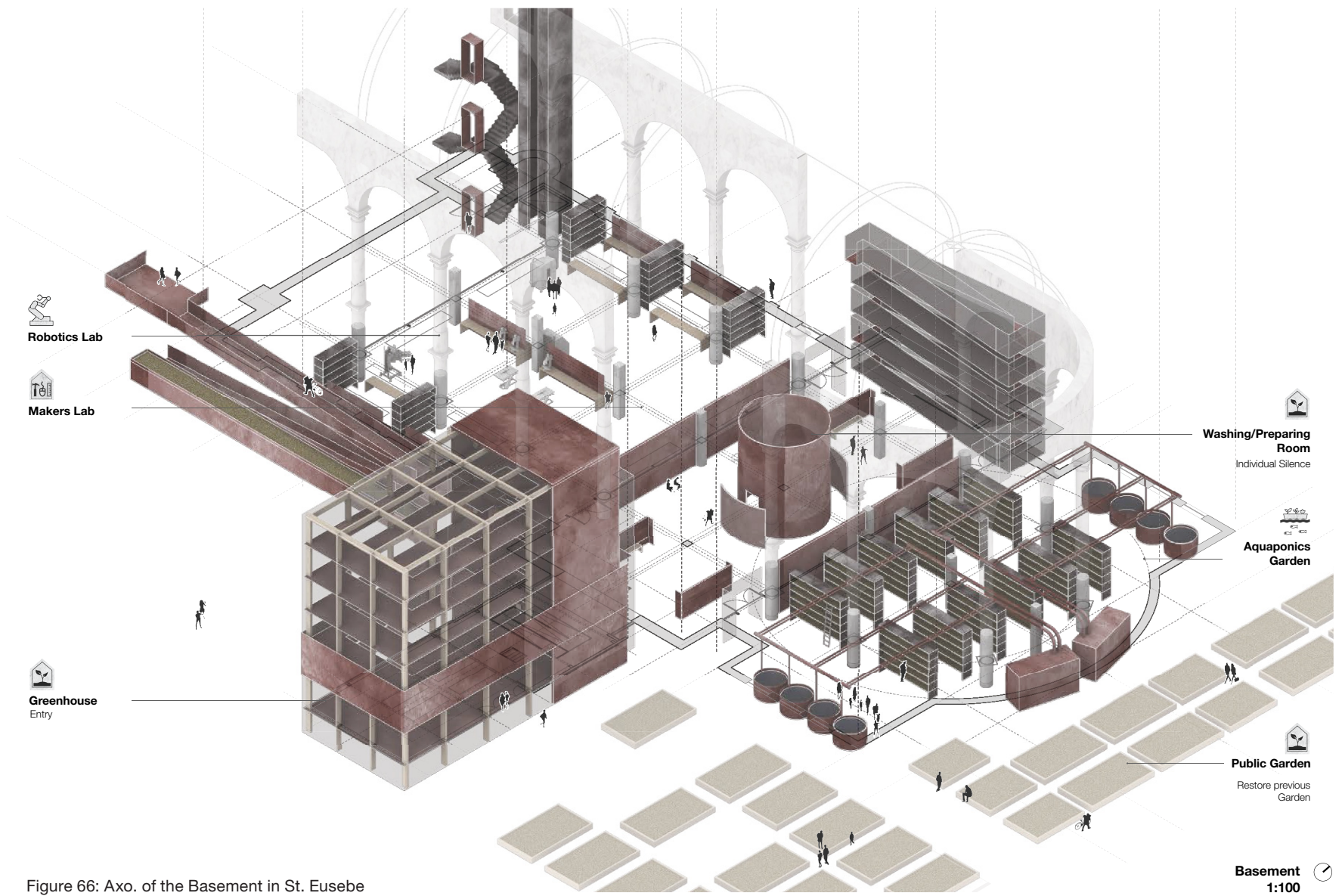


Figure 66: Axo. of the Basement in St. Eusebe

Basement  
1:100

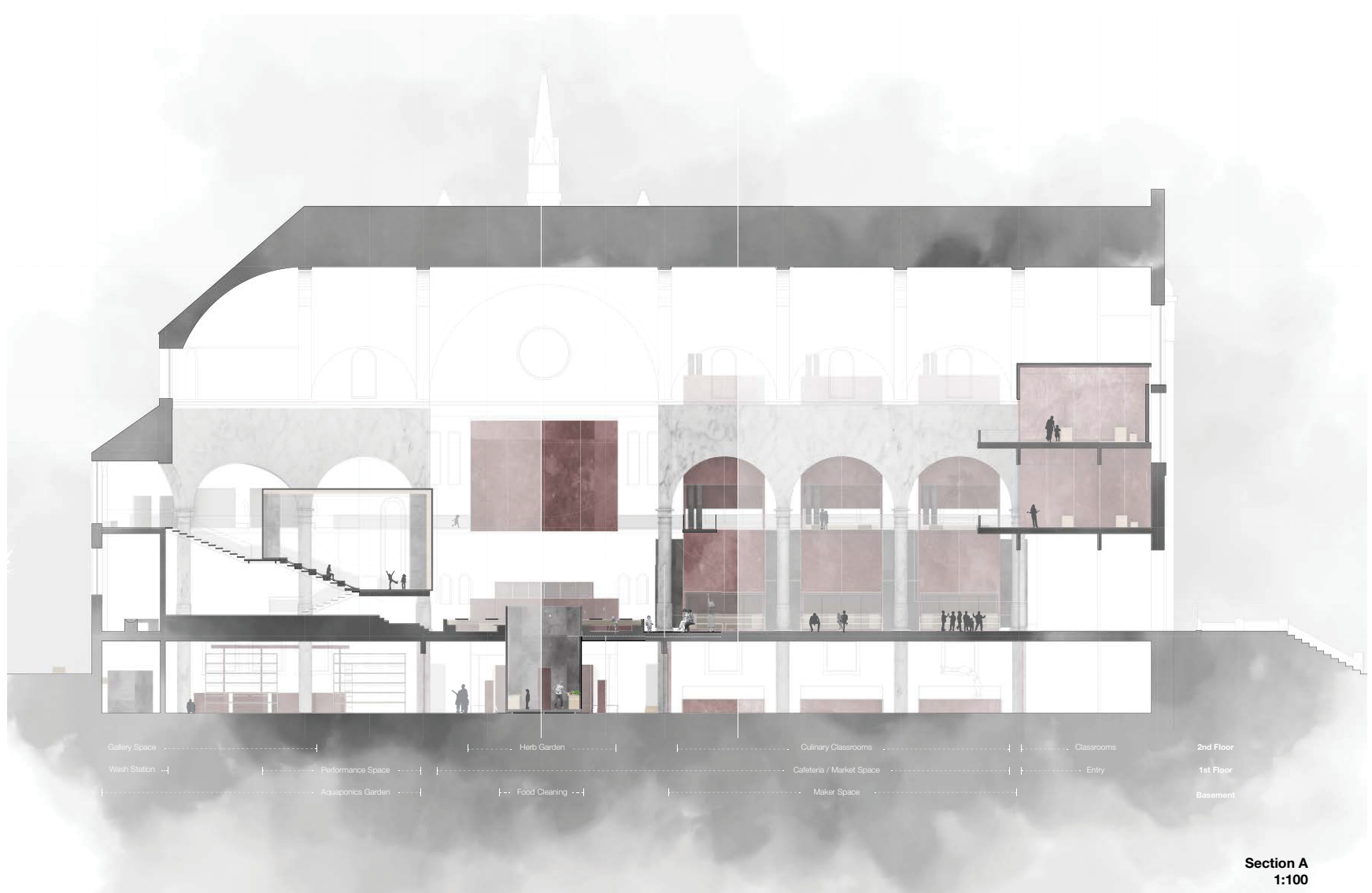


Figure 67: Longitudinal Section A of St. Eusebe

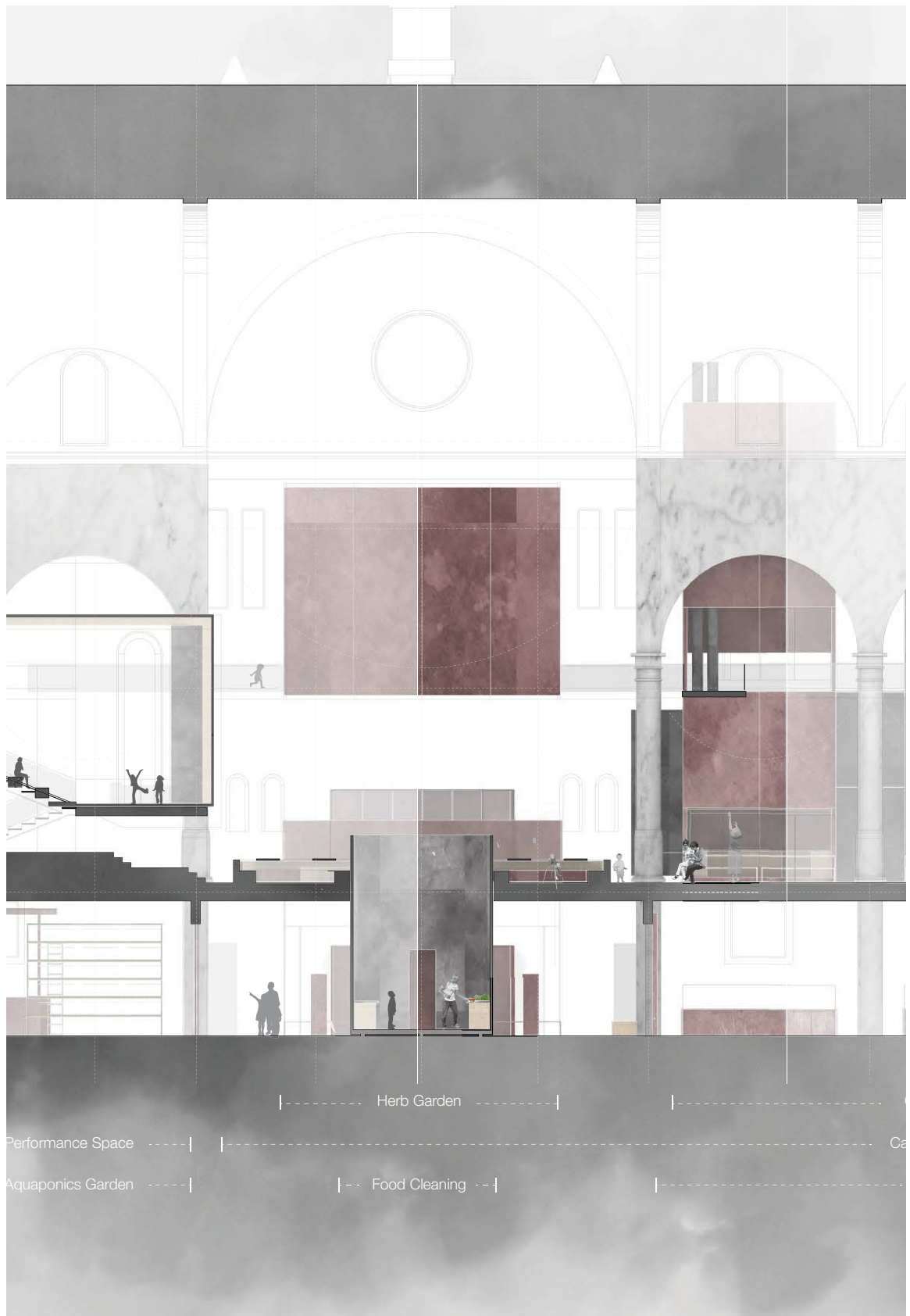


Figure 68: Enlarged section of longitudinal Section A



Figure 69: Transverse Section B of St. Eusebe



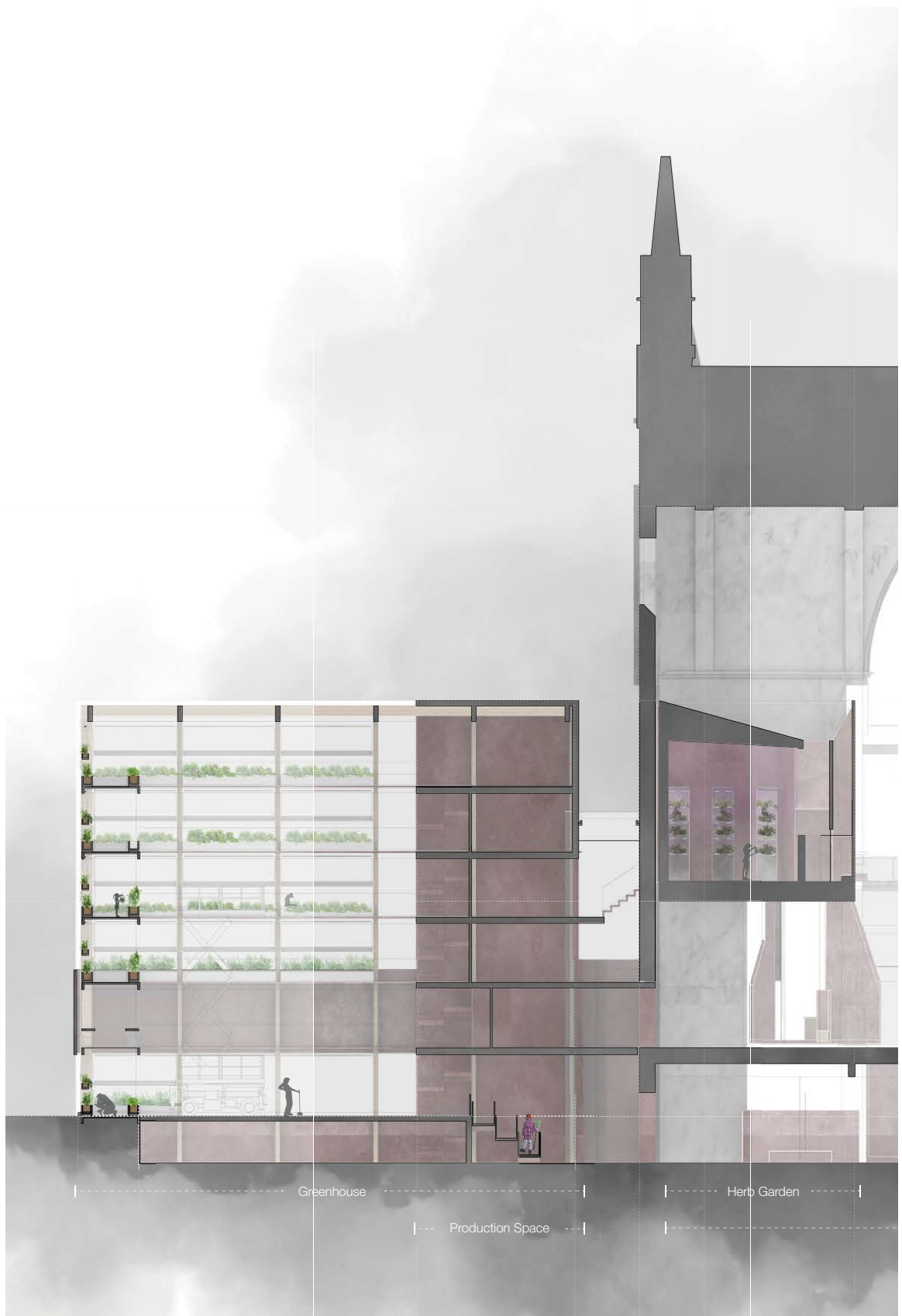


Figure 70: Enlarged section of transverse Section B



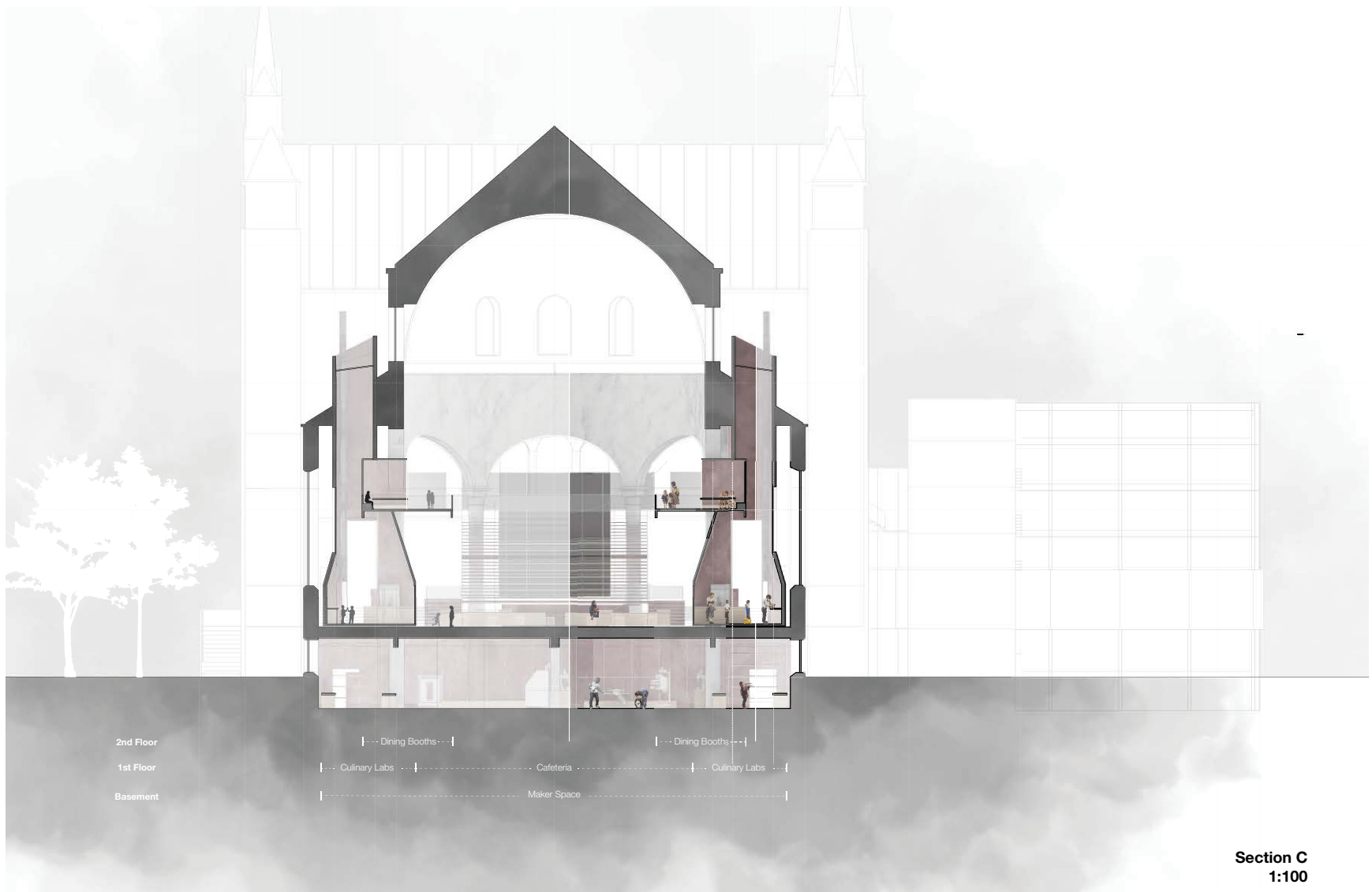


Figure 71: Transverse Section C of St. Eusebe



Figure 72: Enlarged section of transverse Section C

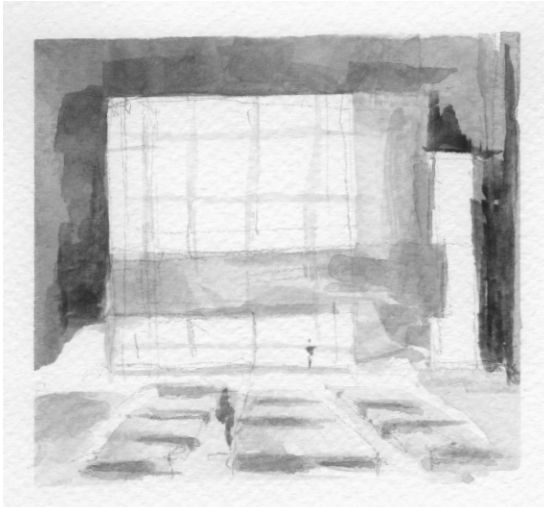


Figure 73: Watercolor: Procession

Description: Entry, Threshold

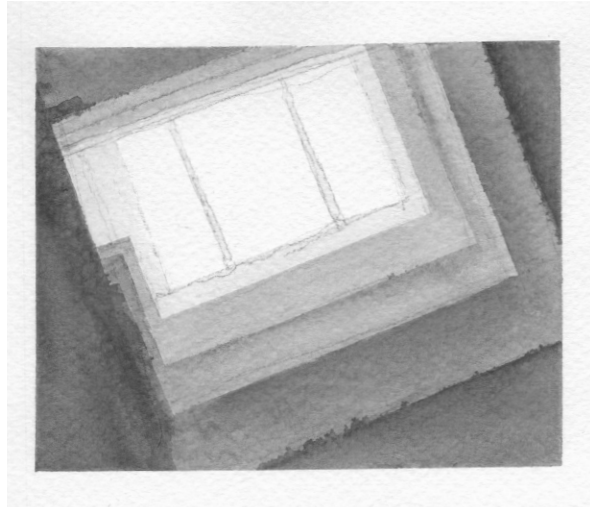


Figure 74: Watercolor: Communal Light

Description: Greenhouse  
Void, Held Light

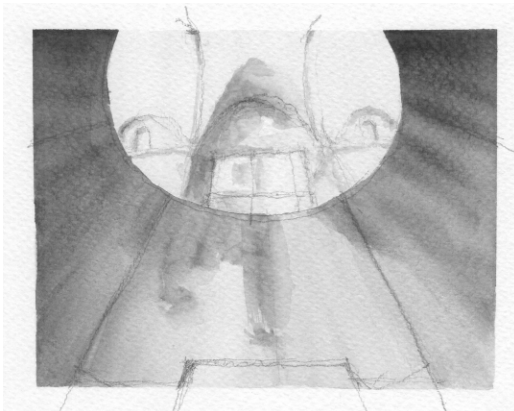


Figure 75: Watercolor: Individual Silence

Description: Cleaning Room  
Refuge, Void

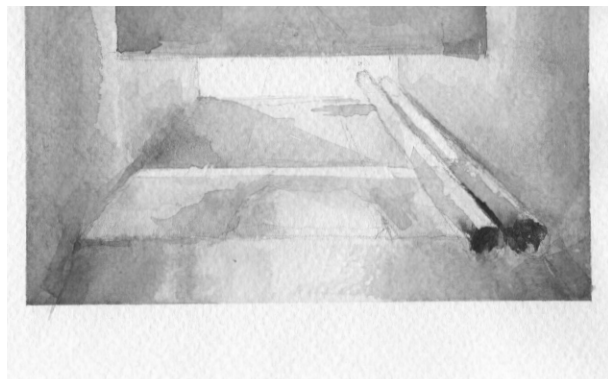


Figure 76: Watercolor: Individual Void

Description: Culinary Lab  
Chimney, Light Well, Vertical

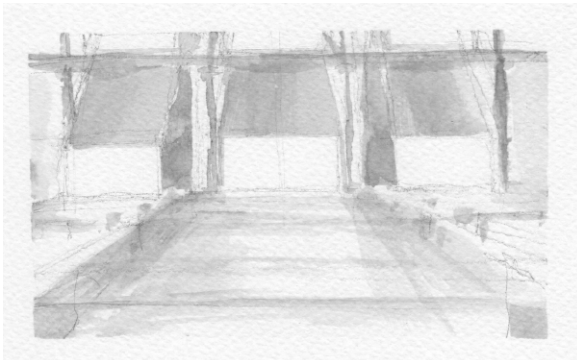


Figure 77: Watercolor: Communal Light

Description: Culinary Labs  
Filtered Light, Chimney

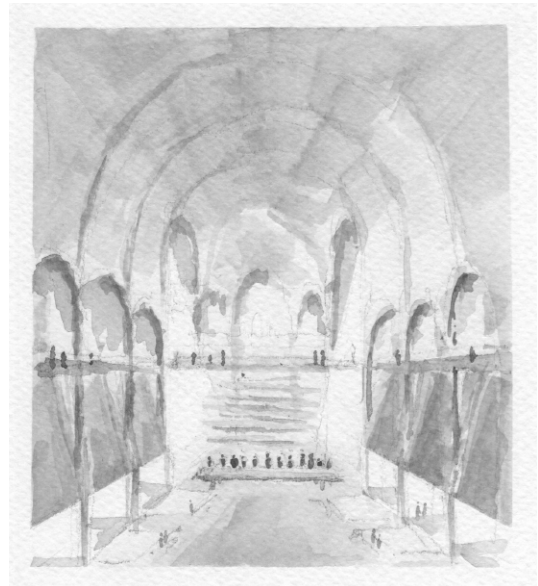


Figure 78: Watercolor: Communal Silence

Description: Cafeteria/ Market  
Repetitive, Ordered, Directional

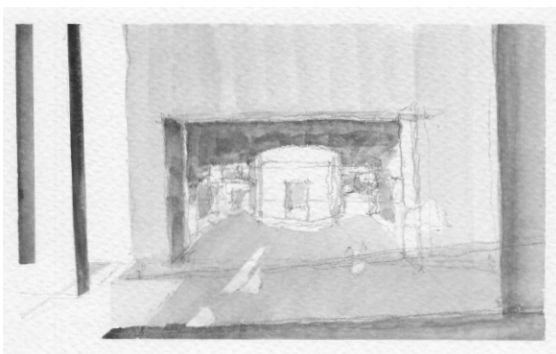


Figure 79: Procession

Description: Cleaning room  
Threshold, Descend

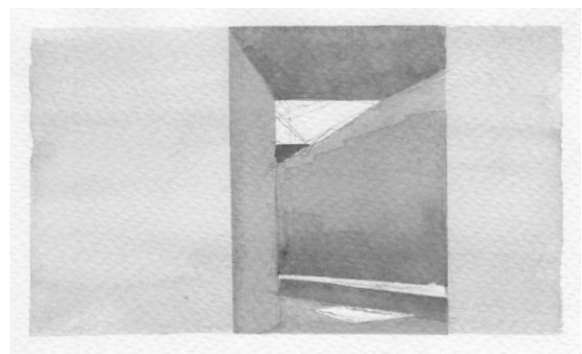


Figure 80: Watercolor: Individual Light

Description: Herb Garden  
Funnelled Light, Held

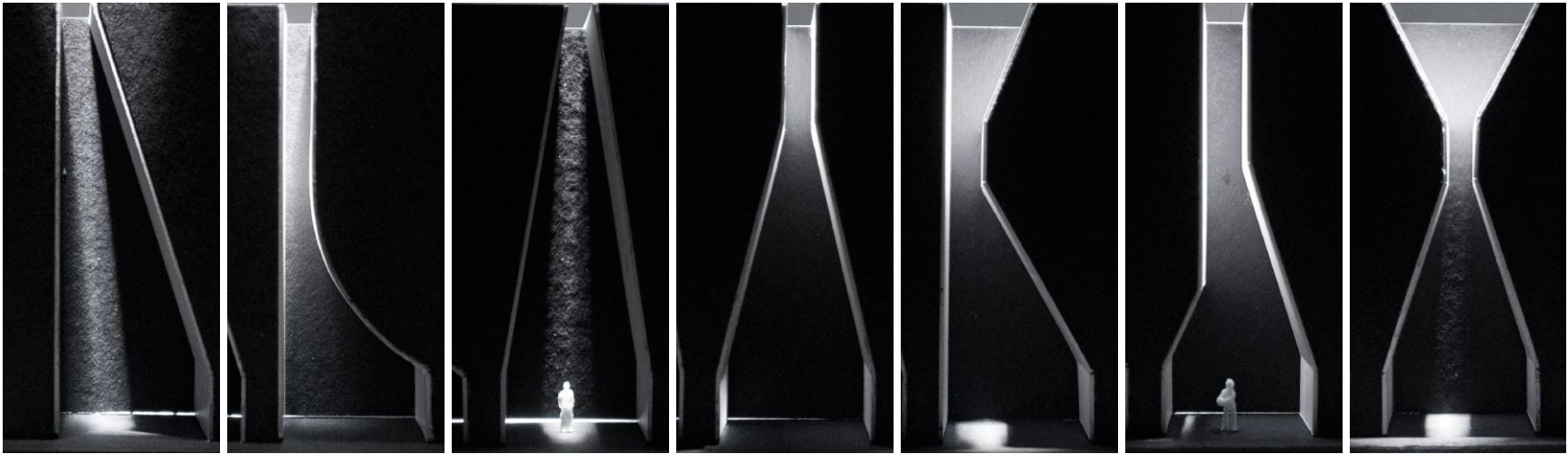


Figure 81: Light well study model



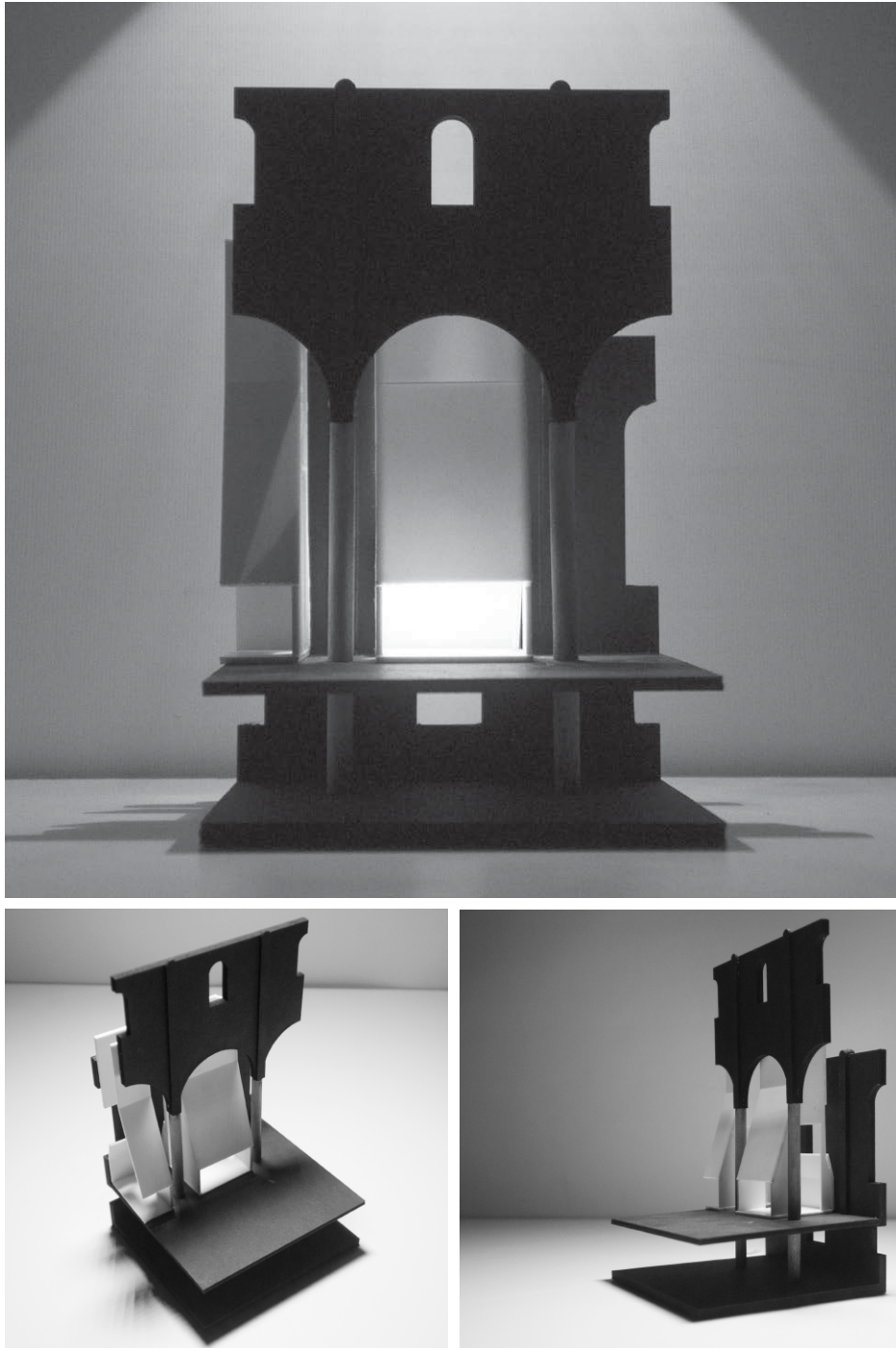


Figure 82: Study model of St. Eusebe

Description: Culinary Lab  
Chimney, Light Well, Filter







Figure 84: Final section model of St. Eusebe (Interior)  
Model built by Karl Gruenewald and Andre Kott

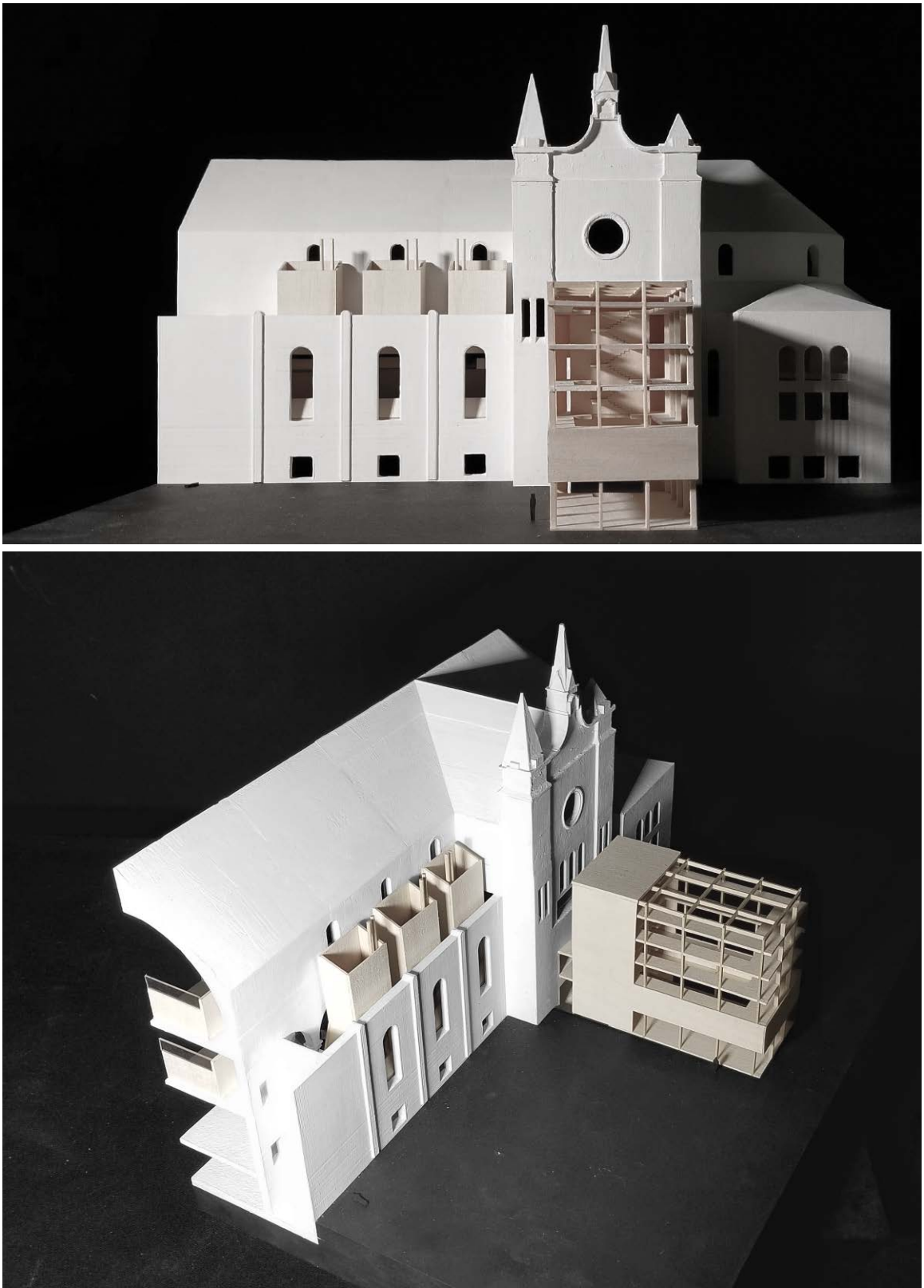


Figure 85: Final section model of St. Eusebe (Exterior)  
Model built by Karl Gruenewald and Andre Kott



Figure 86: Final section model of St. Eusebe (Culinary Labs)  
Model built by Karl Gruenewald and Andre Kott





Figure 87: Final render of the Cafeteria / Market in St. Eusebe



Figure 88: Final render of the Culinary Classrooms in St. Eusebe





Figure 89: Final render of the Greenhouse at St. Eusebe

## CHAPTER 5: CONCLUSION

Canada's religious outlook has gone through many changes in the last few decades and has left a trail of empty buildings in its path. Quebec was the first to see this problem, with its large catholic community declining since the quiet revolution. Montreal's religious community has been forced to deal with this problem in recent years. The increase in closing church buildings has sparked a trend in reusing these historic structures. While many of these places are being repurposed, the majority fail to maintain the sacred space, which these buildings still possess. Many also fail to maintain a sense of the whole, which is necessary, as mentioned in the Case Studies chapter above. While architecture can qualify a space as sacred, with the use of specific elements, it can also serve a sacred function. If the architecture creates a platform for a program pursuing goodness and providing a social service, it can achieve both a sacred form and function.

Historically the church was not only a place of gathering, but was responsible for the teaching and wellbeing of its community. The church, in Montreal, was the first to introduce education and health care to it's community. These vacant buildings, can be linked back to their historic role as a support for health and education with the introduction of new social programs. This would give them a higher purpose and return the ownership back to the community as a whole. The two sites I chose to test this thesis on, act as examples on how these spaces can be reprogrammed, maintaining their sacred architecture and their pre-existing sacred purpose.

St. Vincent de Paul is an example of how one can minimally add to these churches while also adding value to the community. Its program, as a wellness center, indirectly supports the health care institutions surrounding the church, while directly benefiting the health of the community around it. It is an example of how sacred architecture can be maintained, in order to preserve places of thought and contemplation in today's busy world. Similarly, St. Eusebe maintains those sacred qualities, and adds to them as a place of gathering. The community food center focuses on educating the many students in the surrounding area and teaches them how to grow, prepare and eat food in an urban environment. The culinary classrooms provide a space to learn the preparation of food. Finally, the cafeteria or market is a place for people to slow down and share the food, encouraging interaction

and fostering a sense of community.

Through the adaptation of vacant and diminishing church buildings in Montreal, they can be linked back to their history as a support for health and education, moreover creating a sense of community, while also preserving their sacred architectural qualities.



Figure 90: Final model of St. Eusebe (Interior)  
Model built by Karl Gruenewald and Andre Kott

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