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Beneficial Additions: Addressing Brutalist Architecture to Create a Financial and Spatial Synergy Between Historic Places of Worship with Secular Mix-Use Building Additions

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Beneficial Additions: Addressing Brutalist Architecture to Create a Financial and Spatial Synergy Between Historic Places of Worship with Secular Mix-Use Building Additions

Abstract
Rather than demolishing a historic house of worship due to lack of maintenance funding, this thesis proposes a design solution that preserves the structure while addressing the congregation’s fundraising and programming needs. The goal is to design an example of how different identities of program can be combined while preserving the integrity of the historic structure. The thesis will assert that new additions can be beneficial as means of income for structures listed on the D.C. Landmark list that are exempt from federal funding and tax incentives. The end goal is to give structures that were not self-nominated for the D.C. Landmark list an opportunity to adapt to the owner’s needs while still preserving the historic building.

Keywords
Historic Preservation; Historic Places of Worship, Mixed Use Building

Disciplines
Architecture | Historic Preservation and Conservation

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ADDRESSING BRUTALIST ARCHITECTURE TO CREATE A FINANCIAL AND SPATIAL SYNERGY BETWEEN HISTORIC PLACES OF WORSHIP WITH SECULAR MIXED-USE BUILDING ADDITIONS

Johanna Luise Lofstrom

A THESIS

In

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2010

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To my family (thank you, thank you, thank you), friends, and professors who have supported me through the exciting challenges of combining Historic Preservation and Architecture.

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CHAPTER 1: Introduction

Historic preservation’s noble goal is the protection of the national and societal heritage embodied in our historic buildings. Yet read any of a variety of newspaper or magazine articles and it is easy to arrive at the conclusion that historic preservation is some sort of “bad thing.” One article points out how preservation rules and regulations interfere with a built environment’s aesthetics, another questions its legal standing in a nation where property rights are sacrosanct, while yet another points out its negative effect on the economic activity of new construction.

All of this makes it difficult for architects, owners, and the general public to understand the value of historic preservation and appreciate the place it has in protecting our national treasures and connecting us with our past.

This thesis will discuss the difficulties of historic preservation from the perspective of the architect, dealing with the realities of regulations, societal pressures, historical trends, and religious traditions. In particular, the thesis will focus on the rules and regulations of Washington D.C. Historic Landmarks and how they relate to religious institutions. The thesis will then narrow down to focus on a specific Washington D.C. Historic Landmark, the Third Church of Christ, Scientist. The history of the Third Church and the Christian Scientist religion will be explained along with church design in general. The thesis will also address contemporary additions to historic Brutalist buildings and the positives and negatives of each design technique. Finally, the research will conclude with an addition to the Third Church of Christ, Scientist in Washington D.C.
Views on Preservation

One of the biggest hurdles for architects when dealing with preservation is the issue of how to integrate the existing historic building with a new contemporary architectural design. In some cases, architects want no affiliation with a previous architect’s buildings; in others cases the various preservation regulations are excessively prohibitive when it comes to additions and adaptive reuse. Historic districts can be particularly difficult, as new buildings must adhere to the historic district’s aesthetic, making it virtually impossible for any new building introduced into the existing fabric to be distinctly personalized.

Take for example Apple Inc.’s new retail store design in Georgetown, Washington D.C. From the onset of design, Apple was under pressure from a local preservation group commonly referred to as the Old Georgetown Board.¹ The Board’s stated purpose is to protect the overall historic aesthetic of the Georgetown community, and found the sleek, all-glass design proposed by Apple’s architects unsatisfactory. According to the Old Georgetown Board’s website, “Historically-inspired details should be stylistically subservient to the authentic fabric, rather than establish a non-compatible or ambiguous character. New exterior materials should be compatible with the historic materials.”²

Apple’s architects presented four successive proposals to the Old Georgetown Board before resigning to a more traditional design option; a

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brick exterior with four windows that mimic its historic neighbors (Fig. 1.0 - Fig. 1.3). During the process, David Alpert, a frustrated blogger spoke for many in the community when he posted some advice for Apple on the GreatergreaterWashington.org.message board: “Just propose a Federal style store already, Apple.” He is not alone in feeling that the only way to build new construction in a historic district is to mimic the existing architecture.

Another thing that can muddy the general public's appreciation of the importance of architectural historic preservation is the controversy resulting from a property being placed on a state's historic landmark register. At the national level, the National Register of Historic Places does not condone demolishing or altering a historic building, however the owner is still permitted to do so. Unfortunately, state level regulations can prohibit these actions by not issuing permits needed to build and/or demolish a property. Property ownership has been a fundamental American right since the ratification of the Bill of Rights in 1789. The Bill of Rights prohibits the federal government from depriving any person of life, liberty, or property, without due process of law. So when preservationists want to save a house from the wrecking ball, many an owner is furious to have some third party dictating what they can and cannot do with their property. Preservation supporters often claim a right for future generations to experience the architecture; that the destruction of a property is “a bell that cannot be un-rung.”

A recent story in the news serves to illustrate this issue. In July 2009, an


article by Jim Goldman on CNBC.com told the story of Apple’s CEO, Steve Jobs and his desire to demolish his 1925 Spanish Colonial house and replace it with new construction. Preservationists took action, putting a stop to the demolition on account of the house’s historic value, fueling a debate that went on for five years. The article’s author reflects the general public attitude toward preservation when he ridicules the preservationist’s concerns, and then wonders, “How busy-body activists can mess with a guy’s home.”

In order to appease the preservation board and to fulfill his wishes, Mr. Jobs agreed to carefully deconstruct his Spanish Colonial house and have it faithfully reconstructed elsewhere.

Buildings with age value (50 years old, or older), like Mr. Job’s 1925 Spanish Colonial house, are rarer, and therefore actually easier to justify preservation, than newer buildings. Newer buildings, specifically structures from the Modern Movement, are harder to keep free from demolition as they lack age value, popular aesthetics, and rarity. Modern buildings are usually highly documented and the architect is sometimes still living. As a result, these buildings are often not seen as unique objects worth preserving.

The distance in time between the Modern Movement and today’s average citizen is still fairly brief. This results in what you might call, “The Wedding Dress Syndrome”: a photograph of your mother’s wedding dress makes you shudder, whereas a similar photograph of your grandmother’s wedding dress is elegantly

The same syndrome applies to buildings. During the 1960s and 1970s, Victorian buildings, including those of Frank Furness, were deemed unappealing and were demolished. Today, Philadelphians would be appalled if the University of Pennsylvania’s Fine Arts Library or the Academy of Music were slated for demolition. What a difference a generation makes.

Today, it is the concrete buildings of Modernism’s Brutalist era that are especially unappealing, visually as well as spatially. Their concrete and interiors are difficult to alter as the buildings were very program driven, and the concrete was an experimental building material technology.

A case in point, and the specific subject of this paper, is the Third Church of Christ Scientist in Washington, D.C. An article published June 22, 2009 by The National Review Online flat out says, “Historic preservationists [are] enemies of common sense.” They are writing about an ongoing debate between the Third Church of Christ Scientist and the D.C. Preservation League (in conjunction with other preservation groups) regarding the fate of the church building. According to activists, the church is one of the premier examples of Brutalist Architecture, an architectural style mostly constructed with concrete that was popular in the 1950s through the 1970s, and therefore must be preserved as is. In opposition, the congregation wants what they describe as “the Concrete Bunker” to be demolished because it no longer symbolizes their religion, no longer fits their spatial needs, and the maintenance costs are excessive.

Due to their own identity, historic significance, and style, historic buildings continue to challenge architects, owners, and the public when faced with potential building additions, adaptive reuse, or demolition. The public usually thinks preservation policy is to blame for the hindrances, but without rules and regulations many historically significant buildings will be demolished or altered beyond recognition in order to fulfill the desires of architects, owners, and the public.

**The Problem**

Overall, preservation policy has a bad connotation. Nevertheless, preservation does more good than bad, as the rules and regulations exist for the protection of historic buildings and structures. Without those policies, future generations will be robbed of the opportunity to experience history in the built form. Unfortunately, preservation policy is very difficult to support economically when the owner of a non-income producing property is financially responsible for mandatory preservation.

Places of worship are both non-income and tax-exempt entities. When a place of worship is placed on the National Register for Historic Places, it is the congregation who are financially responsible for the mandatory maintenance and repairs set by preservation policy. While tax-exempt status may aid in retention of funds to be used on maintenance, modern congregations are dwindling in size, as are donations. Unless preservation policy changes in order to better financially assist historic tax-exempt buildings, it is urgent that those responsible for the property have an alternative means of fundraising. Without a long-term
revenue stream, any historic structure will either be demolished by the owner and replaced with new, easier-to-maintain construction (historic properties may be demolished if preservation is proven to be an extreme financial burden), or it will be left to simply deteriorate into a ruin through neglect.

The Solution

Rather than demolishing a historic house of worship due to lack of maintenance funding, this thesis proposes a design solution that preserves the structure while addressing the congregation’s fundraising and programming needs. The goal is to design an example of how different identities of program can be combined while preserving the integrity of the historic structure. The thesis will assert that new additions can be beneficial as means of income for structures listed on the D.C. Landmark list that are exempt from federal funding and tax incentives. The end goal is to give structures that were not self-nominated for the D.C. Landmark list an opportunity to adapt to the owner’s needs while still preserving the historic building.

The Third Church of Christ, Scientist in Washington D.C. will be the test subject for this thesis and will hopefully provide insight to other architects and historic churches in need of income to preserve and maintain their building. The addition will capitalize on both Brutalist and Christian Science values regarding light, simplicity, and community, so that two different program identities, place of worship and secular commercial space, can become unified through essence and not architectural style. The existing church space will be altered to create a presence on Sixteenth Street. Walls will be punctured to incorporate more
lighting. The new addition and changes will maintain an exterior structure that is identifiable and connected with the building’s past while establishing a connection with the greater community.
In order to better understand preservation policy and its effects on non-income-producing historic properties, it is necessary to narrow the focus to a specific locality’s rules and regulations, and a specific property within that locality. The subject property of this thesis, the Third Church of Christ, Scientist, is located in Washington D.C. Consequently, the next section will provide background on the District’s governing rules and regulations as set forth by the Historic Review Board.

Rules and Regulations for D.C. Landmarks

When historic buildings are nominated and then placed on Washington D.C.’s Historic Landmark list, the building’s owners are thereafter legally required to follow the many regulations and rules set by the district’s Historic Review Board. Along with D.C.’s mayor, the Historic Review Board is in charge of enforcing the Historic Landmark and Historic District Protection Act of 1978 (D.C. Law 2-144, as amended through March 2, 2007). The Act was set in place to not only safeguard the city’s built heritage, but to, “Promote the use of landmarks and historic districts for the education, pleasure and welfare of the people of the District of Columbia.”

With respect to historic landmarks, the owner must maintain the building, which the regulations define as keeping the property free from decay,

deterioration, and structural defects. Defects include unsecured elements, inadequate foundation, buckled roof joints, ineffective waterproofing, lacking weather protection, and anything that can render the building unsafe. If the owner fails to comply in whole or in part, the District of Columbia has the right to make the repairs and demand repayment from the owner. If the owner fails to pay for the services, fines may be issued at a rate of up to $1,000 daily per day, and criminal charges may be filed.

As for demolitions or alterations, the Act states that the District of Columbia’s Mayor will deny or approve all proposals with the recommendation of the Historic Review Board and public hearings.

In actual practice, demolition is almost always prohibited for historically designated buildings unless the property has either somehow lost its historic value or has maintenance costs deemed an excessive financial burden on the owner. However, even in this case, the owner must have a pre-approved plan for an acceptable replacement building.

Alterations may be done to the original exterior if it is necessary for an addition with special merit to do so. Both new construction and additions to the historic structure are subjected to equal scrutiny by the mayor, Historic Review Board, and the public. However, the Historic Landmark and Historic District Protection Act of 1978 speaks in support of adaptations and additions. The Act states that the primary goal is, “To retain and enhance historic landmarks in the District of Columbia and to encourage their adaptation for current use.”

In some situations, adaptation is not enough and a full-on building addition is needed to support current use. To obtain approval, new additions must additionally adhere to the Secretary of the Interior’s Standards for Rehabilitation, which are guidelines for determining appropriate changes to a historic building. Generally, minimal change to the exterior is allowed, and, “New work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features.” The new addition must also be removable in the future, while retaining the original integrity of the historic building.

Financial Assistance

Anyone can nominate a building to be on the Washington D.C. Historic Landmark list. Then, once the Historic Review Board approves a property’s nomination as a Washington D.C. Historic Landmark, the property is automatically nominated to on the National Register for Historic Places.

Typically, a property owner’s incentive for nominating his or her own building for the National Register is to reap the financial benefits that follow. Historic buildings can be expensive and difficult to maintain, but buildings on the Register are eligible for federal assistance. While the Historic Landmark and Historic District Protection Act of 1978 makes it clear that the cost of repairs and preventative deterioration interventions are the owner’s responsibility, federal assistance can help defray expenses that a conscientious owner would have otherwise borne alone.

The federal assistance programs available to National Register property owners are a variety of tax relief incentives administered by the Internal Revenue Service.

One program is called the Rehabilitation Tax Credit, in which the IRS, “Reduces the amount of income tax owed by one dollar,” for each dollar spent on rehabilitation. To qualify for the tax credit, a historic structure must undergo a certified rehabilitation so that the building can be used efficiently while still preserving its historic character. The National Park Service and the IRS must approve a certified rehabilitation prior to commencement.

Another tax relief program involves easements, which is when the owner “donates” his right to alter the façade or interior of their historic structure. In return, according to the National Park Service, the “Easement provides assurance to the owner of a historic or cultural property that the property’s intrinsic values will be preserved through subsequent ownership.” The IRS views the “donation” as a charitable contribution and gives the owner tax incentives equal to the value of what the owner has lost by limiting his future options.

The last major tax relief incentive requires the rehabilitation project to include low-income housing. A tax credit will be issued if the project incorporates residential units where rent is restricted and the rental units are, “Occupied by

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11. "TPS Tax Incentives."
individuals with incomes below the area median gross income.”

**Drawbacks**

Clearly these tax relief incentives provide valuable savings for those owner organizations that are intrinsically income producing. However, there are entire classes of building owners for whom these incentives do not apply, as they are not-for-profit organizations; organizations that already enjoy a tax-exempt status and which, therefore, derive no benefit from further tax relief. Among these are the owners of both government buildings and places of worship. Thus, the purely tax-based nature of the currently available federal assistance programs provide no real financial benefit or aid for these organizations to rehabilitate or even nominate their properties for the Washington D.C. Historic Landmark list.

The easement program also has drawbacks due to the fact that in order to qualify for the program, the historic building must “donate” the façade or interior. The donation prevents the current owner and subsequent owners from altering the façade or interior.

Finally, while the low income housing tax can help owners who are able to adapt their historic building as prescribed, the tax credit is unavailable to those who are unable to do so, either by virtue of architectural incompatibility or by virtue of zoning regulations. For instance, single family housing may not be allowed in areas zoned for high rise office buildings, thus a historic building in that location would be impossible to convert into low income housing.
The Negative Effects on Unsupported Building Types

It is difficult to promote historic preservation to owners of buildings that are, for the reasons discussed above, excluded from participation in the only financial incentives provided by the federal government. As mentioned, these building types include, but are not limited to: government buildings and places of worship.

If owners of building types such as these are not supported by the available federal assistance programs, they are less likely to nominate their buildings for the Washington D.C. Landmark list, and those buildings will therefore, never appear on the National Register for Historic Places. If the buildings are historically significant and yet are not on the National Register, then they are not protected by the Historic Landmark and Historic District Protection Act of 1978, the whole point of which is to preserve historically significant buildings for future generations to enjoy.

The unfortunate truth is that if a large number of buildings with historic qualities are never nominated for preservation, then those buildings are in danger of eventually being left in disrepair, or even demolished, because preservation laws do not protect them.

Given the foregoing, it might seem that the rules governing the nomination of buildings to the D.C. Landmark list might be a key to the solution. Since anyone can nominate a building to be on the list (even a third party who does not own the building), surely this provides the greatest possible opportunity for all
candidate properties to be considered.

Unfortunately, this generous nomination process creates a particular quandary for those building owners who are unsupported by the current financial assistance programs, particularly if they also suffer from limited income. If the third party nomination is approved, the owners are then required by law to keep the decay, deterioration, and structural defects at bay. They must repair faulty roofs, structural elements, facades, and anything unsafe. These mandated maintenance and repairs might well exceed the financial means of an owner organization with limited income. Preservationists fear that if the owner cannot afford the maintenance and repair, the owner will move out, leaving the building vacant. Vacancy means nobody is maintaining the building, which leaves the structure vulnerable to the elements and possible vandalism.

**Highlight on Religious Institutions**

Of the building types left unsupported by federal assistance, as previously discussed, the houses of worship owned by religious organizations are particularly hard hit. Churches are both tax-exempt, and are currently facing an extended period of declining funds. Donations from the congregation are a major source of income for religious institutions, but service attendance has been waning over the past few decades. With reduced funding, everyday religious programs, employee salaries, building maintenance, and repairs are in danger of being scaled down or stopped altogether.

According to an article written in the *New York Times* in December 2008,
in the midst of the economic recession (2007-current), “Bad times draw bigger crowds to churches.”\textsuperscript{13} The article reports that many evangelical churches, including one in Seattle, “Grew to 7,000 members this Fall, up 1,000 in a year” because people hit hard by the recession are looking for help and answers from God.

However, being affiliated with a religious organization and actually attending religious services are quite different. The truth is that overall, the recent economic recession has not affected church, synagogue, or mosque attendance, positively or negatively; it has remained virtually the same since the beginning of the economic recession in 2007.

The \textit{Christian Post} reports that 42\% of Americans attended their religious institution weekly in March 2009, an insignificant increase from 41\% the year before.\textsuperscript{14} A Gallop poll published by the Pew Research Center (a group that studies attitudes on politics and other issues) had similar findings. “In January 2007, when the Dow (Dow Jones Industrial Average) was nearly twice as high as it is now (March 2009), the percentage of weekly attendants was exactly the same at 39 percent.”\textsuperscript{15}


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Looking at statistical data over a longer time horizon, church attendance has declined noticeably. In a poll conducted by Gallup in 1948, 91% of Americans identified themselves as some form of Christianity. By 2008, that number had declined to 77% — a 14% drop in 60 years. Over the same six decades the percentage of Americans who claimed no religious affiliation also rose 10 points, from 2% to 12% (Fig. 2.0).

Churches are non-profits, and rely on donations and fundraisers provided by their congregations. However, historically lower attendance, an economic recession in its second year, added to a rising unemployment rate that has Americans cutting back on charitable donations all add up to bad news at
the collection plate. When asked if the economic recession has effected their donations, 53% responded, “Yes, it’s declined.”

The lack of funds is a real problem for places of worship that exhibit qualities that are worth preserving for the future. As previously mentioned, these owners actually have a financial disincentive to apply for D.C. Landmark status, since their tax exempt status precludes them from taking advantage of tax-based federal aid. They simply will not self-nominate.

However, that does not stop interested third parties from doing the nominating for them. Preservation advocacy groups, such as the D.C. Preservation League, are duty bound to place any building, including places of worship, on the D.C. Landmark list if the building exhibits significance (evaluated on the property’s association with important events, architecture, architects, and construction), age (typically older than 50 years), and integrity (whether or not it still looks the same as it did in the past). Once on the D.C. Landmark list, the church is obligated to provide funding for all rehabilitation and maintenance work, and must receive approval by the mayor for any additions or demolition.

**Fundraising, Identity, and Programming**

Once on the D.C. Landmark list, a church can easily find itself in a financial bind that requires a creative solution. If the church cannot raise

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additional money from their own members, then one possible solution is to invest in a business that appeals to the rest of the community. For example, the National Community Church in Washington D.C., bought a dilapidated building next to Union Station and converted it into a coffee house. The coffee house, with the quaint name of Ebenezer’s, does not host Bible readings or sermons, but rather poetry readings, dance lessons, and rental party space. Ebenezer’s crowded lunch rush is a clear sign of its success. The community benefits from a local gathering space, and the National Community Church makes a profit that helps fund both their religious programs and building maintenance.

Other church groups are placing their money in real estate investments. While affordable housing is a traditional service area driven by the faith community, Washington area churches are now involving developers to build higher end residences and even some commercial space. Take, for instance, a new apartment building recently opened in August 2009 in Landover, Maryland. As the sales brochure says, “There’s a state-of-the-art fitness center, a quiet courtyard, nine-foot ceilings and oversize windows.”  

Residents also have a beauty salon, a theater, and a chapel. The end goal of these profit-making investments is to raise money to allow the continuance of everyday maintenance and repairs of the church, as well as to take on more community service projects.

Other ideas for making money for the religious community include classes on finance and a social networking site for the Pope. The success of these


profit and awareness programs are based on shifting the identity of religion. Religion is a set of beliefs and practices focused on a higher power that give meaning to practitioners’ lives. Most religions are based on following specific ethics, lifestyles, and rules, creating a way of life, specific to each religion—a specificity that will always narrow the audience. The success of the coffee shop and housing project is their inclusiveness; their broad appeal. These “out of the box” profit ventures require the church to approach them with a business, rather than religious, mentality. Businesses are organizations designed to provide products or services to consumers, not to tell you what is morally correct or incorrect.

However, in the realm of architecture, combining religion and business identities is difficult, as the aspects of each require different building types. For example, the exteriors of synagogues are often embellished with the Star of David and Hebrew scripture. Mosques are identified by ornate geometric patterns over archways and minarets. Catholic churches are identifiable by their cruciform plan and bell towers. Businesses’ built spaces on the other hand, often find expression in large open space plans with visible storefront and signage. The problem with two different program types is how to attract the general public to the business while still maintaining the identity of the religious institution.

Ebenezer’s coffee shop and the apartment building are successful examples of church-owned businesses as they appeal to the general public. However, their success is made possible because in each case the two building types are physically separated. The coffee shop and the apartment building were built elsewhere because they needed allocated space that was tailored to
their programming needs. For instance, the coffee house needed an open floor space big enough for entertainment that was located at street level near a busy intersection. The high end housing project needed a highly efficient floor plan with large community spaces to house the gym, courtyard, and chapel.

The question then becomes how can other places of worship combine both identities of the church and the business into one physical built form?

**What This Means for the Third Church of Christ, Scientist**

The focus of this thesis, the Third Church of Christ, Scientist in Washington D.C. is no exemption to the aforementioned decline in congregation members and income. The church was nominated by a third party for D.C. Landmark status and is now legally responsible for all repairs and maintenance, with the entire financial burden that entails.

Rather than continue to fund the ongoing maintenance, the Third Church of Christ, Scientist congregation is in pursuit of legal permission to demolish their current building and start anew.

However, there is another path. Like other congregations, the Third Church of Christ, Scientist should look at business models that will enable them to earn money for the support of their establishment, rather than demolishing the historic structure. By adopting a business mentality and focusing their fundraising and awareness on young adults and people outside the church community, they can broaden their sources of income.
Perhaps even more powerful in the long run however, is the church’s opportunity to use the business to attract non-churchgoers back to the congregation. In order for this to happen, a way must be found to physically relate the Third Church building to the business building. A schematic architectural design will address this issue in the upcoming chapters.
This chapter will discuss the history of the Christian Science religion and its beginnings in Washington D.C. The architecture of the religion will also be detailed, specifically the Mother Church in Boston and its effects on the design of the Third Church of Christ, Scientist in Washington D.C. The Third Church of Christ is then focused on in terms of its historic significance to the Christian Science movement and the architecture of the nation’s capital.

The Founding of Christian Science and Church Architecture

Mary Baker Eddy founded the Christian Science Association in 1875 after embracing the power of spirituality over the material world when she experienced miraculous healing after a serious fall. She then began to preach that her recovery was a direct result of prayer. After attracting many followers, Eddy established The Mother Church (The First Church of Christ, Scientist) in Boston, Massachusetts. The First Church’s sanctuary was designed in the Romanesque Revival style and completed in 1894. Several years later, a domed addition was built to accommodate 3,000 people in one service hall (Fig. 3.0). The complex now includes a library and urban plaza designed in 1973 in the Brutalist style by I. M. Pei & Partners (Fig. 3.1 & Fig. 3.2). The Boston church is also responsible for the development of the seven-Pulitzer-award-winning Christian Science Monitor, “An international news organization that delivers thoughtful, global coverage via its website, weekly magazine, daily news briefing, email

Fig. 3.0 The First Church sanctuary built in 1894 (Right). Addition built to accommodate 3,000 people (Left). Source: <http://www.linthgroveiowa.org/Christian%20Science%20Church%20Boston.jpg>.

Fig. 3.2_Aerial view of original First Church with early addition (Middle right) and I. M. Pei & Partners 1973 complex. Source_<http://www.cfa.harvard.edu>.
newsletters, and mobile site.”

The highly centralized congregation space of the Mother Church is replicated in other Christian Science churches throughout the country (Fig. 3.3). The centralized plan for communal worship has its roots in the early meeting houses of New England (Fig. 3.4). The Christian Science service is intended to be educational, and a central gathering space allows for community and congregational involvement. There is no standard design for Christian Science churches, however the exterior form often reflects the shape of the central space; this can be seen in the Third Church of Christ, Scientist in Washington D.C. (Fig. 3.5), the Seventeenth Church of Christ, Scientist in Chicago (Fig. 3.6), and the Fifth Church of Christ, Scientist in Los Angeles (Fig. 3.7). All three churches implement nearly windowless facades and skylights to emphasize the inward reflection required of the Christian Science congregation. The skylights also remind the congregation of the heavens and the almighty presence of God.

**Christian Science in Washington D.C.**

Mary Baker Eddy introduced her religion to the Washington D.C. area in 1882. She attracted many people to her series of lectures about Christian Science and three churches were built shortly after her death in 1910. The First Church was constructed in 1911 and is still standing on Euclid Street in

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Fig. 3.3_Centralized congregation space in the Mother Church. Source_ Keystone-Mast Collection, UCR/California Museum of Photography, University of California at Riverside.
Fig. 3.4_Mother Church’s centralized space is rooted in New England meeting houses. *Source* The Old Meeting House of Francestown. <http://www.francestownmeetinghouse.org>.

Fig. 3.5_Third Church of Christ, Scientist in Washington D.C. *Source* Washington Kaleidoscope. <http://www.dckaleidoscope.wordpress.com>. 
Fig. 3.6 Seventeenth Church of Christ, Scientist in Chicago. Source: ChateauHo, Javier. <http://www.flickr.com/photos/26554581@N00/406417321>.

Fig. 3.7 Fifth Church of Christ, Scientist in Los Angeles. Source: <http://www.you-are-here.com/hollywood/scientist.html>.
Northwest Washington. Similar to the First Church, the Second Church was erected in a residential neighborhood. In contrast, the final building, the Third Church was constructed in the bustling downtown.

The Third Church was lacking in financial resources in its early years and held its services in a rented house located in Lafayette Square. Over time, the congregation grew to 142 members, outgrowing the rented house. The congregation moved to a larger space leased by the Masonic Temple at the intersection of Thirteenth Street and New York Avenue in Northwest Washington and initiated a new building fund. In 1926, eight years after the initial rented house, the Third Church congregation purchased a site of their own. A Universalist church was purchased and remodeled to suit the needs of the Christian Science religion. Stained glass windows, plaques, and the organ were removed and replaced with a Sunday school for 200 students and a main sanctuary to hold 900 members. The Thirteenth and L Street N.W. location was the Third Church of Christ, Scientist’s home until 1967, by which time the location had become surrounded by buildings housing the Washington Daily News, prompting the congregation to look for a new downtown home.

The search for a new location for the church included finding office space for the Christian Science Monitor. The Monitor had occupied the National Press Building since 1926, but the Mother Church thought it beneficial for the journal to relocate to a shared site with the new church. Buying new property was deemed too expensive, but fortunately the church already owned an appropriate site at Sixteenth and I Streets. A residence at this location had been remodeled and used as a reading room by all Washington-area Christian Science congregations,
however the site had been rezoned for non-residential use. In response, the residence was demolished to make way for the new church and Monitor office complex.

In 1966, Erwin D. Canham, the Editor-in-Chief of the *Christian Science Monitor*, insisted the new church complex be progressive in architecture and in urban plan to reflect the religion’s modern views. Following Canham’s advice, the Christian Science Board of Directors chose I. M. Pei & Partners to design the Washington D.C. Complex, in addition to the Mother Church’s Sunday school, administration building, colonnade building, and an urban plaza in Boston.

**Brief History of the Brutalist Style**

Both sites were designed in the Brutalist style, which was popularized during the Modernist architectural movement and made famous by architects Alison and Peter Smithson in 1954. The Smithson’s coined the term after Le Corbusier’s béton brut, or “raw concrete.” Béton brut was Le Corbusier’s process of pouring concrete into wood formwork and leaving the wood texture on the surface.

Reyner Banham wrote that Alison and Peter Smithson’s Brutalist architecture was a movement of architectural philosophy on material and space. Banham states that Brutalist architecture is not about aesthetics but ethics. Brutalism focused on material minimalism, or the unromantic version of exposed

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materials because of the, “Affinity which can be established between buildings and man.” The play of light and dark was also an important factor in Brutalism as shadows gave a sculptural drama to the building. The interior or the exterior had a shared central space to increase social interaction, and the building was typically a collection of geometric forms.

Brutalist architecture became fairly common in the United Kingdom after World War II, as hard hit communities were looking for inexpensive construction methods and materials to rebuild. Concrete solved the problem because it was inexpensive and sped up construction time from a typical wood or brick building. Many designers and planners saw this opportunity to try new social ideas on the built form, resulting in large housing projects and public plazas. The buildings were no longer units by themselves, but a living city within one structure and an urban space for community gathering. Unfortunately, the architectural style lost favor after housing projects became a symbol of vandalism and harsh living conditions.

Brutalism was also popular in the United States from the 1950s through the 1970s. Several government buildings in Washington D.C. were designed in the Brutalist style because concrete was inexpensive and easier to construct. Cost is always a concern for the government because buildings are funded with taxpayer’s money. The solid appearance of Brutalism also gives the government buildings a sense of power and weightiness amongst the other buildings.

Brutalist buildings were not limited to government buildings in the United

States, as other building types desired the social ideas associated with the style. The Mother Church in Boston emphasizes the idea of community gathered around a public plaza by means of I. M. Pei’s reflecting pool surrounded by a complex of church related buildings. Although at a much smaller scale, the Third Church of Christ, Scientist also expresses the social ideas of Brutalism. The church and Monitor building form a complex that surrounds an outdoor community space. The landscaped plaza was designed to promote community interaction because one must enter the plaza in order to enter the church or Monitor building.

I. M. Pei & Partners Four Part Design

Araldo Cossutta of I. M. Pei & Partners was in charge of both the Washington D.C. and Boston projects. The church had initially rejected Cossutta’s proposal for the D.C. Complex as too expensive, but after meetings with several competing architects, decided that his design would allow the D.C. complex to aesthetically match Boston’s additions, and better celebrate the religion’s centennial.

Cossutta followed I. M. Pei’s four-factor design philosophy for both sites. The first factor dictated that the scale of the building and its surroundings must relate. Cossutta met this goal by placing the taller eight-story Monitor building in the background of the five-story church building (Fig. 3.8). The eye first focuses on the taller Monitor building and the World Center office of equal height located in the north quadrant of the site. The eye then follows the reduction in height

Fig. 3.8 Section showing Third Church (Left), plaza, and taller Monitor building (Right). Source: Kohler, Sue A. *Sixteenth Street Architecture*. Vol. III. Washington D.C.: Commission of Fine Arts, 1978. Print.
across the public plaza to the church building at the opposite end of the site.

The second factor prescribed the creation of public space defined by building form. I. M. Pei believed that public spaces and piazzas provided valuable community space within historic cities. Cossutta’s design achieved this by including a landscaped triangular-shaped public plaza. The outdoor space is framed by the octagonal shape of the church and also promotes easy circulation. Two historic specimen trees help to enclose the space and provide natural landscaping (Fig. 3.9).

The third factor mandated that formality of design be combined with monumentality, intensity, and character. This was expressed through symmetry, order, and material. Cossutta was trained at the classical Ecole des Beaux Arts and applied what he had learned there about Roman and Greek architecture. The church’s plan is a simple Greek cross and almost completely symmetrical. Cossutta translated the exposed structure of ancient architecture into modern architecture through the use of materials. He saw poured-in-place concrete as the modern stone; as, like stone, it is a continuous material, the same inside and out. Instead of covering the concrete with glass or metal, the concrete was left exposed to express its true value as structure. The concrete also creates a sculptural effect.

The fourth and final factor emphasizes the role of natural light and its effects on a building’s occupants. Cossutta skillfully used light to increase the feeling of spirituality within the space. Windows are limited to keep members

of the congregation focused and undisturbed by outside distractions. The main source of light is a skylight following the perimeter of the ceiling (Fig. 3.10). There are minimal windows looking outwards, reminding congregants to reflect inwards.

In addition to Cossutta’s adherence to the I. M. Pei’s four factors, his floor plan also responds to the building’s context. The Third Church was originally designed as circular space to symbolize the congregation’s community and unity. However, Cossutta changed the floor plan into an octagon to achieve compatibility with the neighboring buildings, and the entrance to the church was placed within the public plaza rather than on the main street to promote public gathering and access through the site.

**Historic Significance**

The Third Church of Christ, Scientist complex satisfies the first four of the six criteria for designation of historic significance as spelled out in the Criteria for Designating Historic Landmarks and Districts in Washington D.C. The four pertinent criteria are as follows:

*Criterion One. They are the site of significant events or are associated with persons, groups, institutions, or movements that contributed significantly to the heritage, culture, or development of the national capital or the nation.*

Criterion one is satisfied by the fact that the buildings were designed by I. M. Pei & Partners, a significant architecture firm that has contributed to the

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Fig. 3.10. Interior view of main congregation space and perimeter skylights. 
cultural heritage of the capital and the nation over a period of decades. The Third Church of Christ, Scientist is one of few churches designed by this celebrated firm, and is a prime example of Pei’s work throughout Washington D.C. during the post-World War II era. The building complex was finally completed in 1971, and the Metropolitan Washington Board of Trade awarded the church with the Award for Excellence in Architecture.

The Third Church of Christ, Scientist’s relationship with the Mother Church in Boston further satisfies the requirements of this first criterion. The Third Church of Christ, Scientist complex was built in conjunction with the Boston Mother Church additions to celebrate the faith’s centennial commemoration. The Third Church of Christ, Scientist is also unique in that the church and administrative building for the Christian Science Monitor are combined, thus symbolizes the strength and presence of the religion in the capital. The church is also significant, as it remained a downtown church even through the racial upheavals of the 1960s.

*Criterion Two. They exemplify the significant military, political, economic, social, scientific, technical, educational, historical, archaeological, architectural, or artistic heritage of the national capital or the nation.*

The church complex’s integration of the church and office building contributes to D.C.’s overall architectural heritage meeting the test of this second criterion. The construction of an important work of Brutalist architecture along Sixteenth Street contributed to the transformation of residences into commercial and institutional buildings. The Sixteenth Street corridor is now a busy commercial area full of businesses and government buildings that service
the area around the White House.

Criterion Three. They embody the distinguishing characteristics of architectural styles, building types, types or methods of construction, landscape architecture, urban design, or other architectural, aesthetic, or engineering expressions significant to the appearance and development of the national capital or the nation.

The Third Church of Christ, Scientist complex is an excellent example of the Brutalist architecture movement that occurred in the nation’s capital during the 1950s though the 1970s, thus satisfying criterion three. The massive concrete form, minimal detailing, and highly organized spatial plans can be seen throughout the city, particularly in government agency buildings. The FBI Edgar Hoover building (Fig. 3.11), the Hirshhorn Museum (Fig. 3.12), the Housing and Urban Development building (Fig. 3.13), and the Metro transportation system (Fig. 3.14) are all examples.

Criterion Four. They have been identified as notable works of craftsmen, artists, sculptors, architects, landscape architects, urban planners, engineers, builders, or developers whose works have influenced the evolution of their fields of endeavor or the development of the national capital or the nation.

Like criterion one, this fourth criterion is satisfied by the involvement of I. M. Pei’s firm in the design.

Architectural Description

The Third Church of Christ, Scientist is located at the corner of I Street NW and Sixteenth Street NW in Washington D.C. The church is two blocks north

Fig. 3.12 The Hirshhorn Museum in Washington D.C. Source Medioimages/Photodisc, Getty Images.
Fig. 3.13_The Housing and Urban Development building in Washington D.C.  

Fig. 3.14_Interior view of Washington D.C.’s Metro system.  
of the White House and two blocks west of the Farragut North metro stop. The site itself is comprised of the church and office building with a park between the two structures. The Farragut Square area is at the heart of Washington D.C.’s daytime business and commercial district. There are several hotels, restaurants, news media offices, and professional offices nearby (Fig. 3.15). The District’s population swells by 50-percent each workday as commuters flood into the city from the Virginia and Maryland suburbs, but the Farragut Square neighborhood closes down after business hours as there is little nearby housing.

The building lot is an irregular rectangle in plan, and is approximately 186 feet on the Sixteenth Street side by 83 feet on the I Street side. Sixteenth Street borders the lot on the east and I Street on the south. The lot’s irregularity is minimized by the placement of the Monitor building at the northwest corner. The Monitor building and church are separated by the public space. In addition, an underground garage extends the length of the site and is entered from an alleyway located at the corner of the lot.

The Monitor building is eight stories and is constructed of concrete, similar to the Third Church of Christ, Scientist. Both are constructed of a slight reddish color poured-in-place concrete, rather than pre-cast and assembled on site. In contrast, the Monitor building has a horizontal band of glass windows (Fig. 3.16). The west side of the building faces the public plaza and is also the main entrance. The entrance can be accessed on the Sixteenth Street side or through a passageway from I Street. The entrance consists of glass doors and panels. The main floor of the building originally housed the Christian Science Reading Room, but is now the office of an architect (Fig. 3.16). The Christian Science
Fig. 3.15_The Third Church’s site and context. Source_Background image by <http://www.maps.google.com>. Overlay information by author.

Monitor, the Christian Science Committee on Publication, and commercial office space, occupy the remaining floors.

The ceilings of the Monitor building and the Third Church are constructed of concrete coffers that reveal the structure while creating a modular grid (Fig. 3.17). The electrical, telephone, lighting, and air conditioning ductwork are hidden within the coffers. The modular grid also contains acoustic material, which aids in noise reduction.

The church building is located on the corner of the site and is freestanding. The church is set back from the I Street curb about eighteen feet and is separated from the alley by a twenty foot concrete wall (Fig. 3.18). The wall acts as a visual connection between the church, the Monitor building, and the public plaza while separating the complex from adjacent office buildings. A brick pathway also physically separates the neighbors from the complex.

The church is octagonal in plan with each alternative side measuring 32 feet 3 inches and 30 feet 6 inches. The main entrance is located on the north side and faces the plaza. The entrance is similar to the Monitor building, but is recessed. The facade fenestration is minimal, one set of windows is located on the side facing the plaza and one vertical window is facing Sixteenth Street. The exterior is smooth except for small horizontal recesses that outline the concrete formwork and expansion joints. A horizontal carillon made up of twenty bronze bells also interrupts the exterior (Fig. 3.19).

The first floor contains the lobby with two staircases that lead to the

auditorium or sanctuary. The sanctuary seats 400 people and is two stories high (Fig. 3.20). The next level consists of administrative offices. The fifth story is equipped with an outdoor balcony and is the location of the Sunday school (Fig. 3.21).

Controversy

The Third Church has been in a battle with the District over their D.C. Landmark status since 1991. The congregation has no desire for their church to be a landmark and did not nominate their building for landmark status. The congregation actually wants to demolish their church and office complex, which members describe as their “concrete bunker,” and build a new one. They contend that the current building does not symbolize the characteristics of the religion, has high maintenance costs, and is not functional for their program needs.

Despite the wishes of the congregation, the preservation advocacy group, D.C. Preservation League, nominated the church building for D.C. Landmark status. In their view, the Third Church of Christ, Scientist is one of the premier examples of Brutalist Architecture in the District and therefore should be preserved.

Preservationists want to preserve the building because of its integrity and architectural significance. The church is younger than the standard fifty-year rule for preservation, but like the FBI J. Edgar Hoover Building in D.C. and the Boston City Hall in Massachusetts, it is a premier example of an important architectural style, Brutalist Architecture.
Fig. 3.20. Interior view of two story sanctuary. Source: Rodeomilano. <http://www.flickr.com>.

Originally, a nomination for D.C. Landmark status was prepared in 1991, but delayed until 2007 at the request of the church. The hearing for the nomination was finalized when, “A sale and proposed demolition strategy came to light.”\(^\text{28}\) Apparently, a developer purchased the land and had plans to construct new buildings upon the entire site, including the existing church and office complex. A raze permit was filed to remove the status in 2008, but the Historic Preservation Review Board denied the application. The church then filed a lawsuit with the U.S. District Court arguing that a landmark designation was an interference with the *U.S. Constitution’s First Amendment*. In May 2009, a judge agreed with the plaintiff ending the eighteen-year battle. The church intends to demolish the complex and build a smaller church with other mixed-use buildings.

The outcome of the lawsuit was a victory for Third Church, but a, “Blow to historic preservation groups”\(^\text{29}\) because an iconic example of Brutalist Architecture will now be gone forever.

**The Third Church Plan**

The reasons for demolition include high maintenance costs, aesthetics, and space, which all tie back to the root problem, declining attendance. Similar to America’s decline in churchgoers over the past sixty years, the Third Church of Christ, Scientist is losing attendees. The architect, Araldo Cossutta designed


the main chapel to house 400 attendees at one time, but only 40 to 60 people currently attend services each week. Not only is the Third Church of Christ, Scientist losing donations purely on the decrease in congregation numbers, but also less money is being donated thanks to the economic recession.

It is obvious that the Third Church of Christ, Scientist is eager for more recruits because their main argument for a new building is based on the “ugliness” of the church. The congregation believes that the original church design does not satisfy their identity as a religion. Places of worship are historically built to create the feeling of awe in the presence of God by using grand scale and elaborate details. The Third Church of Christ, Scientist is the modernist interpretation of this practice, using scale, shape, window placement, and materiality. The centralized floor plans and near windowless exterior walls are symbolic of the inner reflection central to the Christian Science religion. The symbolism no longer works for the congregation however, and they prefer a new, “more inviting” building. Their hope is that a more inviting space will attract new church goers to attend their services, and this will lead to more money in the collection plate.
CHAPTER 4_Church Design Precedence

The Spiritual Versus the Physical

Two books, *Prayers in Stone*, by Paul Ivey, and *Architecture for Worship*, by E. A. Sovik, explain the Modern and contemporary movements and how they affected church architecture. *Prayers in Stone* details the history of Christian Science and the progression of the religion’s church buildings. *Architecture for Worship* provides a thorough commentary on how a contemporary church should be designed. These books provide a credible argument that the Christian Science faith de-emphasizes the materiality of the built form, and that members of the faith should therefore not be excessively concerned about the appearance of their church buildings, including the Third Church of Christ, Scientist in Washington D.C.

*Architecture for Worship* begins with a brief history of Christianity, beginning with Jesus’ teachings and ending with the Reformation in the 1500s. The author points out that there has never been a direct correlation between worship and the built form. “Worship involves persons, not places. Persons are the temples. The encounter with God is any place.”\(^{30}\) This was certainly true of the early Church during the period of the Roman Empire. Christians in the first centuries after Christ had no particular physical place of worship. Hippolytus wrote in the *Apostolic Tradition*, “It is not a place that is called ‘church’ nor a house made of stones and earth...What then is a church? It is the holy assembly

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of those who live in righteousness.”

As there was no designated space for worship, Ivey points out that everyday life and religion were combined. People gathered for prayer and worship in secular buildings, such as private homes and community meeting spaces. It was not until the Middle Ages that worship and everyday life were separated by means of a specially designated architecture: the cathedral. While the cathedrals designed at this time are sometimes today, through tradition, considered the correct form and aesthetics of Christianity, the Bible itself is silent on the issue.

Although Ivey’s book does not specifically discuss the Third Church of Christ, Scientist in Washington D.C., the resource is useful as a historical overview of the religion’s built form. According to Ivey, Christian Science’s churches follow no set design or architectural style. However, as previously noted, The Third Church was specifically designed to match a concurrent addition to Christian Science’s Mother Church in Boston in celebration of the sect’s one-hundredth anniversary. The Boston addition created a complex, which is celebrated by members of the congregation; quite the opposite of their Washington D.C. brethren who no longer believe the building represents their religion and want to build something new in its place.

In Architecture for Worship, Sovik argues that contemporary churches need to return to their secular roots. He suggests that terms such as nave, cloister, and apse be replaced with secular terms such as centrum and

31. Sovik, E. A
multipurpose space (Fig. 4.0 & Fig. 4.1)). Sovik believes that community spaces serve religion better than do churches, as, unlike churches, they are intertwined with the worshippers’ everyday lives. Once a building is deemed sacred through its architecture the congregation begins to separate religious teachings from day-to-day living. Furthermore, one large gathering space that can be easily converted, uses temporary furnishings to aid in conversion of use, and is devoid of religious ornamentation helps turn a highly identifiable church into a non-identifiable community space.

**Contemporary Thought on Church Design**

Sovik’s theories are similar to the “spiritual, not physical” tenets of Christian Science, however they can be taken to the extreme. His ideas can be enforced to the point where new churches resemble shopping centers and their multifunctional spaces are not functional at all. Some thirty years after *Architecture for Worship, Ugly As Sin* by Michael Rose, and *No Place for God*, by Moyra Doorly, were written in reaction to the designs predicated by Sovik’s book. These newer books call for church architecture’s return to the aesthetics of historic churches, and the revival of their traditional iconography.

Rose writes that a successful church is one that follows the traditional design standards of the Catholic cathedral: vertical emphasis, permanence, and iconography. These three traditional design standards define church architecture because the church defines the worshipper. “Church architecture affects the way man worships; the way he worships affects what he believes; and what he believes affects not only his personal relationship with God but how he conducts
Fig. 4.0_Relationship of program in a typical Catholic church. Source_Drawn by author based on images from Thiry, Paul. Churches & Temples. New York City: Reinhold, 1953. Print.

Fig. 4.1_Relationship of program in a typical Catholic church according to E.A. Sovik. Source_Drawn by author based on images from Architecture for Worship. Minneapolis: Augsburg Pub. House, 1973. Print.
himself in his daily life.”

When it comes to Modern and contemporary churches, Rose’s position is very clear that churches built in the twentieth century lack inspiration and influential weightiness on the worshipper, and therefore are far inferior to the cathedrals of the past. Historic churches are obvious in their purpose and architecture, while newer churches are ambiguous and generic. Rose evaluates the contemporary cheaply constructed churches, which he believes have become mere meeting spaces with the aesthetics of a strip mall (Fig. 4.2 & Fig. 4.3).

Rose’s criticism is warranted for some of the catastrophic contemporary churches that exist, however, to characterize the entire Modern Movement as a failure in church design is to paint with too broad a brush, and ultimately impractical. To understand contemporary churches one must understand the shift in architecture. The Modern Movement redefined the traditional church design standards to better match society’s beliefs, technology, and standardization of the time. Modernism was the rejection of the past and an acceptance of new ideas of community and representation. Modernism was not only a building style aesthetic, but a new way of thinking about art, literature, architecture, religious faith, economics, social, and political conditions.

Similar to Rose, Moyra Doorly’s position in No Place for God, is that beginning with the Modern Movement, newly constructed churches have become unspecialized spaces that have nothing to do with religion, but everything to

Fig. 4.2_Exterior view of generic looking church. *Source*_ McLean Bible Church designed by RNL Architects. <http://www.rnldesign.com/markets/religious-cultural/>.

Fig. 4.3_Interior view of generic looking church. *Source*_ McLean Bible Church designed by RNL Architects. <http://www.rnldesign.com/markets/religious-cultural/>.
do with undefined common space. The spaces are homogenous, value-free, and directionless. There are no character defining qualities of modern churches and they can be confused with any other building nearby. Doorly explains by describing a contemporary church: “The interior resembled a conference hall of a seminar room with plain and functional furniture, a sound system, carpets everywhere, and meaningless splash paintings on the walls. The exterior could have belonged to any other modern building in the town, a health center perhaps, or a public library.”

Doorly and Rose point out that contemporary churches have become homogenous meeting spaces, but they fail to explain why. Perhaps church spaces are purposefully generic so the space can be used for different functions. Churches are no longer just places for worship, but they are daycare centers, classrooms, and public meeting spaces. Churches today strive to serve the entire community while adding to their own income, resulting in multifunctional spaces with no true identity.

Contemporary churches are no longer temples of God, but temples of society. Modernizers argue that the typical church building has changed throughout the times to match the ever changing fashions of society. Architecture has always been a reflection of society and the fashion of the times; it mirrors society’s values and ideals. Similarly, religious architecture has also changed to meet the architectural style of the time. This is why there are Romanesque, Gothic, Renaissance, and Baroque churches, because buildings were and still

are fashioned by society’s current desired aesthetics.

Doorly believes contemporary churches should return to the historic aesthetics of Romanesque, Gothic, Renaissance, and Baroque architecture to allow God back into the space. But then, society has not regressed, why then should our architecture? Yes, the Modernist churches of the first half of the twentieth century, perhaps particularly those of the Brutalist style, are difficult for some to appreciate. Yet to erase the Modern churches would be to erase this chapter in our society’s history. It is important to keep elements from our past and at the same time move on from them.

The Architectural Style of the Christian Scientist Church

As discussed by Ivey, the earliest churches of Christian Scientists were typically located in urban settings, with Sunday services in any available building. However, as the national congregation grew, establishments for religious gatherings were needed and the construction of churches began. Christian Science was a modern, uniquely American phenomenon, and its early church buildings looked to the simple churches of another American Protestant denomination, the Puritans, for design inspiration. Like the Puritans, Christian Scientist churches eschewed religious symbols and decorations. Their most defining characteristic was the penetrating presence of light, typically from a domed ceiling.

In 1893 the World’s Columbian Exhibition in Chicago included a Christian Science church on display, and thereafter that building became a prototype for
other Christian Science branches around the country. The church on exhibit was constructed of stone, simple in design, and had a porch. It was considered very modern for the time as the design broke from the typical ecclesiastical churches of its time. Many viewers were excited by what they saw, and thought that the prototype was a, “Modern church building that represented a modern religion, founded in the United States only two decades earlier,” and that, “Its solid architecture was particularly attractive in the changing cityscape of Chicago.”

Nevertheless, even as new churches were constructed to satisfy a growing membership, church founder Mary Baker Eddy remained unconcerned with the new churches’ aesthetics. For Mrs. Eddy, the “Church” was about the spiritual, not the physical. Even after Eddy’s death in 1910, Christian Science has never seemed to feel compelled to settle on any particular architectural style. As they have done from the beginning, their sanctuaries have tended to mirror the styles popular at their time of construction. This architectural flexibility has been an important part of Christian Scientist churches’ ability to integrate into the fabric of the urban city, rather than move to the suburbs as have other denominations, a fact in which Christian Scientists take pride.

Given the historical context, the Third Church congregation can argue that since Christian Scientist churches have traditionally followed the architectural trends of their day to blend in with the urban context, it makes sense that if that context changes, so should the church to match it. Few Brutalist buildings remain in Washington D.C., surviving mostly as the home of Federal agencies.

The capital’s streets are now lined with rhythmically fenestrated steel buildings with limestone colored cladding. The near windowless Brutalist style of Third Church seems out of step with the times, and therefore, according its current congregation, fit for demolition.

However, perhaps there is another solution. Ivey’s documentation of Christian Science’s historical lack of a defined architectural style, coupled with Sovik’s suggested blurring of the boundaries between sacred and secular, moderated by the advice of Rose and Doorly, provide a clear path out of the Third Church’s current dilemma.

Since Christian Science dogma has always valued the spiritual over the material, it seems the congregation cannot honestly insist on demolition of their building purely as an article of faith, especially if a tenet of that faith states that the building form is irrelevant. Instead, the most likely successful path forward for Third Church is to build a secular, for-profit business addition outside the existing building shell of their church. This solution would allow the church to keep its iconic identity separate from its revenue-producing program while allowing extra income for maintenance, a welcoming space for potential new members to the community, and an architectural reconnection of the church with its surrounding context.
Designing an addition to the Third Church of Christ, Scientist is a challenge, because the existing building has a strong visual identity that should be preserved while at the same time altered to blend in with the contemporary surrounding community, and to satisfy the congregation’s desires. Examining recent Brutalist Building’s additions and their positive and negative characteristics will aid in this quest. The following building additions are examples of the prominent ways of designing an addition to a Brutalist style building.

**Whitney Museum of American Art**

The Whitney Museum of American Art is located in the Upper East Side of New York City and is the premier institution for twentieth century and contemporary American art. Marcel Breuer, a Bauhaus-trained architect, designed the third home for the museum in 1966. Although constructed of granite and not concrete, the building is considered Brutalist because of its simple geometric forms, large massing, and limited fenestration (Fig. 5.0). The museum’s solid volume is carved into, creating “an inverted Babylonian ziggurat.”\(^{35}\) The museum had—and still does have—a considerable presence amongst its historic limestone and brownstone neighbors.

In 1985, the Whitney commissioned Michael Graves to design an addition to the original Breuer museum. Graves’ Postmodern design went through three

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major proposals, but was ultimately never constructed. All three proposals involved adding more design elements to the original composition to bring the old and new together as one unit (Fig. 5.1). The first design was overwhelming and was criticized for its awkward scale in relation to the existing museum. With each design iteration, the addition, “Got drabber and drabber and its components less object-like, which allowed Breuer, to a degree, to reassume command as the principal object in a combined work of ever-decreasing interest.” The reaction to Grave’s abandonment of the project was one of approval as many thought the addition should not increase the physical weightiness of Breuer’s museum, but to offer a lighter, more brighter addition.

Fig. 5.1 Grave’s addition 1 (Top), addition 2 (Middle), and addition 3 (Bottom).
Source: Byard, Paul S. *The Architecture of Additions Design and Regulation.*
The building addition project was tabled until 2001, when fashionable architect, Rem Koolhaas was hired. He presented two highly elaborate building addition schemes. The first scheme left the original Breuer museum as is, but converted four adjacent brownstone homes, already owned by the Whitney, into galleries. Behind the homes and the existing building, an eleven-story building was planned. The second scheme replaced the existing brownstones with a nine-story addition that attached to the Breuer building (Fig. 5.2 & Fig. 5.3). Both design schemes were scrapped after the Whitney Museum announced the new building was too expensive to build and maintain. Many also felt the towering addition was overbearing and did not respect the existing museum.³⁷

In 2004, Italian architect Renzo Piano was hired for a final attempt at designing the much needed expansion for the Whitney’s permanent art collection. In contrast to Koolhaas’ domineering design, Piano’s proposal was smaller in scale, would not exceed the existing Whitney’s height, and was positioned behind Breuer’s original design and brownstones (Fig. 5.4 & Fig. 5.5).³⁸ Museum officials chose Renzo Piano over Rem Koolhaas and Michael Graves, because the, “Whitney already is a destination. Renzo saw the limitations and was interested in using them, not fighting them.”³⁹ Again, however, the addition was postponed, but this time the original historic site was abandoned for a new site in the downtown area of New York. Renzo Piano stayed on the

Fig. 5.2_Exterior view of Koolhaas addition. *Source* OMA Architects. <http://www oma.eu>.

Fig. 5.3_Model of Koolhaas addition. *Source* OMA Architects. <http://www oma.eu>.
Fig. 5.4_Model of Renzo Piano’s addition. Source_New York Times._<http://www.graphics8.nytimes.com>.

Fig. 5.5_Elevation drawing of Piano’s addition. Source_New York Times._<http://www.graphics8.nytimes.com>.
project and designed a new building to house the Whitney’s permanent art
collection.

Each architect’s attempt at designing an addition to Marcel Breuer’s
historic Whitney Museum failed. Renzo Piano’s design may have succeeded if
completed, but Michael Grave’s and Rem Koolhaas’ designs were unsuccessful
because both either enveloped or competed with the original Whitney museum.
Grave’s addition was overbearing as well as bulky and gloomy. Koolhaas’
addition overtook the existing Whitney and had a completely different design
aesthetic.

**Yale’s Art & Architecture Building**

Yale University hired Paul Rudolph to design a building relating to the
existing Yale University Art Gallery. Together, the new building and the art gallery
would anchor a key street corner on Yale’s campus. Rudolph’s design for the Art
& Architecture building, or A&A, was completed in 1963 and originally housed
the art and architecture departments. Today, Yale’s architecture department,
undergraduate architecture students, and the Robert B. Haas Family Arts Library
occupy the building.

The A&A building is one of the earliest and best known examples
of Brutalist architecture in the United States. It is categorized as Brutalist
because of the interlocking geometric volumes, minimal detailing, and forthright
expression of concrete (Fig. 5.6). Paul Rudolph’s highly textured concrete
generated a controversy at the time because it had never been done before.
Fig. 5.6 Paul Rudolph with his A&A building. *Slate Magazine.* <http://www.img.slate.com>.

The process entailed, “Pouring concrete into corrugated forms and then laboriously breaking the ridged surface with a hammer to expose the aggregate to the weathering effects of the elements.” Rudolph also mixed coral, stones, seashells, and mica into the aggregate for a different texture. The corrugated surface broke down the massive concrete into smaller fields of texture that fracture the light in many different ways (Fig. 5.7).

The building had mixed reviews upon initial opening. Ada Louise Huxtable, a New York Times architecture critic, called the Arts & Architecture building a, “Spectacular tour de force,” while art historian Nikolaus Pevsner criticized the work as, “Individualist, the artist-architect, primarily concerned with [his own] self-expression.” Eventually, like other Brutalist buildings, the A&A building fell out of favor and underwent several alterations. According to Yale University’s website, the A&A building, “Has gone through many changes in its 45-year history, surviving a mysterious fire in 1969 and undergoing several renovations since.”

In 2007, Robert A. M. Stern, dean of Yale’s architecture program said he wanted to demolish the building, but decided not to as that would be more costly than building an addition. Robert Siegel of Gwathmey Siegel and Associates was chosen to design the contemporary addition to the existing Art & Architecture building, as well as renovate many spaces to their former glory. Richard Meier and David Childs of SOM were other architects in the running, but ultimately

lost to Siegel’s background as a former student of Rudolph and a draftsman for the original A&A drawings. Siegel has been quoted as saying that the win was bittersweet because designing an addition to an icon with such a strong identity was extremely challenging.43

The new addition, the Jeffrey H. Loria Center for the History of Art, is 87,000 square feet, and is constructed of limestone and zinc panels (Fig. 5.8). Where the building intersects with the Paul Rudolph’s building, the Jeffrey H. Loria Center responds with glass and aluminum panels.44 Siegel’s goal was to create his own icon while maintaining a dialogue with the original A&A building. The new complex was renamed the Paul Rudolph building in honor of the original architect and has since received accolades as well as criticism.

The new Paul Rudolph building has been recognized for the AIA NY State Award of Excellence in Historic Preservation, International Concrete Repair Institute Award of Excellence in the High-Rise Category, and won first place in the Connecticut Building Congress Project Team Award. Architecture critics are somewhat skeptical however, based on the physical connection between old and new. The new addition has its own entrance separate from the old A&A building, “Rendering Rudolph’s counterparts oddly redundant.”45 The new building is directly attached to the existing one creating a visual continuance, but the stand-alone icon of the A&A building is lost. Finally, the Jeffrey H. Loria center’s façade is a composition of skewed angles and curves, causing a distraction from the

43. Amelar, Sarah.
45. Amelar, Sarah.
Fig. 5.8 Robert Siegel’s addition to Yale’s A&A building. Source: Architecture Week. <http://www.architectureweek.com>.
Juilliard School and Alice Tully Hall

Pietro Belluschi designed the New York City building housing the Juilliard School and Alice Tully Hall in 1969 as part of the Lincoln Center for the Performing Arts complex. Alice Tully Hall was designed specifically for chamber music and was the first of its kind in the City. The building also houses performance spaces, practice studios, and classrooms for the Juilliard School. The building is considered Brutalist because of its solid geometric volume with minimal detailing (Fig. 5.9).

In 2005, Diller Scofido + Renfro were hired to design a new “personality” for the Juilliard School and Alice Tully Hall that also complimented the renovations of the nearby Lincoln Center of the Performing Arts. The original boxy volume with limited fenestration prevented the school and chamber musicians and performers from being on display, as the activities inside were hidden from the street. Diller Scofido + Renfro saw this as a design opportunity to bring back the observer by altering the existing structure into a more inviting and visually open space.

The existing building was not torn down or covered with a new façade, but rather the architect’s design was to carve into the original (Fig. 5.10). “A new incision between the building’s first and second floors rises up at its southeast corner to expose the lobby to the street, suggesting the building has been sliced.
Fig. 5.9_Juilliard & Alice Tully Hall before renovations. Source_Arts Build NY. <http://www.architecture.nyc-arts.org>.

Fig. 5.10_Rendering of Diller Scofido + Renfro design. Source_Arts Build NY. <http://www.architecture.nyc-arts.org>. 
open with a can opener.”\textsuperscript{46} The removed bottom corner is now covered in glass and promotes a welcoming entrance. An all-glass cantilevered extension permits people on the street to view dance classes in session. There is also an outdoor concrete seating area for the viewers.

Like all renovations and additions, the reviews are mixed on the Diller Scofido + Renfro adaptation, however most are positive. Supporters find that the architects found a happy medium between the wrecking ball and complete preservation, where nothing is altered. The new design gave homage to the existing while creating an updated, inviting space for the school’s performing arts as well as providing a presence at the street level. The once hidden building is now visible to the public. On the other hand, the design is criticized because the building’s original identity is lost. A \textit{New York Times} article about the transformation was appropriately called, “Alice Tully, Could That Really Be You?”\textsuperscript{47}

\textbf{Fashion Institute of Technology}

New York City’s Fashion Institute of Technology, or F.I.T., was established in 1944, and expanded in the 1950s. Charles H. Silver, the president of the New York City Board of Education at the time, declared that the school should occupy a building to match the goals of the school. F.I.T.’s goals included setting trends and standards in style for the world. As a result, architects de Young, Moscowitz


& Rosenberg were hired to design a trendy new home for the school.

In 1956, the building known as Building C was constructed and became F.I.T.’s facility for learning and teaching fashion related design. Building C is an example of Brutalist architecture because of the building’s hefty concrete geometric volume and minimal fenestration (Fig. 5.11). This building is unique however, as the concrete was formed into a geometric 3-dimensional pattern representing the woven fabric of textiles.

In 2009, SHoP Architects became involved in updating Building C. SHoP’s project is commonly referred to as C2 or C Squared. C2 is a ten-story façade that covers the existing Brutalist architecture (Fig. 5.12). The street-facing façade is no longer recognizable as the old F.I.T. Building C as the concrete has been covered by a multilayered glass and metal façade. The undulating surface mimics a woven textile pattern. The thickened façade also allows, “Structural systems, environmental technologies, and visual permeability to be interwoven and constructed simultaneously.”

Circulation, exhibition and review spaces, design studios, and a student quad also occupy the thickened skin (Fig. 5.13 & 5.14).

The response to SHoP’s C2 design is both positive and negative. Some believe the overhaul of the existing façade was much needed for a tired section of the City, while others feel the new façade hides the existing too much.

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As the preeminent institution of fashion and design education in the country, F.I.T. is unique in the fact that it is located directly in the heart of the industry that it teaches. The proposed addition is highlighted by a multi-layered glass and metal façade. Contained within this thickened facade are nested the primary circulation, review and exhibition spaces connecting the design studios with the sky lit student quad on the 5th floor. Just as a loom builds form and structure simultaneously, this new kind of building will allow structural systems, environmental technologies, and visual permeability to be interwoven and constructed simultaneously. The proposed building is seen as a proto-form - components of ideas and elements that have the ability to adjust as the program is developed with the faculty and administration. Flexibility, communication, and leading edge technology are the underpinnings of this design which we believe will be a unique and inspiring example of future possibilities for design and technology for F.I.T.'s students, faculty, administration, alumni, and the people of New York.

**Fig. 5.11** F.I.T. Building C before renovations. *Source_NYC Architecture.* <http://www.nyc-architecture.com>.

**Fig. 5.12** SHoP facade addition. *Source_Fashion Institute of Technology. New York City: SHoP Architects,* 2009. Print.
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Fig. 5.13. Section showing facade addition. Source_Buro Happold. <http://www.burohappold.com>.

Case Studies Conclusion

The additions to the Whitney Museum of American Art, the Yale Art & Architecture building, the Juilliard School and Alice Tully Hall, and the Fashion Institute of Technology are examples of the five common practices of designing additions to Brutalist buildings. While all five examples have received both positive and negative feedback, depending on the project, some techniques are more successful than others.

The first technique, which could be called the “Overwhelming Addition” solution, involves engulfing the existing structure with the new design. The addition often has its own design aesthetic vocabulary and tends to ignore the vocabulary of the existing structure. In the case studies above, the Overwhelming Addition is best exemplified by Michael Grave’s and Rem Koolhaas’ additions to the Whitney Museum of American Art. Both architects decided to physically overshadow the existing Whitney with the new design to create a complex of sorts. Grave’s idea made the Whitney depressing and childlike with the addition’s very simple geometric volumes. Koolhaas’ design was overpowering and had no relation to the existing building. The Overwhelming Addition solution seems to be the least successful technique, in this instance, as the historic building is lost in the presence of the new addition.

The second technique, one might refer to as the “Quiet Addition”, is another way of introducing a new building addition to an existing site. In the case of the Whitney Museum, Renzo Piano’s design was “quietly” placed behind the Whitney Museum and brownstone homes. His tower was shorter than the
existing one to eliminate competition between the new and old. Even though Piano’s design was not completed, his Quiet Addition was more widely accepted than those of his counterparts.

The third technique can be called the “Subtle Mimic”. When incorporating the Subtle Mimic, the addition takes on the forms or general aesthetics of the existing structure, but in a different way. Differentiating between the old and new is important so that the public knows which building is original. The Subtle Mimic also occurs when the new addition uses the same materials as the original, but in a new way. Perhaps a new technology allows the material to be used differently; or, in the case of the Yale Art & Architecture building, the addition uses different materials from the original, but in the same color palette. From a distance, the addition does not draw undue attention to itself, but is integrated with the existing building. Upon examination however, the materials are different, giving a visual clue to its newness.

The fourth technique by Diller Scofido + Renfro suggest the name “Slicing Addition”. The Slicing Addition is when a building is “sliced” at an angle to incorporate new program. This technique allows the existing building to remain as is while at the same time it gets a “face lift.” This technique received mostly positive results in the example of the Julliard School and Alice Tully Hall, as it created a new interaction at street level. Interruption of historic structure and cost are possible negatives of this method.

Finally, the fifth technique is when the façade of the existing building is completely ignored. The technique could be called the “Façade Facelift” as the
new façade addition completely covers all elements of the existing building. In the case of the Fashion Institute of Technology, the C Building no longer has any traces of its Brutalist past, because the proposed all glass and metal design completely covers it. While this option may be the most visually appealing to a majority today, and can also be a cost effective way to update a Brutalist building, the original character of the original can be lost.
The five examples of techniques for building additions to Brutalist structures have both positive and negative attributes. The most successful additions appear to be based on methods such as the Subtle Mimic and the Slicing Addition that incorporate and reference the existing, historic structure rather than covering it entirely with new construction.

**Essence Instead of Aesthetics**

Using the Subtle Mimic and Slicing Addition will also benefit the Third Church by adding in new program, light exposure, and public space. These techniques however, are based solely on aesthetics and do not necessarily consider other important factors such as program identity. The Third Church needs an additional technique in order to incorporate the different identity of their church with the different identity of a secular addition.

To address the church’s identity, the addition will not only be about aesthetics, but also about value. Value is defined as the essence or spirit of the original architectural movement or historic building. In this scenario, the new addition should conform to the values of the Christian Science religion as well as the values of the Brutalist Movement, specifically the values of light, community, and geometric volumes. The existing church will also undergo physical change to meet the congregation’s desires, but not beyond recognition.
Light

Light is a shared value between the Christian Science religion and the Brutalist Movement. Christian Scientists use light in their churches to induce inward reflection and to remind the congregation of the heavens and the presence of the Almighty. This is exemplified by the Third Church’s skylights and limited fenestration.

The Brutalist Movement employed light and shadow as a calculated design feature based on refraction of concrete and solid material surfaces. For example, Paul Rudolph’s technique of hammering the concrete’s edges created a rough, light refracting surface, resulting in a unique ambiance.

The essence of light from the Christian Science religion and the Brutalist Movement is included in the new addition by means of exterior surface effects and by a series of openings. The addition’s exterior surface consists of concrete paneling that steps in-and-out, creating shadows similar to the Brutalist Movement’s treatment of concrete, but at the macro level. The fenestration is smaller and less frequent near the existing church to keep the congregation focused during a sermon, but at the same time introduces new light into the space. The openings become larger and more frequent at the apartment levels, and the public cafe is completely transparent glass (Fig. 6.0).

The layering of floor levels in an offset manner also creates moments for light penetration into the apartments and into the new church lobby (Fig. 6.1). The different variations of light are also incorporated into the existing Third
Fig. 6.0 New addition perspective rendering. Source: Drawn by author.
Fig. 6.1 New church lobby perspective rendering. Source: Drawn by author.
Church by having the addition “slice” into the existing structure. The Slicing Addition technique creates a new entrance for the church that now faces the prominent streets instead of the insular plaza.

**Community**

Community is another shared essence of Christian Science and the Brutalist Movement embodied by the design of this addition. Christian Scientists do not have a standard building form for their churches, but they all possess a centralized plan for communal worship. The central gathering space allows for community and congregational involvement during services.

I. M. Pei & Partners designed the Third Church with a public plaza to encourage public gatherings and interactions around the church complex. The octagonal church plan and the historic trees act as boundaries rather than pathways to encourage community interaction. The church was part of the larger Brutalist Movement, which followed the social ideals of the time era. During the 1950s through the 1970s, buildings were becoming less individual and more connected with the urban environment with the addition of public plazas.

The design for the new addition addresses the community by providing a space for the general public. The program is commercial in nature to attract people to the site, raise money for the church, and possibly recruit new members into their community. The addition’s street level includes a coffee shop/cafe that can also host music, poetry readings, and any activities that the community would like to showcase (Fig. 6.2 & Appendix A). Businesspeople and tourists
Fig. 6.2 First floor plan of new addition. Source: Drawn by author.
will frequent the public coffee shop during the day, and hotel customers and homeowners at night.

**Geometric Volume**

Geometric volume is also an element that resonates with both the Christian Science religion and in the architecture of the Brutalist movement. All Christian Science churches are based on a centralized plan, which is usually echoed in the exterior geometry, as seen in the Mother Church’s domed addition and the Third, Seventeenth, and Fifth Churches.

Geometry played a role in the concrete constructions of the Brutalist movement based on formwork and the architectural idea of “solid versus void.” The formwork naturally must be simple. Euclidean geometries work best, as too many complex surfaces make it difficult to remove the formwork after the concrete has set.

The simple geometries are repeated in the addition’s form to incorporate the existing church and office building. The addition wraps itself around the church then meets the front of the Christian Science Monitor building. The connection between the church and addition is an offset of the church’s octagon shape. The offset space is now the new location of the church’s lobby. At the other end, the addition is rectangular in shape to match the angularity of the Monitor building (Fig. 6.3 & Fig. 6.4).

The addition’s design also includes a green roof to visually soften the
Fig. 6.3 Geometric volume perspective rendering. Source Drawn by author.
Fig. 6.3 Geometric volume night perspective rendering. Source: Drawn by author.
concrete complex and to aid in water runoff absorption.

Concerns

There are several concerns for the existing Third Church complex and for the new addition that should be addressed by professionals with knowledge in these areas.

First, the current zoning for the Third Church complex is SP-2, which permits, “Medium/high density development including all kinds of residential uses, and limited offices for non-profit organizations, trade associates and professionals.”49 The building is also regulated in height and can only be 90’ tall. It is recommended for the site to be rezoned to match its neighboring buildings so that the addition, a mixed use building, can be built (Fig. 6.5). The new zone is classified as C-4 and allows for office, retail, and housing to co-exist at a 70’ height maximum.

The second concern involves the concrete used to construct the church and Monitor building. At the time of construction, new technologies using concrete and other materials were being used and energy codes were not yet established. Concrete walls are now required to have a cavity so that moisture can drain from the exterior layer of the wall without affecting the interior layer. However, concrete was thought to outlast time and concerns of moisture and cavities were not addressed. Without proper water drainage, rebar within the

Fig. 6.5 The Third Church’s zoning. Source: Background image by <http://www.maps.google.com>. Overlay information by author.
concrete will rust, weakening the bond between it and the concrete, forcing the concrete to spall and even fail structurally. A proper investigation should take place to prevent further damage.

**Conclusion**

The proposed addition considers essence in conjunction with aesthetics to better adapt to the different identities of the church and the mixed-use space. The combination of building types will create a new presence on Sixteenth and I Streets promoting visibility for the church. The church owned cafe doubles as performance space, catering to the secular community while producing income for the church. The apartments above the cafe also provide income while adding much needed living space to the Farragut Square area.

Another source of income is beneficial when congregation members and consequently donations have been decreasing. The Third Church and other historic structures that are tax-exempt and placed on the D.C. Landmark list need a steady flow of funds in order to adhere to the mandatory requirements (maintain and repair their structure) set forth by the Historic Landmark and Historic District Protection Act of 1978.

The Third Church and other tax-exempt entities discover that demolishing their historic building and replacing it with new construction is more financially feasible than maintaining and repairing the existing structure. Rather than demolishing an historically important building, an income producing addition is a better solution. The building can be preserved for future generations while at the
same time adapt to the owner’s needs.


com/2004/06/16/arts/design/16WHIT.html?pagewanted=1>.


APPENDIX A_ Third Church New Addition Drawings

The following drawings illustrate the plans of the new addition and existing
Third Church complex. All were drawn by the author.

A1.0_First floor plan.
A1.1_Second floor plan.
A1.2_Third floor plan.
A1.3_Fourth floor plan.
A1.0_First floor plan.
A1.2 Third floor plan.
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