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Adaptive Re-use: Interventions in an Existing Material Culture

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Abstract

Katherine Good

With the increase of attention on historic structures in the United States over the recent decades, a critical architectural approach is needed to address the manner in which historic buildings are reclaimed for a new use within their community. This approach must be preceded by a thorough investigation of the existing structure as well as precedents that address the joints between historic and contemporary materials.

This thesis begins this exploration with precedents such as David Adjaye and Herzog de Mueron and a site selection of a circa 1910 abandoned school building at 940 Poplar Street in the West End area of Cincinnati. Following the thesis exploration, a series of designs that address the historic nature of materials and their need to relate to a new function placed within the building emerge.

Through design, details explain the relationship between the building's existing material culture and contemporary interventions. This relationship, however, shifts dependent upon the space in which it is designed. This thesis seeks to offer one group of solutions that illustrate the range of interventions available to an adaptive re-use project, from strict preservation to an existing space that has an entirely new perception.

“For, indeed, the greatest glory of a building is not in its stones, nor in its gold. Its glory is in its Age, and in that deep sense of voicefulness, of stern watching, of mysterious sympathy, nay even of approval or condemnation, which we feel in walls that have long been watched by the passing waves of humanity. It is in their lasting witness against men, in their quiet contrast with the transitional character of all things, in the strength which, through the lapse of seasons and times, and the decline and birth of dynasties, and the changing of the face of the earth, and of the limits of the sea, maintains its sculptured shapeliness for a time insuperable, connects forgotten

and following ages with each other, and half constitutes the identity, as it concentrates the sympathy, of nations: it is in that golden stain of time, that we are to look for the real light, and colour, and preciousness of architecture; and it is not until a building has assumed this character, till it has been entrusted with the fame, and hollowed by the deeds of men, till its walls have been witnesses of suffering, and its pillars rise out of the shadows of death, that its existence, more lasting as it is than that of the natural objects of the world around it, can be gifted with even so much as these possess, of language and of life.”

John Ruskin, The Lamp of Memory, pg 250

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introduction 1

Planning practices of the 20th century often included the wholesale removal of existing structures and the destruction of entire neighborhoods, leaving few, if any, early 20th C and older structures for use today. One such example is Cincinnati's West End, where past planning practices have destroyed almost the entire original neighborhood. Here, only a small portion of the surviving neighborhood remains in the vicinity of the Dayton Street Historic District and the Betts-Longworth Historic District. This provides a chance to infuse the neighborhood with vitality through adaptive reuse.

Over the past 50 years, a flight of middle-income earners to the suburbs from the West End has created a drop in population and income. Deteriorating conditions, the construction of the highway, the perpetuation of a public housing neighborhood rather than the establishment of a diverse income-earning neighborhood, and the abandonment by essential services have left the community devastated. Now, appropriate interventions are needed in order to foster a sense of place, to restore fundamental services, to save the earliest structures, and to establish a diverse community.

This thesis explores material culture as a mode of addressing an existing structure that is important to the community and as an object



Fig.1 Small Moments

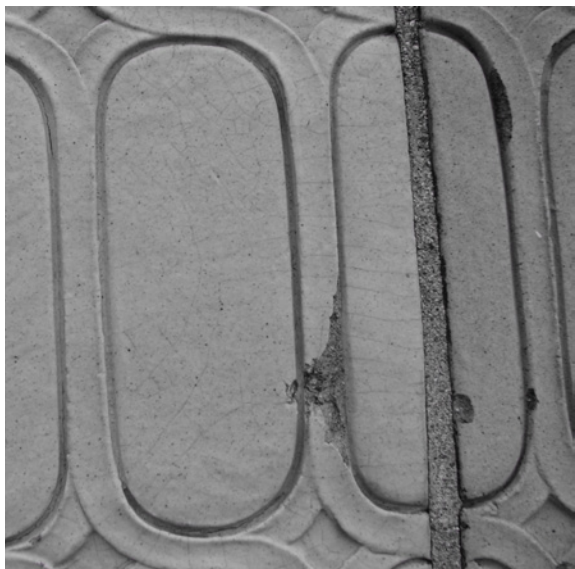




Fig. 2 Exterior brick detail

of its time, but does not possess a historic identity like Mount Vernon or San Diego's City Hall. In this in-between area, it is crucial to retain the building's identity while recognizing the need for contemporary design. By accentuating the contrast of existing and new, a user understands the space, what is original to the structure and what is a contemporary intervention.

The field of anthropology has long studied material culture, the study of objects and their context. In "(Re)Defining Ethnicity: Culture, Material Culture, and Identity" Carla Antonaccio explains that material culture has a role in expressing identity and that by immersing oneself in an alternate discourse on things, we will find similar experiences to the maker of the object. She further notes, "Experience encompasses the built environment in a recursive relationship; material culture makes us as much as we make things. Moreover, material culture includes knowing how something functions, how it is used, and what to use it with."¹

¹ Carla M. Antonaccio, "(Re)Defining Ethnicity: Culture, Material Culture, and Identity" *Material Culture and Social Identities in the Ancient World* Edited by Shelly Hales (Cambridge: Cambridge University Press, 2010), 38



Fig. 3 940 Poplar Street, Cincinnati, OH

Similarly, Lissant Bolton observes that a recent resurgence in the study of material culture has expanded to include architecture and landscape.²

Material culture allows the individual object, such as a cabinet or column, a series of objects, such as a repetitious ornament, and the building as a whole to be scrutinized against its function, its relationship with the architectural language of the building, and its intrinsic value as a meaningful entity of the early 20th C. Many material objects within the structure are important to retain in order to speak to the original architectural language of the building, but some of the historic character may be omitted in order to convey the new use of the building to a user. In order to facilitate the design process, an informed decision for the treatment of objects will take shape after a thorough investigation of materiality, details, and relationships. This investigation is further detailed in the section entitled “Methodology.”

2 Lissant Bolton
“Classifying the Material:
Food, Textiles and Status
in North Vanuatu” *Journal
of Material Culture*, 251
No 6 (2001) <http://mcu.sagepub.com/cgi/content/abstract/6/3/251> (accessed online January 6, 2010), 253

After an identification of programmatic possibilities for the site, methods of treatment are explored for the variety of new functions. They are influenced by both the existing material culture and the new function. Through contemporary design, preservation, and a hybrid of the two, one appropriate method of adaptive re-use is established.

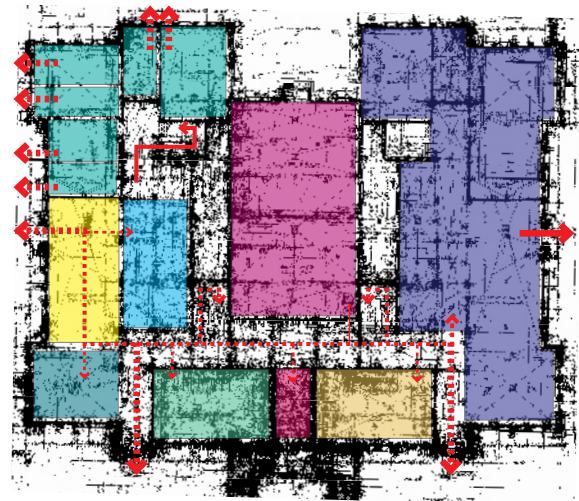


Fig. 4 940 Early Program Investigation

With many significant homes in the West End that date to its initial development, it is possible for existing residents to be priced out of their own homes once the neighborhood sees an influx of higher income brackets who desire this type of apartment. For this reason, affordable, as well as market rate, housing would be one appropriate new use for the building. Since the neighborhood lacks crucial services, such as stores, banks, grocery stores, and small businesses, it is important to consider their role in the design process as well.

One possible program for the structure, and the program explored by this thesis, is that of a community center and housing. The community center will supply vital needs for the neighborhood including a daycare, recreation space, performance space, a café, a computer lab, a small business incubator, and other programmatic areas while allowing the fundamental architectural language to remain. With magnificent views on the upper floors, mixed-income apartments will allow for higher income residents to move in while maintaining affordable housing for existing residents. The interior community space will be a place for interaction that extends out to the landscape.

site 2

The site for this design project is 940 Poplar Street. It is an abandoned school building built in 1910 with significant character in original materials and an extensive amount of adjoining outdoor space. This structure represents an important part of the existing neighborhood not only because of its architectural merit but also because it served a vital role as a school building bringing life and education to the local community. With its closing, the exterior remains, but the sounds, smells, games, children, and vitality are gone. Designing a new use for the building will spur growth in the community, and it will also provide an opportunity to design an exterior space that will serve the local community and building inhabitants.

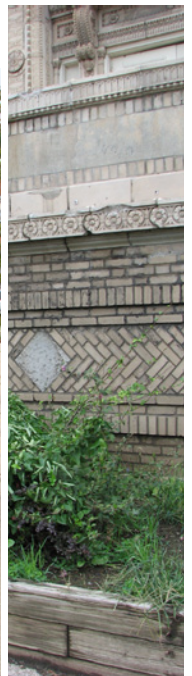
The open space is currently covered with asphalt. It holds the potential to introduce green, play, social, dining, and parking space into this neighborhood where open space is plentiful, but not developed for use by the residents. Currently there is a wall on the south and west portion of the site where stairs create access on each, and two parking lot entrances exist on the north and east portion of the site.

940 Poplar Street not only holds a history through its context within the neighborhood but also through its materials. Materials are one way that a structure speaks to us. Through them we know about the makers of the building, its history, something of its institution,

The landscape of the site offers a bleak view; the majority is covered in asphalt. Inconsistencies in grade, resulting from various land plots, create a space lacking in vibrancy. The little amount of vegetation on the site is caged in by paving.



Fig. 5 Site



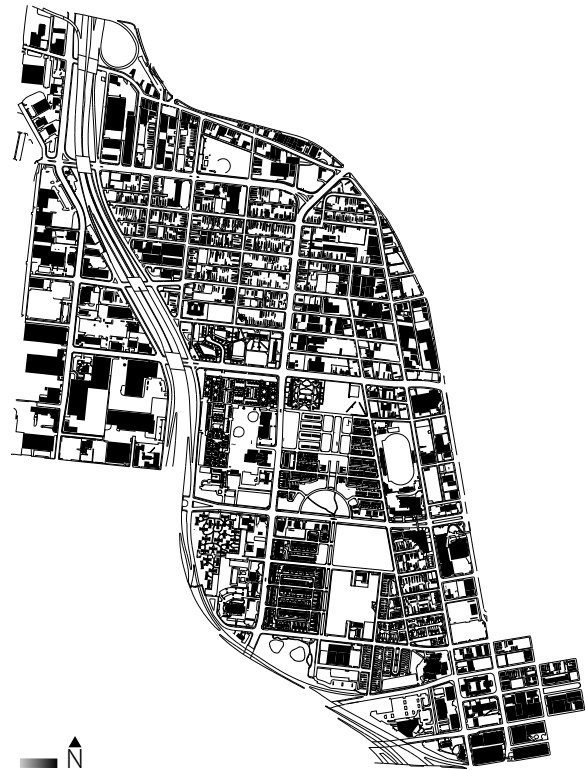


Fig. 6 The West End, 2009

and the building's context in time. Each building portrays itself to the occupant and the passerby, perhaps illuminating a future to come, a past to remember, or the current era. Additionally, materials are transcendent; they hold meaning even after the maker passes away, though the meaning may change with time.

The exterior of the building mainly speaks through masonry materials, with an occasional encounter with iron or wood, and in this structure we can see brick as a building material, but also a form of ornament. Brick in 1910 was the predominant mode for building, but was being transitioned into iron columns and beams, and structural clay tile. Brick portrayed a sense of comfort and familiarity to the surrounding neighborhood and a sense of stability to a “government” building, i.e. a school. In an interview with Robert Ivy, Tadao Ando refers to the decision to employ brick, “The material chosen [for a building], such as stone, brick, or concrete, is meant to eternally preserve what is inside.”³ In this sense, the strong, masonry structure is meant to preserve the

3 Robert Ivy, “The Spirit of Modernism” *Architectural Record* <http://archrecord.construction.com/people/interviews/archives/0205Ando.asp> (accessed November 23, 2009)

symbol of the school institution and its meaning to the community; thus, this building holds significance even though the institution no longer remains.

In addition to brick is ornamental terra cotta, which appears to serve no purpose other than the beautification of this Beaux-Arts structure. It is, however, a symbol of an era where terra cotta was the mode of expressing ornament, and ornament was a key ingredient in architecture. Soon after this building, simplicity in fabrication, and hence less ornament, became the standard, but here we see the ending of this expression in architectural culture. Growing in popularity during the end of the 19th century, terra cotta was one of the most common materials at the time of this building's construction because of its availability and ability to create complicated designs without the labor involved in carving stone.⁴ Instead, drawings and molds were carefully created with intricate patterns that could then be mass-produced, and stock terra cotta became the market leader in the 1910's.

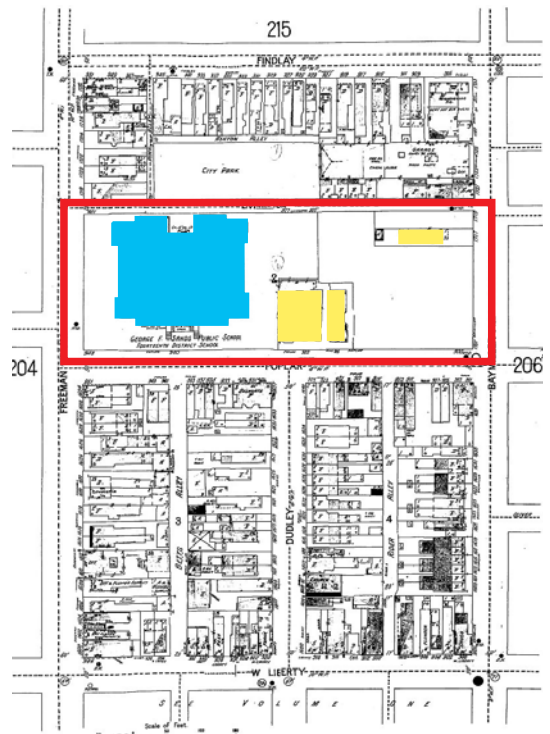
There are abundant moments in this structure where the original objects of the building must be retained in order to safeguard the existing material culture, and several smaller individual objects hold significance for language comprehension. These include windows, chalkboards, doors, heating grills, moldings, etc. After careful consideration, the entities are given a general classification and a designated mode of treatment.

Throughout the existing building drastic and small interventions may take place; regardless of the extent of alteration, the selection of new materials must honor the existing language. A study of precedents and details within the building furthers the investigation of retaining an existing object while inserting a new one and will be discussed in detail at a later point in this thesis. In order to wholly understand the site, however, and its once thriving community that is now mostly abandoned, a brief history of the West End is needed.

4 Thomas C. Jester, *Twentieth-Century Building Materials : History and Conservation* (New York: McGraw-Hill, 1995), 159.

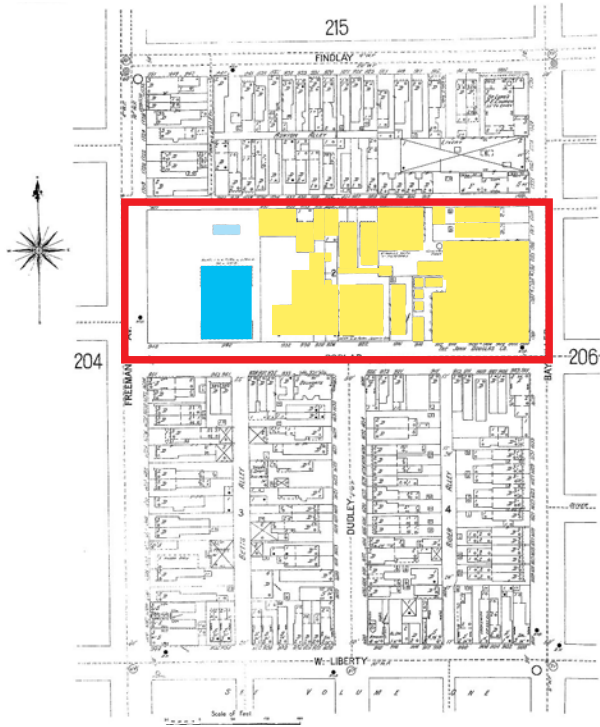


Sanborn Map 1891



Sanborn Map 1922-1950

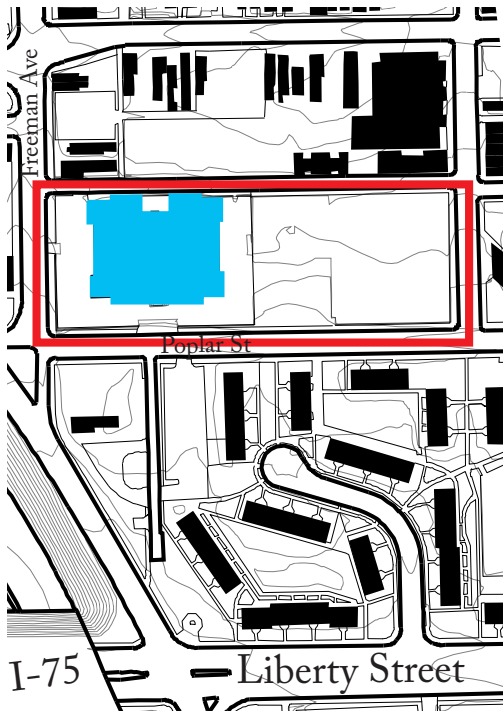
Fig. 7 Evolution of Site 



Sanborn Map 1904



Sanborn Map 1922



GIS Map 2009

Sanborn Insurance created maps across the country. These maps now serve as a record of a site's evolution. The first record in 1891 informs us that a school has been located on this property for 119 years, although it doubled in size in 1910 when the current building was constructed. As you can see, the site gradually lost density in the first half of the 20th century, but the neighborhood surrounding it remained stable until the late 1960's-1970's. For the map dated 1922-1950, the exact year is unknown. It was general practice, however, to update previously drawn maps by pasting on top of sections that had changed. This is most likely a map created in 1922, but updated through 1950.

- Site Outline
- Structures not on School Property
- Structures on School Property
- District 14 School

history of the west end **3**

The West End, which is bounded by Central Ave., Mill Creek, Bank St., and the Ohio River, was settled soon after Cincinnati's founding in 1788. The oldest known house in Cincinnati stands in this neighborhood; the Betts house dates to 1804.⁵ The neighborhood rapidly expanded, accommodating a diversity of race, and by 1841 it was noted as "an attractive residence quarter for people of moderate means."⁶ Often, new immigrants to Cincinnati would settle in the West End, and because of the mass migration of African-Americans to northern industrial cities, the West End housed the majority of Cincinnati's African-American community and also was a welcomed home to Jews. As the city expanded, however, and new streetcar suburbs opened, the wealthier families moved, leaving those of less means in the area. Industries moved in and consequently at the turn of the century the West End rapidly became the city's largest slum.⁷

⁵ John Clubbe, *Cincinnati Observed : Architecture and History* (Columbus :: Ohio State University Press), 261.

⁶ Geoffrey J. Giglierano et al., *The Bicentennial Guide to Greater Cincinnati : A Portrait of Two Hundred Years* (Cincinnati, Ohio: Cincinnati Historical Society, 1988), 102.

⁷ *Ibid.*, 103.

By 1930 the population of the West End had grown to over 30,000 people, nearly five times the population density of other areas of the city, and mortality rates soared at up to five times the city's average. These were two factors that contributed to one of the first public housing projects in the U.S., under President Franklin D. Roosevelt and the Public Works Administration, being built in Cincinnati's West End in

1938. This housing project was called Laurel Homes and was segregated for whites only, even though almost 80% of Cincinnati's African-American population lived in the neighborhood. Four years later Lincoln Court was constructed for African-Americans, but yet, "Only 10% of the West End families displaced by the projects were able to meet income and employment qualifications necessary to move into the new units."⁸ The remainder of the population was forced to find housing elsewhere in the city. In the name of progress, these two projects demolished the earliest row houses of the West End and denied their value as material objects of the time.

Over the next half century, the West End continued to see development through demolition and construction. First, Queensgate was planned and implemented, and some view this as the only successful development project in the West End. Next, the largest slum clearance program of the time in the U.S. was implemented, destroying even more historic fabric, in the early 1960's to accommodate Park Town, Richmond Village, and Stanley Rowe Towers. Today, only Stanley Rowe Towers remains. The other housing ventures were seen as failures and thus demolished for later projects. Amongst the widespread demolition, it was recognized that a portion of the West End must be retained for future generations, and in 1964 the Dayton Street Historic District was formed followed by the Betts-Longworth Historic District in 1982.

With an economic downturn in the 1980's, the West End saw tougher times as the middle class population slowly moved to the suburbs, leaving only the destitute behind. This prompted essential services, such as a bank and grocery store, to leave the West End, forcing its population to travel to another neighborhood for these services.

While it is essential to understand the history of the West End, it is also vital to understand the history of Historic preservation, a field established in order to save structures as a symbol of their time.

historic preservation theory 4

Historic preservation began with two key individuals in the 19th C: Eugène Viollet-le-Duc and John Ruskin. These two theorists and practicing architects introduced the world to opposing viewpoints on the treatment of historic structures. Viollet-le-Duc believed in creating something that never was, and Ruskin believed in the importance of preserving the memory of the past. Through time, a variety of programs developed in both Europe and the U.S.

Viollet-le-Duc wrote, “The term restoration and the thing itself are both modern. To restore a building is not to preserve it, to repair, or rebuild it; it is to reinstate it in a condition of completeness that could never have existed at any given time.”⁹ Though the preservation community as a whole now rejects much of his theory, the technical and historical knowledge he recorded and his persistent advocacy are part of the foundation of historic preservation today.¹⁰ His detailed notes and development of techniques of preservation and construction as part of practice are evident in practice today and in organizations such as the Association for Preservation Technology.

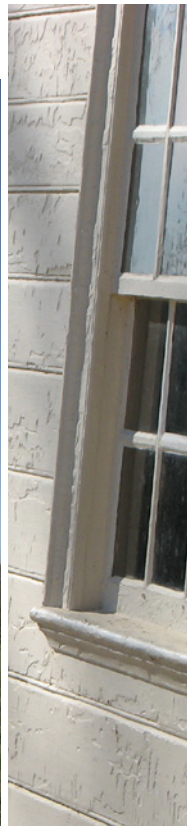
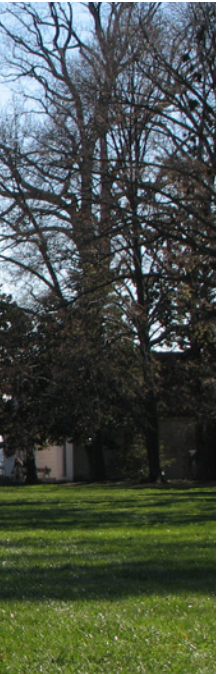
The importance of memory as an essential element of preservation is strung throughout Ruskin’s writing. In the *Seven Lamps of Architecture* he writes that there are two duties of architecture, “The

9 Eugène-Emmanuel Viollet-le-Duc and M. F. Hearn, *The Architectural Theory of Viollet-Le-Duc : Readings and Commentary* (Cambridge, Mass.: MIT Press, 1990), 269.

10 Norman Tyler, *Historic Preservation: an introduction to its history, principles, and practice* (New York: W.W. Norton, 2000), 18



Fig. 8 Mount Vernon, 2008



first, to render the architecture of the day, historical; and, the second, to preserve, as the most precious of inheritances, that of past ages.”¹¹ He further explains that a structure gains its glory only with the passing of time and the stories that the walls gain by their exposure to humanity, and it is through these interactions with humanity that architecture gains its preciousness.¹² This idea is relevant in the practice of Historic preservation today in that the very definition of preservation by the National Park Service (NPS) is “the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property.”¹³

Ruskin defines restoration as “the worst manner of destruction.” He continues to comment on the impossibility of restoring beautiful architecture, but instead he argues, “The spirit which is given only by the hand and eye of the workman, can never be recalled. Another spirit may be given by another time, and it is then a new building; but the spirit of the dead workman cannot be summoned up, and commanded to direct other hands, and other thoughts.”¹⁴

Gradually, Ruskin’s beliefs spread to the United States where the Mount Vernon Ladies Association is accepted as the first official preservation organization. This Association honors his emphasis of the importance of memory and was founded by Ann Pamela Cunningham to save Mount Vernon in 1853 through private donations.¹⁵ As George Washington’s home, the Mount Vernon Ladies Association treasured the memory of the America’s first president and his home. This group and their efforts began the preservation movement in the US, eventually leading to the establishment of the National Park Service(NPS) in 1916, when the government started to maintain federal historic sites. This was followed by the formation of the first historic district in the United States in Charleston in 1931. Today NPS manages historic districts, programs, state and local governments, historic property owners, federal

11 Ibid., 239.

12 Ibid., 249. See also the first page of this document where the full quote may be found.

13 Russell E. Dickenson, “Archeology and Historic Preservation: Secretary of the Interior’s Standards and Guidelines [as Amended and Annotated]” (National Park Service, 1983) http://www.nps.gov/history/local-law/Arch_Standards.htm (accessed February 17, 2010). The National Park Service is the governing agency that regulates Historic Preservation in the United States through legislation, tax credits, certification, and education. They maintain the National Register of Historic Places, which protects qualified structures from demolition and subjects them to certain guidelines. 940 Poplar Street does not fall under any restrictions, but is worthy of self-regulated interventions to honor its existing material culture and the culture of the nearby Dayton Historic District.

14 John Ruskin, *The Seven Lamps of Architecture* (Leipzig; Bernhard Tauchnitz 1907), 259, <http://books.google.com> (Accessed November 23, 2009).

15 (Tyler 2000) 30

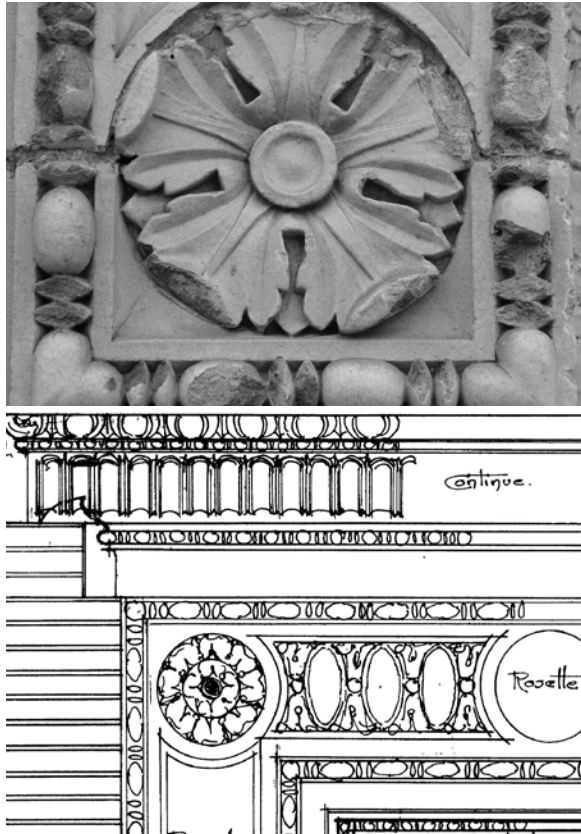


Fig. 9 Exterior ornament detail at entrance

historic districts, and rehabilitation tax credits among several other auxiliary duties.¹⁶ Without the precedent of Viollet-le-Duc and Ruskin, however, NPS would not have been possible.

In the case of 940 Poplar Street, a middle ground is appropriate. By NPS' definition, restoration is similar to Viollet-le-Duc's beliefs except that there must be evidence of the original structure for restoration. It does, however, allow for the removal of later time periods.¹⁷ NPS defines this as rehabilitation, or adaptive re-use. It is "the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values."¹⁸ This means that the restoration of elements of the building is not called for, but the preservation of noteworthy material objects is needed to maintain the language of the building. In order achieve this, a methodology must first be ascertained.

16 Ibid., 33
 17 (Dickenson 1983)
 18 Ibid.

methodology 5

Combining research of Historic preservation, material culture, and an investigation of the building is essential. The process begins by identifying aspects of the building and classifying their importance in the language of the building. Then, the terms of rehabilitation, preservation, or new intervention can be applied, which will lead to a treatment attitude for areas of the building containing those aspects. Subsequently, the categories relate to decisions that are challenged and modified throughout the process. The following figure is an example of spaces and objects and the terms associated with them.

Each object/space's treatment is determined by its frequency of occurrence in the building and its importance in retaining the original material culture of the structure. Each of these is evaluated one to five. Then a suggested treatment term is assigned: restoration, preservation, minor alteration, or major alteration. In the preservation category, little new work will be suggested, mainly focusing on maintenance. For restoration, some objects might be in need of repair and then will be maintained. Alteration contains two levels of work. The first is interventions to give new life to the space, while preserving as much historic material as possible. The second, major alteration, allows significant changes to the structure such as deleting historic character and imparting a new identity upon the space.







| Image | Description | Frequency in Bldg. (1 as most frequent, 5 as least frequent) | Importance to Existing Language (1 as most important, 5 as least important) | Restoration | Preservation | Alteration (repair, low alteration) |
|---|--|--|---|-------------|--------------|---|
|  | Closet door on pivot, bronze floor plate | 1 | 3 | | | x |
|  | Radiator | 2 | 4 | | | x |
|  | Window Hardware, Auditorium | 4 | 2 | x | | |
|  | Interior Stair, Marble Tread, Cast Iron Rail | 5 | 1 | | x | |
|  | Chalkboard | 1 | 4 | | | x |
|  | Pendant Light | 5 | 2 | x | | |
|  | Plaster Detail at Baseboard | 4 | 4 | | x | |
|  | Built-in Cabinet | 3 | 3 | | | x |

Fig. 10 Objects


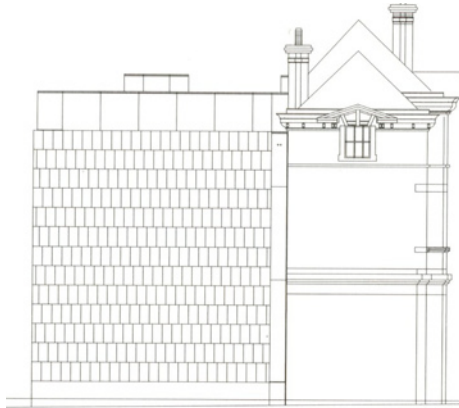
| Image | Description | Frequency in Bldg. (1 as most frequent, 5 as least frequent) | Importance to Existing Language (1 as most important, 5 as least important) | Preservation | Alteration (minor) | Alteration (major) |
|---|-----------------------------|--|---|--------------|-----------------------|-----------------------|
|  | Cafateria | 1 | 4 | | | x |
|  | Large Bathroom | 2 | 5 | | | x |
|  | Auditorium | 1 | 1 | x | | |
|  | Entrance Lobby and Corridor | 1 | 1 | x | | |
|  | Typical Classroom, 1-2nd Fl | 18 | 3 | | x | |
|  | 1 of 2 Boiler Rooms | 1 | 5 | | | x |
|  | 3rd Fl Corner Classroom | 4 | 2 | | x | |
|  | Gym | 1 | 1 | x | | |

Fig. 11 Spaces

The association of existing and new is critical in this thesis design. The user must be able to understand what is a contemporary intervention. Therefore, many precedents are investigated by this thesis in order to explore the nature of how historic materials interact with new materials and/or spaces added to an existing building. The programmatic concepts within the precedents are also important because they illustrate types of program that interact well with existing building types. Their design ideas are then interpreted and applied to this thesis as one facet of methodology. These precedents include buildings designed by Ann Beha Associates, David Adjaye, Herzog de Meuron, Skene Catling de la Peña, and others.



South Elevation



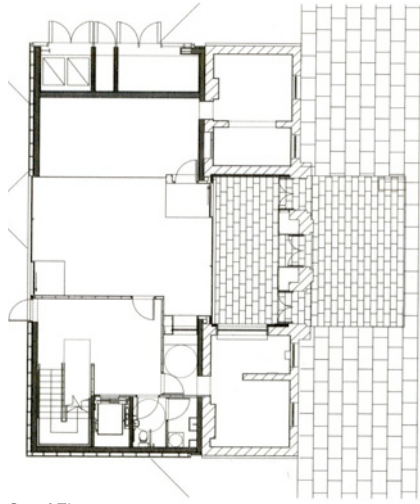
East Elevation

Fig. 12 Bernie Grant Arts Center, Front Building

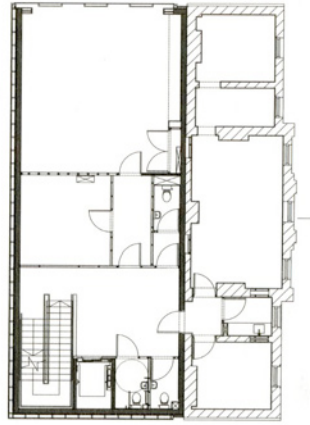
The Bernie Grant Arts Center, designed by David Adjaye, is located in the Tottenham area of London and is designed as a performance center for the community's rich arts heritage. The site contained a historic bath complex, but only the iconic chimney and the front of the main bath building were saved.¹⁹ The surrounding sites to the north and south are listed on England's National Trust, and this, in part, informed the decision to retain the two key elements of the site. Beyond the historic bath building on the street lies a new composition of buildings to meet the needs of the Arts Center. Here, Adjaye artfully joined an addition constructed of modern materials to the bath building in a way that is compatible with the historic massing, materials, and overall experience of the historic structure. The cladding materials were

19 David Adjaye et al., *David Adjaye : Making Public Buildings : Specificity, Customization, Imbrication* (London ; New York: Thames & Hudson, 2006), 135.

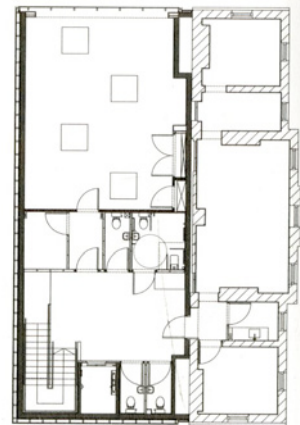
chosen to create a human scale pattern, similar to the brick pattern on the existing building. Also a distinct cladding material was used so that the distinction between old and new is evident. The new buildings on the site also respect the existing context through open spaces that relate to the surrounding structures and through a gentle slope in the roofline of the main building that does not overshadow the adjacent structures.



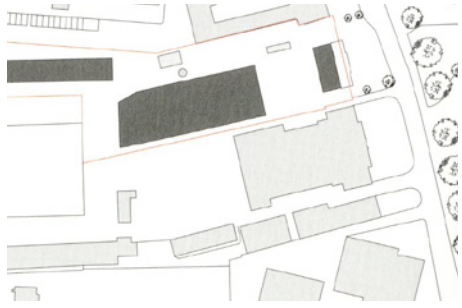
Ground Floor



First Floor



Second Floor



Site Plan

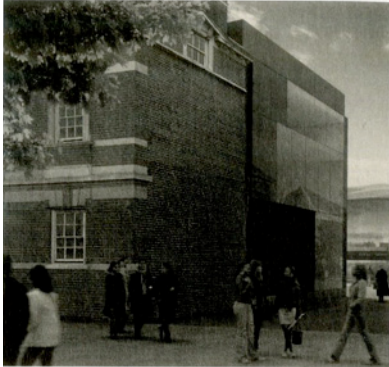


Fig. 13 Bernie Grant Arts Center, Front Building



Fig. 14 Tate Modern

The Tate Modern is also located in London, on the banks of the Thames. The structure was formerly a power plant and therefore contains large open spaces. Here, there was little historic fabric to work with since the interior spaces mostly consisted of large machines. Therefore, Herzog de Meuron elected to retain the historic façade and structural system, while completely overhauling the interior spaces to create gallery spaces, meeting rooms, education areas, and public space.²⁰ The historic proportions of the building are respected despite the addition of two floors on the roof of the structure and the elimination of masonry to create public entrances at the ground floor.

20 Rowan Moore, Raymund Ryan, and Tate Gallery., *Building Tate Modern* : Herzog & De Meuron Transforming Giles Gilbert Scott (London: Tate Gallery, 2000).

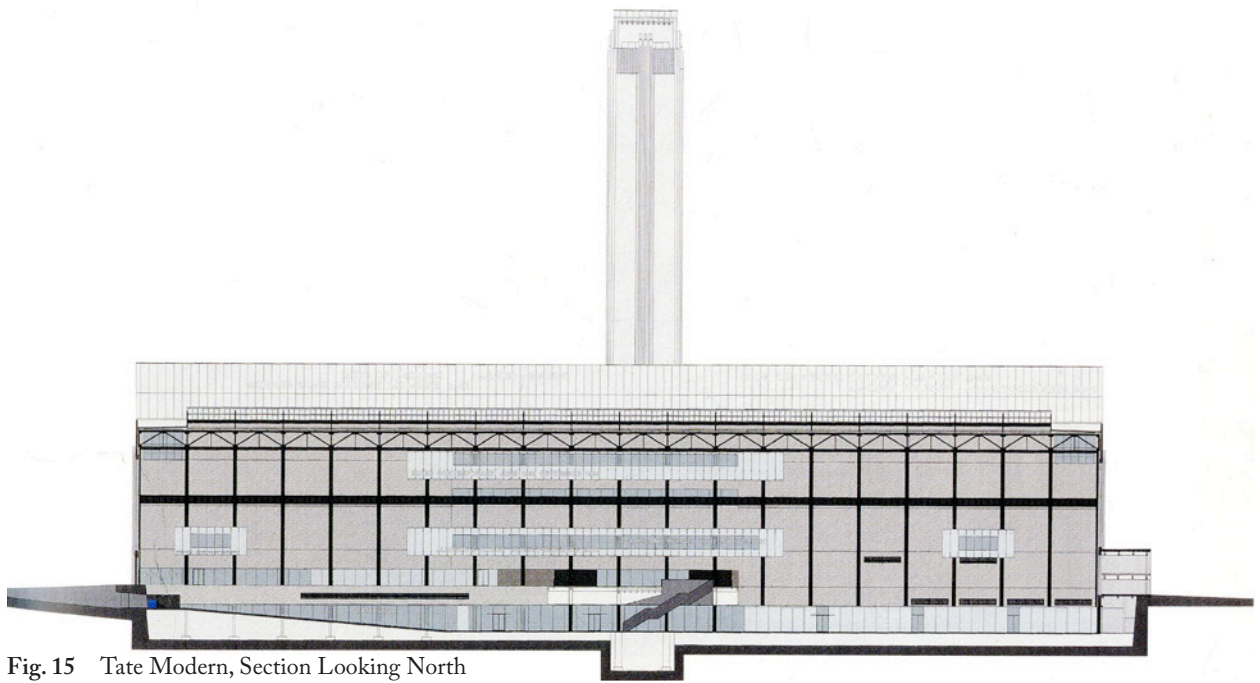


Fig. 15 Tate Modern, Section Looking North

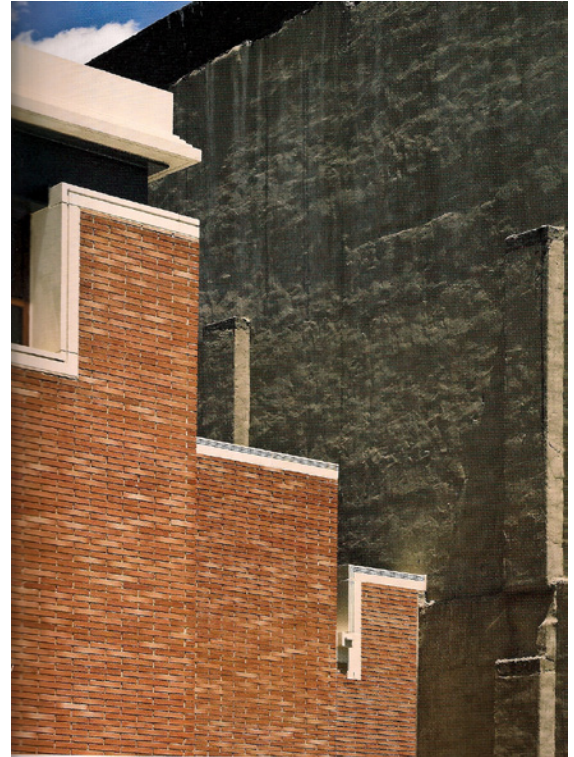


Fig. 16 Connection to Existing Tower

Located in Brooklyn, New York, the Saratoga Community Center, designed by George Ranalli, is surrounded by a dense urban neighborhood. It is a 5,000-square-foot facility, located adjacent to a public housing modernist tower. It also contains a small courtyard, providing outdoor space to the residents and the local community. The tower is stark and lacks humanistic detail, and therefore, Ranalli strives to rebuke its lack of design with details and materials.²¹

Since it is an addition to an existing recreational space, the Center is relatively compact in program and similar in use to the program proposed by this thesis. While the Community Center is completely separated from the adjoining apartments, one facet that is opposite is the two programmatic ideas that are interwoven in this thesis. Public and private spaces are adjacent to each other in this program, and in some cases separated by only a door. This is one characteristic that is interpreted into this thesis through a blurring of public and private space while maintaining anonymity.

21 George Ranalli, Saratoga (San Rafael, California, ORO Editions, Gordon Goff, 2009)

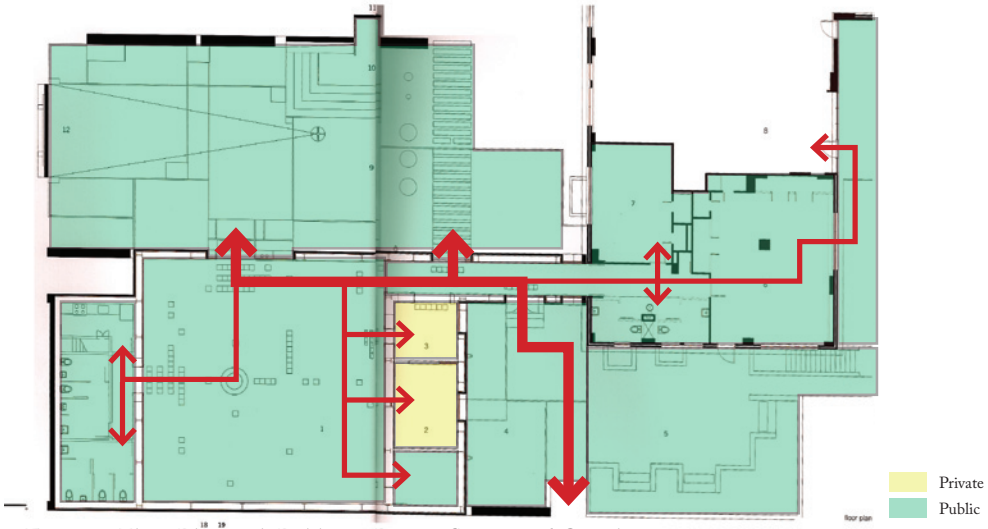
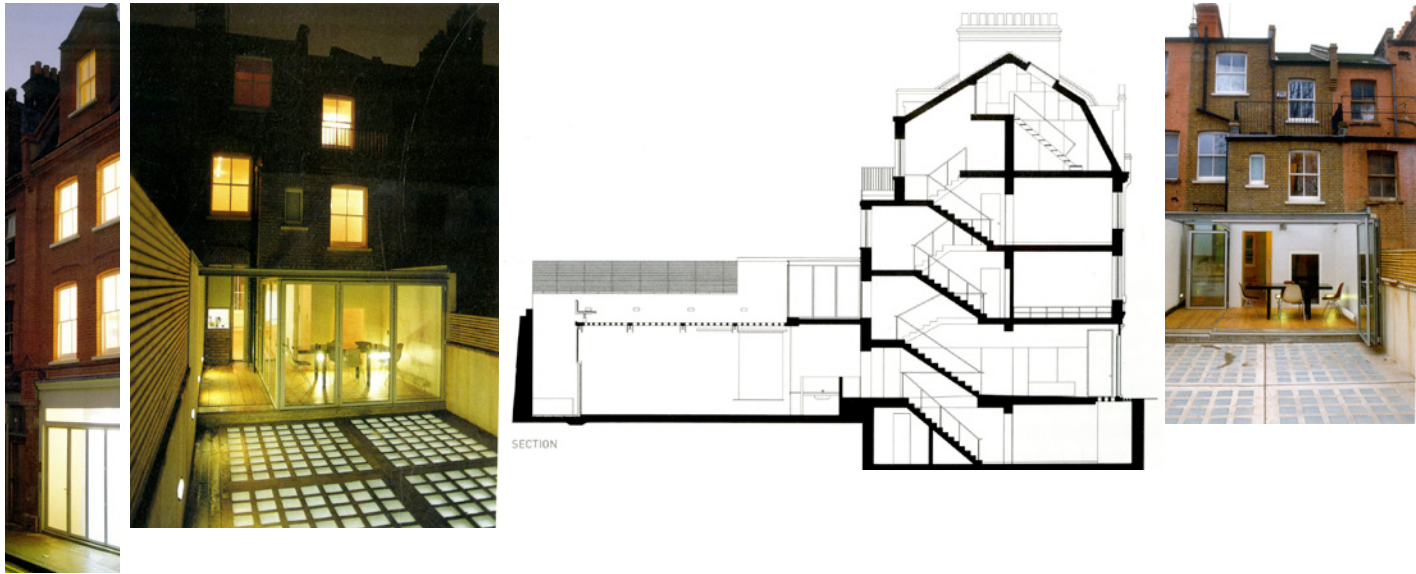


Fig. 17 Floor Plan with Public vs. Private Spaces and Circulation

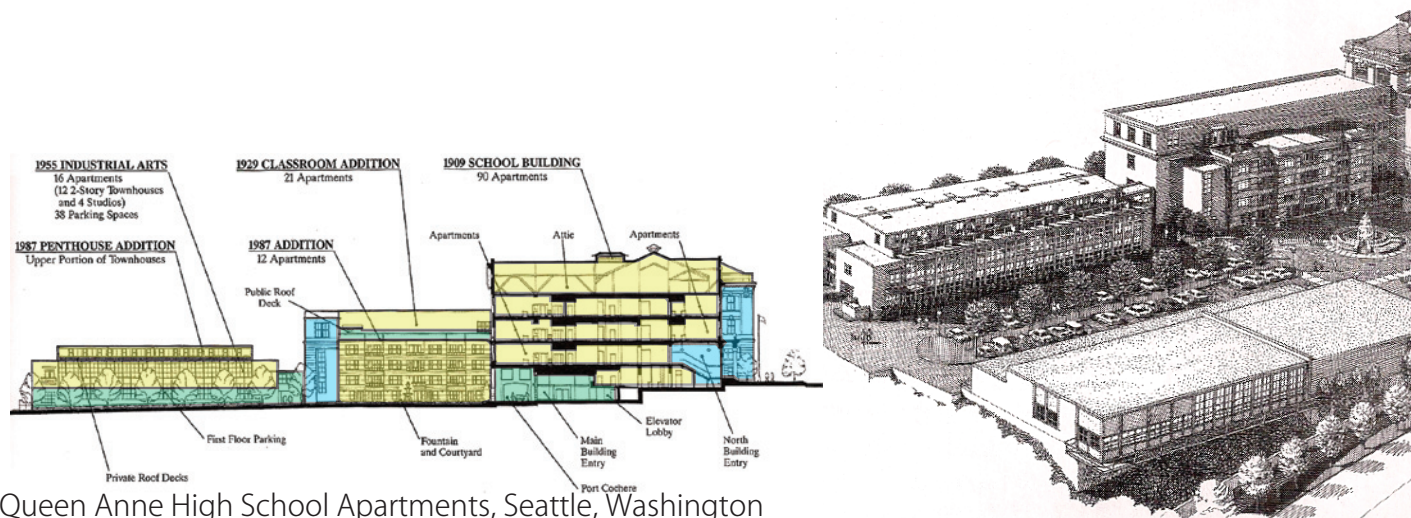


Fig. 18 Saratoga Community Center

Ofili House, England, David Adjaye



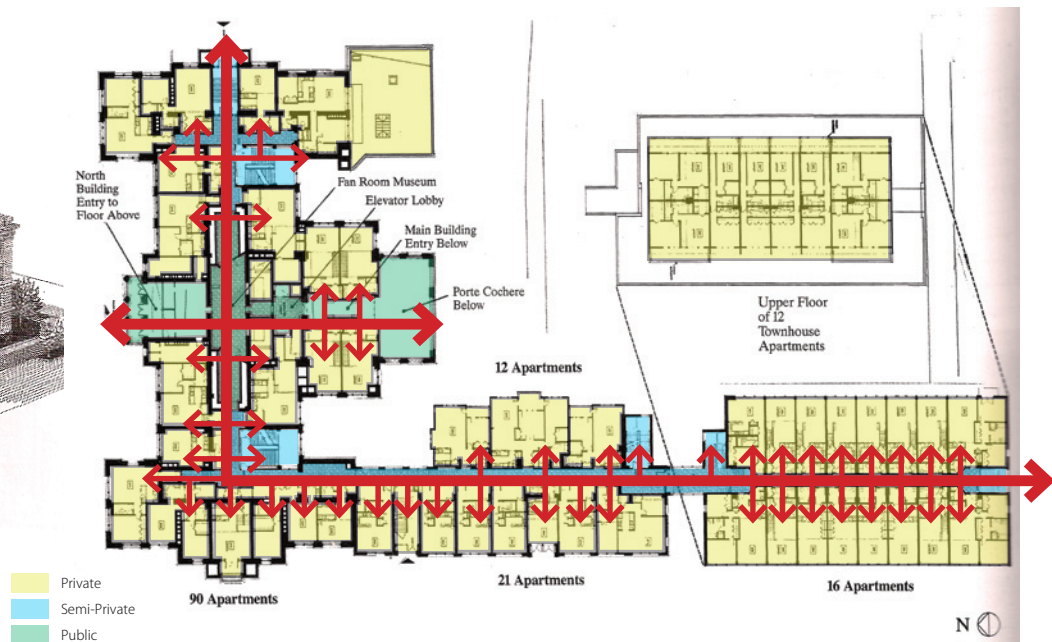
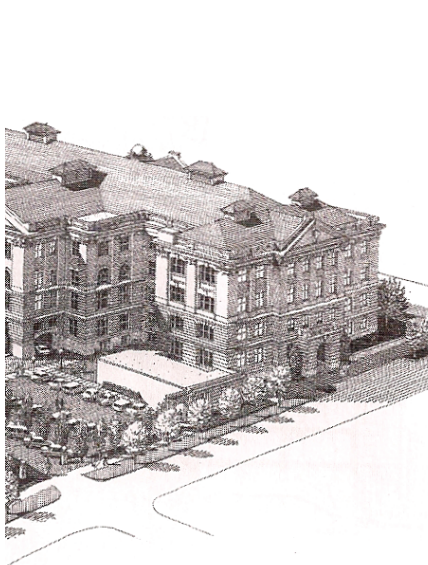
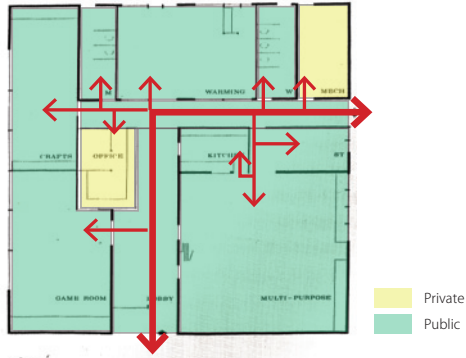
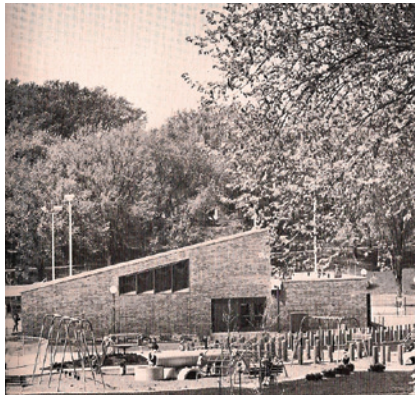
David Adjaye, once again, artfully turns a London row house into the Ofili house and studio. The courtyard and new addition illustrate how an existing building can take on new life while opening to the outside. This idea will be carried into the design for this thesis. The analysis of the Pearl Park Shelter and Queen Anne High School Apartments present how spaces are organized into public and private functions and how the circulation flows between these spaces. Private spaces are activated by public spaces, and public space contains the main circulation for the buildings.



Queen Anne High School Apartments, Seattle, Washington

Fig. 19 Additional Precedent Studies

Pearl Park Shelter, Minneapolis, Minnesota



design implications 6

This thesis seeks to expand the greater body of written hypotheses, in regard to historic structures and contemporary design, through the application of the afore described methodology. This field of thought stems from guideline nine set forth by NPS:

New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.²²

The guideline is just that however, a guideline, and it is interpreted in a myriad of ways. While flexibility can permit ingenuity, it may also create an environment where the degree of tolerance in design and treatment of original materials becomes immense.

A few larger, more general intentions should govern the design of adaptive re-use. These are 1) the new use must be designed in a way that creates a clear distinction from the existing structure, 2) the original culture and expression of the building must be retained, and 3) there may be a variety of approaches to each aspect of design. Through these concepts, adaptive re-use promotes the culture of an established place and community while a new architectural expression redefines that same culture without subduing the existing.

The new use must be designed in a way that creates a clear distinction from the existing structure.

In “The Architecture of Additions: Design and Regulation”, Byard explains the nature of a design that combines both existing and contemporary design, “The interactions of architecture are particularly interesting in combined works, where old and new designs are put together deliberately so that they will be understood together and judged for what they do to each other and in combination.”²³ Byard also writes, “The central act of preservation...is the creation of successful combined works through the collaboration of creative minds across time.”²⁴

The original culture and expression of the building must be retained.

Each structure holds a history of events and materials that creates a significance for its users and community. According to Joseph Fealy, a building

“should remain free to convey its valued meanings for the public benefit...[it] is not the protection of the expression per se, but on the protection of the meaning conveyed by expression, for which the protection of the entire expression may or may not be required.”²⁵

Therefore, the existing material culture as a whole must be retained, however it is not necessary to preserve every aspect of the original design in order to do this. It is about a continuity of language.

23 Paul Byard, *The Architecture of Additions: Design and Regulation*, (W.W. Norton & Co., New York, New York, 1998), 17

24 *Ibid.*, 161

25 Joseph Fealy, *Adaptive-Reuse for Multi-Use Facilities in an Urban Context: Making the City home Again* (Thesis, University of Cincinnati, 2004), 33

There may be an undulating approach to each aspect of design.

One project which a series of attitudes towards preservation, adaptive re-use, and contemporary design is the Wexner Center for the Visual Arts in Columbus, Ohio. Here, Peter Eisenman merges two existing buildings, the Mershon Auditorium and Weigel Hall, through an addition, and he approached each space differently; some were preserved, some altered, some added. The addition strengthens Mershon's and Weigel's relationship to the existing edge, while preserving them, almost in entirety. This allows the user to journey between contemporary and historic spaces, transitioned by an overarching idea of a grid, meticulously carried out through any space that is altered by the new design.²⁶

design 7

“A fundamental inquiry into any aspect of reality is the relationship between the part and the whole, the fragment and the complete, the detail and the indivisible unit of a deed, of an object, of a thought.”²⁷

Scarpa: Architecture in Details

Within the program of a community center and apartments the project for this thesis explores design within the categories laid out in the methodology section: preservation, rehabilitation, and contemporary design (alteration). Each aspect of the program allows for flexibility in the treatment of spaces. Neither dictates a requirement for contemporary design, but rather encourages a diversity of solutions.

The community center’s program consists of a café, computer lab, small business incubator, classrooms, gym, and auditorium. It is through this program that the greatest distinction of treatment occurs. In the auditorium and gym spaces, the majority of original material remains, the exception being the north wall where the stair tower is added. In contrast, the café space interjects a new identity into the southwest corner of the building, breaking the boundary between the ground and first floors and adding new materials. Since the main entrance to the community center is at the café, users will experience the existing and new material culture the most when using the gym and/or auditorium.

27 Bianca Albertini and Sandro Bagnoli, *Scarpa: Architecture in Details* (London: Architecture Design and Technology Press, 1990), 1

Hand investigations drove the design for this thesis. Here are examples of three exercises. The first is an exploration of how the building might change based upon additions and subtractions. These photograph and chalk pastel drawings illuminate what proportions are and are not aesthetically pleasing to the structure. The space planning exercise was a quick study of how the existing spaces might be used. It considers program functions, wall placement (existing and new), and public versus private functions. The detail drawings look at the existing building and how new materials might interact with it. These are a combination of chalk pastel, charcoal, grafite, ink, and transfer studies. Looking a detail from multiple angles and scales allows a questioning process of design. Alterations are made through the process and the sketches edited.

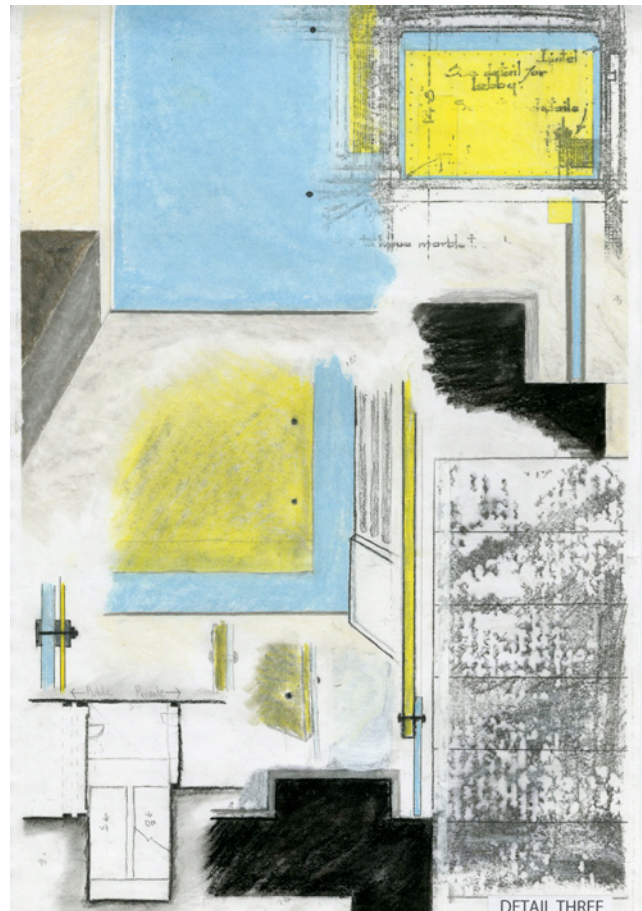


Pastel Sketch of Addition Concepts

Fig. 20 Process work



Space Planning Exercise



Detail Investigation

These graphic investigations look at one possible distinction between public and private spaces. There are many opportunities for the two to interact without eradicating the distinction between them. Both public and private appear on all levels of the building, becoming progressively private in the upper floors. A public core is maintained while a private perimeter is established.

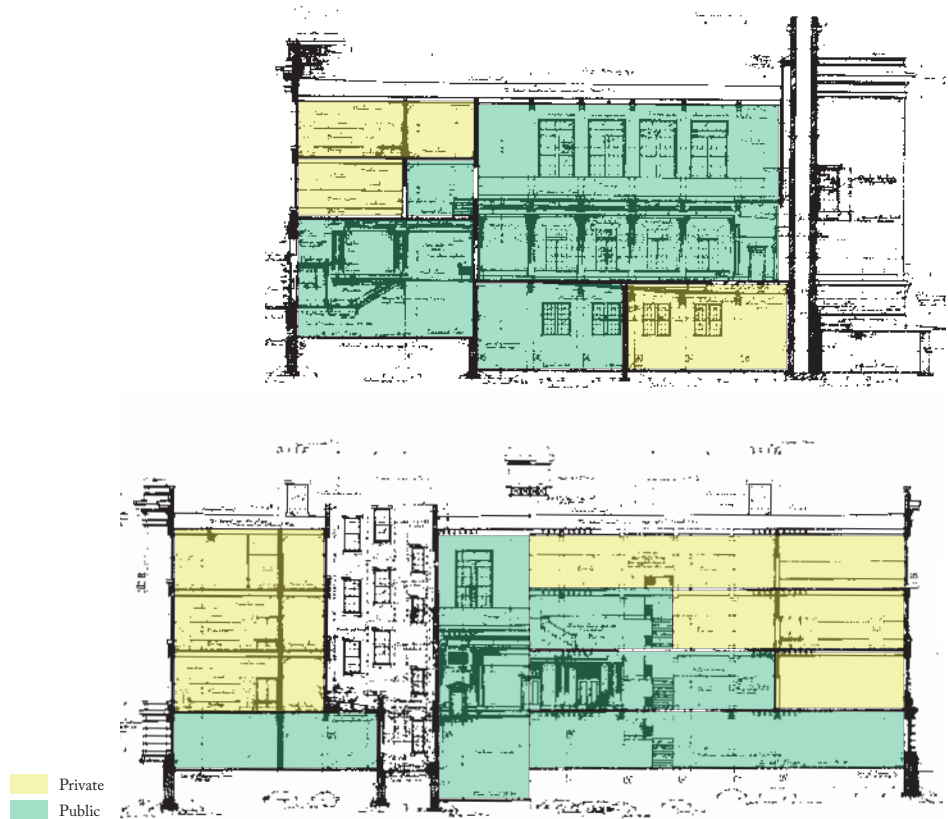


Fig. 21 Public/Private Study in Section and Plan

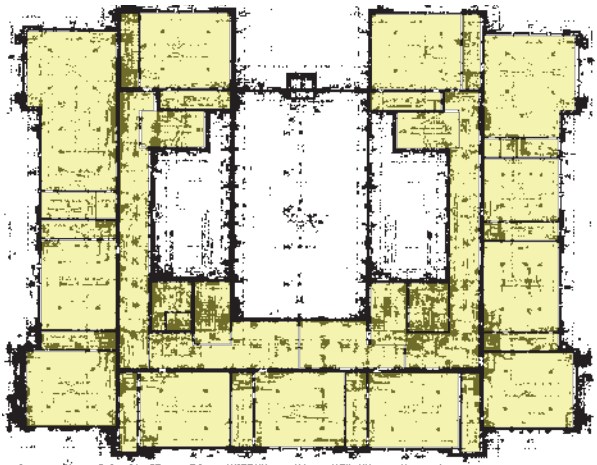
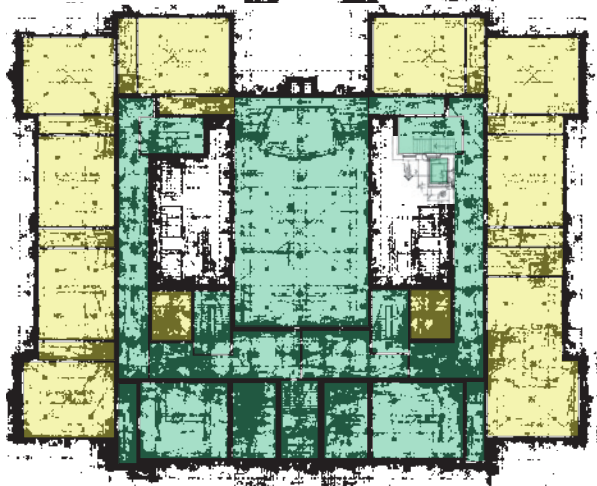
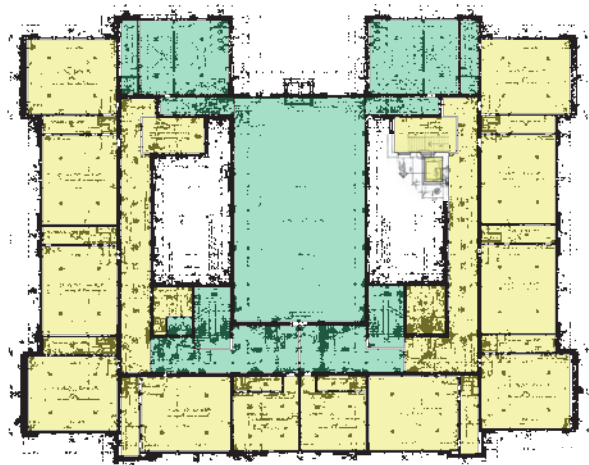
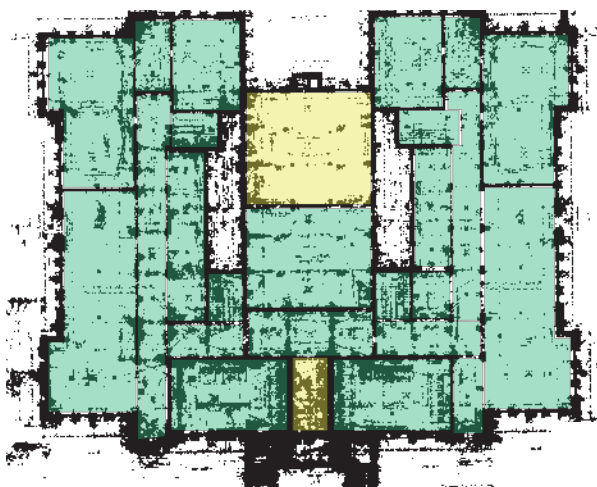




Fig. 22 Model Photo of Café Space

A majority of the contemporary design is in the café space. Channel glass walls create interior partitions in a curvy-linear pattern to extenuate the orthogonal heavy masonry walls. On the exterior, this attitude is continued through enlarged openings that reach into exterior space, diminishing the seclusion from the outside in the original structure. The café reaches into the second floor, creating a double height space and a mezzanine that is for residents.

In the private spaces of the apartments and corridors leading to them, less alteration is required in order to change the function of the space. Classrooms lend themselves to apartments because of similar square footage requirements. Also, apartments leased to higher incomes allow for less wear on the original objects and a general appreciation for the character lent to the space by these objects. Therefore, while new walls, fixtures, floors, etc. may be required, a substantial portion of the existing material culture may be retained.

The public space forms the core of the new program, beginning on the ground floor and continuing through the third. Throughout the program, the design separates public and private space while creating moments of interaction between the two. For example, through the

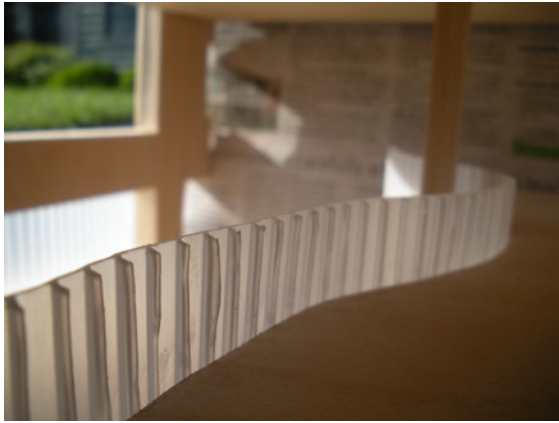


Fig. 23 Model Photo of Café Mezzanine Space

addition of a stair tower on the north façade of the building, building occupants may view community activities in the gym and auditorium from the mezzanines. Another instance where there is interaction between the public and private is at the main resident entrance. Here, the residents can hear and see inside the daycare, while anonymity is provided on both sides by a translucent channel glass partition.

This thesis inherently contains some flaws. One is the openness of interpretation of the treatments and their definitions. In addition, difficulty occurs in the determination of the extent of alterations. How much intervention and contrast is enough? What is too little? This is often open to interpretation and is a struggling point of this thesis. A critique of the final design is the lack of intervention on the exterior of the first floor in cafe space. Rather than consistently showing the alteration of the interior, it continues the original language.

While interpretations and extent of alterations fluctuate throughout time, a structure should retain a narrative of its material culture; a memory for the next generation of users to experience. Through the interactions of people with the spaces they inhabit, architecture, new and old, is imparted with a preciousness that only time can bestow.

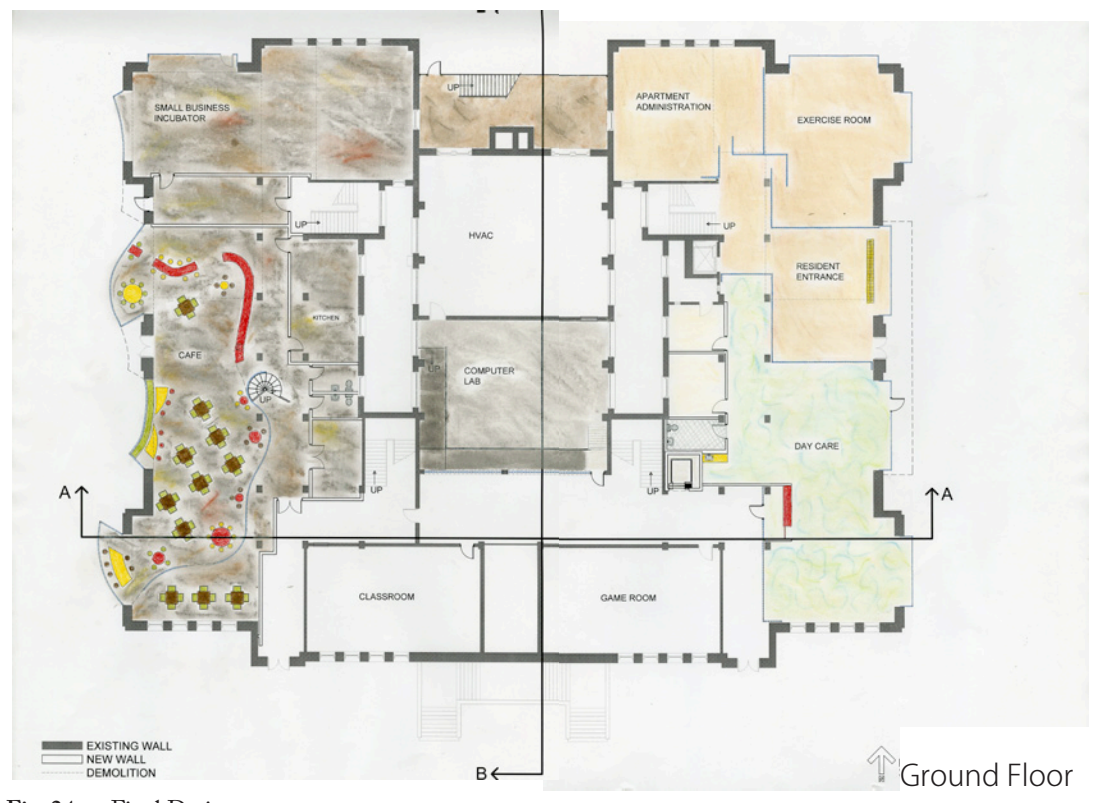
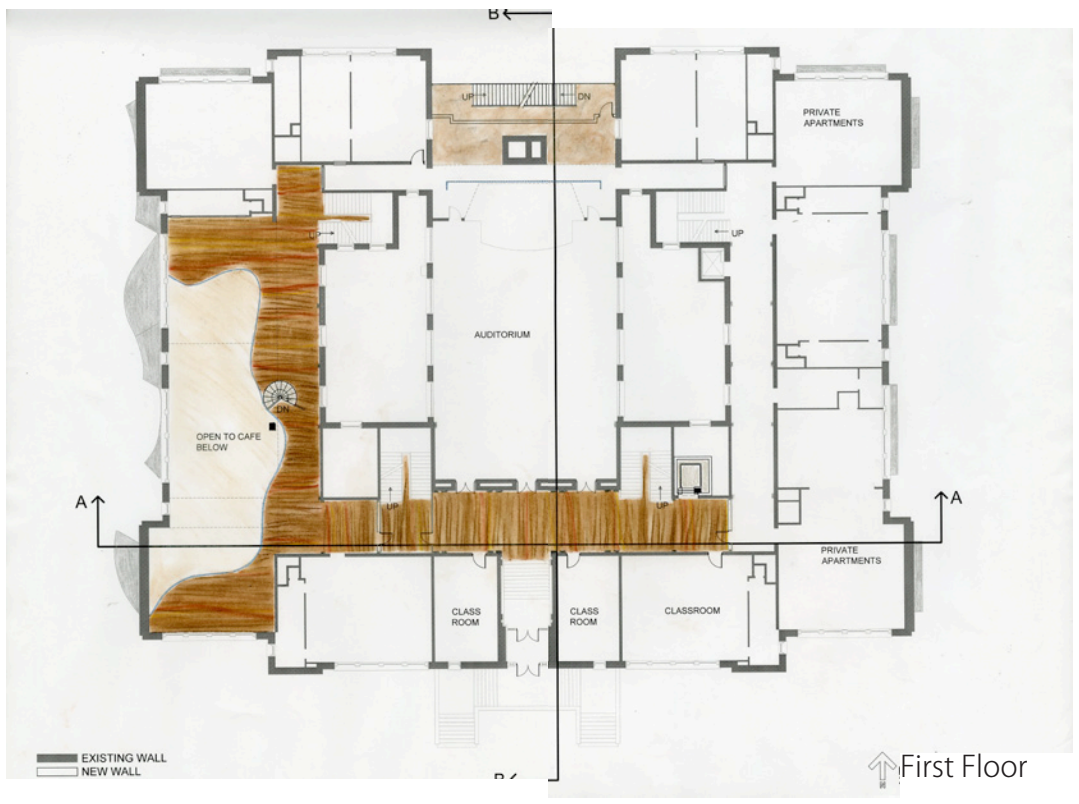
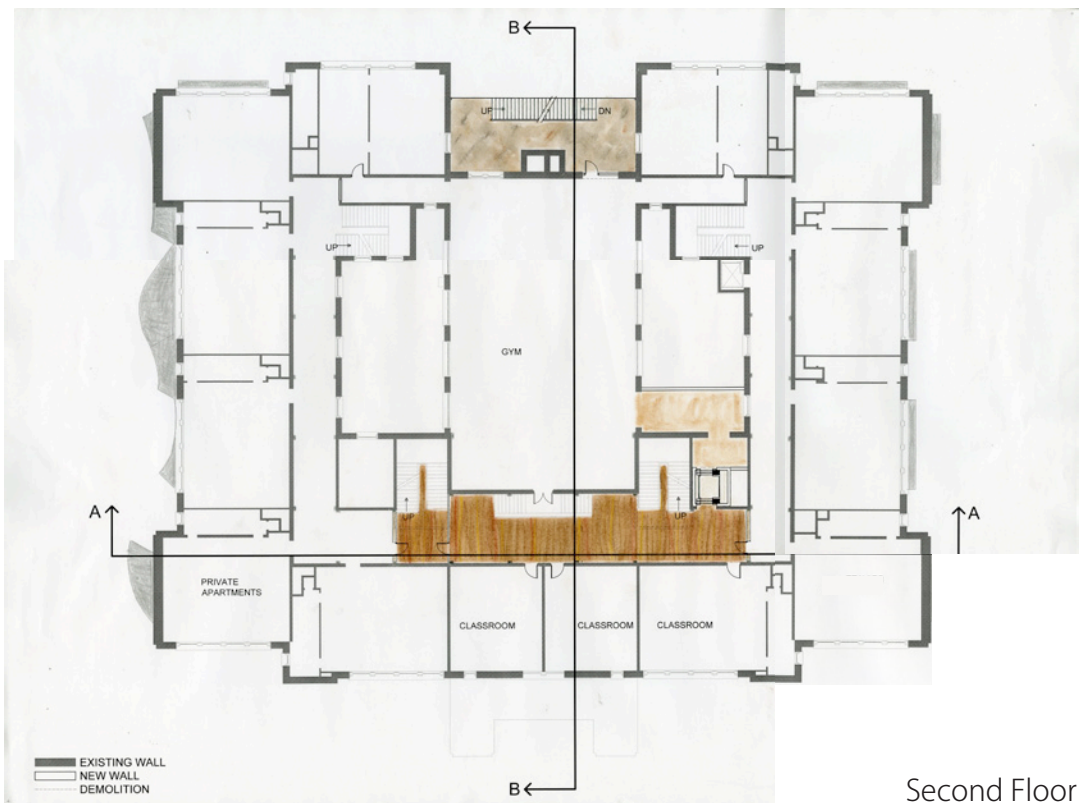
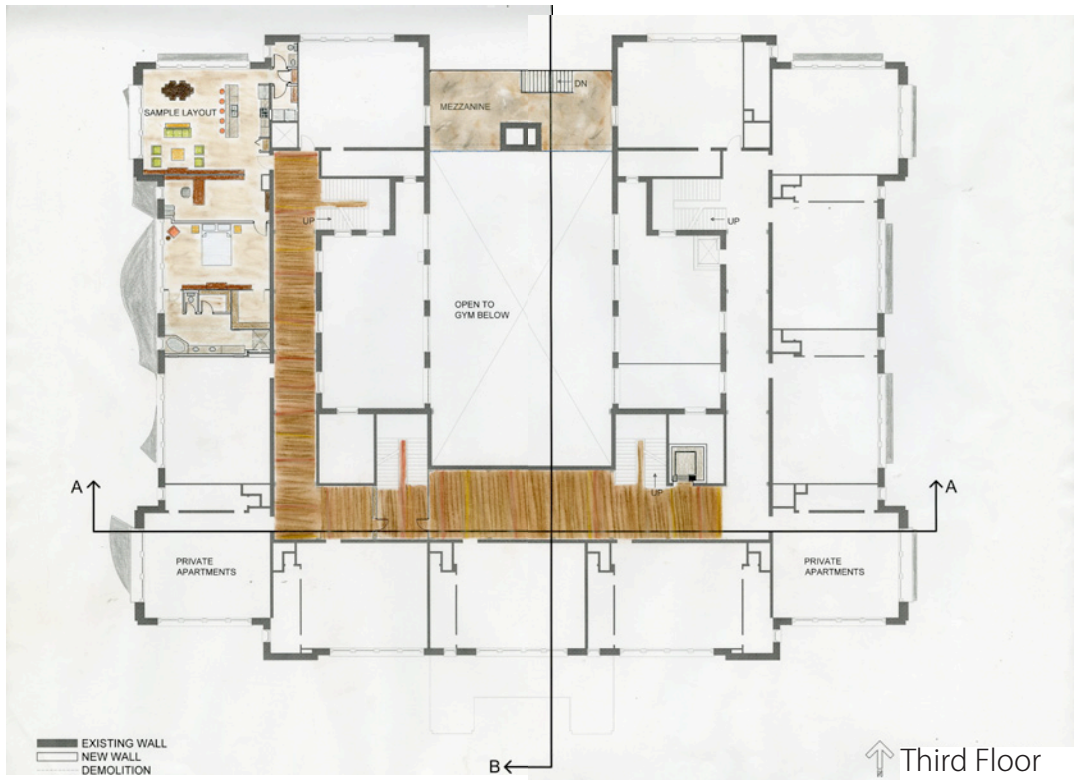


Fig. 24 Final Design



These photos, taken at 6pm in June, illustrate how the cafe space will be infused with light and shadow. Throughout the day and year, the space will change dramatically based upon light conditions. By creating translucent partitions, light penetrates deep into this area while providing an element of privacy to dining areas.



Fig. 25 Final Model



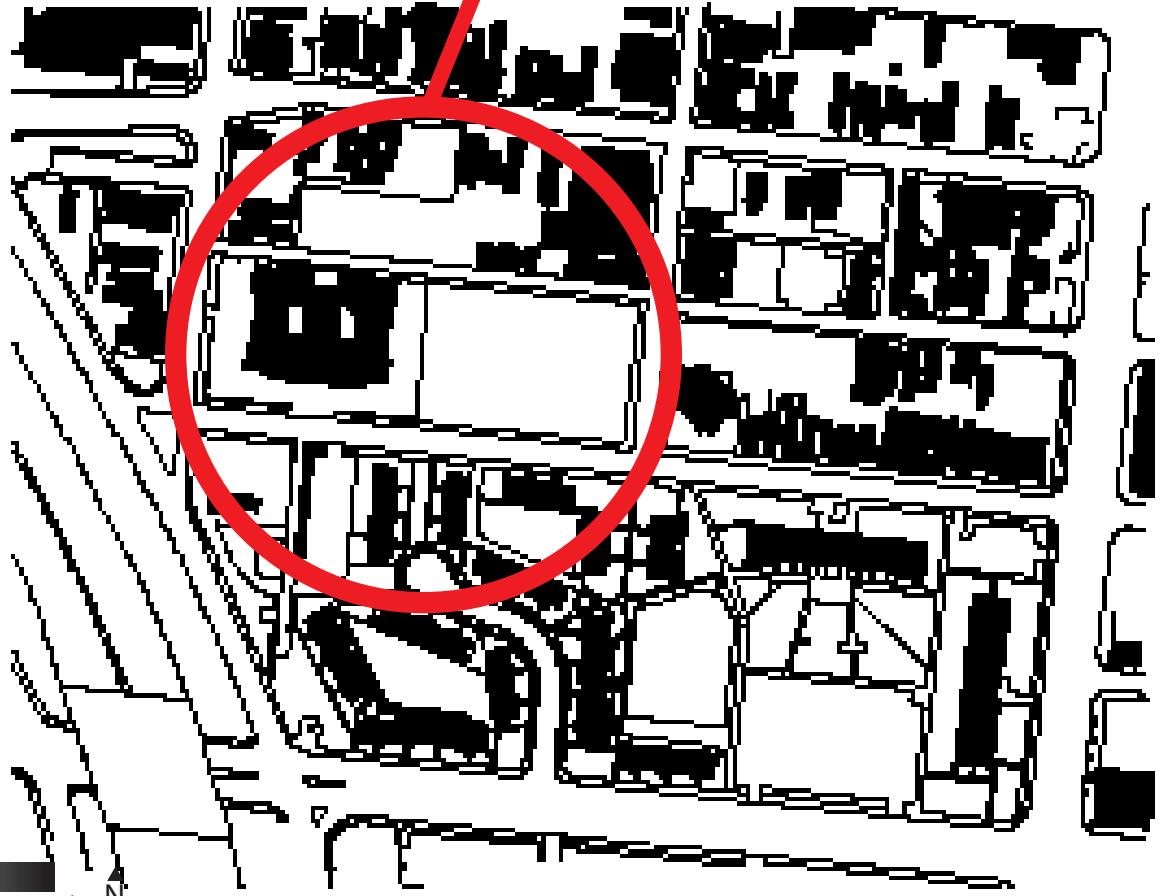
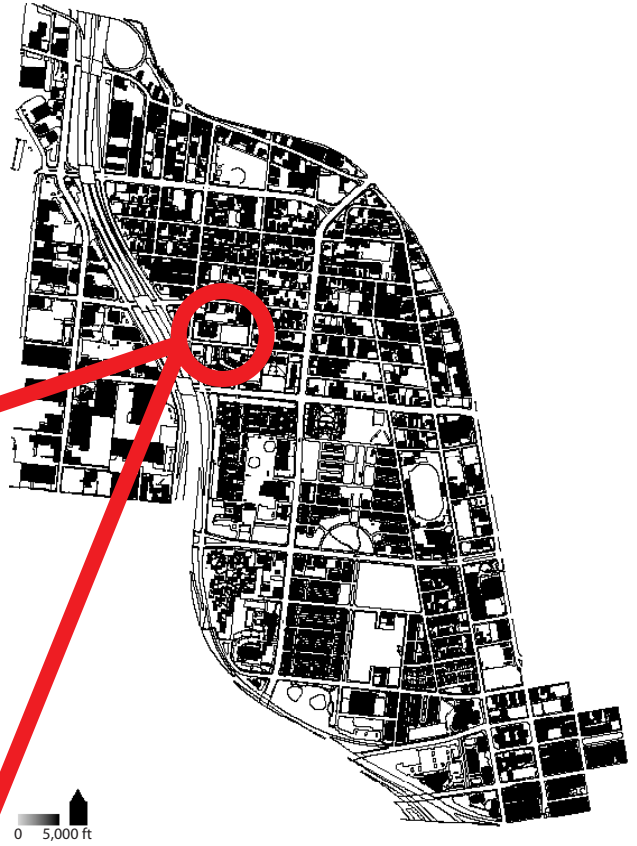
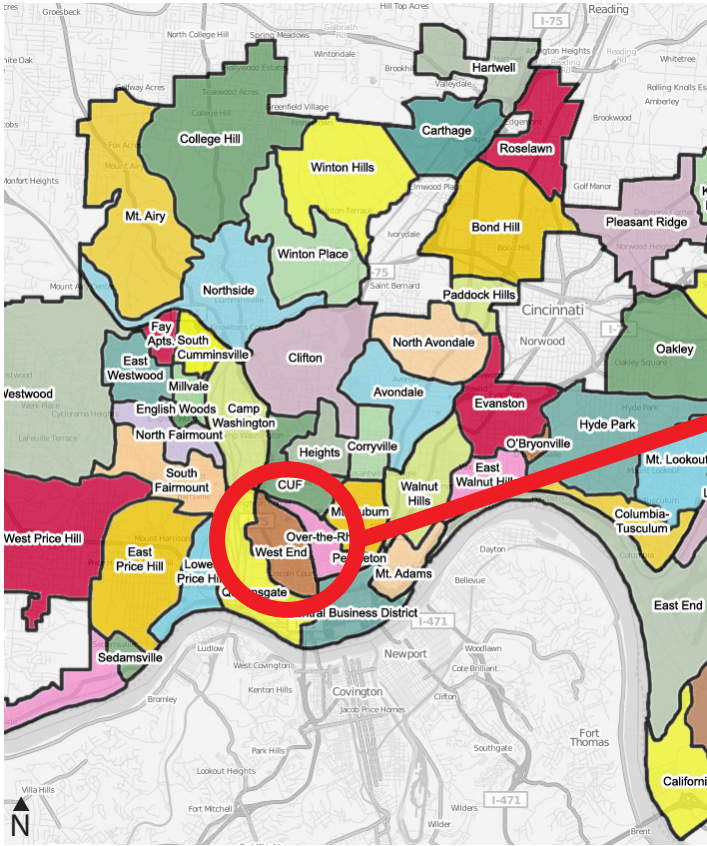
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Appendix

Physical Features

Site Location in Cincinnati



Physical Features

Site: Landscape



The landscape of this site, surrounding the existing structure, is extremely minimal. Asphalt is the primary role player creating an expansive parking lot for the former use. There is also a "patch" of grass on the site, which is a land parcel not currently owned by the school, but included in

the site for this project. There are a few trees, mainly on the east side of the building where a small "playground" used to reside. One interesting feature of the site is a concrete wall that is painted with a mural, presumably by children who once attended the school.

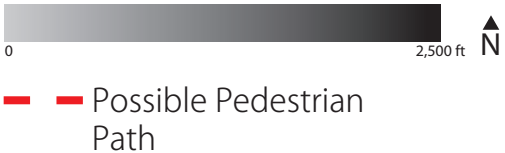
Context/Pre-figure Boundaries



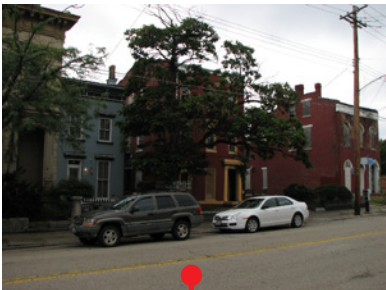
Current conditions: vehicular traffic surrounds the site, and parking consumes the site.



Current conditions: pedestrians do not often transverse the site because of the sidewalks along the street and also because of the limited entrance into the site.



Context/Pre-figure Neighborhood Context



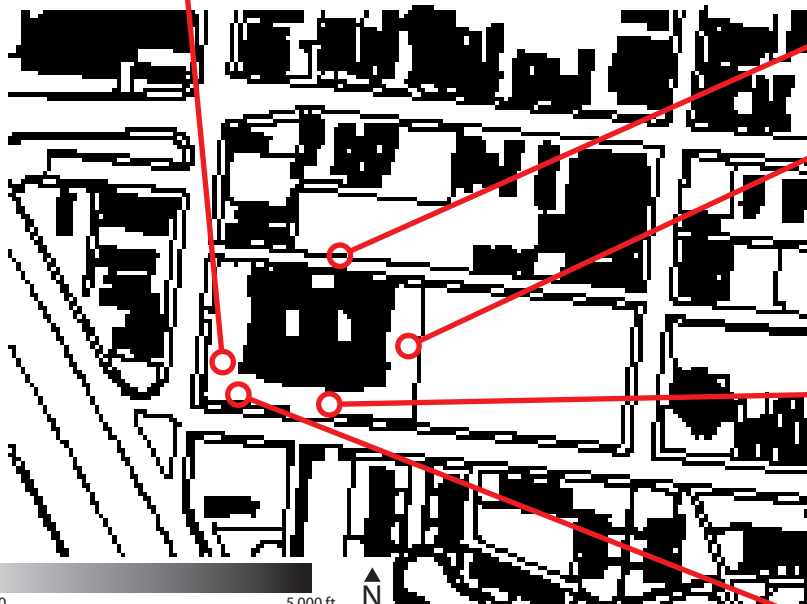
22
0 5,000 ft N

The neighborhood surrounding this site is a combination of architectural styles. Also, each structure may be judged independently as to its state of deterioration; therefore an abandoned house may be positioned next to a beautifully kept house, or public housing structures may

be across the street from an Italianate rowhouse. Other unique features of the blocks surrounding the site are a community garden, the highway, a historic district, and two more abandoned school buildings besides the one located on the site.

Context/Pre-figure

Site: Building



0 5,000ft N

The building itself was constructed in 1910 and was designed by famous local architects Teitig and Lee, who designed several public school buildings. This structure boasts a beaux-arts style, and its façade is composed of brick, terra cotta, and granite. It is symmetrical in plan, contains two light

P58

wells, and it 4 stories in height. The building's main façade is south facing, but the other three elevations are also clearly visible from the surrounding streets. There are several architectural terra cotta details on this building that establish a culture of the maker and an eagerness to preserve.

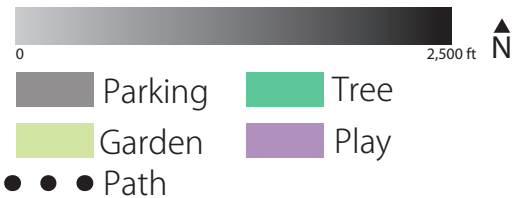
Site Strategies

Site: Building



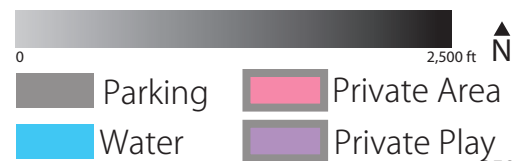
26

In this scheme, parking is minimized and instead a path from the east to the west side of the site is established, offering along the way planting areas for garden as well as a sheltered play area for children. The building could be established as a mixed use building with both commercial and residential aspects.



27

Here, the building also may serve multiple functions, specifically in thought is a day care that allows a dedicated, safe play area to be separated from the rest of the site. An private garden and patio area is created for use by the building occupants while a public garden space is created on the west end of the site.

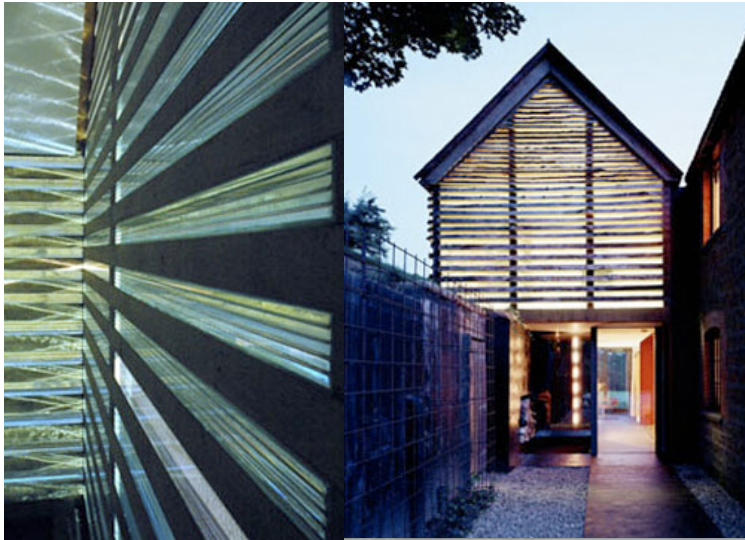


Existing Material Culture
photos by author



Dairy House

Skene Catling de la Peña



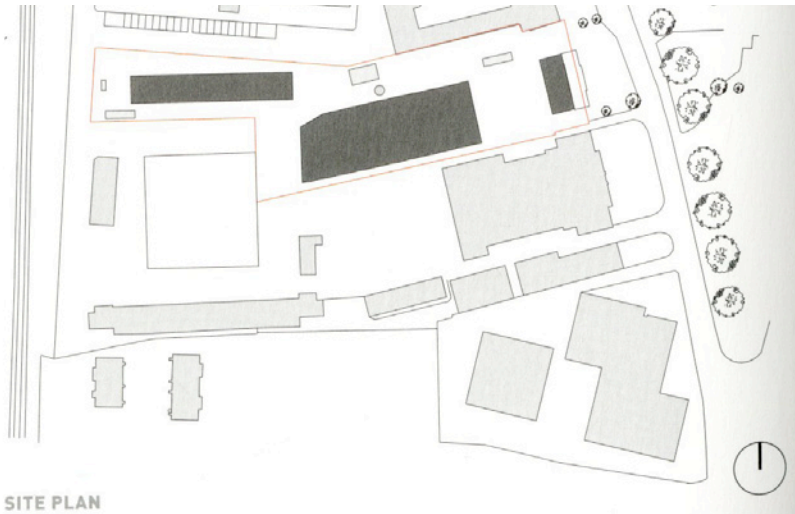
Originally this project entailed removing the sheds on the property and the conversion of the Dairy Farm into a five bedroom house. The architects drew inspiration from 'La Petite Maison; An Architectural Seduction,' a novella and stacked timber in the yard opposite. From this the design of the addition is composed of layers of oak and float glass creating a constantly changing shadow on the interior.

The main house has changed little from the outside while boasting a completely modern interior, and the addition complements the house by echoing rustification and the original lean-to sheds.

Source:
<http://www.scdlp.net/>
Accessed Thur. Nov 5, 2009

Bernie Grants Arts Centre

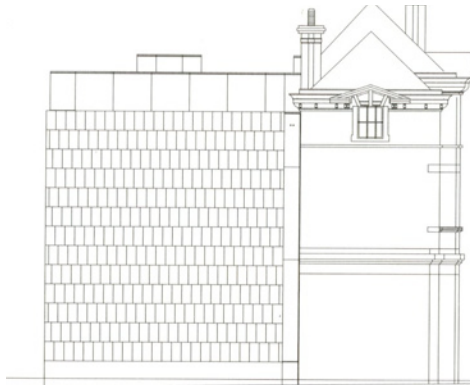
David Adjaye



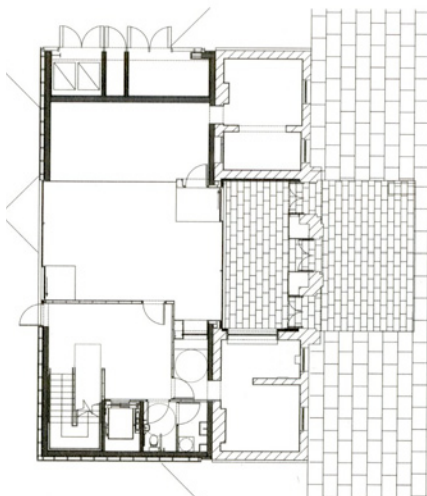
SITE PLAN



EAST ELEVATION



SOUTH ELEVATION



Set in London, The site for the Bernie Grants Arts Centre is surrounded by two sites on the National Listing (UK's list of protected historic places). In response to these sites and to the historical features of the original bath complex, the decision was made to retain the front bath building along the street and the iconic steam tower, while the remainder of the site was cleared. This allowed for the street facade to maintain its historical integrity while creating a blank palate for creativity behind.

The front bath house is of particular interest as a new addition was created for the rear of the building. This addition respects the historic building by employing a human scale material in response to the brick and creating a massing that is within the massing of the existing structure.

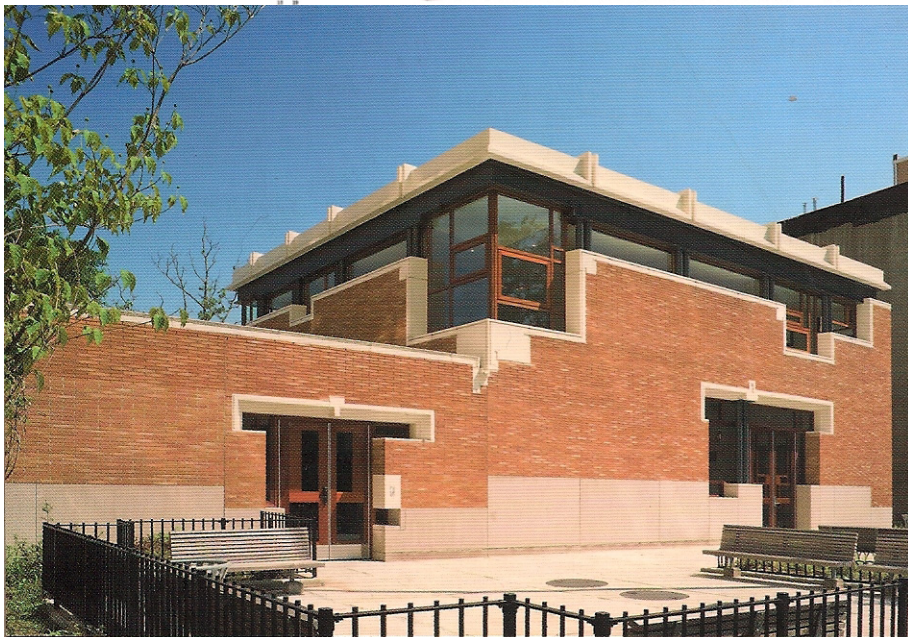
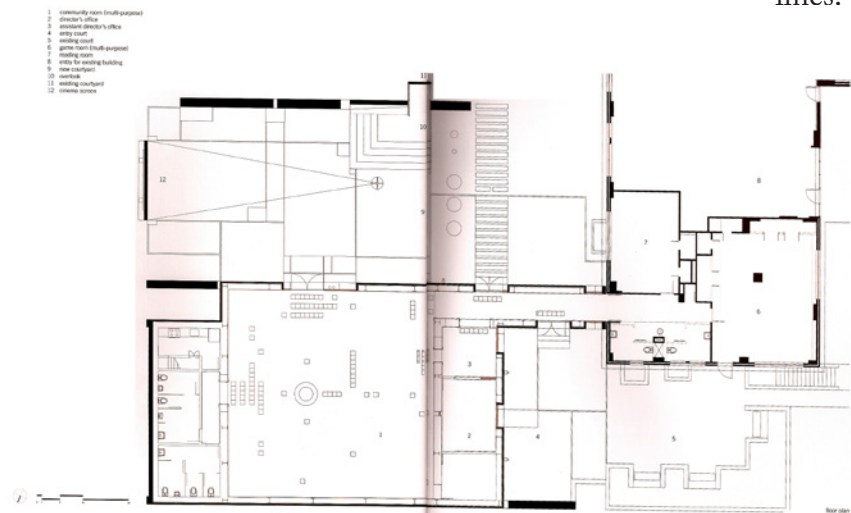
Source:
Adjaye, David. David Adjaye: Making public buildings: specificity, customization, imbrication. page 50. Book.

Saratoga Community Center



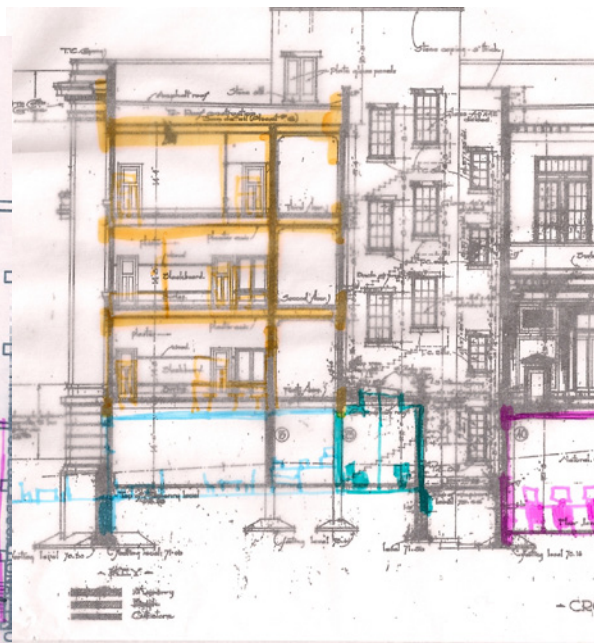
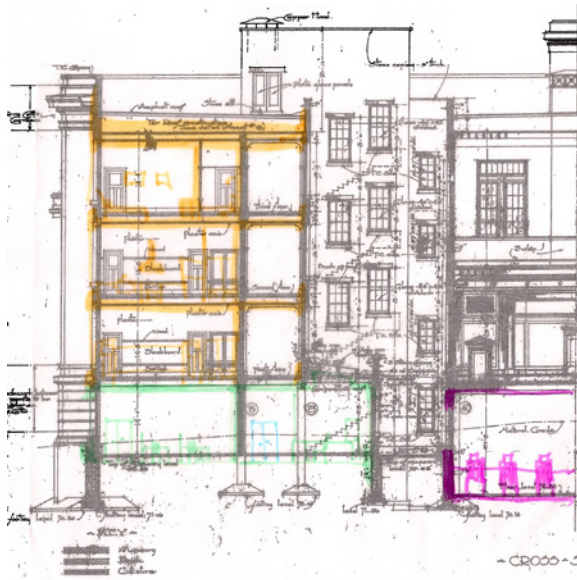
This Community Center is located in Brooklyn, New York. It is designed as an addition to a recreation space already located at the base of the apartment tower attached.

Saratoga Community Center offers a unique way to look at the architecture of a community center as it blends Prairie Style with Modern lines.



Source:
Saratoga Community Center

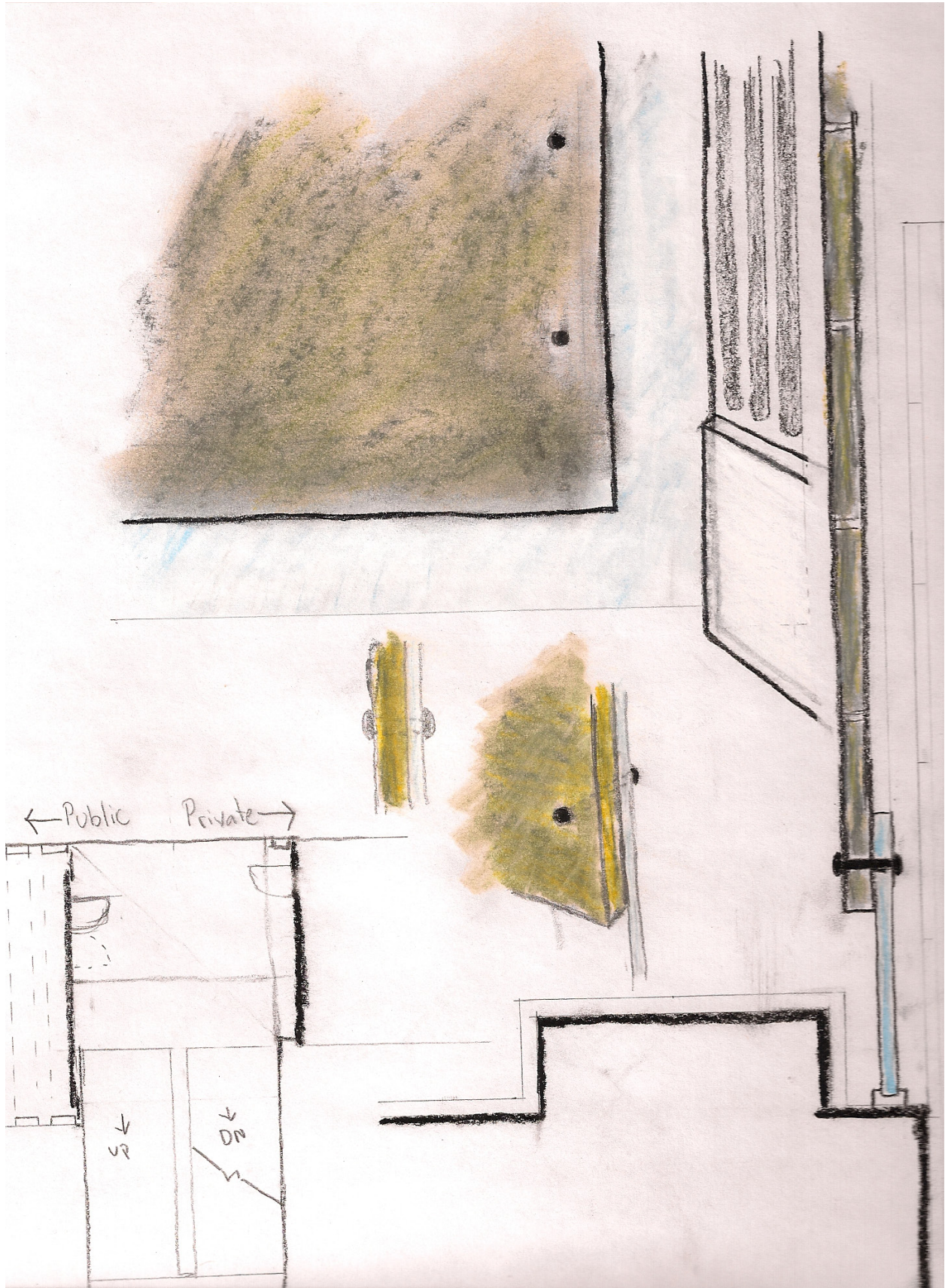
Design Process



This is an investigation into how contemporary interventions may meet historic material objects.

Design Process

Detail Sketches



Design Process

