I, Ari Samuel Pescovitz, hereby submit this original work as part of the requirements for the degree of Master of Architecture in Architecture (Master of).

It is entitled:
Speaking Through Details:
creating an architecture of meaning through the art of ornament

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Speaking Through Details:
creating an architecture of meaning through the art of ornament

A thesis submitted to the Graduate School of the University of Cincinnati
in partial fulfillment of the requirements for the degree of

Master of Architecture

in the School of Architecture and Interior Design

of the College of Design, Architecture, Art, and Planning

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Abstract

This thesis explores, through the lens of the synagogue, how architecture in the 21st century can create buildings that speak about the ‘immeasurable’ elements of design, such as symbolism and narrative, through an exploration of the art of expressive detailing. Throughout history many architects and theoreticians have explored the role of small-scale design in an effort to awaken meaningful engagements between the inhabitant and the architectural place. As the synagogue architect Maurice N. Finegold once said, “Architecture speaks. It expresses what we value from the past, what our needs are now, and, at its best moments, looks to the future.” Unfortunately since the middle of the 20th century much of the field of architecture has abandoned the art of detailing and ornament, and thus has lost its voice. With the use of the design project, this investigation revitalizes the teachings of Otto Wagner, Frank Lloyd Wright, and Carlo Scarpa in order to develop an architecture appropriate for a contemporary synagogue design. Much as they sought to enrich their architecture with symbolism and meaning through their use of expressive detailing, this project seeks to develop a similar relationship between the “construction and the construing” of architecture through the lens of Jewish texts, history, culture, community, and worship.
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Methodology

1. How do buildings speak through details?

2. What does the architectural discourse from before and after modernism say about ornament and detailing?

3. How does judaism speak through design?

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Research

- Develop strategies that explore the expressive potential of ornament.
- Understand the layered approach to rabbinical understanding of ornament of ritual.
- Create opportunities for different functioning details and ornament.

Design

- Synagogue design.

Fabricate

- Ornament.
- Building details.
- Judaica objects.
In a recent book, *The Architectural Detail*, Edward Ford describes the act of detailing as “a question not just of part to whole, of construction to ornament, of style to reality, but of the relationship of ourselves to a work of architecture.” Building off of the philosopher José Ortega y Gasset, this concept of “architectural distance” explores the art of building as a dichotomy between abstraction and articulation. On the one end, abstraction is responsible for understanding the concept of the building and its applied forces, while pushing away interaction. On the opposite end, articulation allows one to “feel” the building, as engagement becomes central. Ortega argues that the degree of closeness garnered by articulation “is equivalent to the degree of feeling participation;” it provides us with a view of ‘lived’ reality, in contrast to the ‘observed’ reality of abstraction. Ford argues that successful architecture must balance these disparate impulses in order to “vary the distance” between man and building. The error of mid-century modernism, and its contemporary manifestations, is in their wanton rejection or mere ignorance of the articulation end of this spectrum.

Expressive detailing has the potential to articulate the architecture through two primary characteristics. The first of these, ‘scale,’ allows the architect to relate the physical body with the architecture. As Ford says, “scale matters because there is a point at which the forces at work in a building, real or perceived, are on the order of forces at work inside ourselves; and this is where empathy occurs.” Juhanni Pallasmaa, in *Eyes of the Skin*, argues for this small-scale articulation in an effort to engage the tactile sense. For the architecture to fully embody a “material and spiritual presence”, Pallasmaa argues that there is a need for elements “molded for the pleasurable touch of the eye.” While often downplayed in contemporary architecture, tactile sensations greatly influence the architectural experience. Embraced by the phenomenologists, in their search for multi-sensory architecture, the

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1 Ford, Edward. *The Architectural Detail*
2 ibid.
3 Pallasmaa, Juhani. *The Eyes of the Skin*
relationship between the detail scale and the sense of touch lies at the core of an architectural experience.

The second crucial aspect of detailing is its role as a ‘joint’. While not restricted to constructional joints (it can also be a spatial, programmatic, or symbolic joint), the detail as joint serves to articulate the disparate elements of the architecture and praise their interactions. Peter Rice, the engineer for the Pompidou Center in Paris, argues that, “it is the expressiveness of the joining which humanizes structures and gives them their friendly feel.” By articulating the ‘part-between-parts’ the abstract becomes defined and therefore accessible to the human spirit. Throughout human history this desire to create architecture that can speak to the human spirit has always manifested itself through the detailing and ornament. As technology and human culture have changed through time, the forms, materials, and methods of detailing have also changed: however the essential interaction between the architecture and the human scale has remained constant. Since the Industrial Revolution, the change in both society and technology has mandated a new approach to ornament and detailing unlike any seen in previous generations. This flourish of development explored many potential ways in which detailing in architecture could speak to the human mind and hand. Unfortunately due to the pervasiveness of ‘abstract modernism’ few of their lessons were utilized and further developed. In contrast to the “revolution” of modernism, architecture today requires a re-examination of the past discourse in order to create a more “evolutionary” solution.

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Ford, Edward. The Architectural Detail
Before the industrial age, architectural creation was inseparable from the ideas of meaningful detailing and ornament. This line can trace its way back from Palladio, and the Renaissance masters, through the use of interior frescoes that expanded the experience of the architectural space by creating imaginary worlds almost within reach, as well as through an integrated sculptural program. Further back, the Gothic style utilized ornament and decoration to beautify and accentuate structural features. In addition, as religious facilities, the massive cathedrals integrated an extensive sculptural program within the architectural construction in order to teach the people the stories of the bible (in a pre-literate world)\(^5\). As the gothic revivalist Victor Hugo said in the 19th century, “Architecture has recorded the great ideas of the human race. Not only every religious symbol, but every human thought has its page in that vast book.”\(^6\)

As one travels further back in time, this idea still holds true. The architecture of the Romans, Greeks, and Egyptians embraced the potential of the ornamental detailing to develop a purposeful and symbolic meaning behind the architecture, often related to the religion of the place. While much of this design can be thought of as merely surface applied, its function within the edifice to create a ‘building fraught with meaning’ is undisputable. In fact, most of what is known about past civilizations comes from a study of their architecture and its associated sculptural program, frescoes, and integrated texts. In ancient Judaism, one sees a similar treatment with both the Tabernacle and the Temple. In both cases, the Bible explicitly describes both how and with what these structures and their associated furnishings should be decorated, often to the exclusion of a discussion over the architectural space. While the Bible almost never explains the ‘why’, Jewish rabbis (and Christians alike) throughout history have sought to explain the meaning behind the symbolic ornamentation and prescribed materials and construction methods.

\(^5\) Trilling, James. *Ornament: a Modern Perspective*

\(^6\) *ibid.*

**Literature Review:** Early Builders
Beginning with the Industrial Revolution, in the 18th and 19th centuries, the practice of architecture changed forever. For the first time in history, technology, via mass-production and machining, replaced the traditional techniques used to create most objects, especially architecture. This profound change in the methods of production inspired many different designers/thinkers to propose solutions to the crisis. These theoreticians can largely be divided into two groupings, those that clung to the past methodologies and those that pushed to develop the new techniques into a novel architecture appropriate for their time. Perhaps most interesting about these early two groups, in contrast to what follows World War II, is their unified focus on creating richness and meaning in the architectural experience through a focus on ornamentation and architectural detailing.

The primary architectural movement of this time period was led by the École des Beaux-Arts in Paris. This institution, dating back to 1648, reached its maturity in what is known as the Beaux-Arts movement. Focused primarily on neoclassical design, this movement utilized machining and mass-production techniques, but hid them behind a classic skin. To this school, architecture was thought of as the conveyor of ideas and sentiments. Etienne-Louis Boullée (1728-1799), one of the school’s early instructors, developed the concept of ‘character’ as the “the effect of (an) object to make some kind of impression on us.” It was through the ‘character’ of the space that the architect expressed the mood and atmosphere of the building. In the context of the classical orders, this developed into a system of choosing the appropriate order, and its associated ornamentation, for the specific client, reserving the more elaborate columns for more distinguished buildings. Much of this character was developed through an investigation of detailing and depended on “interrelated kinesthetic and psychic responses” to the architectural components. The analytique, a composite drawing of architectural elements developed during the Beaux-Arts’ period of

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7 Rosenau, Helen, etd. *Boullée’s Treatise on Architecture*
8 Jordy, William H. “Craftsmanship and Grandeur in an Architecture of Mood”
dominance, manifests this approach to design. In the drawing, the intention is to understand the character of the entire work through fragments of design at multiple scales, an approach to design that will be re-introduced in the drawings of Carlo Scarpa.

Another concept developed by Boulleé was the idea of congruity. Boulleé argued that, “The business and office of congruity is to put together members differing from each other in their nature, in such a manner, that they may conspire to form a beautiful whole...” This unity, Boulleé contends, is the ultimate goal of architecture providing the building with “beauty, dignity, and value.” Drawing from the consistency of the classical orders, this idea of creating a whole through the articulation of the parts, in other words the act of detailing, would ultimately affect the work of much later designers such as Otto Wagner and Frank Lloyd Wright.

While not technically Beaux-Arts in origin (due to the use of different architectural models from antiquity), the grand cathedral-synagogues of the late 19th and early 20th centuries also masterfully embraced the concepts of ‘character’ and ‘congruity.’ Plum Street Synagogue in Cincinnati is a clear example. In the design of this sacred space the architect (James Wilson in 1865) sought to create a structure that powerfully referenced the history of the Jewish people. Through the use of a hybrid Moorish/Byzantine revival style, Wilson conjured up the majesty of the Al Hambra golden age (1000 CE in Spain). In addition, the grandeur of the space and its elaborate ornamentation creates a reverential feeling as if standing before God. Finally, the ornament fused with the architectural experience creates a visual hierarchy that emphasizes the ark and its central role throughout Judaism.

With regards to construction, the Beaux-Arts were often unconcerned with addressing the reality behind their revival facades and the modern structures beneath. It did not violate their values to create steel structures clad in cast reproductions of historical detailing as long as the final ‘character’

9 Rosenau, Helen, etd. Boullée’s Treatise on Architecture
10 Stolzman, Henry. Synagogue Architecture in America
of the design induced the appropriate mood. For instance in the Chicago World’s Fair in 1893, due to the temporariness of the project, the entire complex was constructed of steel, not unlike the Crystal Palace, and clad in a white stucco, called staff, that looked like stone. The emphasis was on the experience produced by the classical imagery and less so on a conscious response to the new technological condition sweeping the world, much as a set design

Concurrent with the development of the Beaux-Arts movement, John Ruskin (1819-1900), saw the Industrial Revolution entirely differently. To him it was the end of our humanity. Ruskin argued that the standardization brought on through manufacturing demoralized society. In the opening to *The Seven Lamps of Architecture* he argues, “all architecture proposes an effect on the human mind, not merely a service to the human frame” While this view is very much in line with the Beaux-Arts idea of ‘character,’ the ‘dishonesty’ of mass-production techniques used to create the uniform classical-revival architecture of the Beaux-Arts transmitted a dishonesty and anonymity to mankind’s moral being. By looking to the past, in particular Gothic cathedrals, Ruskin hoped to find an architecture of spontaneity, individuality, and morality through which social change could arise. *The Seven Lamps of Architecture* explores in depth how the Gothic style manifested these ideas of Truth, Sacrifice, and Obedience, among others, through the architectural ornamentation and detailing. To Ruskin, “architecture is the art which disposes and adorns the edifices raised by man...that the sight of them may contribute to his mental health, power, and pleasure.”

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11 Jordy, William H. “Craftsmanship and Grandeur in an Architecture of Mood”
12 Ruskin, John. *The Seven Lamps of Architecture*
13 ibid.

**Literature Review:** Industrial Backlash
In contrast to Ruskin’s disinterest in the building structure itself, a fellow gothic-revivalist and contemporary, Eugène Viollet-le-Duc (1814-1879) embraced structural honesty and argued that any ornament used must be so essential to the structure of the building that to remove it would damage the building. In addition, he argued that one of the primary functions of ornament must be to emphasize structurally significant locations, largely in line with the Beaux-Arts idea of creating visual hierarchy at a number of discreet locations\(^\text{14}\).

Inspired heavily by Viollet-le-Duc, artists, architects, and craftsmen of the following generation sought to create a novel approach to design by embracing the newly industrialized condition. At the helm of the movement in Austria was Otto Wagner (1841-1914). A professor of architecture, he aligned himself with the Secessionist movement of Vienna and joined soon after its creation in 1897. Breaking off from the artificial neoclassicism of the academy, this group sought to create a new art form under the motto: “To every age its art. And to art its freedom.” Wagner saw the impact of new technology as the most central issue of his age and worked to create a new architecture appropriate for a “modern” people\(^\text{15}\).

In his seminal work *Modern Architecture* (the first such text to define the term), Wagner, as a professor, lays out his ‘modern architecture’ to future students. He explores the role of the architect, issues of composition and aesthetic decisions, the practice of art, and the art of construction as well as its role in ‘modern’ architecture. Above all else, Wagner affirms and reaffirms the centrality of architecture amongst the other art forms (an idea that will later become a central tenant of Gropius’ Bauhaus). He argues that the architect must “never lay down the staff of command” over painting and sculpture\(^\text{16}\). Their inclusion, he argues, is essential to the experience of the space and it is the overall architectural vision that should drive their use.

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14 Trilling, James. *Ornament: a Modern Perspective*
15 *ibid.*
16 Wagner, Otto. *Modern Architecture*
form, and location. In addition, the construction of the building itself should be elevated to an art form with details and joints functioning as another level of art. In Wagner’s discussion of composition, he further reiterates the need for imaginative detailing and ornament that works in conjunction with the architectural space in order to “affect the senses of the viewer...thereby greatly facilitating understanding and judgment.” In his analysis, he also supports the original Beaux-Arts idea of a hierarchy of detail that allows the mind to concentrate and rest on specific elements before beginning to understand the whole.

In many ways, Wagner’s built work more successfully depicts his view of construction, detailing, and ornamentation than even his text. In particular, the Kirche am Steinhoff, finished in 1907, is regarded as one of the great monuments of this early modern architecture. In the structure, Wagner designed all of the architectural details, as well as the furnishings, light fixtures, and the baldacchino in an effort to create artistic moments for the mind to pause and ground the occupant in the space. In addition, Wagner orchestrated the location, content, and artist selection for the large mosaics, stained glass, and sculptural elements (both inside and out). As opposed to some at the Beaux-Arts, Wagner chose to create this expressive whole through a new architectural language framed by the ‘modern.’ In particular his use of panel construction, in contrast to solid construction, allowed him to clad his entire building in much more expensive marble, of which less was needed. He then subsequently chose to express this construction by adding large rivets to the marble that both create an interesting aesthetic contrast as well as serve to help understand the structure through its construction.

Concurrent with Wagner’s investigations into modern architecture in Europe, the American Frank Lloyd Wright was exploring the future of architecture in America both through his architecture and in particular through his written work such as, *The Art and Craft of the Machine* (1901). In the essay, Wright proposes (much as Wagner) that the ‘machine’ in the
hands of a true artist is like any other tool in his arsenal. It serves to save human time and effort. Through an extensive analysis of the role of the printing press, arguably the most influential machine ever, Wright explores the differences between using such a machine for the mere copying of prior works, as opposed to in the service of new art, as used in lithographs\(^\text{18}\). It follows then, that with the advent of industrial methods, new art forms and procedures should follow. In agreement with Ruskin, degradation occurs via the creation of mass-produced fakes, not in the development of a new art responsive to the machine.

Central to this new ‘machined art’ is the idea of simplicity. In contrast to the platonic forms seen in late-modernism, Wright argues that, “simplicity in art, rightly understood, is a synthetic, positive quality, in which we may see evidence of mind, breadth of scheme, wealth of detail, and withal a sense of completeness found in a tree or a flower\(^\text{19}\).” Derived from nature, this ‘simplicity’ is more interested in clarity and unity then in minimalism, much as the complexity of a tree functions as a single organism. In addition, this simplicity should derive from the raw materials, which as Wagner observed, can be utilized more efficiently through the use of contemporary construction. Wright’s organic architecture achieved this simplicity by utilizing a consistency amongst details and the whole in order to develop generating motifs reminiscent of the biological motifs seen in nature across a variety of scales.

As is true with Wagner, often Wright’s built work more clearly expresses his ideas than the text. Although constructed much later in his life, Beth Sholom Synagogue (1954) exemplifies Wright’s view on ‘modern’ architecture. This synagogue utilizes various machine-age techniques to reinforce the symbolic and expressive functions of the architecture. Through the use of contemporary construction, Wright was able to create a space that literally glows with light (through translucent glazing), referencing the

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19 *ibid.*
Tabernacle in the desert. At the same time, the form (one that could only be obtained with modern construction techniques) references Mount Sinai, as the culminating event that unites the Jewish people. Wright reinforces this imagery by utilizing the triangular form at a variety of scales and through a range of materials as a generator of design. In particular, the unique ornamental embellishments on the exterior of the primary structural members, produced through multiple casting of a single prototype, further references the ‘mountain-form’ while simultaneously representing an abstracted menorah, a central symbol of Judaism since biblical times.

While Wright also designed all components of the interior with this same rigor, the *ner tamid*, or eternal flame, is of particular interest. This formally reduced object, once again referencing the triangle of Sinai, is constructed of large unbroken sheets of colored glazing. In contrast to the stained glass of Tiffany windows, the emphasis here is on the materiality and the light more so then the literal image created. That said, the work is filled with the same symbolism and meaning seen throughout the rest of the project. In particular, the colored-glass panels reference both the breastplate worn by the high priests, as well as the spiritual attributes of G-d described in Jewish mystical texts, both of which have liturgical links to the concept of the eternal flame. The simplicity of the scheme derives from these disparate parts all functioning towards a single vision of the space, while still having a richness and complexity of meaning derived from the uniquely Jewish subject matter.

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20 Stolzman, Henry. Synagogue Architecture in America

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While inspired by Wright, who embraced modern construction and explored ways of creating a new ornamental style with technology as the driver, Adolf Loos (1870-1933), from Vienna, was the first architect to completely challenge the notion of ornament in everyday objects (and its role in architecture). His most important essay, “Ornament and Crime” has been regarded as one of the foundational essays of the modern movement later developed by Le Corbusier (an avid follower of Loos) and Mies Van der Rohe. The essay is often used to validate the removal of architectural ornament and richness in favor of the “purity” of modernism. In the essay Loos proclaims, “The evolution of culture is synonymous with the removal of ornament from utilitarian objects.” However this rejection of ornament is not seen in his built works, which tend to utilize rich materials, colors, and textures. This discrepancy exposes the underlying meaning behind his attack on ornament.

As Wagner and Wright did, he rejects the ornament of his day, which as seen in Wright’s text is founded on archaic technology. Loos argues, “since ornament is no longer organically linked with our culture, it is also no longer the expression of our culture. The ornament that is manufactured today has no connection with us...It is not capable of developing.” He further complains that ornamentation wastes time and money that could have been used more effectively by a ‘modern’ man. In other words, his criticism is not with regard to the function of ornament but rather with its form, use, and manufacturing process. In the Michaelerplatz 3, later known as the Looshaus, his use of rich materials, creating ornament from their unmolested surfaces, is akin to the work done by Wagner, and his use of marble paneling. This truly modern emphasis on materiality alone to create richness, emphasis, and meaning in architecture can be seen in the work of Louis Kahn, Carlo Scarpa, and Peter Zumthor in their later critiques of modernism.

21 Loos, Adolf. “Ornament and Crime.”
22 ibid.
By the end of World War I the world had fully adopted the role of industrialization in modern society. Machines produced everything from airplanes to furniture and yet there was still no clear direction for the arts in this modern era. Building on the ideas of Wagner and Wright, Walter Gropius (1883-1969) created the Bauhaus in order to develop a new architecture integrated with the visual arts.

As stated in the Bauhaus Manifesto of 1919, “The ultimate aim of all visual arts is the complete building! To embellish buildings was once the noblest function of the fine arts; they were the indispensable components of great architecture... Architects, painters, and sculptors must recognize anew and learn to grasp the composite character of a building both as an entity and in its separate parts.”

While Gropius was not the first designer to push for a complete work of art, or a gesamtkunstwerk, (the term was actually coined by Richard Wagner, the German composer); he was the first to fully address it in a modern context. Only through this unity, Gropius argued, can the ‘architectonic spirit,’ of building, similar to the Beaux Arts ‘character,’ be reclaimed.

Much like Ruskin, Gropius saw a disconnect between the act of making in the 20th century and the act of designing and sought to integrate the two by exposing the designer to the contemporary techniques of craft. Through the school Gropius hoped to create designers who would “know how to design buildings harmoniously in their entirety-structure, finishing, ornamentation, and furnishing.” As has been seen in the prior analysis, the goals proposed by the Bauhaus are much the same as the arguments of the previous two generations (as well as most of architectural history), the intriguing uniqueness of the school was its take on industrial manufacturing. Often credited with the foundation of modern industrial design, the Bauhaus sought to train an entire school to design unique and artistic objects, always

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24 ibid.
in the service of architecture, whose fabrication was interlinked with the technology of the early 20th century, much as Wright discusses in “The Art and Craft of the Machine”. On the one hand the work was to embrace the attributes of art, uniqueness, meaning, and beauty, while on the other hand it was to be easily mass-produced\(^ {25}\). Ironically, in the service of its mission, the Bauhaus, later under the leadership of Ludwig Mies van der Rohe (1886-1969), caused its own demise as it turned towards internationalism and disconnected the arts from architecture.

Mies embraced the idea of a modern architecture suited to modern man and found much resonance with the emphasis on materiality found in Loos’ work. Famous for his expression, “less is more,” Mies pushed for a new minimal and rational architecture that captured the ‘character’ of his time, through abstraction. As with the architects preceding him, he turned to his detailing to manifest his poetic goals of architecture, as can be seen in the clean, but not merely functional, detailing of the Edith Farnsworth House\(^ {26}\). Furthermore, he embraced Loos’ interest in the “nobleness of anonymity” allowed by the machine. In addition, his interest in “universal space,” as exemplified in the large undifferentiated volume of Crown Hall at IIT further reduced architecture to its most abstract and pure forms\(^ {27}\). While his work was expressionistic in its abstract purity and strove to reflect that in the detailing as well, over the following decades, as modernism and the International style entrenched itself in the field of architecture, what was originally made as a grand statement about modernity degenerated into stale and cold design whose abstractions ignored much of architecture’s subliminal roles in society as explicated in the writers discussed above. It was in the critique of modernism, that the impacts of this ingrained internationalism would be challenged.

\(^{25}\) Trilling, James. *Ornament: a Modern Perspective*

\(^{26}\) *ibid.*

\(^{27}\) Ford, Edward. *The Architectural Detail*
While predated by much of Louis Kahn’s (1901-1974) and Carlo Scarpa’s (1906-1978) careers, the seminal text *Complexity and Contradiction*, written by Robert Venturi (1925- ) in 1966, is the first major treatise to readdress the problems created by abstract modernism. In the manifesto, Venturi fights to regain much of the complexity lost during modernism (beginning with Mies) by pursuing a “richness of meaning rather than a clarity of meaning.” He argues that by reducing aspects of architecture, including symbolism, detailing, and ornament, modernists disconnected the space from the experience of life. Deeply interested in part-to-whole relationships (previously examined in the Bauhaus and seen in the work of Wagner and Wright) Venturi argues for the creation of a ‘difficult whole’ founded on Gestalt psychological principles, in particular the idea that the perceptual whole is greater than the sum of its parts.

Through inflection, defined as “the way in which the whole is implied by exploiting the nature of the individual parts, rather than their position or number,” Venturi discusses the ‘art of the fragment.’ These components of design, broken down into their smallest constituencies, imply a richness and meaning beyond themselves through their inherent dependency on something greater. In addition, through inflection disparate elements can unite via a consistency amongst their component parts. Detailing becomes a driver of scale and through inflection the parts can reinforce the idea of a singular monumental whole. Under this system of inflection, ornament functions as a ‘rhetorical device’ that enriches the architectural experience and introduces additional levels of meaning (once again returning to the original concept of ‘character’ discussed in the Beaux Arts).

Venturi’s message is clear, “less is a bore.” However, in the work of Louis Kahn, Venturi defines a different kind of complexity. Kahn’s desire for aesthetic simplicity is derived from an ‘inner complexity.’ Venturi gives

28 Venturi, Robert. *Complexity and Contradiction in Architecture*
29 *ibid.*
30 *ibid.*
the example of a Doric temple, whose outward simplicity is derived from profoundly subtle and precise distortions to its geometry, in contrast to later temples, where complexity disappeared and “blandness replaced simplicity.” In addition, complexity can be found in Kahn’s use of ‘materiality as ornament’ adding a richness and depth of meaning founded in many ways in the built works of Loos\(^{31}\).

Louis Kahn called this lost poetic aspect of architecture “the silence,” and defines it as “the ‘unmeasurable’ desire to be or to express.” This ‘unmeasurable’ attribute is framed by the ‘light,’ the measurable, which fills the world and gives form to all things. Materials in Kahn’s thoughts are therefore the remnants of the spent light, as they begin where the light ends. In other words, through the materiality of his work Kahn hopes to create an architecture that can reach intangible concepts, such as ‘the human spirit,’ rather then the purely functional and rational abstraction of late-modernism\(^{32}\).

In his approach to detailing, Kahn sought to imbue the elements of design with the same spirituality. In one of his lectures, he tells the parable of when the structural wall first developed a window as man desired to see out and have light come in. After first hacking a hole, later man rigorously developed an opening trimmed in fine materials and with an expressive lintel. Here ornament is utilized to honor the ‘contribution’ of the wall to our experience of space. In addition, through the parable one can see Kahn’s interest in the association between ornament, the act of construction, as well as the primal spirit of architecture present at the beginning of time\(^{33}\).

In contrast to the modernists of the 1930s - 1950s, he saw architecture as evolutionary rather than revolutionary and sought to ground it in the past, while always being concerned with the current reality of construction, much as Wagner and Wright did fifty years earlier.

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31 Venturi, Robert. *Complexity and Contradiction in Architecture*
32 Kahn, Louis & Lobell, John. *Between Silence and Light*
33 ibid.
In more recent years, Kahn’s mantle has been passed on to Peter Zumthor (1943-) who proclaims in *Thinking Architecture*, “…materials can assume a poetic quality in the context of an architectural object, although only if the architect is able to generate a meaningful situation for them, since materials in themselves are not poetic.” As with Kahn, Zumthor seeks to create a “basic architecture” rooted in the essence of the architectural past while always considering the contemporary condition. He argues that a building founded entirely on tradition lacks a genuine concern for the emanations of contemporary life, while an architecture based solely on contemporary design lacks the “vibrations of place” that are essential to anchoring the structure in its cultural and physical site. As with Kahn, Zumthor utilizes the detail “to express the basic idea of the design.” He elaborates that details should not distract nor entertain, but rather lead to an understanding of the entire whole, of which they are an inherent part.

While Zumthor’s work also references the ‘inner complexity’ seen in Kahn’s work, it is only through the exquisitely unique design of Carlo Scarpa that one understands the potential of a complex architecture to create a unified whole through an inflection of the parts.

In Scarpa’s writings and built works one sees the culmination of the ideas first proposed at the dawn of the 20th century by Wagner and Wright. While he firmly believed that architecture must be an expression appropriate to its time, he understood that modern architecture cannot do without a knowledge of the architectural values that have always existed. He sought to reopen the possibility of an architecture constructed like painting or poetry around questions of metaphor, memory, allegory, and narrative. Through his detailing, Scarpa explored how to elevate the means of construction to an art form composed of these intangible concepts. Wright once said, “Multitudes of (construction) processes are expectantly awaiting the sympathetic interpretation of the mastermind.” In the work of Carlo Scarpa, they found

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34 Zumthor, Peter. *Thinking Architecture.*
35 *ibid.*
Throughout his work, Scarpa’s focus was constantly on exploring the role of the joint between materials, spaces, and symbols. His use of ornamentation and articulation served to express these conditions and elevate them. Scarpa once said, “The value of a work lies in its expression... when a thing is well expressed, its value is high.” This near-obsessive “adoration of the joint” is found nowhere else in the architectural discourse. Gestalt psychology, as discussed by Venturi, would classify Scarpa’s work as an “extreme multiplicity” where the abundance of parts across a variety of scales links the fragments into a unified whole. In “Tell the Tale Detail,” Marco Frascari argues that Scarpa’s excessive, and often-repetitive use of similar details and motifs creates what he calls “the fertile detail.” Through the re-use of details in a design the ‘function,’ that is to say the meaning, of the detail becomes clear. The details then in turn act as “creative catalysts” to develop the “architectural text” from within. In other words, it is through the use and re-use of fertile details in the adoration of the joint, that “the construction and the construing of architecture takes place.”

Since Scarpa’s time, few architects have been able to embrace the potential of the detail to speak so loudly, both of structure and symbol. Today the most explorative detailing is conducted by architects such as Bruce Goff, Stephen Holl, Williams & Tsien, and Olson Kundig, however in most cases these architects focus solely on articulating construction, to the exclusion of all else. The architects studied above merged an articulation of the construction (embracing the post-industrial condition) with an articulation of less tangible concepts in their pursuit of expressive detailing. This loss of complexity in the way ornament and detailing is utilized today is a large part of the problem of ‘architectural distance’ seen today. As Le Corbusier once said, “Architecture has another meaning and other ends to pursue then showing construction.”

36 Dal Co, Francesco, *Complete Works of Carlo Scarpa*
37 Frascari, Marco. “Tell the Tale Detail.”
Throughout the history of architecture, the role of the detail, the smallest unit of signification, has been linked to an understanding of the built space. In its many forms, such as painting, sculpture, furnishing, decoration, ornament and the joint, the detail serves to articulate and express the “unmeasurable” aspect of architecture. By creating a unity from disparate components, the detail is able to facilitate a whole that is greater then the sum of its parts. It is through this creation of a Gesamtkunstwerk, where all aspects of the design actively and intentionally function towards a singular goal, that the richness of the architectural past can be re-applied to design today. It is the goal of this thesis to extrapolate the teachings of the discussed designers in order to develop an architecture appropriate for a contemporary synagogue design. Much as Wagner, Wright, Kahn, and Scarpa sought to enrich their architecture with symbolism and meaning through their use of expressive detailing, through design, this project seeks to develop a similar relationship between the construction and the construing of architecture through the lens of Jewish texts, history, culture, community, and worship.
“Today the arts exist in isolation, from which they can be rescued only through the conscious, cooperative effort of all craftsmen. Architects, painters, and sculptors must recognize anew and learn to grasp the composite character of a building both as an entity and in its separate parts.”

-Walter Gropius
Since Jews first arrived in America they have encountered a crisis of assimilation. Whereas in the “old-country” forced isolation for much of Jewish history created a strong community culture, Jews in America have always had to fight to balance their Jewish identity with that of the larger American society. During the second major immigration of Jews to America (the first group arrived from Spain during the European colonization of America) from 1848 to 1880, the focus was largely on blending with society by abandoning “archaic” traditions (much as the Modern Movement in secular society was striving to do). Springing out of the Jewish Enlightenment of the 18th century, this ‘Reform movement’ led by Isaac Mayer Wise and codified in the 1885 Pittsburgh Platform argued that, “Today we accept as binding only (Judaism’s) moral laws, and maintain only such ceremonies as elevate and sanctify our lives, but reject all such as are not adapted to the views and habits of modern civilization.” Modeled heavily after Protestant Christianity already in America this generation saw Judaism more as exclusively a religious faith than as a community built out of tradition and their synagogues reflected it.

In the decades that followed, various Jewish movements, including Conservativism and Reconstructionism, have pushed back against this early Reform movement. As Mordecai Kaplan, the founder of Reconstructionism, said, “Being a Jew at the present time means first, being willing to identify oneself with the life and career of the Jewish people and to adopt as much of its civilization as is feasible in a non-Jewish environment, and secondly, being willing to reconstruct the religious concepts and practices which constitute the central element in that civilization so that they may answer our present-day spiritual needs.” Today, congregations across the ‘non-Orthodox spectrum’ are expanding programming, returning to lost traditions.

and striving to increase a sense of community among their members. As in the past, Judaism has turned to architecture to personify its condition in the world.

The synagogue as a building archetype dates back to the time before the destruction of the Second Temple. These early structures were not designed as houses of worship but rather as community chambers modeled in form and function after the Greek *bouleuterion* (literally ‘council house’). In fact, the term synagogue itself does not even reference the building but rather is derived from the Greek words *syn*, together, and *aghoghei*, learning or training. This emphasis on community, gathering, and education is evident in many of the synonyms for ‘synagogue’, *Beit Knesset* (‘house of assembly’ in Hebrew), *Beit Midrash* (‘house of learning’ in Hebrew), and *Schul* (‘school’ in Yiddish).

With the destruction of the Temple (in 70 CE) and the beginning of the Diaspora, the Jewish people turned to these already established institutions in order to replace the sacrifices and rituals of the high priests with *tefillah*, or prayer. It was in these early *Batei Knesset* (in the land of Israel and Babylonia) that the Rabbis gathered to compile and write the seminal texts of the Jewish people, the *Mishnah* and the *Talmud*, which articulate and debate the rules and regulations guiding all spheres of Jewish life in the post-Temple period. In Europe, through much of the Middle Ages, the role of the synagogue as a communal, academic, and spiritual center remained much the same. Due in a large part to forced segregation from the larger society the synagogue thrived as the undisputed home of the tightly knit Jewish community. In fear of the dominant society, most of these structures were non-descript from the exterior and fairly modest in the interior as well, often consisting of a single room that served multiple functions. Interestingly, most of the design emphasis (as well as spiritual emphasis) was placed on

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the ritual objects, and the Torah in particular, in an effort to beautify the laws and commandments according to *hiddur mitzvah*, rather than on the architectural space.  

Beginning with the Enlightenment in the 18th century, Jewish communities across the globe found themselves being accepted into the larger society for the first time. The effects of this new status were two-fold. On the one hand, Jewish communities felt safer to spend large sums of money in order to construct impressive synagogues, while on the other hand the increased assimilation, and secularization of larger society in general, created major rifts in the communities.  

Nowhere else in the world were the benefits and problems of this fusion seen then in the United States. While America has supported a Jewish population since its European colonization, the large majority of Jews arrived between 1850 and 1924 (the Immigration Act of 1924 effectively closed the borders to Eastern European migration). As with non-Jewish immigrants to America, the Jews sought to fully assimilate with American culture and society; and did so by studying the Protestant Christian model, founded on a firm separation of church and state. Under this new approach, the first golden age of the American synagogue began. Commonly referred to as cathedral synagogues, these structures were architectural tour-de-force that expressed the success and freedom gained by the new immigrants. Often consisting of a single grand sanctuary space (with auxiliary programming in the basement), these buildings effectively reduced the functions of the synagogue to one of worship only. In addition, for the first time in Jewish history, Jewish activity was divided into distinct religious and secular spheres. While the former was centered on the synagogue, the latter (including most academic and communal components of Jewish life) were privatized by various Jewish

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8 Solomon, Susan. *Louis I. Kahn’s Jewish Architecture: Mikveh Israel and the Midcentury American Synagogue.* 37
9 *ibid.* 45.
organizations, such as JCCs and local federations, or completely replaced by secular options (such as schools, bookstores, barbers, and butchers).\textsuperscript{10}

As for the design of these monuments, Jews, as all western civilization at the time, turned to historic models. While much of the secular/Christian world used Greco-Roman classicism or medieval Gothic design, the Jews sought a distinct identity with the use of Egyptian, Moorish, and Byzantine styles. While none of these revival styles truly related to the Jewish people, they strove to connect the congregation to Jewish history. Often this was done by referencing architecture from the biblical period, the \textit{Al Hambra} Golden Age of Jewish culture in Spain, or by conveying the Middle East origins of the nation.\textsuperscript{11} As Samuel Isaacs (hazan at \textit{Shaaray Tefila} in New York City) said in 1846,

\begin{quote}
...the style chosen is the Byzantic, which flourished some centuries back, and was especially used by the Portuguese and other Jews when persecuted in the middle ages: the imposing grandeur of the style, together with its Oriental origin...will render it best adapted for a building of this class and character...the spectator will at once receive the impression that the building is intended for a place of worship, not of the poetical deities of the Greeks, nor the pompous trinity of the Christians, but of the mighty God of the Jews.\textsuperscript{12}\end{quote}

The intent was not to design a center for Jewish life, but rather to create an imposing worship space for a “spectator” audience; through the 1920s these awe-inspiring structures were erected across America. However, with the focus away from community and daily life, they soon found themselves underutilized for much of the year. Following the devastation of the Great Depression and World War II, Jews in the post-Holocaust era, composed largely

\textsuperscript{10} Elazar, Daniel J. “The Development of the American Synagogue.” 260
\textsuperscript{12} Isaacs, S. M. “Of the New Synagogue, Now Building at New York, For the Congregation under the Pastoral Charge of the Rev. S. M. Isaacs.” 239-240.
of second generation Americans, sought to redefine their identity as Jews in the modern world. Their medium for expression was the synagogue.

As many Americans returning from war abandoned the urban centers for the newly created suburbs, the Jewish population was among them. While there were efforts to reintegrate social and academic functions with the synagogue prior to WWII (under leaders such as Mordecai Kaplan), following the departure to the suburbs, this ‘synagogue-center’ model began to coalesce. Due largely to the demographic changes and a need for new cultural infrastructure, synagogue complexes quickly populated many suburbs. These new structures included facilities for social halls, libraries, gift shops, and youth lounges, amongst an ever-increasing range of programming. While federations and JCCs still thrived in the suburbs, they served primarily to connect the larger community formed by the network of synagogues across the religious spectrum. With the rise of this new suburban complex, the architectural form of the synagogue transformed. Striving to create a truly Jewish-American architecture that referenced the new role of the suburban synagogue, communities across the United States recruited the finest modern architects to define their identity.

These new structures were divided into two categories. The first type consisted largely of straightforward institutional type facilities, subsequently adorned in Judaica. This direction, led by Percival Goodman, was largely in line with the International style’s approach to design. The second category, developed as a cathartic response to the tragedy of the Holocaust, sought to create ‘heroic’ and metaphorical architecture where the detailing addressed symbolic messages inherent to the Jewish people. Most famously, Frank Lloyd Wright’s Beth Shalom Congregation, in Elkin’s Park, (outside of Philadelphia) fully embodies the efforts of this approach to synagogue design.

While expressionistically divergent, these disparate spaces operated

14 ibid. 267.
by and large in much the same way. Perhaps the most interesting modification to synagogue design (besides the incorporation of additional facilities for various programming efforts) was the development of the expansion space. Introduced by Percival Goodman, this innovation allowed for congregations to double or triple their seating capacity for the High Holidays by expanding into the social hall. In an effort to balance an intimacy appropriate for the dwindling weekly crowd, while providing capacity for the entire congregation one week a year, this generation of synagogues clearly articulated the developing problem of lackluster participation in mid-century American Judaism. Partly due to consumer freedom of choice under capitalism, the synagogue had developed into more of an optional “pay-per-service” facility rather than an essential communal center point. When people needed to celebrate Jewish life-cycle events (such as bar/bat mitzvot and weddings) or important holidays they used the synagogue, while the rest of the time it sat vacant.\textsuperscript{16} In fact, one of the major reasons for the expanded program was as an effort to encourage additional use and participation within the synagogue; largely to raise funds, since Jewish philanthropists increasingly spread their wealth to a number of secular and Jewish organizations, including the State of Israel, rather than focusing their resources on the local synagogue.\textsuperscript{17}

In recent years, congregations have been working to regain a sense of community and identity in the hopes that the developed relationships will encourage further participation. Architecturally, this has begun to manifest in smaller sanctuaries that address a more intimate scale while also reorganizing the seating from a forward-facing pew to a community oriented “in-the-round” configuration. Additionally, rather than the ubiquitous social hall, new synagogue construction, such as that of Beth-El in Fort Worth, Texas by H.H.S. Architects, are incorporating various communal spaces at a number of scales to transition the focus of the congregation towards

\begin{footnotes}
\item[16] ibid. 55.
\end{footnotes}
community building and interaction.  

The client for this project defines themselves as belonging to the ‘non-Orthodox spectrum’ of Judaism. With the exception of ultra-orthodoxy and some modern orthodox groups, who maintain geographically tight and cohesive communities in order to follow halachah (Jewish law), this ‘spectrum’ is composed of similarly inclined individuals dispersed throughout the larger American whole, and therefore more vulnerable to assimilation.  

While in the past denominational differences over issues of tradition, country of origin, spirituality, modernity, and gender-equality helped to define distinct groups, such as Reform and Conservative, today due to a generation of blending, the larger American Jewish community is more similar then different. There still exist inconsistencies amongst the groups, often with regard to specific prayers; however, their desires and needs in a synagogue are much the same. Furthermore, America Jews as a whole have returned to much of the tradition the early Reformers abolished (with many Reform temples conducting service entirely in Hebrew and adhering to other traditional customs). That said, this congregation finds the links between the generations, history, and tradition to be essential to contemporary Judaism and wishes for an architecture that can project that link across a multitude of scales.

With regard to the facility, first and foremost the client is looking for a synagogue that can foster a community founded on the traditions of the Jewish people. As, Mordecai Kaplan said, “Being a Jew at the present time means first, being willing to identify oneself with the life and career of the Jewish people and to adopt as much of its civilization as is feasible in a non-Jewish environment.” Concurrent with this is a need to promote sub-communities within the larger whole that target specific genders, age groups, and interests in an effort to further develop meaningful relationships.

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19  Sarason, Rabbi Richard. Interview.
20  ibid.
amongst the larger Jewish congregation.\footnote{ibid.} To this end the community wishes to construct a ‘synagogue-center model’ facility in an urban setting where community, education, worship, and Jewishness can be fostered through diverse programs and strong architectural moves that target small groups and large groups, as well as the secular and the sacred.

While the client would like to see these intersecting levels of community reach the city-wide Jewish population, as was traditionally done in the “old-country,” having learned from the experience of Judaism in America they acknowledge the impossibility of one facility accommodating all opinions and individuals. That said, it is important that members of the congregation have access to these other levels of community and is interested in having “diplomatic” representation from the various federations and other communal institutions inside the synagogue. On another level the congregation also has commitments to the larger community of which it is only a part. Through educational, artistic, and philosophical programming it hopes connect with American society in general and enrich the lives of their neighbors. At the same time, the congregation hopes to reach out to the most unfortunate of the city in an act of Tikun Olam (repairing the world) by providing shelter, warmth, food, and community.

In its worship spaces as well, the congregation seeks to create places that are strongly community-centric. This focus on communal worship has been a central tenent of Judaism since its foundation and to this day a mandatory quorum of 10 people (a minyan) is required to say certain prayers and to read from the Torah. This congregation hopes to create the same intimacy and involvement of a minyan at the scale of Shabbat services (200+ people). As Rabbi Ammiel Hirsch, of Stephen Wise Free Synagogue in New York, said, “The focus should be on participation, not reverence.”\footnote{Hirsch, Rabbi Ammiel. Interview.} While there are times to be reverential, such as during the High Holidays, the majority of prayer should reinforce communal involvement and closeness. Under that direction, the congregation seeks to have multiple worship spaces that can provide for gatherings of various sizes.
ranging from the smallest of Shacharit services (daily morning service) to the largest services of Yom Kippur.

In summary, the congregation seeks to return the synagogue to its central role as the heart of the Jewish community. To quote Beth Sholom’s mission statement,

“(we are) a Vibrant, Egalitarian, Diverse Conservative Congregation. We combine a love of Jewish tradition with innovative approaches to experiencing the richness of Jewish life. We strive to create a sacred community that embodies the core values of Torah (inspired Jewish learning that is spiritually uplifting and intellectually honest), Avodah (prayer and connection to God through warm, participatory services) and G’milut Hasadim (acts of loving kindness that help those locally, in the Land of Israel, and around the world).”

As David Ben Gurion, one of the founders of Israel, famously remarked, “for every two Jews, there are three opinions.” His astute observation underlies the difficulty of narrowing down a specific individual client that represents the synagogue. It seems that all parts of the congregation are directly invested in both how the project serves them and what they desire from it. In addition, due to the civic nature of the facility and its efforts to impact larger society, many groups outside of the Jewish community, such as the homeless, should also be represented in the design discussions. At the spiritual head of the synagogue is of course the Rabbi, however depending on the individual and the congregation this role often expands to leader of the entire synagogue. In fact, rabbinical students at HUC are currently being versed not only in rabbinical studies, but in economics, business, and fundraising. With regards to architecture, it has always been a strong collaboration between the head rabbi and the architect that have produced the most successful synagogues, such as Rabbi Mortimer Cohen and Frank

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23 Beth Sholom Mission Statement

Client Development: Towards a New Synagogue
Lloyd Wright on the Beth Sholom synagogue.24

While the rabbi is perhaps the most influential and arguably defines the character of the congregation, the board of directors, administrators, and teachers who run the building’s non-worship activities are also deeply invested in the issues of design. Their involvement is essential in order to develop a place where communal activities and education maintain an equal footing with the worship space. In addition, as the most frequent users of the structure their contribution would help to develop the facility as a comfortable environment to work, teach, and grow.

Finally, the most important client is of course the congregation both as a series of interlaced sub-communities and as individuals. While Jewish activities can take place outside of the synagogue, this structure should stand as the Jewish home of the congregation, the center point of their identity. No matter how well programmed the space may be and no matter how emphatic the rabbi, if the synagogue does not inspire the congregation to “congregate” then the synagogue will remain empty. Throughout Jewish history the synagogue has manifested the dreams, spirit, and aspirations of the community and only through it will Judaism survive in America’s melting pot.

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Beginning with the mass-immigration to America in the 1880s, New York, and Manhattan in particular, has served as one of the primary hubs of Judaism in America (second in the world only to Israel). Starting in the lower east-side, the Jewish population spread north, along with the general population, throughout much of the 20th century. Today, 20% of Manhattan identifies as practicing Jews, with the number being larger for non-observant Jews (compared to 2% nationwide). While spread across the entire island, the majority are concentrated in the upper east-side and upper west-side (flanking Central Park). While non-orthodoxy makes up the majority of this population, due to urban density (which facilitates Jewish needs such as kosher butchers) the Orthodox population is on the rise.

Architecturally, Manhattan is home to many of the incredible cathedral-synagogues discussed previously. The largest of these (in fact the largest synagogue in the world), Temple Emanu-El, features an imposing sanctuary (with social facilities in the basement) inspired by Byzantine and art deco design. It is currently home to 3000 families. Other such synagogues include Park Avenue Synagogue, Central Synagogue, Stephen Wise Synagogue, and Shearith Israel Synagogue (home to one of the oldest Jewish communities in America). Unfortunately, as the Jewish American population as a whole has developed and changed their approach to spirituality, community, tradition, and the role of the synagogue in particular, largely due to the suburban developments of the 50’s, these synagogues, though impressive architecturally, have failed to meet the demands of this changing identity. Ironically, the failures of the suburban model to attract frequent and diverse use of the synagogue can potentially be alleviated in the dense urban environment of Manhattan, where the sanctuary-centered synagogue is still the primary model. Responding to the suburban synagogue-center model, this thesis seeks to redevelop the urban synagogue in the hopes of creating a thriving synagogue-center in the heart of Manhattan.
The site selected for this thesis project is in the heart of midtown Manhattan, an area known as the “garment district.” Historically this region, as its name suggests, was the center of textile production, from design through fabrication, for the entire region. Architecturally, much of the area was developed during the 1920’s and 1930’s and therefore contains some of the greatest examples of art deco design in the world. Today, the area still focuses on fashion related industries, however due to its central location, bordered by Port Authority to the North, Penn Station to the South, and Grand Central Station to the East (three major entry points into Manhattan), it has become a center of life for the city, featuring extensive mixed-use buildings with residential stacked on top of three to four floors of commercial and manufacturing program.

The specific site is located on the northwest corner of 36th Street and 8th Avenue. This corner site, roughly a square, measures 102’ x 98’ with the long edge abutting 36th Street. Currently the site is poorly utilized with a single story structure containing a few commercial businesses (primarily fast-food restaurants). In addition, this structure does not incorporate any programming on its 36th street elevation.
Site Development: Documentation of Important Site Features
Site Development: Documentation of Important Site Features
figure 57: street elevations along 8th avenue

Site Development: Documentation of Important Site Features
Site Development: Documentation of Important Site Features
Site Development: Documentation of Important Site Features
Waldorf-Astoria, Empire State Building, Chanin Building, Rockefeller Center, 40 34th Street, The Chrysler Building, The Daily News, Rockefeller Center

Site Development: Art Deco Midtown
Manhattan is defined as having a humid subtropical climate. This classification is characterized by hot, humid summers, and mild to cold winters. However, due to its northern location (the furthest north city with such a climate) there is much more seasonal variability than in most humid subtropical climates. Unlike similar latitude cities, such as Indianapolis and Cincinnati, the winter is much more moderate (with average January temperatures of 32.1 °F) as a result of the moderating effect of the Atlantic Ocean, as well as the partial shielding from the Appalachian Mountains. During the summer, temperatures vary widely, but the average temperature in July is 76.5 °F. The heat is exacerbated due to the urban heat island effect, which increases nighttime temperatures drastically during the summer.

Winds are typically mild and predominantly arrive from the coast to the south. As a result of the urban condition, wind tunnels form along the avenues pushing the wind through the “valleys” between the buildings. The specific site for this thesis is situated in such a wind valley created by the skyscrapers at 34th - 35th streets and 8th avenue. As a result, the wind is pushed north along 8th avenue and provides an opportunity for passive cross-ventilation, oriented north-south.

Daylighting and solar exposure is a particularly unique concern for this site. While climatically the city receives 234 days of at least partial sunlight, and receives an average of 58% of the total sunshine possible annually, due to the quantity of large buildings much of the street is in shadows. This site, however, is unique to the city and actually receives a large quantity of sunlight as a result of its southern facing orientation as well as the void of skyscrapers to the southeast. Therefore, through the morning and early afternoon (primarily in the spring and summer) this site receives direct solar exposure. In addition, as the sun tracks across the avenues there is a unique opportunity for completely unobstructed sun (both early morning and late afternoon).

Site Development: Analysis of Climatic and Environmental Data
Solar Exposure:
October 27th at 3:00 pm

figure 62: solar exposure in site
As mentioned above, this area of midtown is the true heart of the city. Access into the site is primarily by foot with two subway stops located along 34th street (all lines) as well as Penn Station, Port Authority (access to New Jersey), and Grand Central station all within walking distance. The vehicular flow is depicted in the diagram to the left, showing the density as well as the direction of the traffic. Traveling north on 8th Avenue one observes the unique opportunity for views of the site that can make it a potential landmark of the city.

Architecturally, the neighborhood is composed primarily of mixed-use buildings characteristic of Manhattan’s unique density (14,487 people/sq. mile). This interesting condition creates a horizontal banding across the city that functions extremely well to articulate the distinctions between public and private as well as to break down the scale of the massive sky-scrapers into human scaled features.
The Site

Manhattan mixed-use model

Private Zone:
- smallest windows
- unique from lower floors
- least ornament
- repeats indefinitely
- private access (usually residential or hotel)

Business Zone:
- smaller windows
- united with first story
- less ornament than the first story
- 2-3 stories repeated
- semi-public access

Commercial Zone:
- first floor only
- taller ceiling height
- full story glazing
- larger bay size
- ornamentally rich
- most public storefronts

Increasing Privacy

Site Development: Document Built Context of Site
Like most of the Manhattan ‘cathedral-synagogues’ Central Synagogue addresses the site in a consistent way. In all cases, these facilities face the dominant road, in most cases the avenue, and deny an approach along the minor edge. In the case of Central Synagogue, the primary entrance is along Lexington Avenue. Following the sanctuary-centric model, upon entering the building there is a narrow public space, used to prepare for the grand moment of entry into the sanctuary. As one moves from this public zone towards the ark the sense of sacredness increases in a linear manner, much as was done in the Temple. Again like most of this type of synagogue, the non-worship programming is secondary to the sanctuary and therefore quarantined into the basement.

The advantage of such a singular approach is that it heightens the sense of arrival as well as makes it clear the progression from secular to sacred across the project. Unfortunately, this approach completely ignores the activity on 55th street and marginally addresses it with the extended threshold on Lexington Avenue, though it does not contribute to the activity of the street.
The Ford Foundation Building provides a distinctive approach to the urban massing. While not actually on a corner site, the building addresses the approach from the adjacent park as if it were a major access. Rather then create a barrier to the street as the Central Synagogue massing does, this structure strives to bring the public into the space through the central atrium by engaging two edges, the project enlivens both the park as well as 42nd street. While founded on the Manhattan mixed-use public-privacy spectrum discussed above, this building not only increases privacy as one moves vertically but also laterally away from the street edge.

The advantage of such an approach is that by blending the street life with the interior space both can activate the public sphere more effectively. In addition, the building creates a firm separation between public and private while still encouraging the visual link via the atrium. The problem with this approach however, is that since this “joint” has no program on the street (only the atrium) it pulls most of that energy inside and away from the street, where it belongs in the unique bustle of Manhattan.
The approach discussed here seeks to draw from the two different site strategies discussed above. By developing a two-axis matrix that responds to the concerns of sacredness and privacy this scheme seeks to address the issues of mixed-use architecture in midtown Manhattan and fuse them with the desire to separate sacred space from secular space as seen in the Manhattan cathedral-synagogues. By creating a zone on both 36th street and 8th avenue that serves the public this scheme can activate both conditions, as well as take advantage of the local differences on each of the two roads. Via the corner approach, access to the sacred spaces is separated and removed from the secular street life, in fact, due to the diagonal approach this separation can be exaggerated relative to the condition seen in Central Synagogue. In addition, this primary corner entrance addresses the views into and out of the site as well as the issues examined both in the circulation and environmental analysis of the site.
Forged through a strong relationship with Rabbinic scholars of the past, this congregation seeks to create a house that provides for the Jewish needs of the individual as well the community. As is written in the opening of Pirkei Avot (1:2), a chapter of the Talmud, “The world stands upon three things: On Torah, Worship and Loving Deeds.” To that end, the program of the synagogue can be divided into these three areas of religious fulfillment. In conjunction with the primary thesis questions discussed above, this multi-faceted facility will provide unique opportunities to explore how the art of detailing and ornament can speak to these distinct aspects of Jewish life and activity.

**Torah**

In pursuit of the divine in a post-priesthood world, following the destruction of the 2nd Temple, Judaism turned to a study of the holy texts, in particular the Torah, the first five books of the Bible, to narrow the distance between God and man. Later referred to as “the people of the book” this unique approach came to define the Jewish identity. In today’s modern world, this focus on study has not diminished in importance but rather has expanded to include non-Torah study (both of religious and secular subjects). In addition, the ever-growing canon of Jewish texts serves to bind each new generation of Jews to those of the past; emphasized in the Hebrew phrase ‘l’dor vador’ (from generation to generation), which strives to create unity by connecting the generations of the Jewish people. Finally, it is through this emphasis on study that the next generation learns the traditions, rituals, and communal knowledge of Judaism. Although often culminating (and terminating) in a child’s bar/bat mitzvah this path of learning the rituals, teachings, and history of the Jewish people is a life long endeavor.
Worship

Perhaps the most complex and rich aspect of Judaism is with regards to ‘worship.’ Through the course of a year and a lifetime there are numerous types of worship services for various occasions, a few of which do not even take place in the synagogue, such as the Passover Seder. There are prayers that can be said alone and others (including any Torah services) where a quorum of 10 people is required, known as a minyan. Some events are somber, such as the High Holidays while others, such as Purim, are full of joy. Each such service is uniquely structured as far as its liturgical content, congregational participation, and even with regards to unique blessing melodies. To make matters more complex, due to the Diaspora, different isolated communities developed unique cultural and spiritual traditions for the worship service which today are fusing back together in America’s melting pot. Finally, the spiritual diversity that makes up the current non-orthodox spectrum of Judaism (including recent converts) mandates a further variety of worship service, often with two or more occurring simultaneously.

Good Deeds

Caring for the world through acts of loving and kindness has been a central tenant of Judaism since Abraham first welcomed the visiting angels into his home (Genesis 18:1 – 19:3). Today, this mitzvah is embodied in the idea of Tikkun Olam, or ‘repairing the world.’ Developed largely in the early 20th century by the reform movement, this concept, which borrows from a Kabbalistic story, argues that humanity’s role on earth is to help complete the act of Creation by making the world a better place. In many congregations across the United States this philanthropy extends beyond feeding and clothing the poor to include such functions as interfaith conversations, larger community involvement, environmental assistance, and aid to Israel and other nations of the world.

Activity/Function List:
- Daily minyan (10+ people)
- Weekly Shabbat services
- Formal High Holiday services
- Less formal holiday services
- Kiddush (meal after Shabbat services)
- Celebrations for ‘life-cycle events’
- Ritual bathing (mikveh)
Community Leadership

In addition to the synagogue’s role in enriching the lives of the community members, the synagogue also functions as the base for the various leadership roles amongst the community. From rabbis and cantors, to synagogue board members and teachers, many individuals are involved in the daily management of the congregational home. As leaders of any institution, they are responsible for defining the identity of the community and its path into the future.

Facility Management

Finally, there are many individuals whose work in the synagogue is behind the scenes. Without these individuals the facility could not run properly or smoothly. In many cases these employees are not part of the Jewish community, however their inclusion in the fabric of the synagogue is essential. Beyond doing standard facilities maintenance, such as food preparation, janitorial services, and equipment management, these non-members of the congregation assist in the religious events thereby freeing the Jewish congregants to observe the rituals and traditions more intently.

Activity/Function List:
- Private meetings between congregants and leadership
- Discussions amongst leadership
- Lesson planning and sermon preparation
- Fundraising events
‘Torah’ Program

- Book storage and access:
  - 256 books/double-sided shelving unit (4 rows high)
  - 20 sq. ft for each unit of book storage
  - computer terminals: 20 sq. ft each

- Viewing art:
  - 20 sq. ft/person
  - large open space
  - natural light is essential

- Eating and drinking:
  - 25 sq. ft/adult (comfortable seating)
  - food preparation: ~10 sq. ft/customer accommodated
  - storage: ½ food preparation area
  - employee gathering: ½ food preparation area

- Small group discussions:
  - maximum capacity: 10 people
  - 20 sq. ft/person
  - can be isolated from outside noise

- Formal classes:
  - maximum capacity: 25 people
  - 40 sq. ft/child
  - 20 sq. ft/adult
  - secure location (when children are studying)

- Lectures:
  - maximum capacity: 100 people
  - 17 sq. ft/person
  - double height space
  - no natural light

‘Worship’ Program

- Daily Minyan:
  - 10 – 30 person capacity
  - 20 sq. ft/person

- Formal (reverential) services:
  - Maximum capacity: 300 people
  - Expansion capacity: 150 people
  - 17 sq. ft/person

- Informal (communal) services:
  - 100 person capacity
  - 22 sq. ft/person

- Kiddush:
  - Maximum capacity: ½ total worship capacity
  - 15 sq. ft/person

- Ritual bathing:
  - Maximum capacity: 1:5
  - Must contain enough water to cover the body (575 litres)

‘Good Deeds’ Program

- Feeding the homeless:
  - 15 sq ft/person
  - Access to food preparation (discussed above)
  - Storage and distribution: 500 sq. ft

- Sheltering the homeless:
  - Maximum capacity per bedroom: 4 people
  - 150 sq. ft/room
  - Hygienic facilities: ½ total area

- Community outreach:
  - Maximum capacity of gatherings: 50 people per space
  - 20 sq. ft/person
  - ability to have multiple simultaneous meeting
Program Development: Diagram Organizational Relationships
Entry

While the entry is not a formally programmed space it is the crucial first step to experiencing the synagogue. From the first contact of hand to mezuzah one begins to make a distinction between exterior and interior. This threshold serves to separate the mundane world outside from the holiness within. Upon crossing the threshold, the noise and distraction of the outside world cease, replaced by the silence. In contrast to the overwhelming metropolis beyond, the scale of this space speaks directly to a human scale. As seen in Wagner’s writings, this reduction in scale and focus on detail allows moments for the restless eye to pause and reflect. Furthermore, this induced ‘slowness’ helps to define a further contrast to the bustling pace of the city.

In Manhattan most synagogue entries open directly into the sanctuary beyond, leaving the “auxiliary” spaces located in side rooms to drop in significance. Through the organizational relationships explored above, it was determined that the activities that utilize the synagogue more frequently then the weekly Shabbat service, should be emphasized and easily accessible from the entry. For that matter, it is the responsibility of the entry to begin articulating the institution’s efforts to establish a close community. Through encouraging interaction between congregants engaged in different activities, the entry serves as the first glimpse of this layered community.

figures 71 & 72: ornament of entry
Library

Of the spaces articulated here, the library component is the one likely to receive the most continuous use. In addition to providing spaces to study and store texts this core component of the design functions as the social heart of the project. Well-lit by natural light (perhaps with an atrium), this open space (or series of spaces) encourages occupation and interaction by facilitating multiple activity groups concurrently. In addition to the more formal study spaces, with varying degrees of privacy and noise isolation, the library will also share the reading area with the cafe creating opportunities for highly informal interactions as well. In contrast to the quiet and introspective character of the entry, this space should be filled with life and energy on par with urban experience, albeit of a more congregational and familial character.

The opportunities for detailing in this portion of the facility largely concern how people interact with the architecture, furnishings and furniture. Since the intent is to create an open environment conducive to collaborative study comfort and people's interaction with the space becomes essential. Detailing and ornament allows for the creation of elements distinctly designed for this scale. As a semi-spiritual place, with study being a route to understanding God, a strong use of Jewish symbolism in the detailing will help to strengthen this association.
Main Sanctuary

While not the most utilized space in the facility (primarily used on Shabbat and the holidays) the main sanctuary is unquestionably the spiritual heart of the entire complex. Reminiscent of the Holy of Holies the sanctuary should express the highest levels of richness and grandeur in the project, as seen in the cathedral-synagogues across Manhattan. Detailing in the sanctuary becomes a highly symbolic act with the primary focus being on the Ark. In this space the experience of place is not merely driven by the architecture volume, but by the ornaments of ritual, the religious artifacts, used in the ceremonies.

That said, contemporary trends in Jewish worship (as discussed previously) have been away from the large reverential spaces in preference for a smaller and warmer participatory environment (perhaps with lower ceilings). Seating has been adjusted from forward facing pews to a more “in-the-round” format with free-floating chairs to facilitate this transition. The rabbi has also moved from the *bimah* to a reading platform amongst the congregation to further create a sense of community involvement. On the High Holidays however, a different kind of space is necessary. For one, the increased attendance mandates a much larger space, often accomplished by utilizing an adjacent social hall to the main sanctuary. Secondly, the liturgy and rituals of these specific holidays actually necessitate a highly reverential and awe-inspiring experience as one stands before God.
**Homeless Shelter/Soup Kitchen**

Unlike much of the program for this synagogue complex, the region set aside for the less fortunate of the city is primarily concerned with providing the primary needs, such as food, clothing, and shelter, to a largely non-Jewish population. As a result, the emphasis of the space is on effectively servicing this population. In addition, the focus is on creating an environment where poor individuals can feel safe and engage with the volunteers and staff as equals. Unlike the majority of food banks, this shelter should feel warm and comfortable, while avoiding the often clinical experience. In contrast to the remainder of the facility, the detailing, and materiality of this space should reflect a sense of restraint to avoid an unnecessary display of richness in front of those with nothing.

figures 77 & 78: ornament of need
Bibliography

http://www.bethsholomcongregation.org/mission-statement


Hirsch, Ammiel. Personal Interview. 18 September 2011.


Lipphardt, Anna; Nocke, Alexandra; Brauch, Julia., ed. *Jewish Topographies (Heritage, Culture, and Identity).* Ashgate. 2008.


