

## **ABSTRACT**

Title of Thesis:                      Resurrecting an Old Place with a New Purpose  
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Berlin was a great city that fell into turbulent years with the coming of the two World Wars. Near the intersection of Petersburger Strasse and the Frankfurter Tor sits house 68, alongside many temporary and war damaged structures. The area is situated in what had come to be known as East Berlin, separated from the West by the infamous Berlin Wall.

This thesis will be based on the environs of Petersburger Strasse, the cluttered street and underutilized surroundings will be reinvented by providing refurbished housing with mixed use ground floors catering to the general public as well as the young entrepreneurs and artists of the neighborhood. Directly adjacent to House 68, my thesis project, a cultural center will be located facing the nearby community park, providing galleries and flexible spaces for art performances, classes, public gatherings, all while reinforcing a place of importance and identity in the community. The corner building composed of a restored portion of a war damaged building and a new addition will reach out to the community as a whole providing a more focused sense of place once again to this history rich block by bridging the old and the new into a more seamless whole. This thesis contends that an architectural expression, pulling from local

and regional traditions, can heal a scarred environment; providing a sense of community while acting as a catalyst for future cultural traditions that can point the way to a more sustainable future.



# Resurrecting an Old Place with a New Purpose

By

Martiena Schneller

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of the University of Maryland in partial fulfillment  
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## Dedication

To my family and TAKS

Your bolstering, endless words of encouragement,  
and eternal love have made this process possible.

Thank You.

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“All architecture is shelter, all great architecture is the design of space that contains, cuddles, exalts, or stimulates the persons in that space.”

-Philip Johnson

## **Chapter 1**

## **Introduction:**

For years Berlin, Germany suffered from being separated by the Berlin Wall. Now the physical wall is no longer there, but the social and spatial scars remain. More specifically, in the East, the Berlin- Friedrichshain district, where this thesis site is located, encompasses an area that has not been redeveloped since the two World Wars. Makeshift buildings were assembled to fill lots after the damaged buildings were removed, but these do not fulfill the urban, social, functional, or special needs of the neighborhood.

In the Freidrichshain neighborhood, deterioration has been seen, however recently it appears to have stabilized and on the rise once again.<sup>1</sup> The city district is viewed as having distinct urban development potential. There are a range of options for the redevelopment including preservation of the existing ambience, removal of traffic conflicts, restoring purpose to public spaces, preserving reusing, and restoring older buildings, and the preservation of the typical cityscape.<sup>2</sup>

The people currently living on Petersburger Strasse sense that something needs to be done within their community. The inhabitants near 68 Petersburger Strasse are a very mixed group. There is the older community that has spent their entire life living in the area, and also a younger segment that have recently arrived. The dominate mindset is that of young entrepreneurs, seemingly focused around art and culture, who are starting their lives in the community and would like to see it grow and flourish with their families. A lot of the people living in

the area have been asked about the situation and existing problems in the neighborhood. Their answers are very telling.

One of the questions that were asked: “What does urban renewal in Berlin-Friedrichshain mean to you?”

A typical response might be as follows -“It certainly doesn’t mean placing an area under some sort of glass cover, raise money and building materials and workforce and embellish the place, then remove the glass cover , and a completely new housing complex in shining white has been erected...A cityscape need not necessarily be bulky or swanky. No one can identify with that.”<sup>3</sup>

Throughout my personal visits to the site it is easy to see why the community might feel this way. In many other places urban development does just mean office buildings, hotels and shiny new banks erected in straight lines. But that is not going to fix a central problem: Petersburger Strasse feels very empty and abandoned at night. There is no draw or reason to come to the area after the sun has set, when there are no longer activities going on at Petersburger Platz. As a result the area needs to be rejuvenated and develop a sense of community once again establishing a sense of pride, and bringing back a sense and spirit of place to the history rich community.

Suggestions from actual community members ranged from reclaiming open space for residents to use, adding greenery back into the area, turning the street into a stage for community activities, creating new paths that link places in the neighborhood, and installing a center for social and cultural life.

This thesis does not propose that architecture can solve all of the issues mentioned by the residents of the Petersburger Strasse, but hopes to heal some of the damaged environment by creating a new social/ civic center, and establishing integration of old and new buildings to be used as a model for future growth. This will be accomplished with the development of a Community Arts Center, located at the intersection on Muhsamstrasse and Petersburger Strasse. New housing will also be incorporated on the upper floors of the Community Art center, so that the building will always be active. The Community Art Center's image will define it as a significant landmark within the community. Art is a way of bringing people together, people of all ages and genders, and can also help bring meaning back into a community. The new development will strive to use a set of preservation and design objectives while understanding the existing historic fabric within the evolving context of the city.

## **THEORY**

A community organized about some center for its own political and social welfare and expression tends to peer into its own mind and life.<sup>4</sup> This thesis seeks to reconnect the physical remnants of the past with the evolving social and cultural reality of the present, to strike a balance between the history and current social needs of the Petersburger Strasse community, and meet them whether these needs focus around recreation, education, arts, politics, the field of health, or a combination. In an address given in the 1920's the Prussian Minister of Welfare spoke about some of the problems that society was facing, but the message seems

applicable even today. “The weakening of family life in the big towns is growing ever more apparent, and the consequent state of the joylessness and homelessness is creating a real need for the organization of a happy community life.”<sup>5</sup>

German society has always taken leisure and community very seriously, even during times of war. Green spaces and parks were laid out around the entire city, such that everyone would have the opportunity to enjoy and feel connected with their own neighborhoods. The urban spaces together formed an image-able, identifiable and desirable place<sup>6</sup>. These ideas allow a new Community Art Center to become a vital place within the neighborhood. Since the Community Art Center is a new structure, the architecture can be used to provide a psychological boost for the neighborhood both in the present, and more importantly into the future.

The location for the center on the southern tip of the green square can become one of the most important elements in the area. We have seen throughout history that urban squares are an essential setting for public buildings and the physical creation of the perception of place in cities. Establishing a public space in the form of a square or green was an important part of European city planning efforts, and was employed as far back in history as Ancient Greece. The creation of a public square in a neighborhood can become a reference point, or a destination, which would imply that the community is identifiable, as well as being socially sustainable.



## Spirit of Place

Christian Norberg-Schultz reintroduces the idea of genius loci, in *The Phenomenon of Place*, where he refers to genius loci as the “spirit of place.”

Throughout this essay he states that architecture has the potential to create this spirit, and make the environment meaningful through the creation of specific places.<sup>7</sup> Therefore without a sense of place, spaces become insignificant and dull. By utilizing an “environmental character” material substance, shape, texture, and color all work together to create an experience and the phenomenon of place.<sup>8</sup>

Texture of the city fabric can help define a place without bringing attention to any one specific landmark or node. Narrow medieval streets define the old parts of Rome and have more character than the wide boulevards that slice through neighborhoods. The tight, twisting, constricted old streets often hold more memories than the wider city streets.

By focusing on the texture and massing forms of the community the building and site design must respond to the context of the neighborhood in a variety of scales ranging from the surrounding structures to the character of the neighborhood and city as a whole. While evaluating the context other aspects of the architectural design that should also be carefully considered are; building orientation, scale, massing, proportions, materials, and architectural language.

## **Contextualism**

A theory proposed by Colin Rowe and his students at Cornell University in the mid 1960's "Contextualism" refers to "the design of buildings by selectively choosing to relate them to their immediate physical context or their cultural context- the history of a place. Where appropriate, buildings are designed to reinforce the physical characteristics of an area of a city by extending them. The decision to do this presumes a value judgment; that the existing architectural fabric to be extended is believed to be important to the urbanism of a city."<sup>9</sup>

Since the design process will be infill development within a historic context, it is important to understand the development patterns and design principles that give rise to the existing conditions. Assessing which patterns and principles would facilitate continued growth and development as well as continue the take pride in the historical context is among the first steps to be looked at.

By introducing the program of a Community Art Center into the building there is also the introduction of image-ability into the area. Art can be a powerful force, drawing in people of all ages. The artists themselves are interpreting their craft so others can experience the magic, and silently creating a social identity for the community. This allows artists and everyday persons to interact and share different experiences. People will travel to the Community Art Center, because it will be a destination and memorable spot within the city.

Using the theories of Contextualism, and Spirit of Place, this thesis will respect and balance the preservation of existing buildings with the introduction of

a new building meaningfully located to reinforce the sense of place and character that the Friedrichshain district had prior to the destruction of the wars.

“Architecture starts when you carefully put two bricks together.

There it begins.”

-Ludwig Mies van der Rohe

## **Chapter 2**

### **UNDERSTANDING THE HISTORY**

**Site History:**  
History of Berlin, Germany

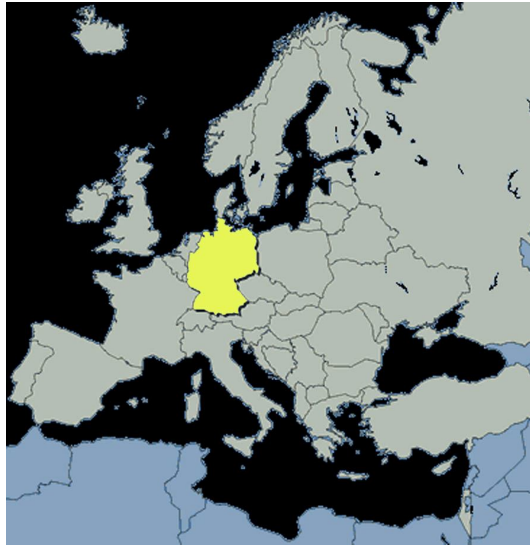


Figure 1. *Map showing the location of Germany, (in yellow) (Author)*

Compared to other European cities, Berlin is considered rather young, but has had an eventful and unique history. The exact date for the foundation of Berlin unknown, but recent excavations from January 2008 suggest that the city may be even older than was previously assumed. State archaeologists have discovered an oak beam that probably dates back to the year 1192.<sup>10</sup> What is known is that from the early days Berlin existed in a twin town situation. Berlin grew along the East bank of the Spree River, while its sister city Cölln lay on the west bank. The two towns formed a union in 1307 and gained importance when they joined the Hanseatic League in 1360.

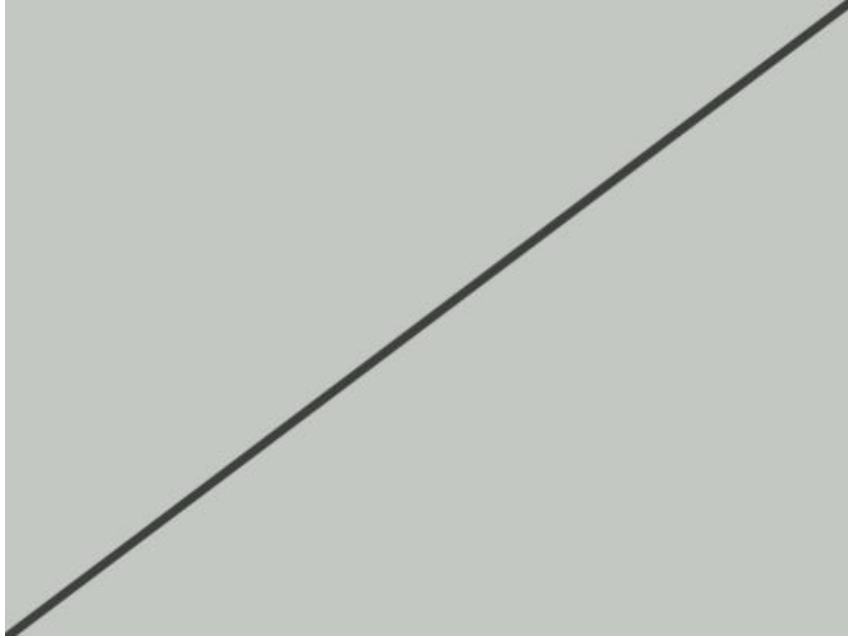


Figure 2. *Map of Berlin and Cölln from 1962. (Johanna Gregory Memhardt)*

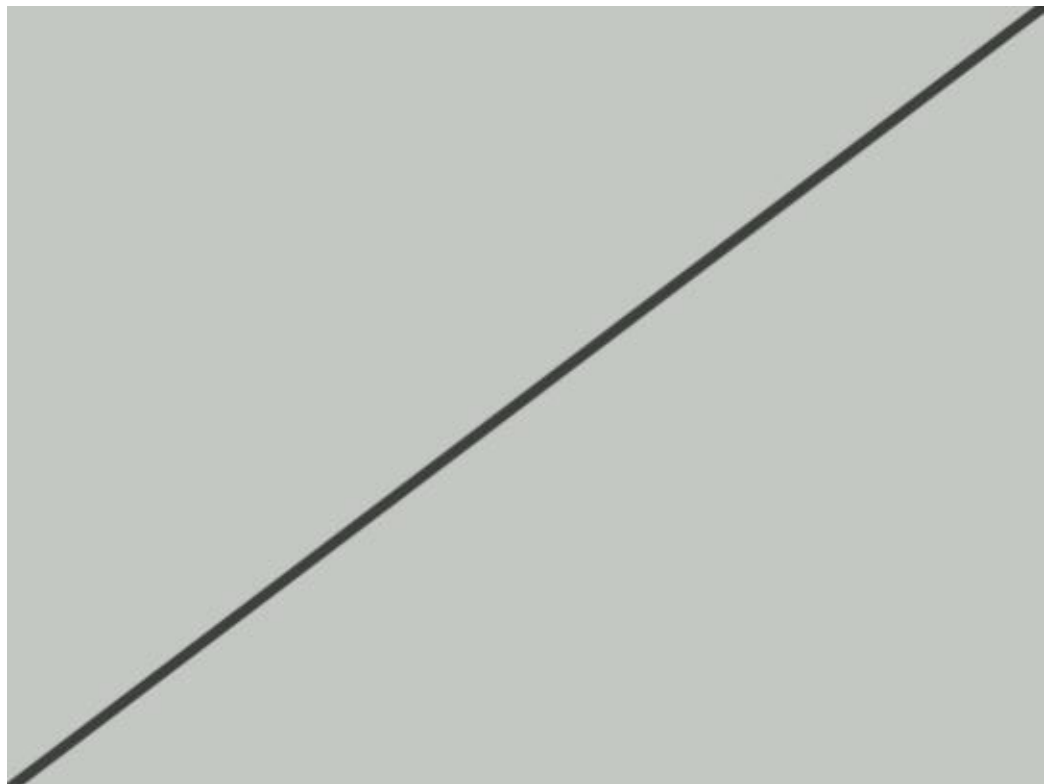
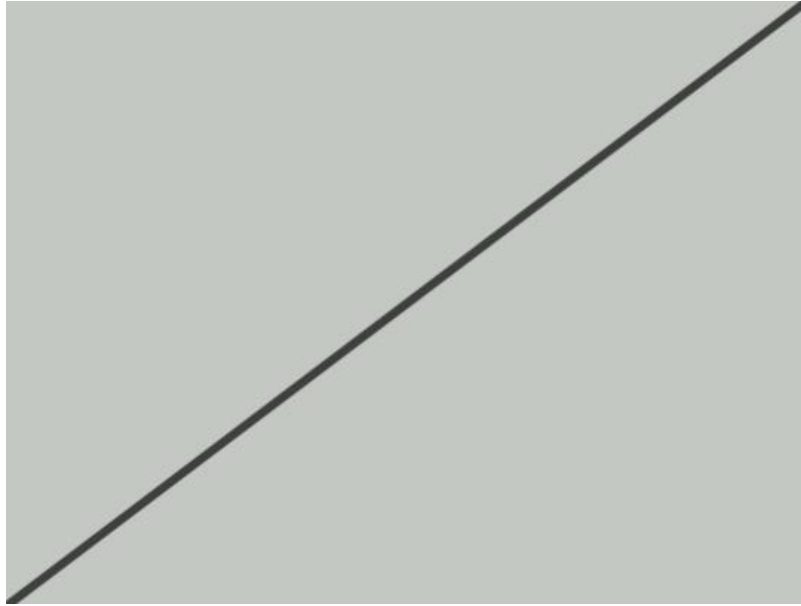


Figure 3. *Berlin in 1688, showing fortification walls and expansion already forming outside of the walls. (Scanned by the Zentral-und Landesbibliothek Berlin. (ZBL))*

Figure 4. *Map of Berlin showing 1749 development.*



*(<http://www.heritageantiquemaps.com/main.html>)*

In 1451 Berlin became the seat of the electors of Brandenburg, (Kings of Prussia, after 1701). After Friedrich III coronated himself King Friedrich I in Prussia, Berlin rose to a Royal Capital and Residence town during which time it saw restoration and improvements throughout the city. This was the beginning of many well known buildings designed by the architect Knobelsdorff.<sup>11</sup>

In the years to follow Berlin suffered from the occupation of Napoleon's troops, 1806-1808, but would once again transform the face of the city after. This was in part due to the classicist buildings designed by Andreas Schlüter and Karl Friedrich Schinkel and the growing park areas designated by Lenne. The construction of railroads (1840–61) gave the city additional importance as an industrial and commercial center. Berlin also became part of a canal system that linked it to the Oder, Elbe, and Rhine rivers and to the North Sea. These connections to the surrounding area helped the economy boom, generating

significant population growth. By 1871 the city had prospered and expanded rapidly, becoming one of the great urban centers of the world. It harbored one fifteenth of Germany's total population, adding between 80,000 and 100,000 people yearly, with the rise in population breaking the 4 million mark in 1925.<sup>12</sup>

Then came the defeat of World War I (1916-1919). The great defeat caused riots within Berlin. These in turn caused a crisis in the capital, which left the city vulnerable to new leadership. This tenuous situation contributed to Hitler's rise to power.<sup>13</sup> Despite the difficult situation art and culture flourished during the twenties. Throughout this time there was development in innovative theatre productions, film premiers, and an immense nightlife scene, all pulling contributing to make Berlin a star of the "Golden Twenties".



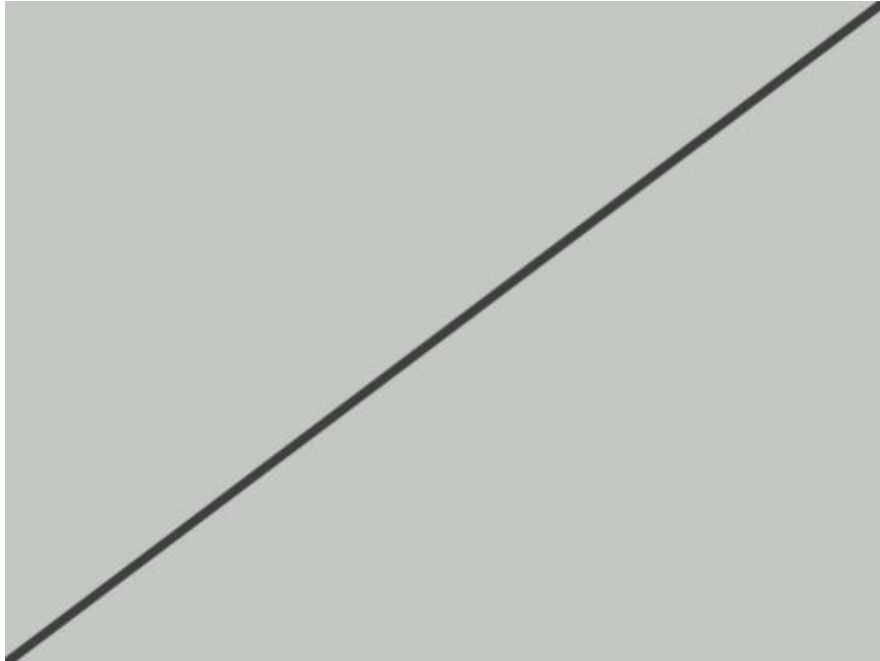


Figure 5 *Picture from the Olympic Stadium during the 1936 Summer Games. Hitlers power was transferring into every part of German life. (National Archives and Records Administration, College Park, MD.)*

Beginning in 1933 Adolf Hitler and the Nazis took control of the city. During the Nazi control which lasted until 1945, Berlin remained the second largest city within Europe, as well as remaining distinguished in economics, politics, world trade due to the inland port, and education. “In those days the entire world was watching Berlin. Some with dread, some with hope; in that city the fate of Europe was being decided.”<sup>14</sup> Berlin was even granted entrance back into the world community when the International Olympic Committee awarded the city the 1936 Summer Olympics, thus ending the period of isolation the city had endured since the end of the First World War.



Figure 6 *Exterior view of the Olympic Stadium in Berlin today. (Author)*

A huge sports complex was constructed and Olympic flags and swastikas adorned the monuments and houses of a festive, crowded Berlin. Many tourists were unaware that the Nazi party had only temporarily removed anti Jewish signs from around the city. Sadly this was the era of persecution for the Jews, Communists, Oppositionalists and many others all as a result of Adolf Hitler's takeover. It was not until WWII , after the military defeat that the world would be exposed to the devastation and terror that was happening in and around Germany. Near the end of WWII, Berlin was repeatedly bombed from the air by the Allies, but the heaviest destruction was caused by a Soviet artillery barrage of unprecedented intensity that preceded the capture of the city<sup>15</sup>.

By the end of World War II the city was fully devastated. The four allies divided Berlin into four quadrants; the East controlled by the Soviet Union, the Southwest by the USA, the West by Great Britain, and the Northwest by France.

The Berlin-Blockade of 1948 dragged the city into the Soviet-American conflict, which deepened the division of the city, and on August 13, 1961 the construction of the Berlin Wall began, forever changing the city of Berlin by dividing its people.<sup>16</sup>

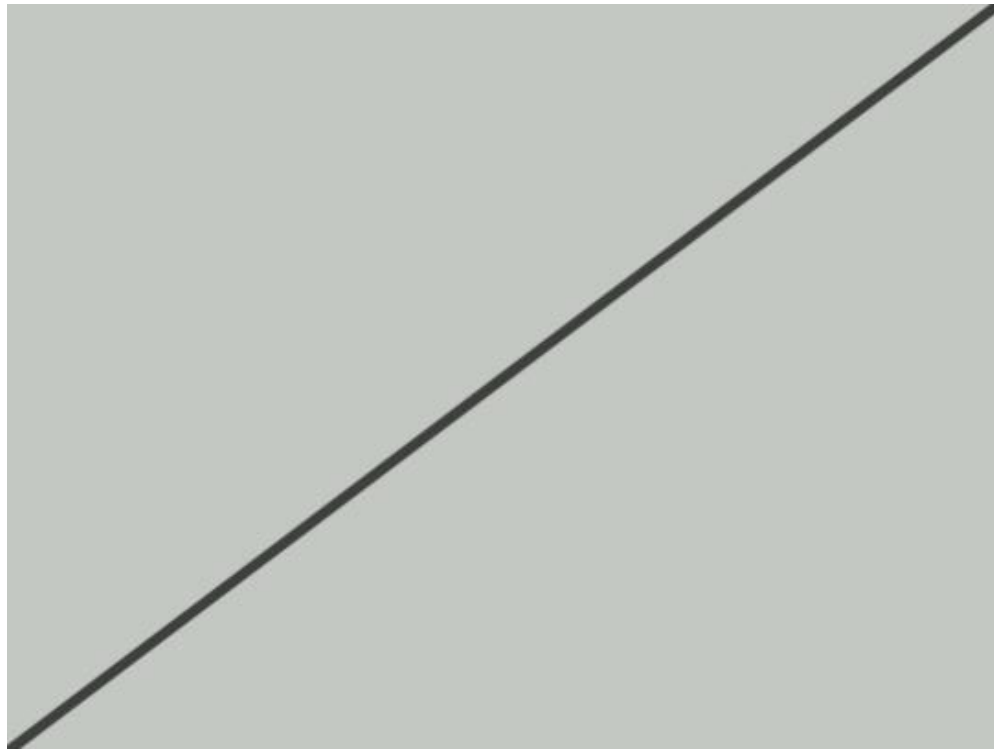


Figure 7 *Construction of the Berlin Wall in August 1961. (University of Utah, Corey Hatch)*

The wall stood until November of 1989 when it was torn down, allowing the city to reunify and once again allowing Berlin to become the residence of the federal government which is housed in the Reichstag restored in 1999 and is now a working monument that Berliners and world tourists alike come to see.<sup>17</sup>

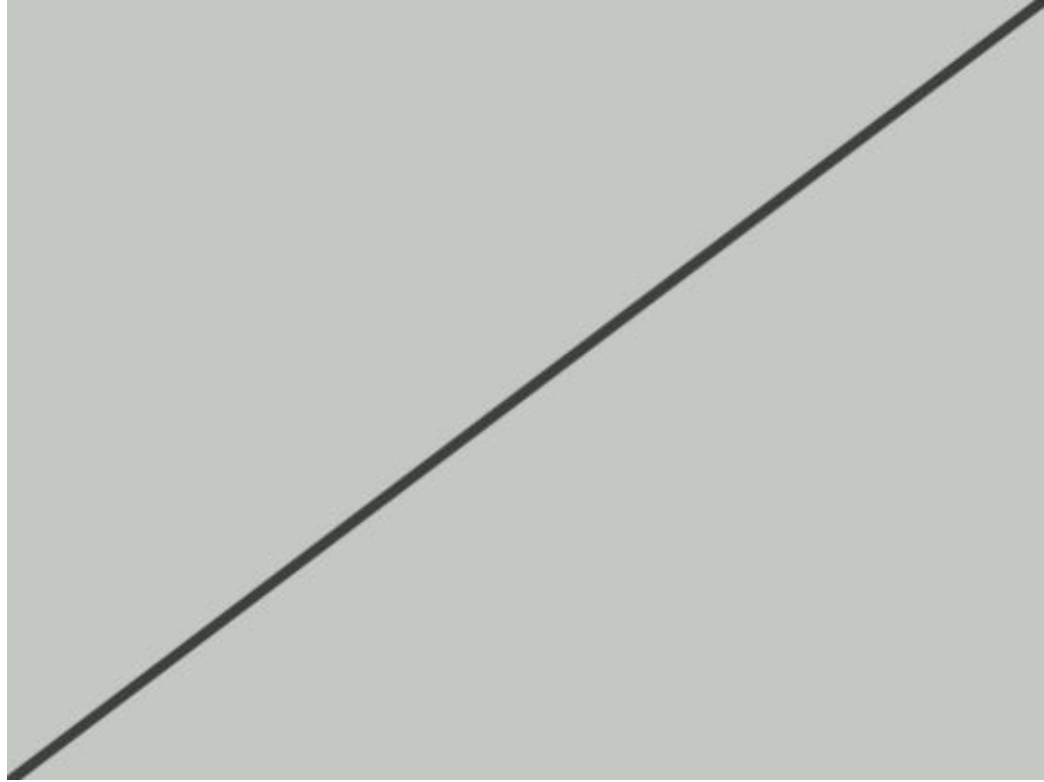


Figure 8 *New German Parliament, The Reichstag.*

(<http://www.archmereacademy.com/Default.aspx?alias=www.archmereacademy.com/bannerjeewagner>)

Almost no other metropolis has experienced such frequent, radical change transforming the face of the city. Although Berlin saw steady growth in its importance, dazzling epochs alternated with darker eras. Nevertheless, the formerly divided city has succeeded in becoming a vibrant metropolis in the heart of Europe.

## History of Friedrichshain- Kreuzberg

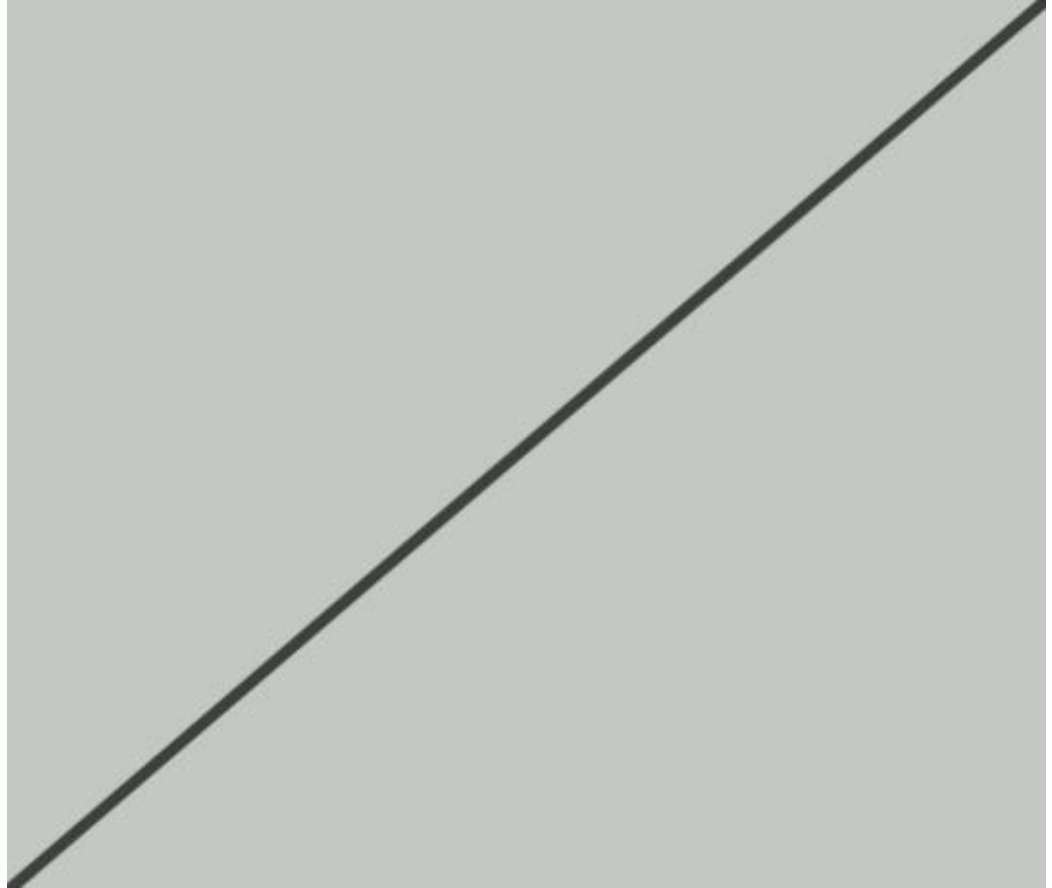


Figure 9 “*Districts and Neighborhoods*” of Berlin  
(<http://berlin.barwick.de/information/districts/index.html>)

Friedrichshain and Kreuzberg were both created in the 1920's when Greater Berlin was established by incorporating several surrounding cities. These two boroughs were separate, but located adjacent to each other, as well as being forever connected with the Oberbaumbrücke built in 1732.



Figure 10 *Picture of the Oberbaumbrücke, the bridge connecting Friedrichshain and Kreuzberg. (Author)*

Friedrichshain was given this name, which means “Friedrick’s Grove,” because this borough has a large 1840’s planned green park, the Volkspark, or the “People’s Park” to commemorate the coronation of Frederick the Great. Volkspark is an important part of the community, providing a perfect place for leisurely walks, playgrounds for children, or just being amongst its lush tree canopy, ponds, lakes and fountains.<sup>18</sup> Even though Friedrichshain does have the park amenity much of the district was settled in the rapid industrialization of the 19<sup>th</sup> century, led by the growth in manufacturing and crafts.

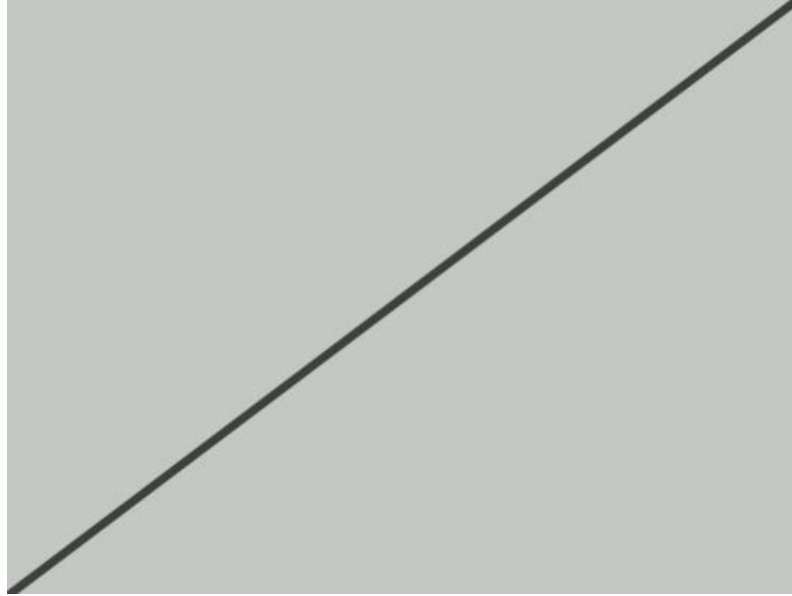


Figure 11 *Frankfurter Allee U-Bahnhof Station was severely damaged during the war.*  
([www.berliner-untergrundbahn.de](http://www.berliner-untergrundbahn.de))

During WWII Friedrichshain was one of the most badly damaged sections of Berlin, as the allies were targeting the industries that were located in the boroughs. When the Berlin Wall was erected it was built along the border of Friedrichshain and Kreuzberg, securely sealing both districts in the East. Even though the East was badly scarred from the war there was a reconstruction project headed up by the Avenue Connection Project. The prestigious project took place between 1949 -61 and took the names Karl-Marx-Allee, and the Frankfurter Allee. This 89 meter wide grand boulevard was built in a style reminiscent of the grand Soviet era avenues.<sup>19</sup> The streets are lined with monumental “wedding cake” style buildings which house high end shopping as well as luxury apartments for the working class. However, more important than that would be the final destination of the street which terminates at Alexanderplatz. Alexanderplatz has

been redeveloped throughout its history transforming from a cattle market into the cultural city center that it is today. It is the home of many notable structures including the Fernsehturm, better known as the TV Tower, which is the second tallest structure in Europe, as well as the World Time Clock which constantly rotates displaying times throughout the globe. But more important is the idea that the square was a cultural gathering place and a gateway to the center of Berlin, a grand gesture for all the visitors from the East to experience and feel the splendor that is Berlin.



Figure 12 *Image of the Reichstag(bottom left) and the Fernsehturm Tower in the distance. It is a landmark visible from most areas of the city. (Author)*



After the Berlin Wall was brought down, Germany started the reunification process throughout the country. Friedrichshain and Kreuzberg once separated by the wall would join together and become a united borough. This area has taken on a reputation as the young, dynamic district, in part due to the low rents and lack of updated apartments. Being a part of the city that has low rent, you will find that most of the people who live in this area today are artist and students, creating a very eclectic atmosphere. Many of these people are looking for a way to create a name for themselves, and creating a sense of place and community<sup>20</sup>.

## Urban Development of Housing in Berlin

Berlin is a city that has developed around not only urban settlement but also the natural landscape. Berlin has had an urban plan since 1862 when the Hobrecht Plan was instituted. At this point in history urban planning was not a science, so the planner Hobrecht took it upon himself to do research on existing cities before he laid out his plan for Berlin.<sup>21</sup> Over a three month period he visited Hamburg to investigate their advanced sewer system, Paris for boulevards, and London for its' squares.

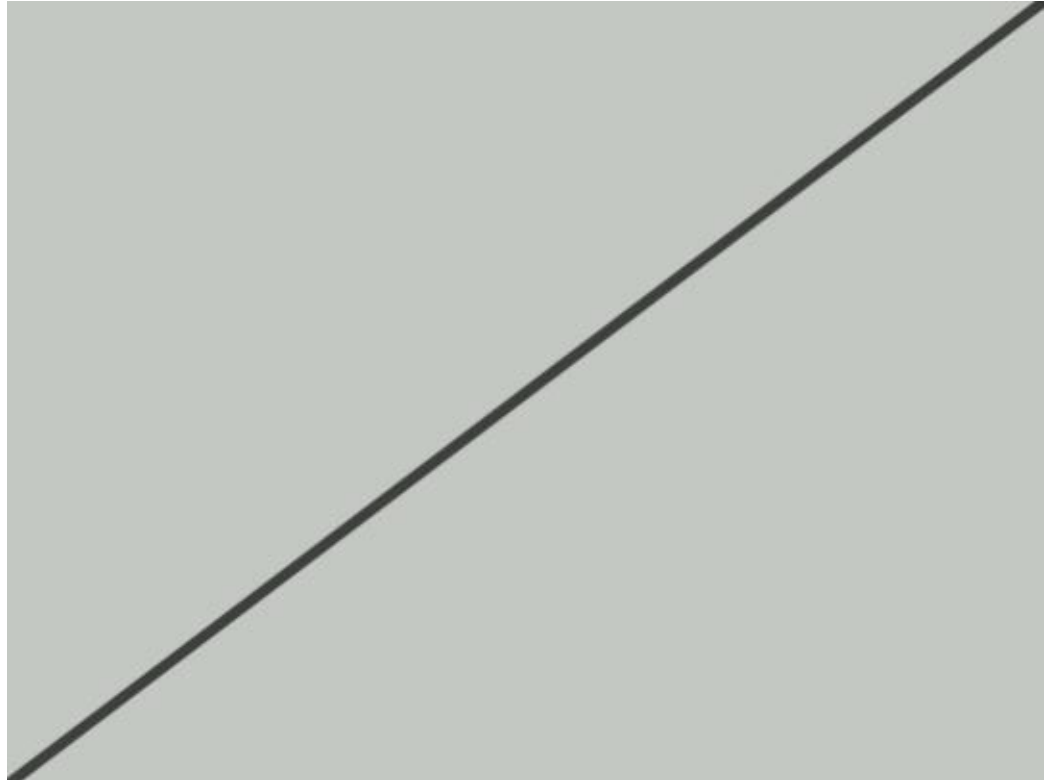


Figure 13 *The Hobrecht Plan 1862 Highlighted by the red overlay. (Bernet "The Hobrecht Plan.")*

Hobrecht's plan was above all developed as a street building plan which was dominated by two themes. The first theme was about the roads themselves. The orbital distribution roads would be laid out so that they created a connection between the main radial roads. However all of this was to be done with as little disruption to existing structures as possible, so that existing buildings, bridges, roads, and other infrastructure would not have to be modified. The second theme was that housing should be created in block forms, paying close attention to the degree of the angles that would be creating corners, always avoiding acute angles because of their poor space making ability.

Although the plan was for organizing building within the city, it made no assumptions about aesthetics or building heights. The Prussian building code determined the street width to height ratios, and the character of the buildings was left to the architects. The plan did not go into details about open space within the city either. Lenne had created a plan for squares and boulevards prior to Hobrecht's plan. It was later applied as an overlay on Hobrecht's plan as a beautification project making Berlin the green city that it is today.<sup>22</sup>

As Berlin developed into an industrial center with increasing work and economic opportunities, the growing need for housing became apparent. This building activity was regulated by the Urban plan as well as building codes which limited the size of the blocks, minimum courtyard sized as well as floor spaces within the buildings. It was out of these rules that Berlin's typical courtyard structure emerged and developed.<sup>23</sup>

Between 1880 and 1918 inside the City Rail Circle, dense closed block developments erupted to help handle the influx in people who needed housing. By 1912 in the greater Berlin area more than 600,000 people were living in apartments and on average each room would be occupied by at least five people.<sup>24</sup> Creating housing this dense was not good for light infiltration and air movement, in to or out of the house. This situation also left hundreds of thousands of children without a place to play. The lack of open space alarmed residents and the planners decided to make a change so that the situation would improve in the future.<sup>25</sup>

The galloping industrial development of Germany in the last decades of the nineteenth century led to a concentration of people in the cities. Upon this fact was founded a growing exploitation of land that led to an endless climb in its cost and an increasingly dense building-up of sites. The number of stories increased; the surface area of courtyards steadily decreased; the rental barracks were born.<sup>26</sup>

After 1918 there were new development laws to correct the mistakes of the past. The density of Berlin was approximately 76 people per building, ten times that of London. To help rectify the situation, construction of wings and rear buildings were forbidden by law. Public housing construction companies also took over the private builder's role for the construction of housing units. This allowed for a more cohesive development for housing and open spaces throughout this time period.<sup>27</sup> As more open spaces were developed with housing it became the standard, and is significant because everyone wanted a house with open space. This was also around the same time of the Garden City Movement which was affecting housing in Germany, as well as England and the Netherlands. The codes were updated to create larger open areas, specifically that a building could

only cover 10 percent of the site, leaving the rest of the site un-built thus guaranteeing a low density. Out of the movement we see the typological development of courtyard buildings, both large and small.<sup>28</sup>

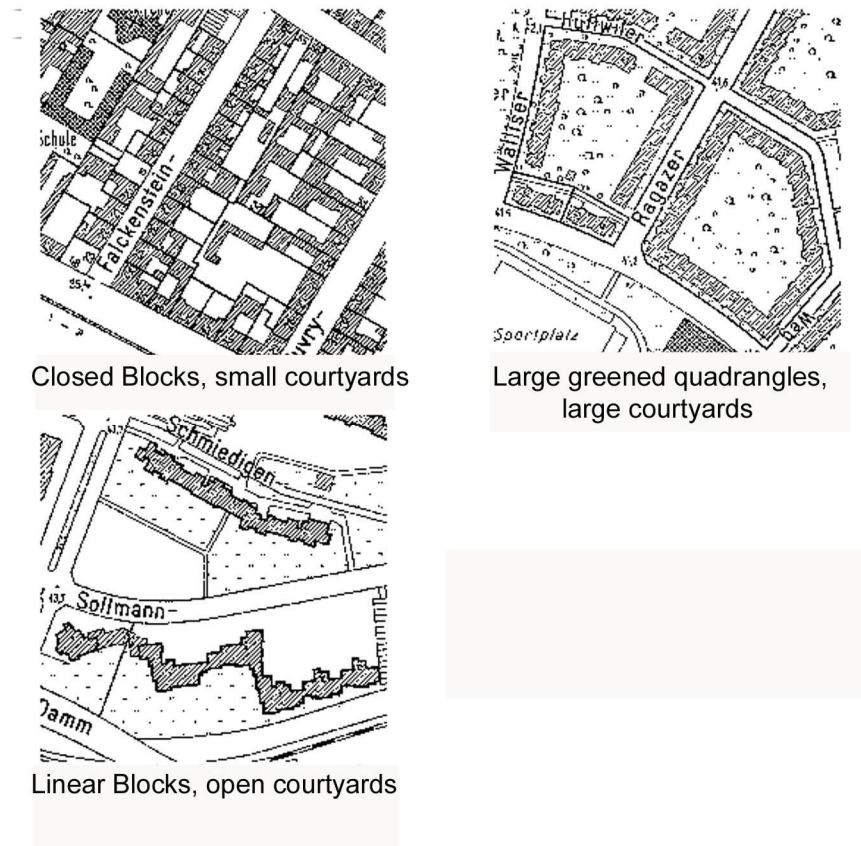


Figure 14 The Diagram above describes the three different housing types and their evolution over the years transforming from tight courtyards- large open full block courtyards, to linear housing favoring more open courtyards. (Author)

The conclusion of World War II left roughly 30 percent of the buildings throughout the city destroyed or damaged beyond repair, with many other buildings damaged. The political division of Berlin in 1948 also changed the urban development of the city. The East and West would grow in very separate ways until joining back together in the 1990's.

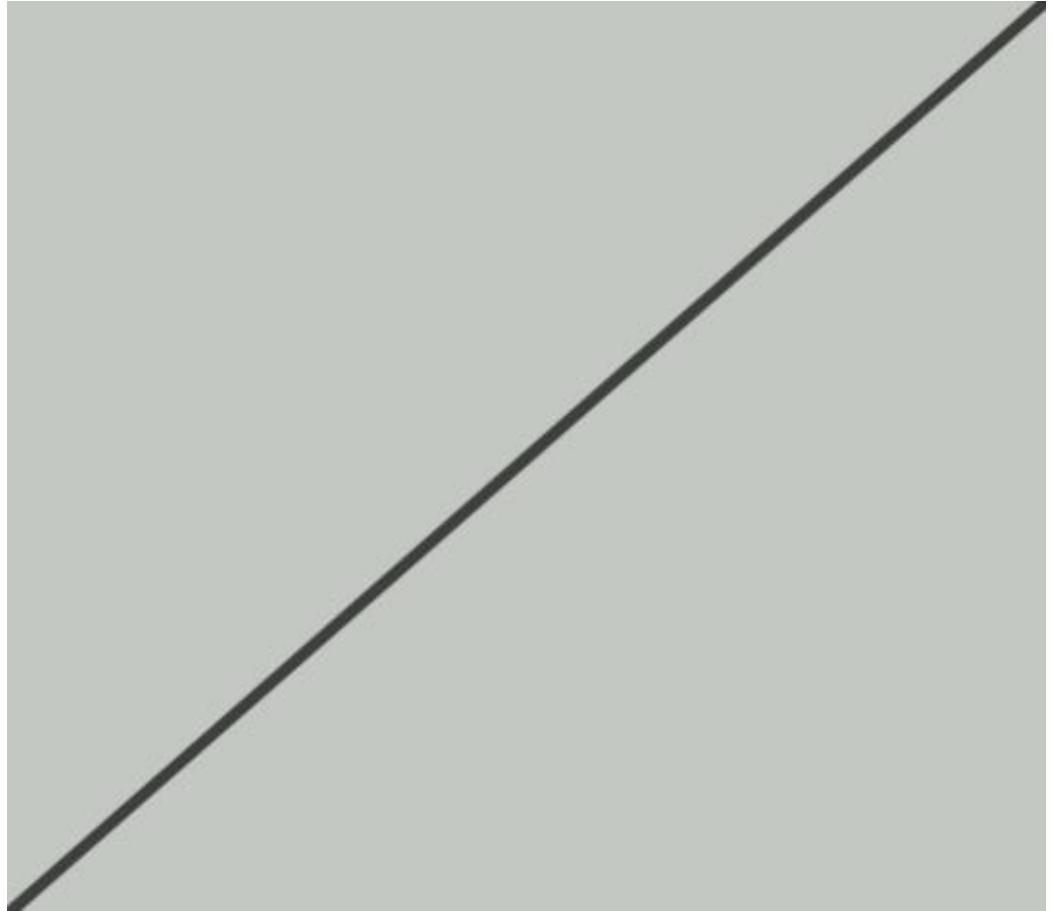


Figure 15 *This map of Berlin in 1945, represents the damaged and destroyed buildings in Blue. It makes it easy to see the complete destruction absorbed by the city during the war. (<http://www.Berlin.de>)*

West Berlin received economic aid as a part of the reconstruction program (Marshall Plan) which allowed for intense redevelopment throughout the fifties and sixties. This was the Berlins chance to recognize that the development of the past may not have gone the way that they wanted it to, so they applied the new development rules to give relief from the overcrowded inner-city development. The seventies were a time when development concentrated on the revival of the inner city, with a strong focus on the preservation of existing structures.

East Berlin received no economic support, and was overwhelmed with reparations. There was virtually no construction in the East until after the Wall was erected in 1961. When building did start, there was a long term plan that was placed on the area: tear down all existing buildings so that the soviet architectural style will be dominant. No living space was added or refurbished, so by the 1970's housing became the primary problem, as there was nowhere for the citizens to live. The housing that the socialists had once threatened to destroy had worked its way back up to acceptable, and worthy of preservation.

After 1989 Berlin was once again united and realized that there was still a shortage in housing throughout the city, so building resumed. Approximately 181,000 apartments were built throughout the fifteen year period following the reunification. This building was seen mostly in reconstruction of damaged buildings as well as additions to existing structures. Prefabrication was starting to make an impact on the building materials being utilized, but the courtyard form was still the dominant design typology that the buildings were following.

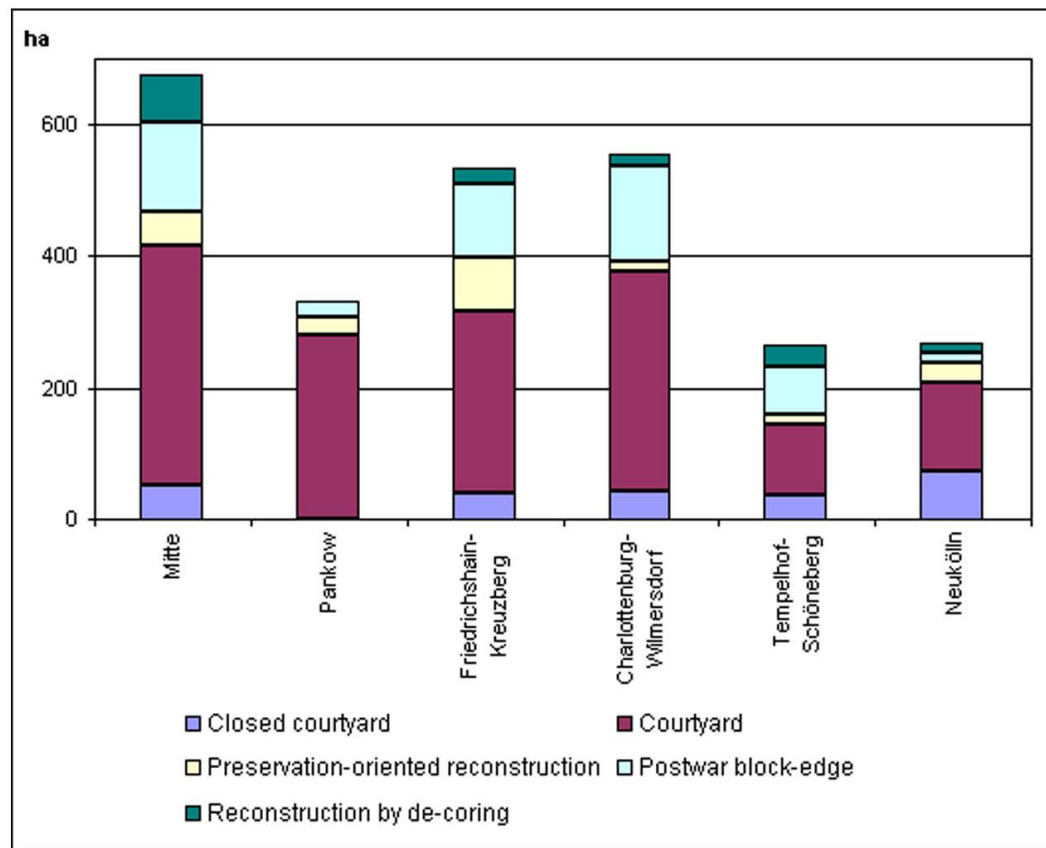


Figure 16 *Diagram of the area distribution of various late 19<sup>th</sup> century building types.*  
 ([www.stadtenwicklung.berlin.de/umwelt/wmweltlas/ede607\\_04.htm](http://www.stadtenwicklung.berlin.de/umwelt/wmweltlas/ede607_04.htm))



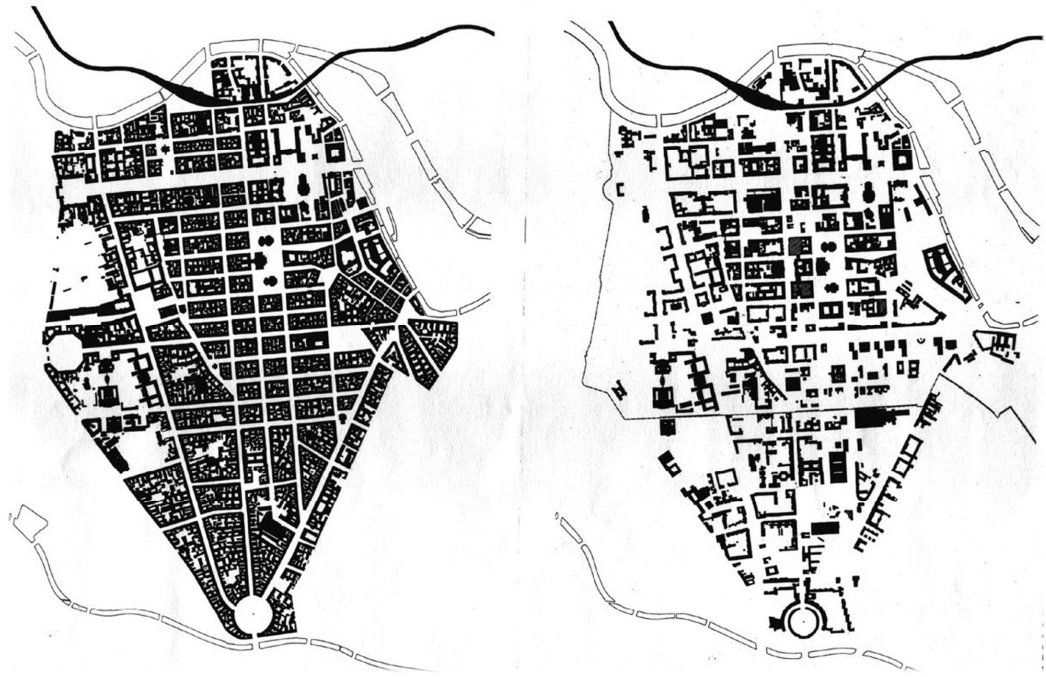


Figure 17 *Diagram representing the urban density changes between 1940 (left image) and 1989 (right image). It is clear that after a large portion of the buildings were destroyed throughout the wars that they were not replaced to their original formats. The city development used the opportunity to let the city be much less dense. (Author)*

The urban environment throughout Berlin is still undergoing changes, and is continuously monitored. Being able to see faults in previous plans has allowed the city to once again return to the more open “greener” feel that it is known for.<sup>29</sup> Courtyard housing, big or small is very important to Berliners, since they cherish the outside environment, and enjoy spending their leisure time within it.<sup>30</sup> The courtyards also provide a place at home for the children to play in, while still under the watchful eye of the building community. Squares, parks, courtyards, even green roadways make living in the city much more enjoyable, and are an important part of the Germany way of life.<sup>31</sup>

“Architecture, of all the arts, is the one which acts the most slowly,  
but the most surely on the soul”  
-Ernest Dimnet

## **Chapter 3**

### **UNDERSTANDING THE CONTEXT**

## Site Description

The site for this thesis is located in East Berlin Germany, on the interior edge of the radial street Petersburger Strasse. The site is specifically positioned next to House 68 on Petersburger Strasse north to the intersecting street known as Strassmann Strasse. Right now, there is half of a housing unit, and a small run down temporary structure that was built after the conclusion of WWII.

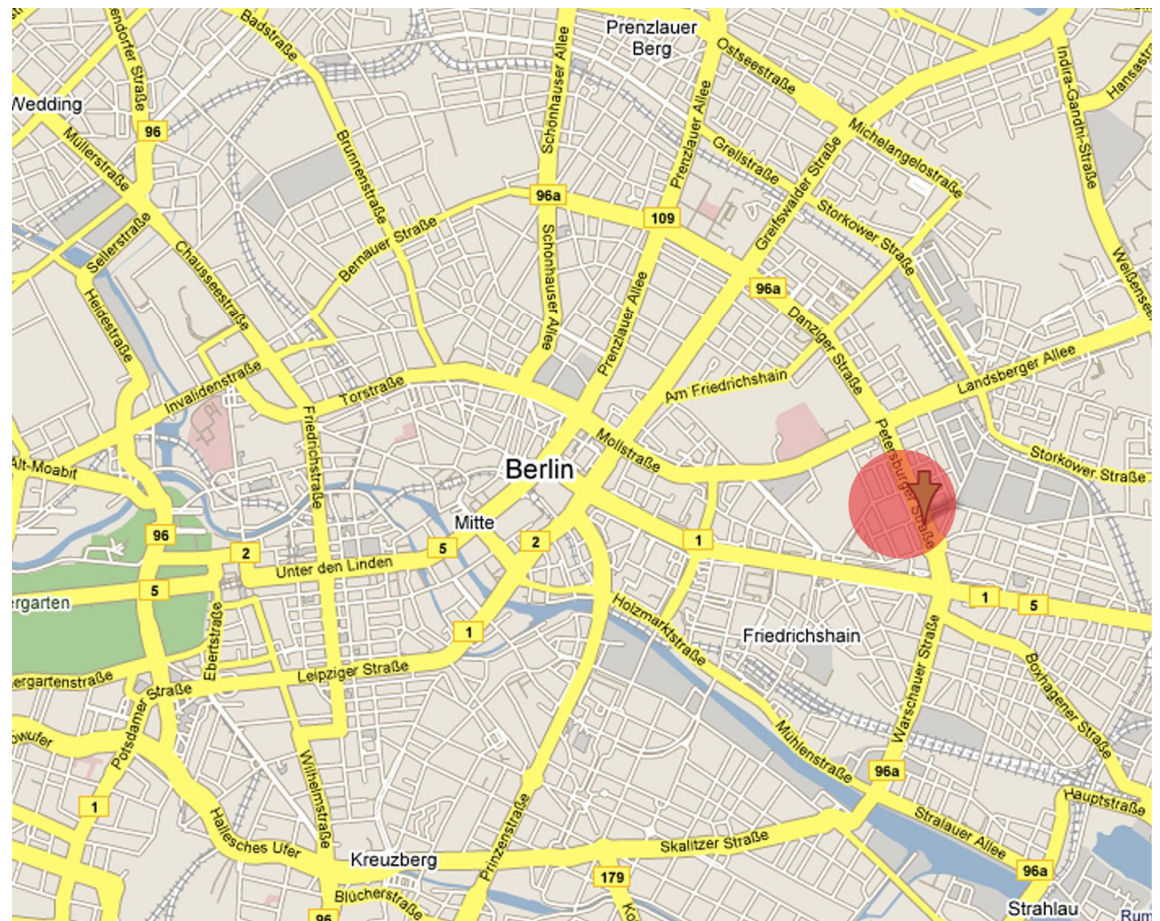


Figure 18 Map of the major streets running through Berlin. The red circle marks the location of the thesis site, which is clearly on one of the city's radial streets. (maps.google.com, edited by Author)



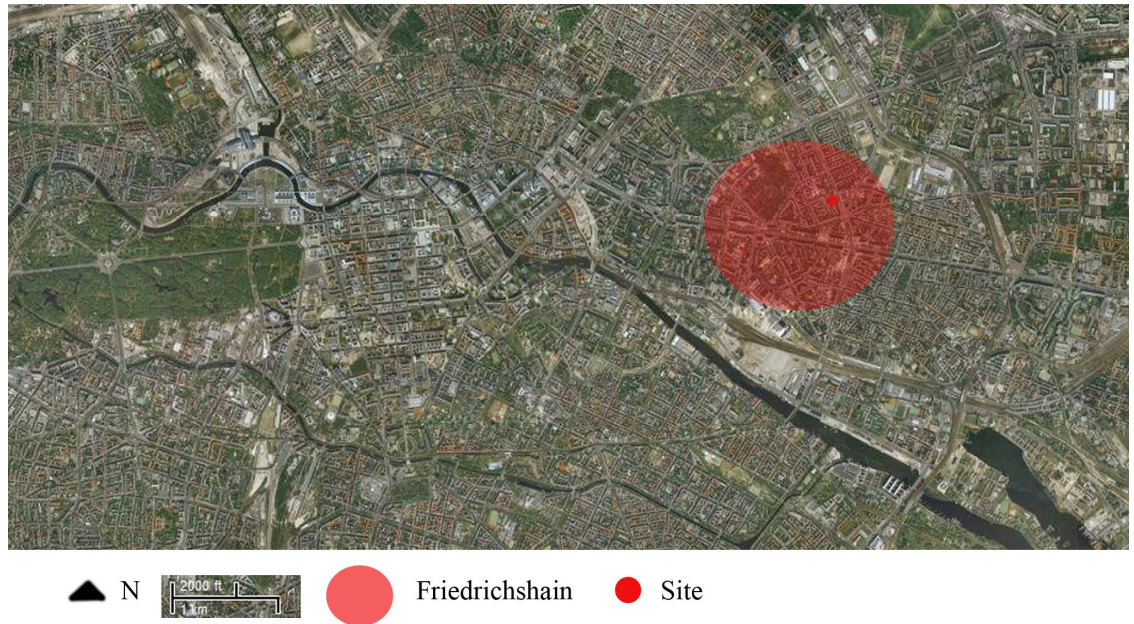


Figure 19 Aerial View of the city of Berlin, marking both Friedrichshain district and the site located within the district. (maps.google.com, edited by Author)



Figure 20 Red circle marks the thesis site. This aerial image also shows portions of the Volkspark, as well as the Friedrichshain Platz to the north of the site. (maps.google.com, Author)





Figure 21 *Aerial image marking the thesis site, as well as showing the characteristic of the buildings in the area. (maps.google.com, edited by Author)*



Figure 22 The yellow square marks the thesis site located at the corner of Petersburger Strasse and Muhsamstrasse. Petersburger Strasse is closer to a boulevard than a typical street having opposing lanes of traffic separated with a park that holds the mass transit street car line. (maps.google.com, edited by Author)

Directly to the north of the site Petersburger Platz a linear green park fills the next block completely. This park was developed in early 1890's along with the courtyard housing that still remains in the community today. This park is important to the building site, because it is one of the remaining active parts of the neighborhood that still draws people of all ages in to experience the greenery.





Figure 23 *Diagram showing the cross axis created by the church (in blue) the streets wrapping around the park and on the corner of the site (in red), as well as the axis and dominance that the new Cultural Art Center could project along the long axis of the park. (Author)*

The park is also home to the Pfingstkirche, which is a church that creates a central axis across the middle of the park's short dimension. Right now the building that is on the site (in Yellow) is an under scaled temporary building, which will be removed and replaced by a housing unit which will be incorporated into the Art Community Center.

Land that is in the city needs to be developed properly, and this piece of land could be better utilized to create life and activities in the community. The development of the Community Art Center will do this. It will also create a dominant axis and relationship with activities in Petersburger Platz, because parks are very important to the German community and the buildings and environment should compliment each other.<sup>32</sup>



Figure 24 *Picture of existing buildings on thesis site, the corner of the site is filled with a one story shop which isn't filling the site with the presence onto the park that it could. The Pfingstkirche steeple can be seen over the tree tops. (Author)*





Figure 25 *Exterior view of the Pfingstkirche in the center of the park. (Author)*

A block and a half to the south of the site, there is also an important street that should be mentioned: Karl Marx Allee. This street is not only important to the Friedrichshain community but to Berlin as a whole because it is a dominant East West connection street and has been since before the war. The Gateway begins at the Frankfurter Tor, which is just below the thesis site, and terminates at Alexanderplatz creating the connection between domestic and monumental.<sup>33</sup>



Figure 26 *View looking south down Petersburger Strasse, standing directly across the street from the thesis site. The Frankfurter Tor towers are visible landmark.*  
(Author)



Figure 27 View looking west down Karl Marx Allee towards Alexanderplatz, where the Tv Tower is located, which is still very visible from the Frankfurter Tor. (Author)



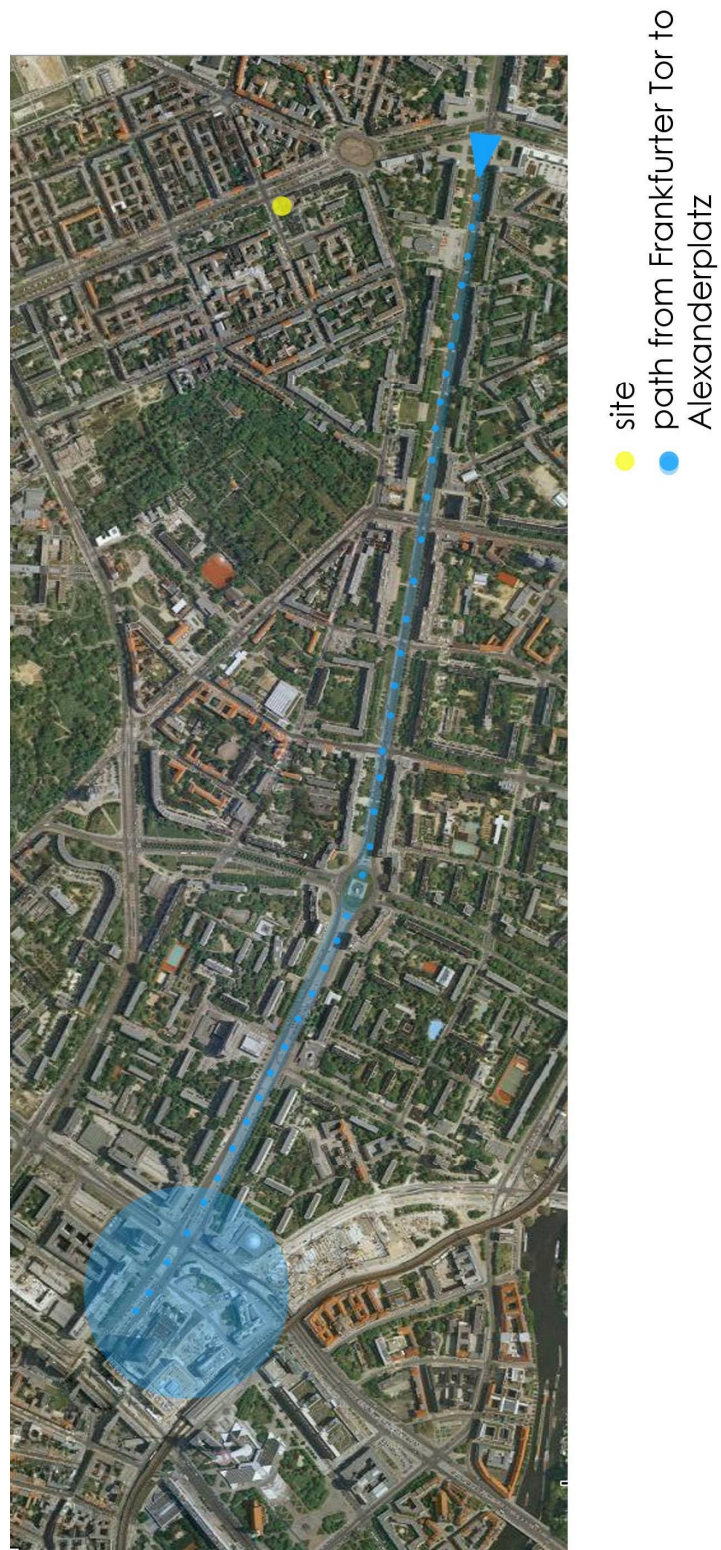


Figure 28 *Diagram marks the path to Alexanderplatz starting at the Frankfurter Tor which is south of the thesis site. (maps.google.com, edited by Author)*

## Site Analysis

The urban fabric of the local site area is defined by the distinctive courtyard building type that is seen many places throughout Europe. This building type was developed as an outcome of overcrowding in the cities. Zoning now stipulates that courtyard development has to follow a strict set of guidelines, and always be present on the site. These rules gave this neighborhood a distinct image that survives today, and should be respected as one of the characteristics of the area<sup>34</sup>.

The height of the typical courtyard building has not been broken either. They range between being a five or six story walkup making the tallest building in the area the church with the spire rising high above the dominant housing forms; however, the houses should not be overlooked because they can provide much more to the neighborhood than just a place to live since every single ground floor is filled with commercial space. Walking up and down the street you can see markets, or a place to purchase a cell phone. If the stores were filled with the right companies, the neighborhood could once again become self sustaining and have life on the streets. Unfortunately this is not happening currently. But through this thesis, an investigation about porosity and incorporating the neighborhood inside and out of the building will be addressed. The ground floor will seek to draw the public into the building with café and gallery breaking the barriers of the façade, and activating street life both in and outside the building. There will also be learning space within the building helping to encourage growth and vibrancy in the community, as well as activities close to home.

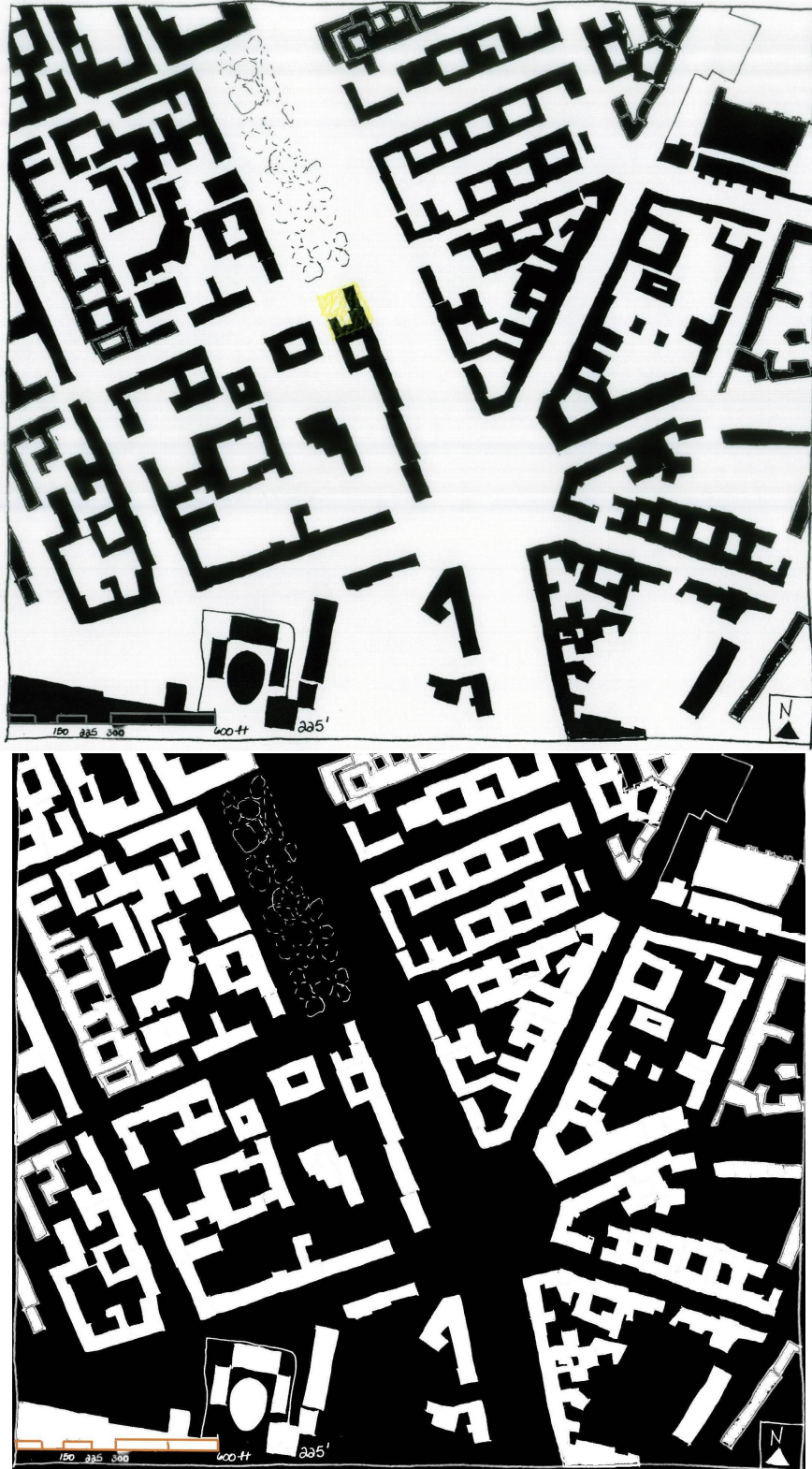


Figure 29 Solid void diagrams showing the historical courtyard buildings as well as the buildings existing now. (Author)





Figure 30 Aerial image showing Frankfurter Tor and the site. They are connected by Petersburger Strasse. The image also speaks to the character of the neighborhood, the older development still has red tile roofs while the newer construction is capped with gray roofs. The site is marked with the yellow box. (local.live.com, edited by Author)

## Site Insertion and Removal

The corner site was once filled with a full courtyard house completing the street edge and forming an appropriate boundary to enclose the park edge.

However, this area was damaged during the war and was not rebuilt to its original form. Half of the courtyard building was destroyed, and the remaining portion of the site was filled with a small building. It is a linear structure that holds the street edge on Petersburger Strasse, although it doesn't turn the corner. The other urban design flaw with this building is that it is only 12 feet tall, an anomaly among the rest of the six story buildings.



Figure 31. *Picture of one story building connected to half of the courtyard building on the corner of Petersburger Strasse. (Author)*



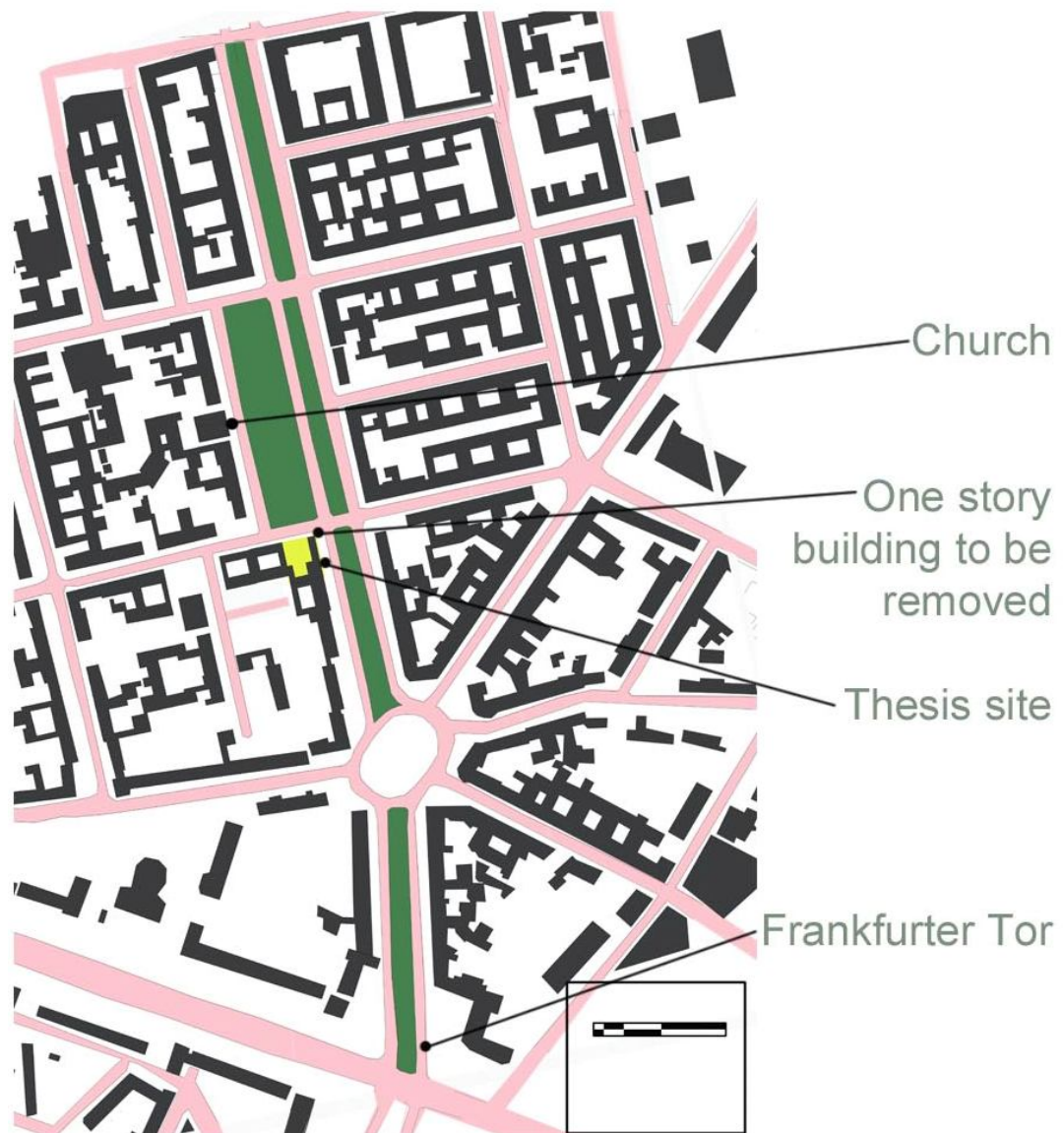


Figure 32 *Image highlighting important areas throughout the thesis site area. Thesis site in yellow. (Author)*



Figure 33 *Picture looking at site from Petersburger Park. The one story roofline is visible and not dominant enough to have an influence on the park. (Author)*

The one story building was built post war, is not filling the site in the most appropriate way, and is not a historic building. This thesis contends that the site could be better utilized if this one story building was removed and replaced by a more appropriately scaled building that helps revitalize the area.

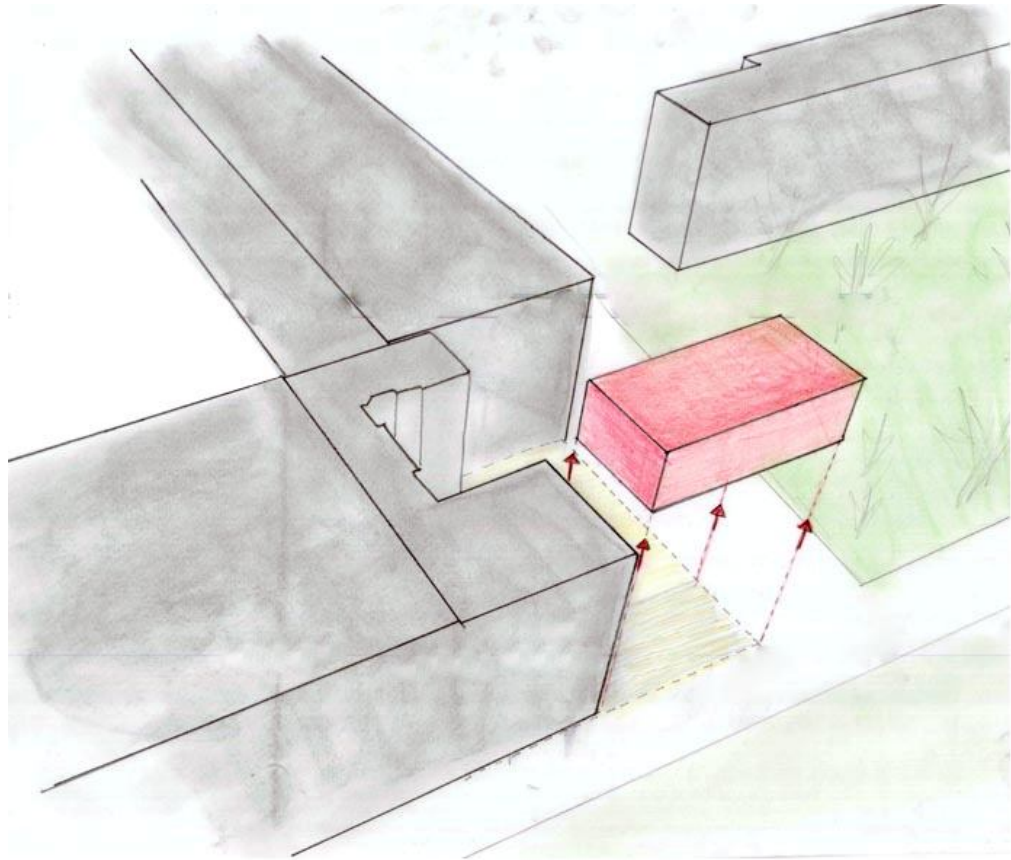


Figure 34 *The one story building will be removed from the site. (Author)*



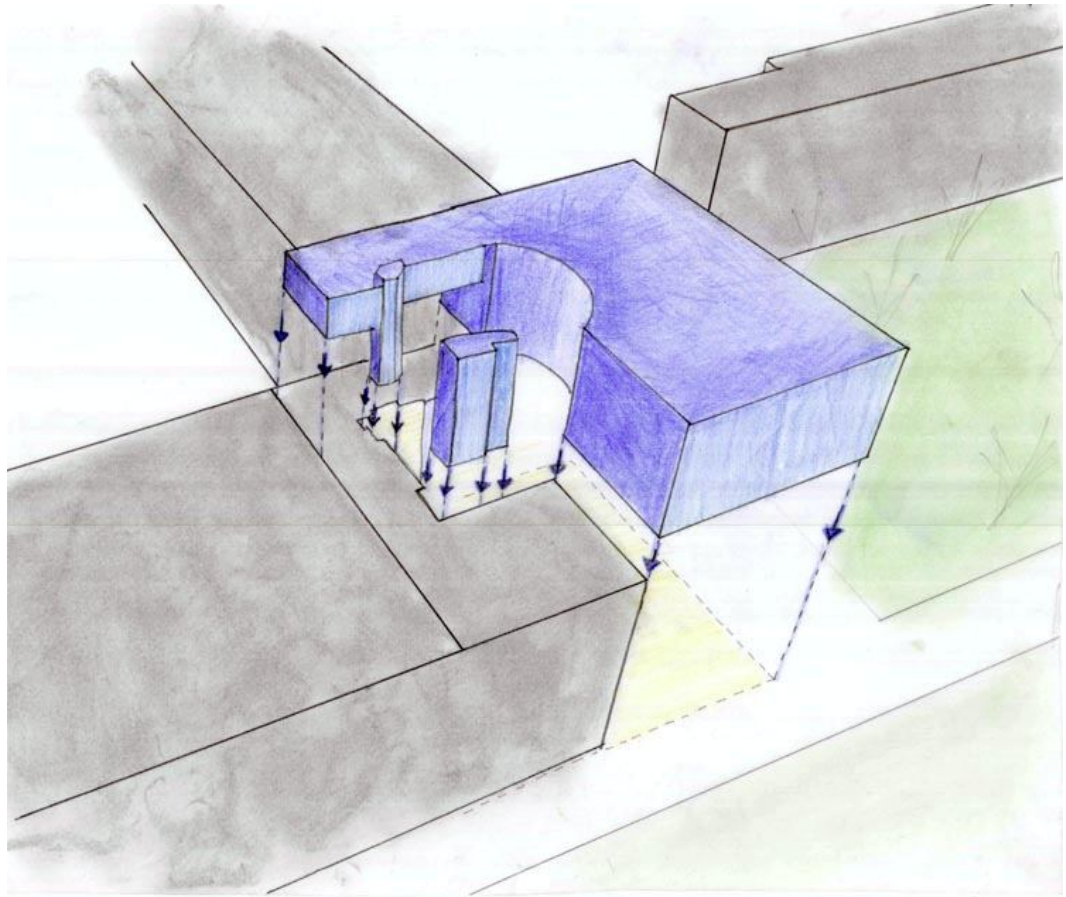


Figure 35 *There will be a n appropriate scaled mass placed onto the site finishing the street wall and facing onto the park. (Author)*

## Street Hierarchy

The thesis site on the corner of Petersburger Strasse and Muhsamstrasse Strasse has a clear street hierarchy that encloses two sides of the site.

Petersburger Strasse is really not a street but rather a grand boulevard with a dimension of 100 feet, not including its adjacent sidewalks. Many of the roadways throughout Berlin, especially the radial streets, were designed to be grand parkways. The intention was always to have the tramline run through the center of the streets, as well as having a lush green park that separated the opposing traffic. Since the upkeep of this boulevard has not been undertaken, the center of the street has transformed into a dusty dirt parking lot; however, the land and the tramline still runs through the middle of the street guaranteeing the potential to once again be a thriving green parkway. Examples of this can be seen on the Unter den Linden, right in Berlin. The street has been modified so that there can be a park right through the center of the street.



Figure 36 *Picture of a Park separating opposing traffic, showing the potential of Petersburger Strasse. (Author)*

The sidewalks on this boulevard are also grand, providing opportunity with the 30 foot width for activities from the ground floor retail to flow outside the building and activate street life. The Streets perpendicular to the radial Petersburger Strasse are clearly secondary streets, and are warped by the bending street as well as the traffic circle. However, even though the grid is warped these secondary streets all have the same characteristics. They are much lower in traffic volume than the boulevards, providing for a much friendlier pedestrian environment. This is helpful since the Petersburger Platz is completely surrounded by roadways.



Figure 37 Diagram showing the street hierarchy, making it very clear that Petersburger Strasse is much wider than the surrounding roads. (Author)

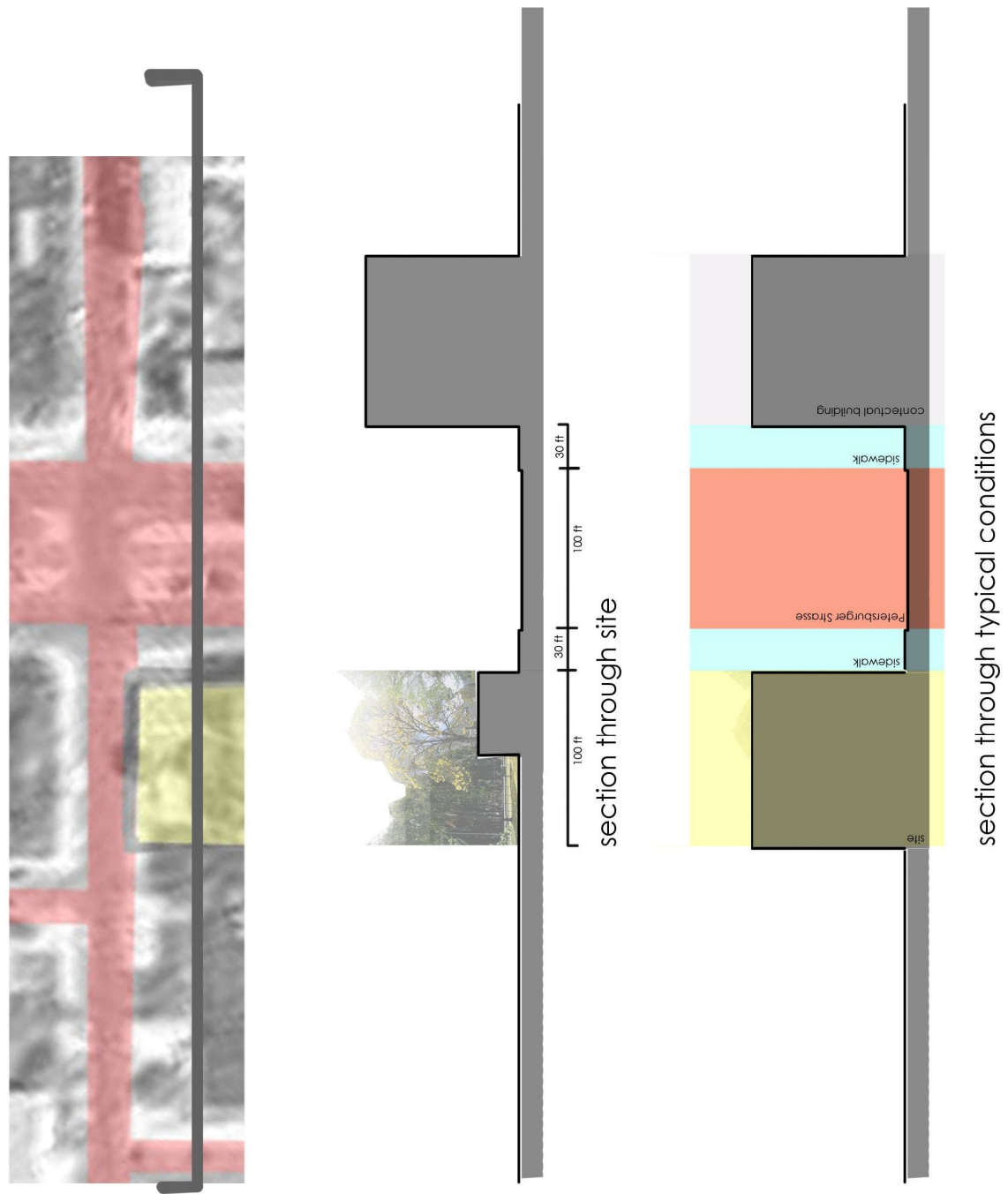


Figure 38 Diagrams of east-west section through site showing the small building that will be replaced, and the typical condition. (Author)



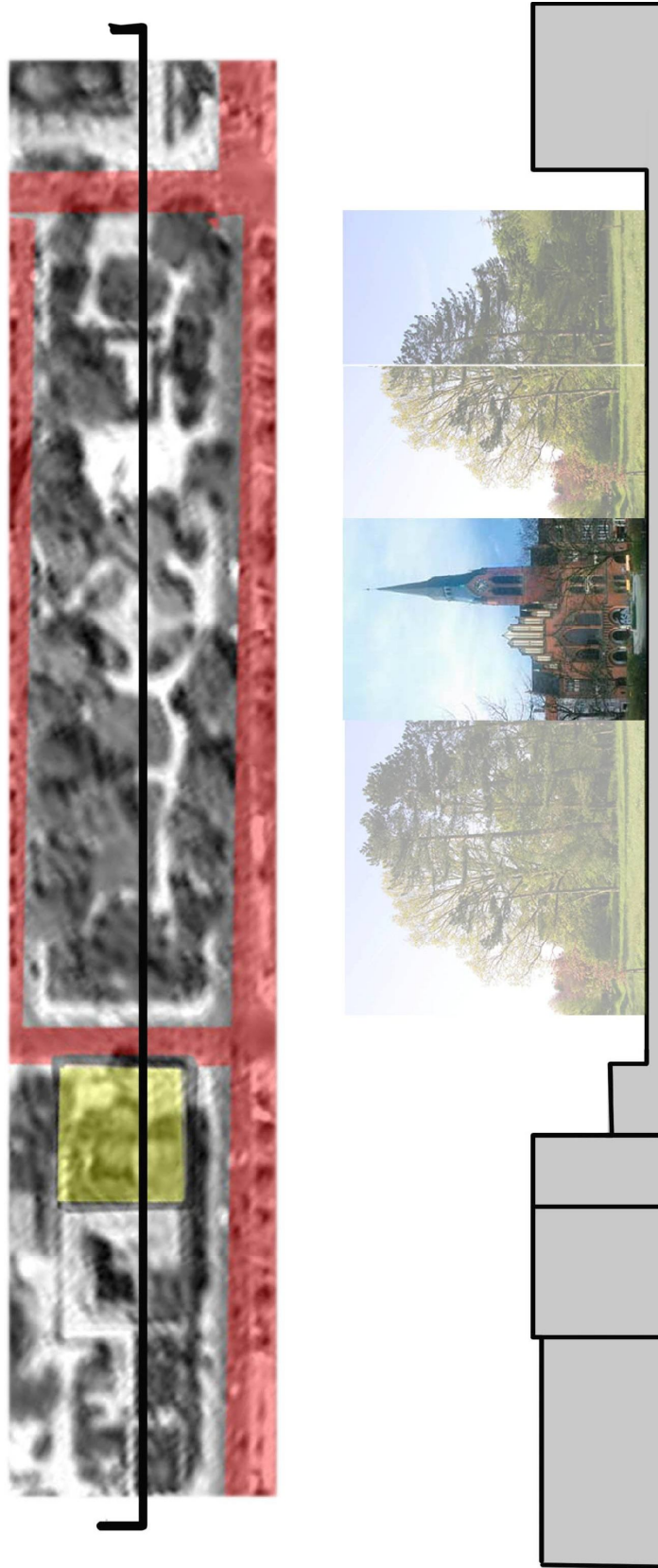


Figure 39 *Diagram of the north-south section through the site and the 600 ft Petersburger Platz to the north, showing the heights of the buildings that enclose the park. (Author)*





Figure 40 View Looking down street towards Church located in the center of the park. This Image represents the typical residential street of the area. Wide sidewalks with parking on the edge of the street. (Author)



Figure 41 View of the Sidewalk on Petersburger Strasse. Retail stores are on the ground level adjacent to the 30ft sidewalk. (Author)

## Local and Regional Access

Berlin as a city has a very good public transportation system. It is run under the system name BVG and is the best way to get around in the city. If you wanted to you could drive, walk or ride a bike, but the mass transit system is efficient and cost effective for traveling throughout the city and suburbs of Berlin. The transportation system is an interconnected three-zone system (ABC) which only requires one ticket, allows you to hop from bus to underground rail (U-Bahn) to surface rail (S-Bahn) and trams with one ticket. Trams are fast, convenient, and abundantly located throughout the city, so you never have to walk far to find one. The transit system even has small ferries which will get you across Berlin's lakes, or up and down the canal if that is where you would like to go.<sup>35</sup>

The site on Petersburger Strasse is directly adjacent to the tram line that runs down the middle of the boulevard the outskirts of zone A. There are two stops within the block allowing choice of tram line steps from the Community Art Center. There is also access to S-Bahn if you are willing to walk roughly fifteen to twenty minutes south by foot. But since the transportation systems are all linked together, it is easy to take the tram to the S-Bahn station, and then you are free to travel anywhere the entire public transportation system can take you.



- site
- roadways
- mass transit- tram stops

Figure 42 *The Site in yellow is adjacent to the tram stops on Petersburger Strasse in purple, or just below the traffic circle the S-Bahn train can also be accessed.*

Needless to say the site is positioned in a location that is universally accessible. The local community members will be able to walk to Community Art Center, adjacent to the park, and other art lovers will be able to take mass transit easily to the building as well. The Community Art Center is close enough



to the transit stops that it could even become a destination point on the tramline, increasing activities and nightlife in the Friedrichshain District.

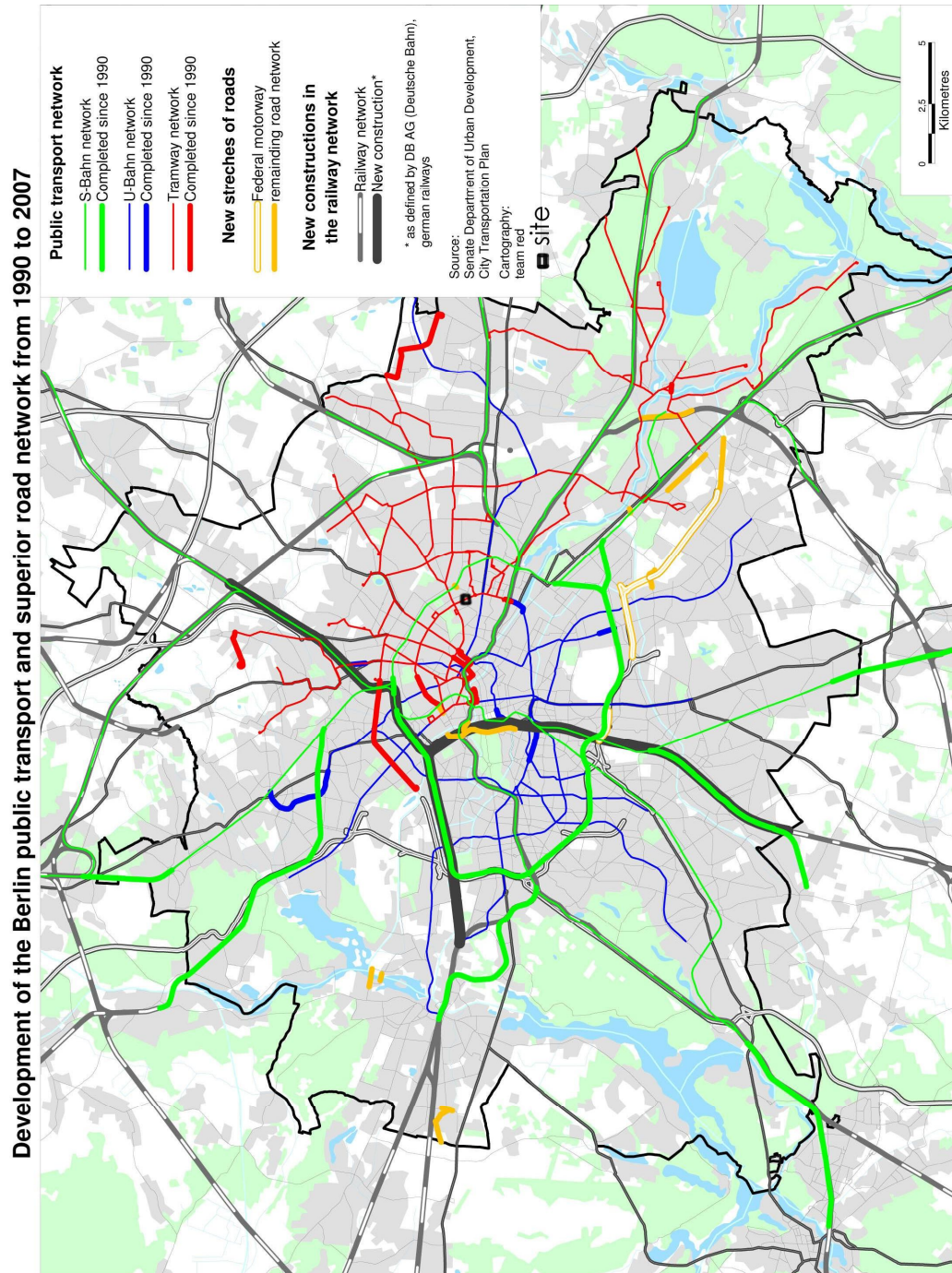


Figure 43 Diagram of the Public transportation system including the developments that have been made up to 2007. (Author)

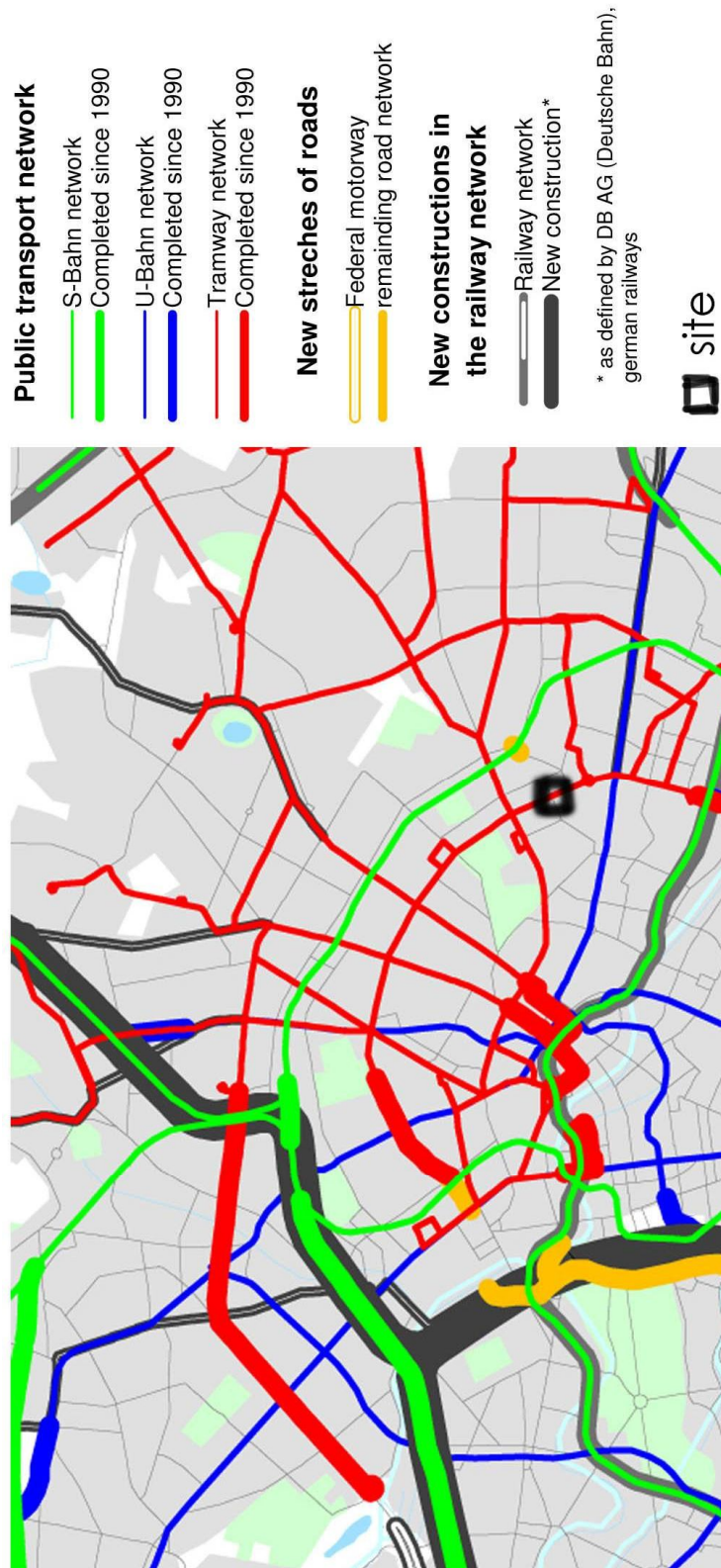


Figure 44 Diagram of the transportation systems in Berlin. The site is marked with the black square showing its connection to the tramline and proximity to the S-Bahn and U-Bahn, keeping the Community Art Center directly connected to the rest of the city and beyond. (Author)





Figure 45 Diagram showing the walking radius from the thesis site. The Frankfurter Tor which is on the edge of a 10 minute walk is where the Train can be accessed. (Author)

## Current Land Uses

The majority of the surrounding land use is residential. There are no schools or community buildings within the local vicinity, and very few restaurants or night clubs. This is a contributing reason why activity level on the streets is so low. However the wide sidewalks seem to be calling out for cafes to have tables and seating on them as well as street fairs and markets, which could tie in with the activities that go on at the urban park and the Community Art Center.

Some of the lack of activity in the area stems from the fact that roughly 65 percent of all of the buildings in the area were damaged or destroyed during the war. The redevelopment in the neighborhood came slowly and has not always been developed in the most appropriate way.



1930's



1940's



1960's



1980's



2008

Figure 46 Figure- ground showing the historical development from 1930 – 1980 and the site of proposed development of this thesis in 2008. The yellow area highlights the thesis area. (Author)



Fortunately today there is a redevelopment plan being utilized in the Friedrichshain district, since it is a prime location within the city. There are parks large and small and it is closely tied into the mass transit system.

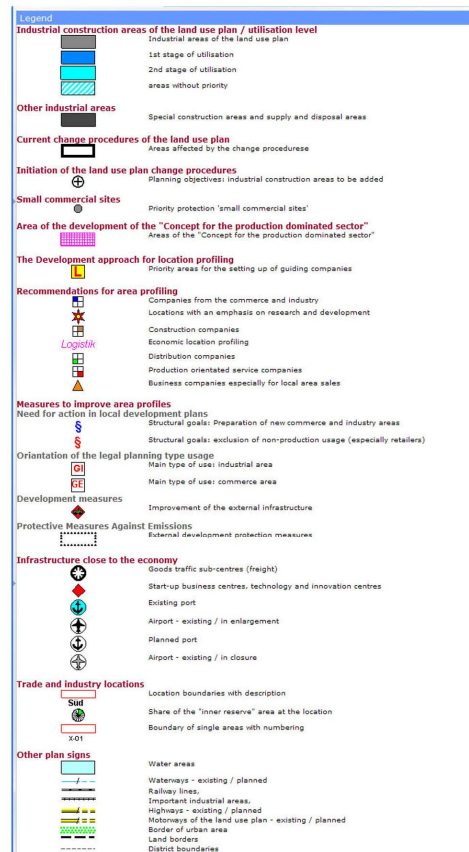
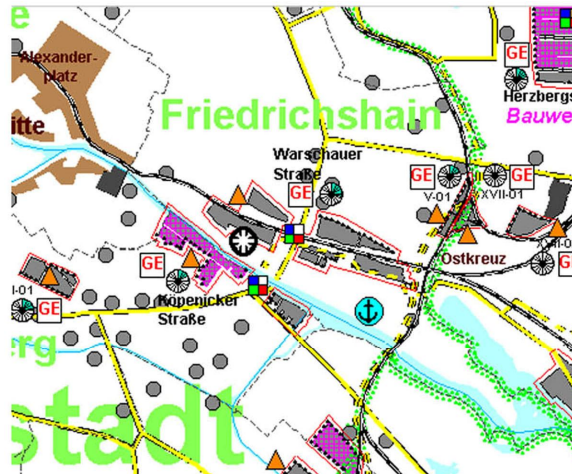


Figure 47 Development plan for Friedrichshain. (Urban Development and & Planning City Regions Berlin.de/planen)





Figure 48 Aerial View of the area showing the significance of the park adjacent to the site, called out with the yellow box as well as the character of the buildings in the area.(Author)





Figure 49 *Picture of House 68 on Petersburger Strasse. The Gray building is the house that will be preserved and connected to the development that will replace the one story building on the right. In the historical context those two buildings would group together to form a courtyard building even though the two halves may be owned by two separate people. (Author)*

Since this thesis is going to include the preservation of a housing unit into the new building it will be important to understand the existing structure and how it works. The residential buildings that are located next to the site follow a specific pattern. There are always two buildings that face each other, and therefore share a courtyard. These courtyards are typically separated by a low

wall or privacy fence, since it is a property line running through the middle of the space.

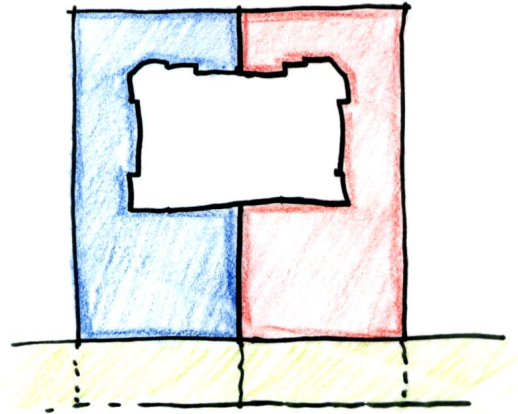


Figure 50 *Diagram of two separate housing units grouping together to form a larger courtyard. (Author)*

As a percentage of land coverage the two residential buildings courtyards are 22-25 percent of the footprint. This is a response to zoning rules which require open space on every lot developed. Specifically in housing developments every room also needs a window, so the majority of the courtyard housing buildings are all core based, there are no hallways. The only place you will even see layouts that are two rooms deep border on the streets, because it is the only property line that is sure to remain undeveloped. So even if the back of the development could have windows, designers refrain from placing them in the building because future development is unpredictable.

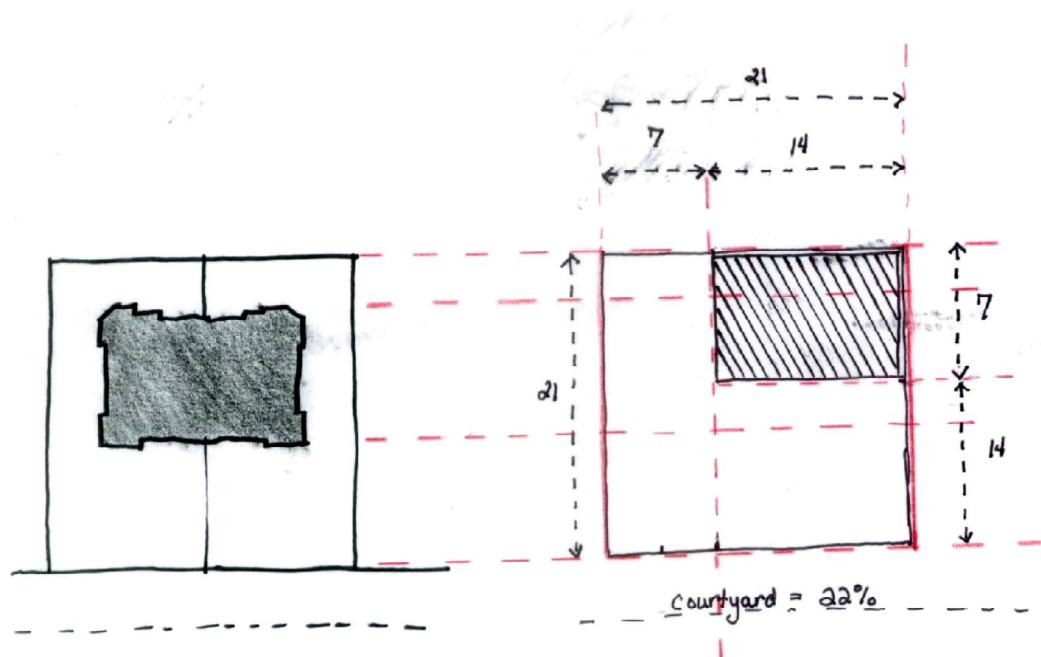


Figure 51 *The courtyard is an important part of the housing units. It is shifted towards the back of the building away from the street edge, since the street allows for two sides of exposure to the light. (street and courtyard) If the courtyard was shifted to the corner of the building it would take a substantial piece out of the massing of the building. (Author)*



Figure 52 *View of an existing housing courtyard on Petersburger Strasse. (Author)*

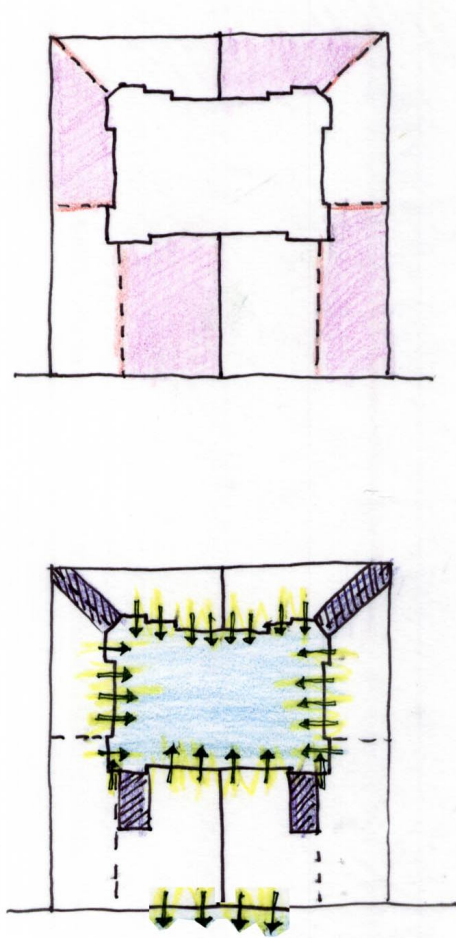


Figure 53 Top diagram shows the different units per floor that make combine together to make up housing square. The bottom diagram shows the stairways with the dark hatch, there are no hallways so the units get to have all of the windows in living spaces.

Since rooms need to have light in them and there are three party walls that are dark, there needed to be a reduction in hallways, so that you could get the most out of the foot-print that you had to work with. In order to get this to work, the courtyard becomes an important part of the circulation for the entire building. There are four flats per building; eight flats would create the entire square. The interesting part is that the back half of the building has to pass through the outdoor courtyard and then up the stair in the back of the building to access their flats.





Figure 54 Diagram showing the four units per floor and their room distribution. The rooms all connect together eliminating wasted space. (Author)





When you look at the layout carefully there is a visible hierarchy in the wall thicknesses. Some are thick brick walls that structurally support the levels above, while others are simply placed to create room enclosures.

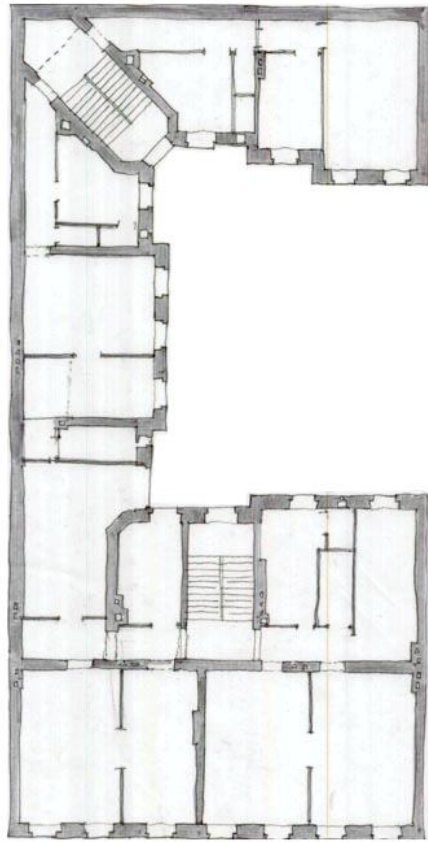


Figure 56. *Drawing specifically looking at wall thicknesses and openings. (Author)*

The load bearing walls then support the beams which carry the flooring above. Since the load bearing walls support the beams the secondary walls would then be able to be removed, thus creating spaces that are larger than small apartment spaces that exist presently. By removing the secondary walls, thus

opening up larger rooms, and then connecting those larger rooms within the separate apartments by puncturing holes in the load bearing walls (where the structure allows) a continuous movement through the entire floor plate starts to develop. Allowing the floor plate to function as a whole rather than in fragmented pieces will allow for the reprogramming of the spaces to occur without disturbing the original structural design.

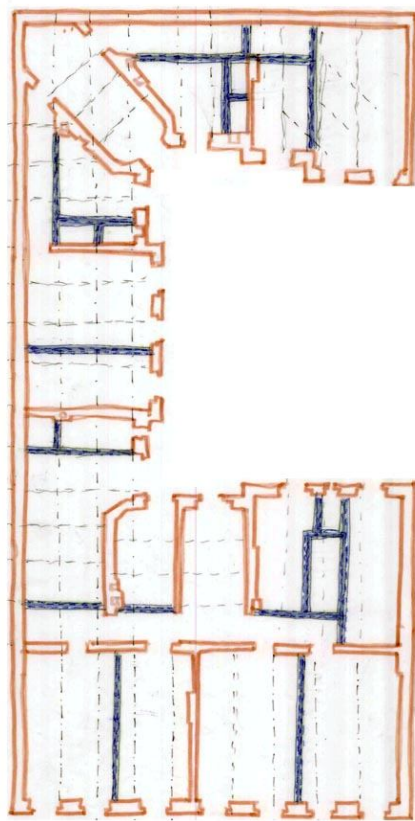


Figure 57 *The walls highlighted in blue are the secondary walls which will be removed to make larger spaces in between only the load bearing walls. (Author)*

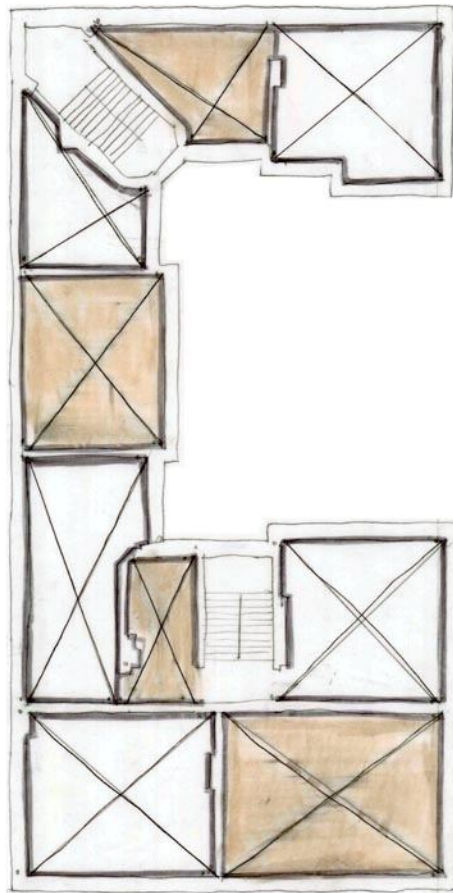


Figure 58 *Diagram showing the spaces left when the secondary wall system is removed. (Author)*

This residential form also had standard massing that it followed. The floor to floor height is twelve feet throughout the building, even the ground floor residential. There was also typically a basement level which stored the small amount of mechanical equipment that the housing had, as well as providing a storage place within the building.

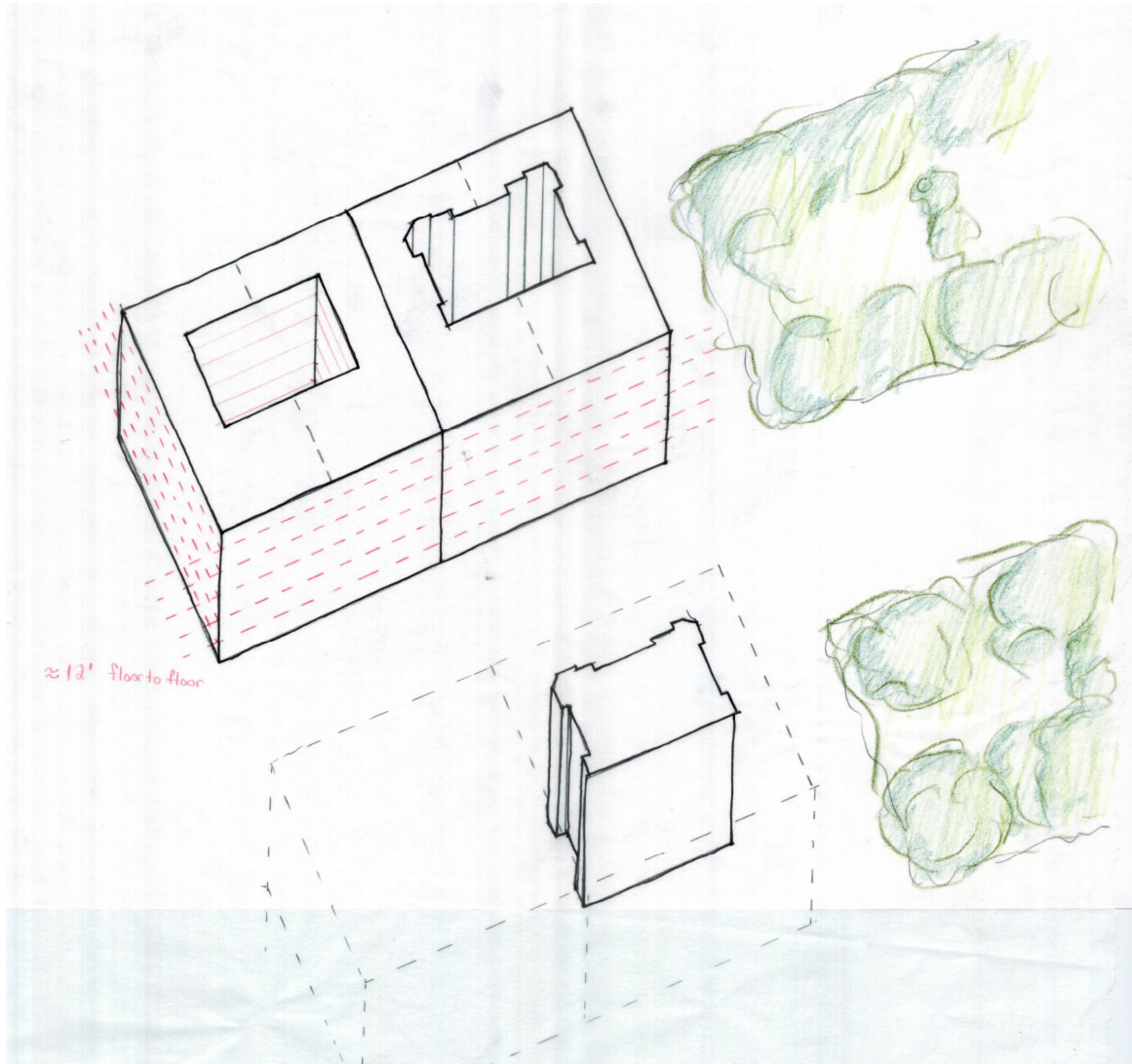


Figure 59 *Massing of the courtyard takes a distinct shape, each of the floor heights are the same and the courtyard runs the entire height of the building, ground to roof. (Author)*



## Green Spaces



- site
- roadways
- mass transit- tram stops
- Petersburgh Platz

Figure 60 *The Park is directly to the north of the site (yellow) and is an important part of the neighborhood sponsoring outdoor activities throughout the year. (Author)*



Figure 61 *Street sign marking the corner of the park. (Author)*

The linear Petersburger Platz is an important part of the community. German recreation habitually incorporates being outside and in the natural greenery, and this park has developed and grown with the neighborhood so that it can accommodate the neighborhoods' needs. The park was registered as an urban green space on August 4<sup>th</sup> 1897, and has stayed an important part of the community ever since.





Figure 62 *Southern most portion of the park has large open spaces perfect for outdoor games.*  
(Author)

The Park has been used by all the people in the community and has naturally divided itself into three very distinct sections, highlighting the different needs of the entire community. In the lowest southernmost third there are the majority of the flat green spaces, and this is where the younger entrepreneurs tend to migrate. There is usually a game of bocce, lawn polo, or picnicking in the grass. The middle third is the area where the older crowd finds comfort. There is a water sculpture on axis with the church, and lots of benches where people can sit and read, or enjoy just being outside. On the northern most section of the park, you will see the youngest group of people. There is a children's' park, where young families can come to enjoy the community play equipment.





Figure 63 *The fountain in the center of the park, since it is early Spring in this photograph the winter storage house has not yet been removed. (Author)*



Figure 64. *Looking North towards children's play area in the park. (Author)*





Figure 65 *The Northern section of the park is set up as a permanent play are for children.  
(Author).*

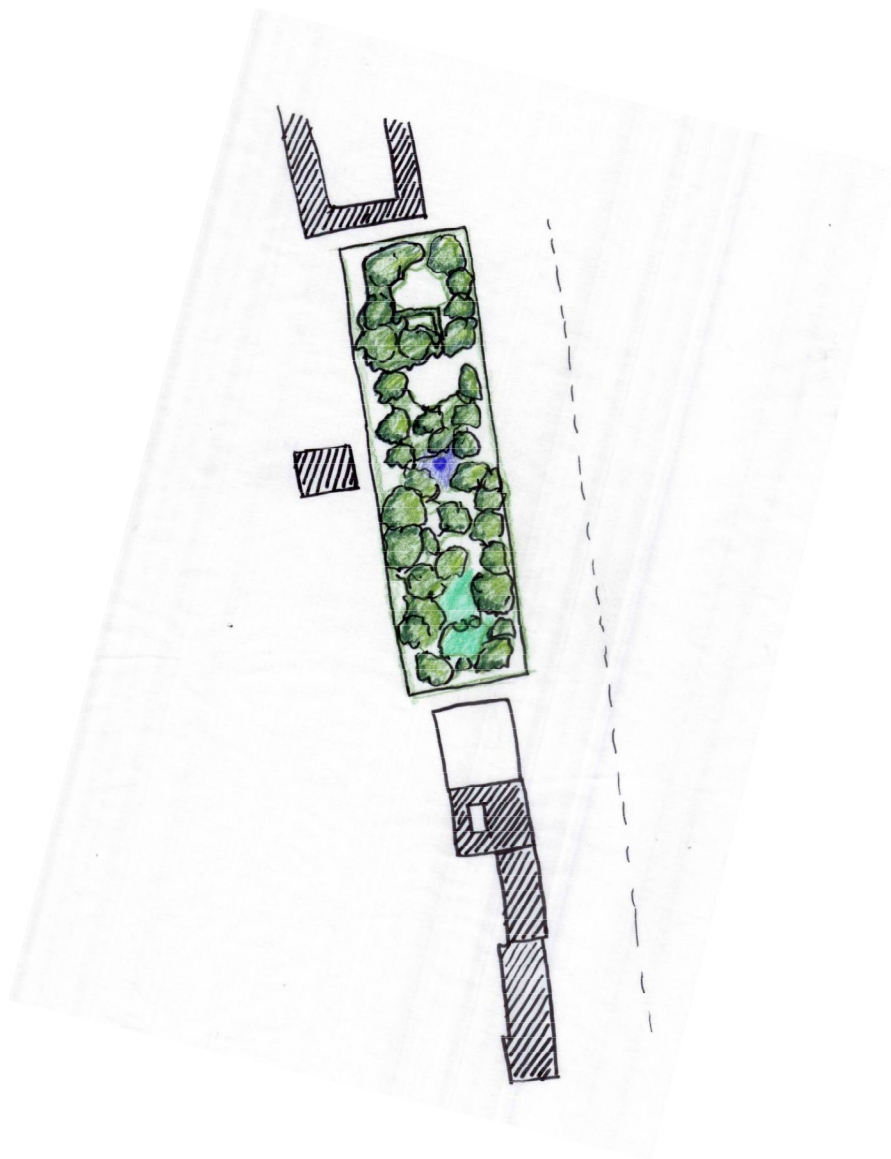


Figure 66 *The park has a fountain in the center creating a tranquil water sculpture directly in front of the church. (Author)*

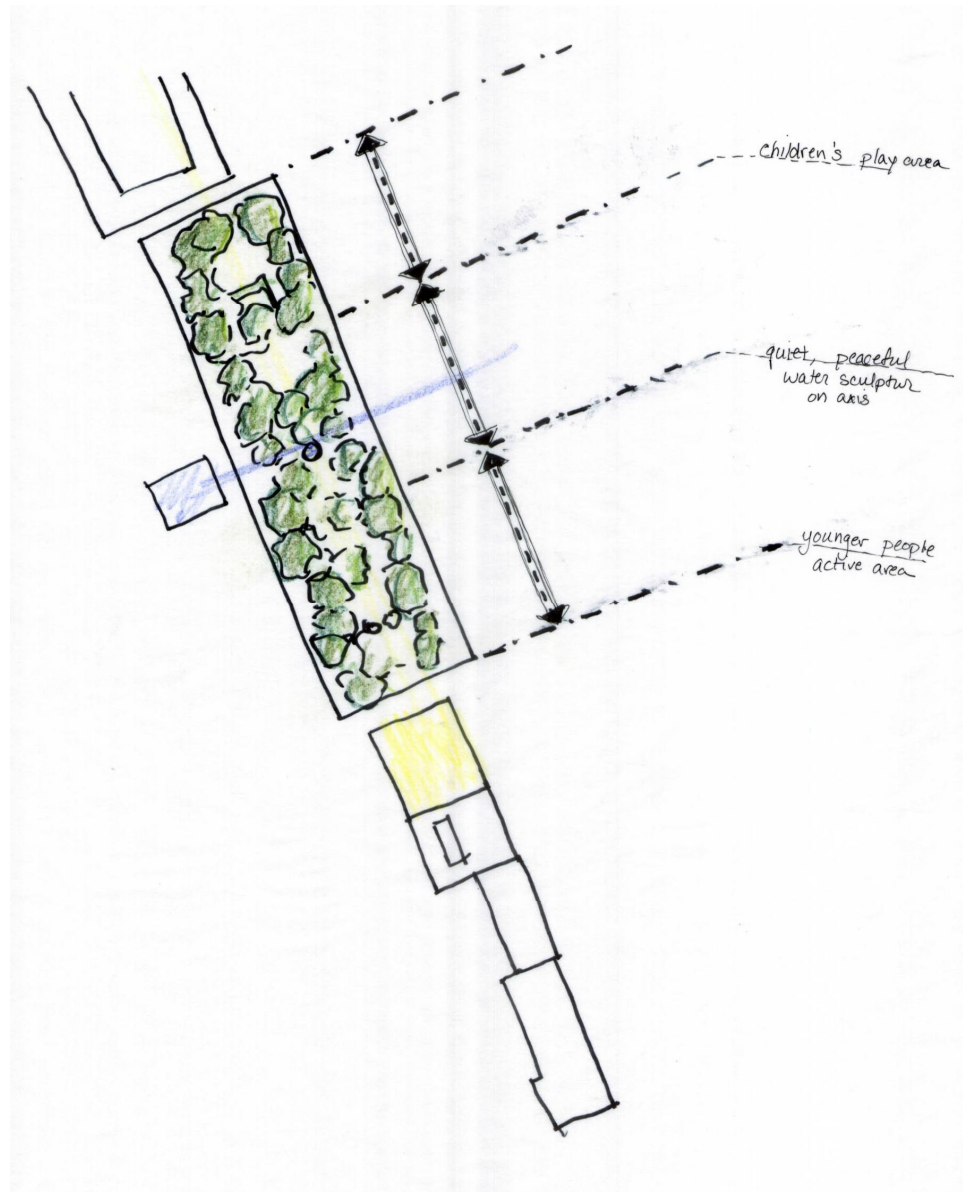


Figure 67 *The Park has three distinct areas which break down into thirds. The Northern most portion is used as a children's play area with built in equipment. The middle section is quiet area with benches and a water sculpture, while the lowest portion is where the younger crowd gravitates for more active movement and games. (Author)*

Looking at the park it may seem like there is a lot of activity going on in such a small place, but the looks can be very deceiving. The Petersburger Platz is actually larger than Piazza Navona in Rome, which can feel like an extremely large space when it is filled with painters, artists, cafes, as well as hundreds of people.



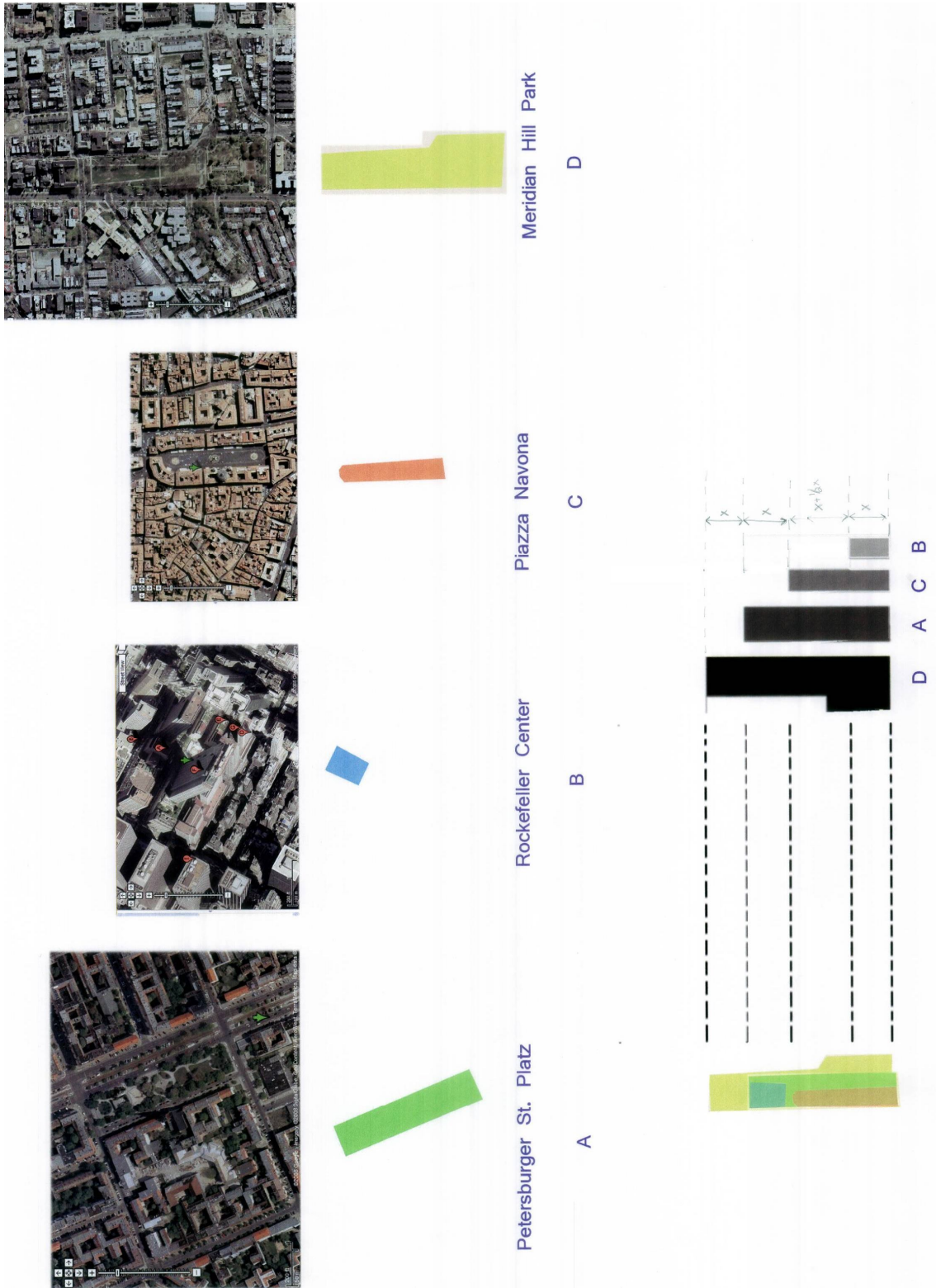
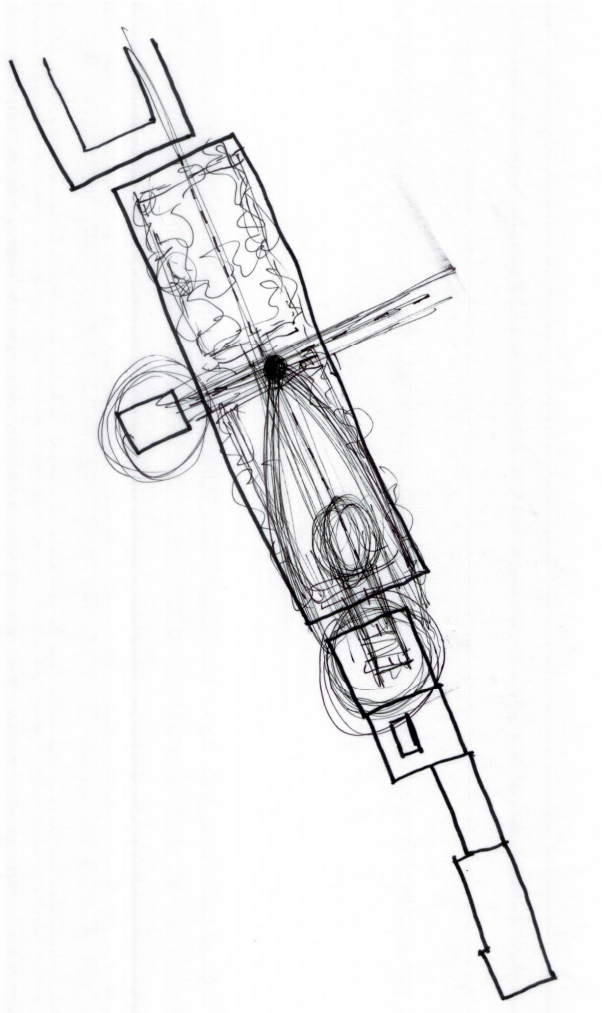


Figure 68 Comparative study of public spaces to help understand the scale of Petersburger Platz.(aerial images from maps.google.com, edited by Author)



By adding the Community Art Center the green space may need to be readjusted. There will be influences and activities from the new building flowing onto the site, and changing the activities that occur on it, perhaps even as far into the park as the center fountain. Since the young art entrepreneurs tend to use the southern end of the park the Community Art Center feels like a natural fit. Possibly there will need to be a larger scale feature in the park to help coordinate the dominant new axis that will be crossing the park.

Figure 69. *The Community art Center will have a strong connection to the park and will create*



*a new anchor at the head of the park competing with the Church for axial dominance.*  
(Author)

“The long path from material through function to creative work has only one goal: to create order out of the desperate confusion of our time. We must have order, allocating to each thing its proper place and giving to each thing is due according to its nature”

-Mies van der Rohe

## **Chapter 4**

### **PRECEDENTS**

## **Precedents:**

### **Spirit of Building-** Torpedo Factory Art Center

The city of Alexandria purchased The Torpedo Factory in 1969 and converted it into an art center. The building was used as a storage unit after the war when there was no longer a demand to manufacture torpedoes.<sup>36</sup> Redesigning the open interior of the plant has proven to be optimal space for the art center to grow and develop into.

Within the building there are:

84 working studios      8 group studios

6 main galleries      classrooms for teaching and community outreach centers

The art center has studios for 165 artists including painting, pottery, photography, jewelry, stained glass, printmaking, and sculpture. There is constant interaction between the artists and the community, making it a learning experience for everyone that spends time at the Torpedo Factory. All of this resides in one building that is three stories tall. An open atrium on the lower two floors allows visitors to see all of the activity that is going on throughout these two floors. The third floor is completely enclosed, providing more privacy for the artists that are located at the top.



Figure 70 Interior atrium inside the Torpedo Factory. (Author)

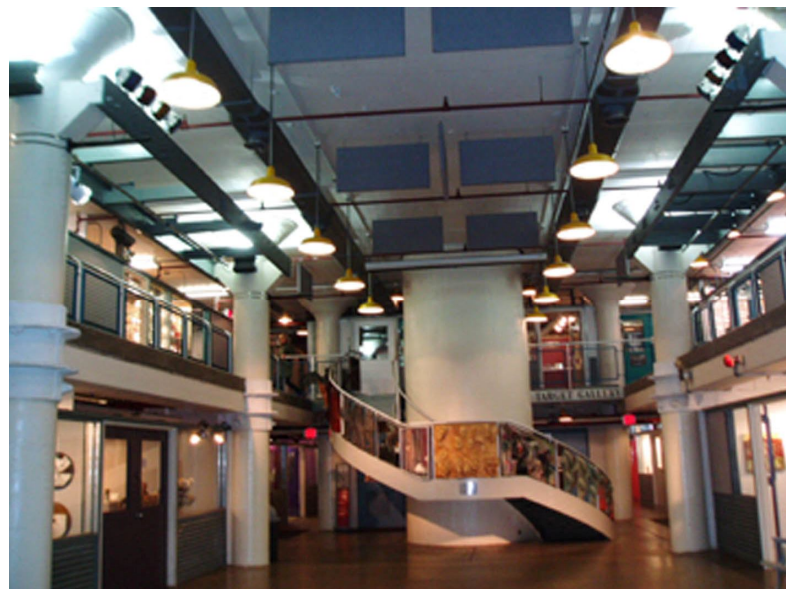


Figure 71 The stair floats in the atrium, while a balcony wraps around the atrium allowing for the movement between the artists work spaces. (Author)

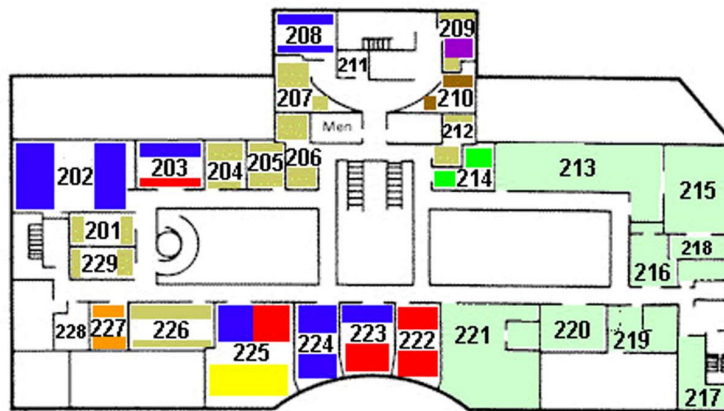
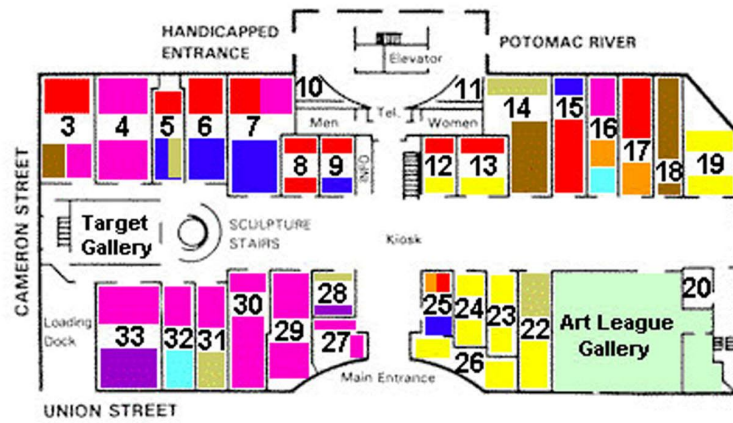


Figure 72 The plan of the three levels of the torpedo factory shows the atrium on the first two floors, and becoming denser on the top floor. (Author)



*Figure 73 The exterior of the Torpedo Factory on the waterfront acts as landmark and distinctive area for people to visit. (Author)*

## Conclusions and Lessons

Although The Torpedo Factory is not the same program as the Community Art Center that is being developed with this thesis, it was important to look at to see and feel the spirit of the building. The Torpedo Factory has become a tourist destination in Alexandria, for artists to come to events as well as people in the community coming to see and participate in the action of producing artwork. It is an experience that draws people of all ages in, is succeeding, and will continue to into the future. The Torpedo Factory Art Center is a working experience of how the arts can revitalize a community and serves as a prototype for visual arts facilities throughout the world.



## Character of Context- Carre d'Art

The Carre d'Art in the ancient city of Nîmes introduced a modern building into the classical setting. The development of the project took careful consideration since it was going to be built steps from one of the best surviving Roman building, Maison Carree.<sup>37</sup> The building raises the galleries and café up to the top levels of the building, while burying the cinema, auditorium and storage underground so that the building did not rise too far above the ground staying within the context of the surrounding buildings.

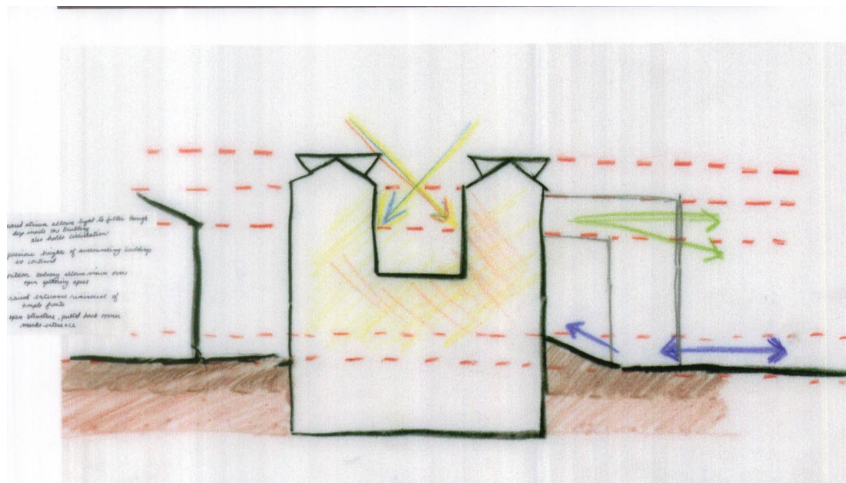
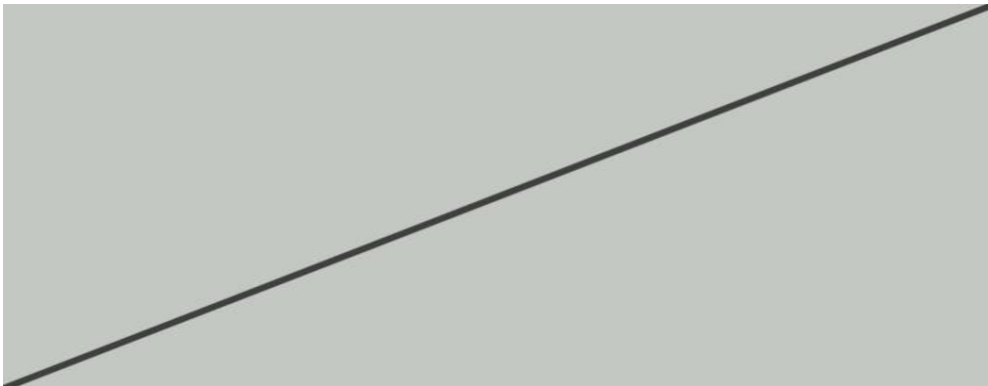


Figure 74 *Picture of the covered terrace in the Carre d' Art.*<sup>38</sup>

**Figure 75** *Diagram showing the infiltration of light into the atrium, the refocusing of the views back onto the plaza, as well as the raised entrance capturing the movement from the plaza. (Author)*

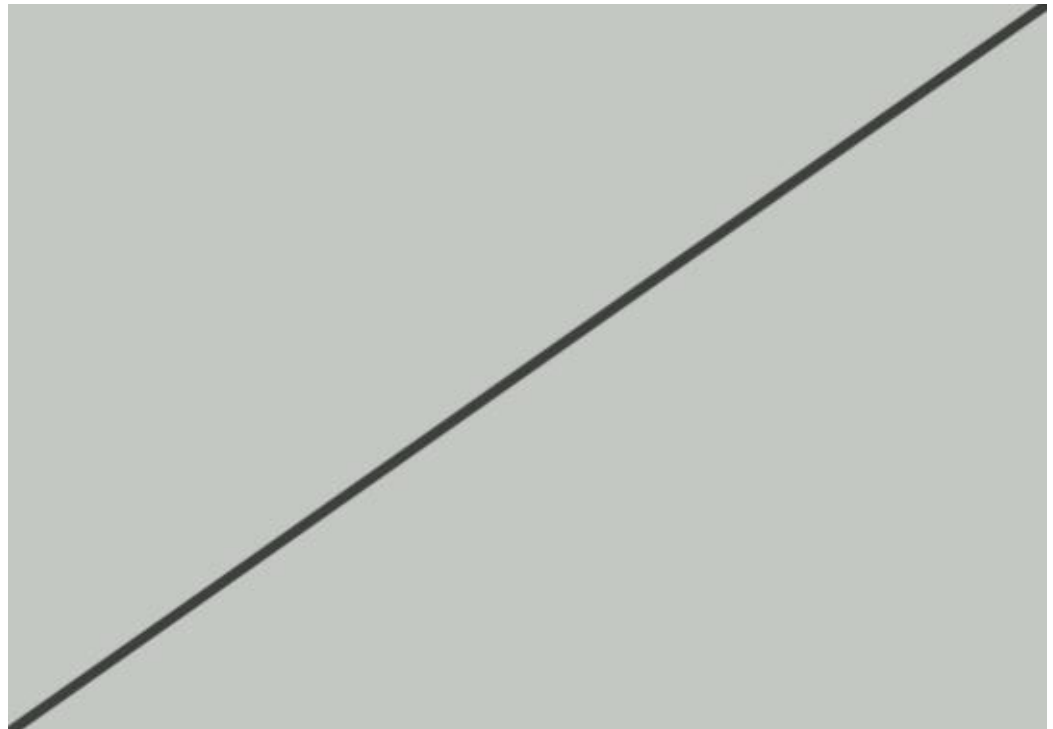
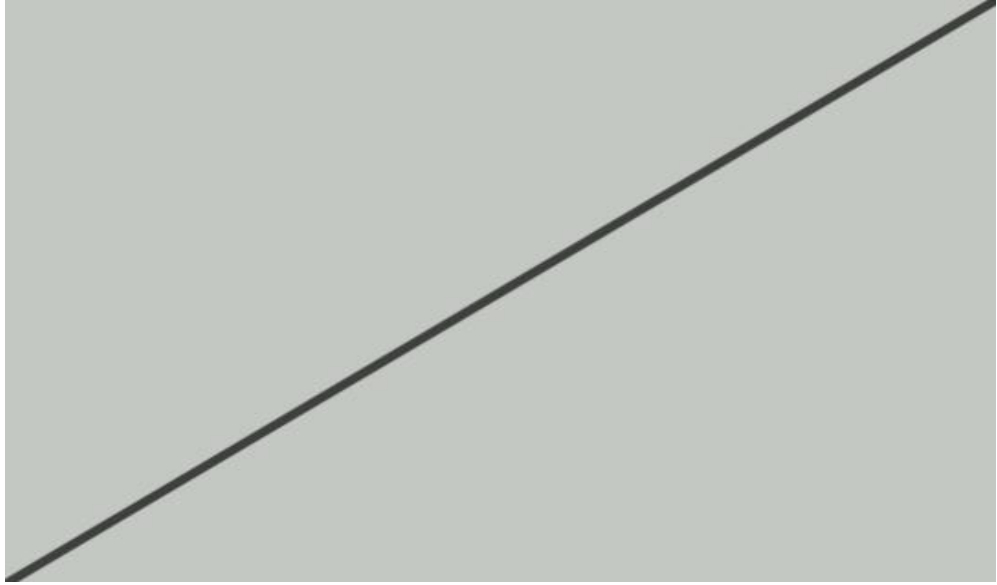


Figure 76 *Exterior View with surrounding context*<sup>39</sup>.

Figure 77 *Exterior view of pulled back entrance on the plaza side of the Art Center.*<sup>40</sup>

## Conclusions and Lessons

This building is also very relevant to study before the development of the Community Art Center occurs, not only because of its response to the context that it is placed into, but also because of how it handled the circulation of the building within the five story atrium<sup>41</sup>. Since courtyards are very relevant to the site in Germany, it is interesting to see that large spaces can be accommodated within a modified courtyard building.

Another lesson to take away from this Norman Foster project is how the entrance to the building is addressed. It is pulled back away from the face of the building, creating an indentation that captures the movement from the plaza, almost pulling people into the Art center. This is also accentuated by the covered terrace roofline. Having a covered outdoor space is important so that people can use the outside even when the weather is less than perfect. The outdoor space also refocuses views back to the outside. This is extremely important to develop for a connection to the park. The distributions of the galleries on the upper floors also is an important lesson since the ground floor of the thesis will be developed as retail space and not leave room for the galleries on that level.

## Urban Connection- Alcoy Community Hall

Calatrava's Community Hall in Alcoy, Alicante uses his structure to knit the community together. To maintain the purity of the site that the building is being integrated into Calatrava uses the pure structure of the building to avoid a contextual conflict by burring itself below the ground.

The only portion of the building that is visible from the plaza is the entrance canopy. It is a movable structure that can fold and unfold depending on how perceptible it needs to be. This was important to the thesis research because of the strong connection that the Community Art Center is going to have with the park which is across a street. Considerations about taking the building underground and having a direct connection to the park are being explored.

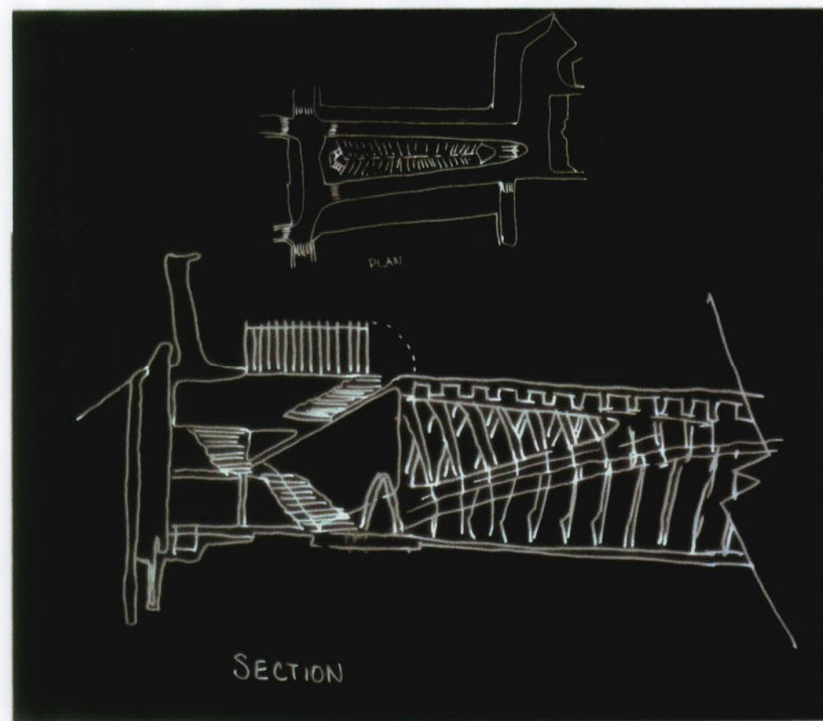


Figure 78 Drawing shows in plan and section that the building is built like a tunnel underground, with only the entrance tunnel rising to the surface. (Author)

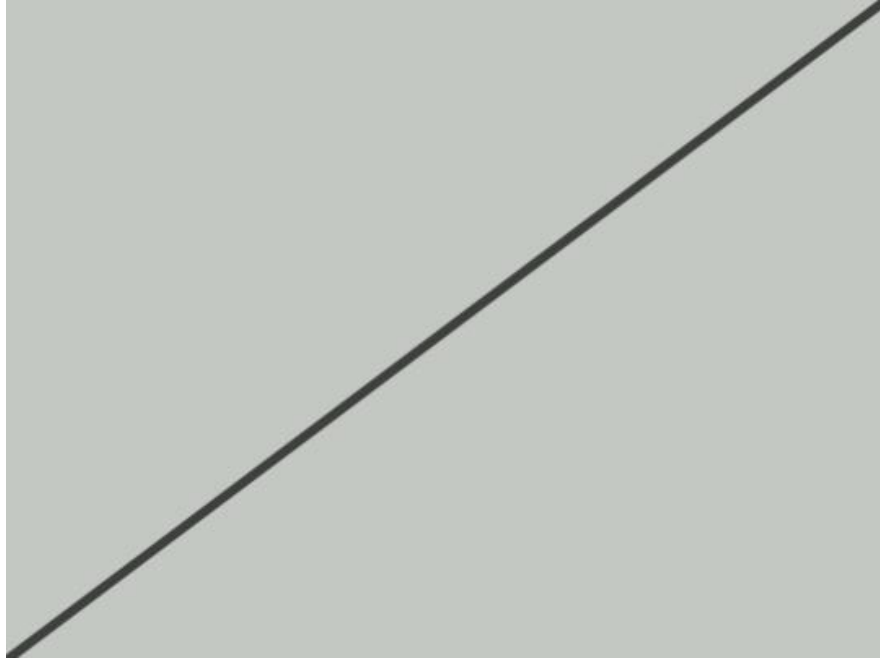


Figure 79 *Model of the entrance canopy and the different forms that it can take.*<sup>42</sup>



Figure 80 *Drawing of the entrance canopy in the historical context. (Author)*



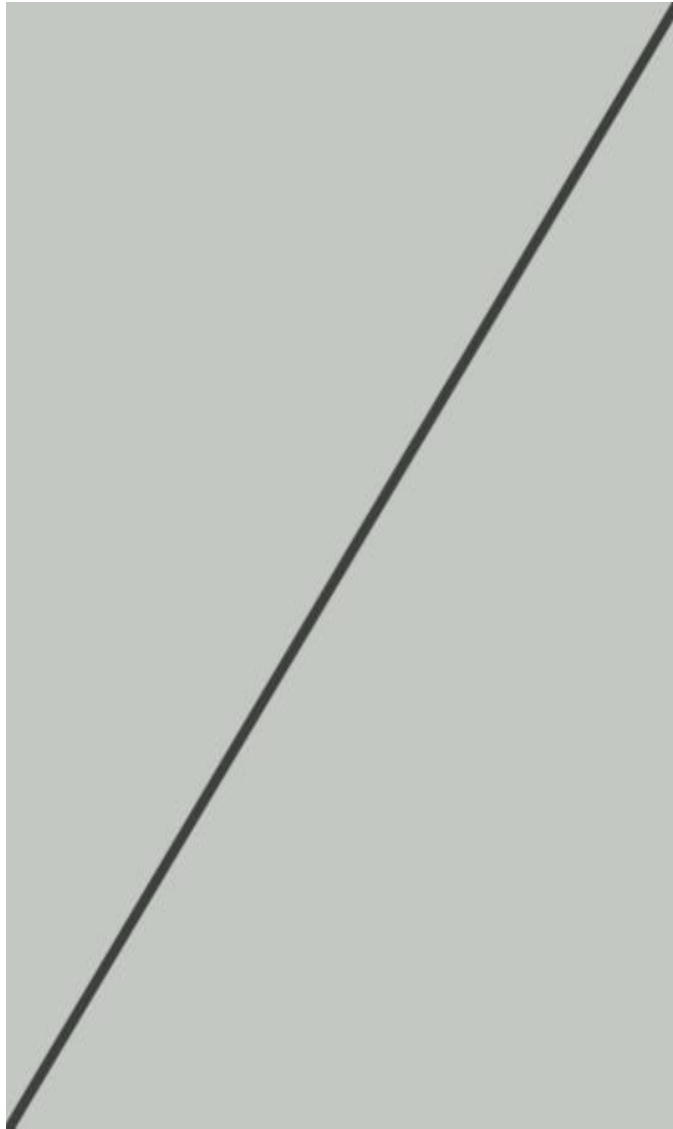


Figure 81 *Photograph of the open plaza with the canopy popping out of the ground at the far end of the space.*<sup>43</sup>

## Conclusions and Lessons

After looking at the Alcoy Community Hall I realized that burying some of the program and creating an underground connection into the park could be a possibility for urban connections. Calatrava expressed the building on the surface with a paving pattern, subtly allowing the plan of the main space underground to be visible in spirit above ground<sup>44</sup>. However after further research, I have determined that this will not be a sufficient design solution because the water table in Berlin is very high. Sending program into the basement would create flooding problems for a majority of the year, and cause more problems associated with a dark damp space. The connection between the park and the Community Art Center will have to be above ground.

“Architecture is inhabited sculpture”

-Unknown

## **Chapter 5**

### **PROGRAM ANALYSIS**

## **Program Description:**

### **The Role of this Thesis Project**

With the development of the Community Arts Center, the hope is to kindle, support, and celebrate the artistic, cultural and creative spirit of the Petersburger Strasse community in Berlin. The Community Arts Center strives to integrate the art into the fabric of everyday life, as well as allowing artists and art aficionados to grow through challenging new artistic opportunities while providing an architectural and social cornerstone in the revitalization of the area. The Center provides opportunities for a group of people to operate within large gallery spaces representing local and regional artists, exhibit galleries, classrooms, studios, and large multi use spaces for the visual art performances.

### **The Relationship to the Street**

The retail, exhibition, and café spaces constitute the most public functions in the program. These spaces should therefore be located at street level; continuing the storefront character of the surrounding buildings, helping to blend in with the other ground floor retail on Petersburger Strasse. Allowing exhibition spaces to reside on the ground floor allows for opportunities to spill out of the building and participate in the street or park life. You could have poetry reading on the deep sidewalk, or provide an extension for the fairs, markets and bizarre from the park to funnel life into the arts center.

## **The Main Spaces**

The multipurpose would also fall into the public zone. This space will be a large double height space that will be a flat floor area that could be for large community meetings, dance performances, provide auxiliary gallery space, house an indoor fair or market, or just be an extension of the lobby, providing a space for people to gather and wait for events to begin. Typically it will serve as gallery space for large scale displays.

## **Education**

The educational and shared facilities component of the program consists of studios, classrooms, and artist studios. These functions are semi-private in nature, which implies that there should be limited and controlled access. There should however be access from the public areas of the center as well as separate, controlled after hours access so that the artists are not restricted to when they can be working in their studio spaces.

## **Gallery Spaces**

The Gallery spaces will provide exhibition space for a variety of rotating shows, work from the in-house artists, student work, and permanent collection pieces. The gallery will span three floor levels in the refurbished building as well as areas crossing over into the addition helping to create the full circular movement throughout each floor of the building.



### **Staff Gathering Space**

In keeping with the idea that the center will also be a place of learning there will be a series of informal gathering spaces for the staff, faculty, artists, and students to have casual interactions critiques and conversations. Adjacent to the spaces there will also be a lounge for the above mentioned to take a break in. This area will also house the offices so that the center can perform daily tasks and responsibilities.

### **The Studio Spaces**

Looking at the studio spaces more specifically; there will be multipurpose studios which can be used primarily for drawing, painting and sculpture instructions. These spaces could also be cleared and converted to lecture spaces as needed. The ceramics studio presents special needs, as pottery tends to be very messy, dusty, and involves several hazardous materials and processes. Clay dust, minerals used in glazes, and the fumes generated by firing are all dangerous. Within the ceramics studio there are specialized areas required to be adjacent to the main studio space, clay mixing room, glaze room, kiln room, and storage of all the materials. Possibly there could be a connection to the outside to vent air and eliminate some of the special needs to control smells within the building. The photography studio also needs three distinct spaces, a classroom for instruction, and critique, a lab for film processing and a finishing area. But there are far fewer restrictions about where the photography lab can go since it needs to be a black room.

The Individual Artist studios will hopefully become the heart of the arts center, creating the opportunity for interaction between the artists and the public, providing a strong connection and community involvement with the center. These studios will allow the public to observe the creative process helping to reinforce the idea of art. Varying sizes of studios will allow artists to accommodate large and small work, or to work privately or in a group setting.

### **Artists in Residence Live-Work Spaces**

Live work studios, even though few in number will allow artists to fully immerse themselves with their art by living in their studios. These resident artists would be both living and working in flexible spaces, keeping them affordable. The living space will include bedroom, bathroom, kitchen, and a work space as well as general living space. The spaces will emphasize flexibility to accommodate a variety of artistic disciplines and family sizes.

### **Support Spaces**

Storage space will be integrated into all exhibition and studio spaces. A system of moveable walls will allow studios and exhibition space to be flexible and provide the ability to hide portions of a room for temporary storage. The lighting and HVAC will be contained in the ceiling and floor making it easy to arrange the spaces as necessary.

## **Design Summary**

### **Retail/ Exhibition/Multipurpose (11,400 s.f total)**

Art Retail Bookstore- 2000 s.f

Bookstore-1000 s.f

Other retail- 1000 s.f

Café- 1400 s.f

Galleries- totaling 3000 s.f

Multi Purpose Space- 3000 s.f

### **Educational/ Shared Facilities (22,100 s.f total)**

Multipurpose studios- 2 at 1000 s.f

Ceramics studio- 2500 s.f

Photography studio- 600 s.f

Classrooms- 2 at 1000 s.f

Live Work studios- 8 at 1500 s.f

Outdoor terraces- 3000 s.f

### **Support Spaces (18,000 s.f total)**

Lobby- 1000 s.f

Administrative space- 1000 s.f

Mechanical and circulation space- 15,000 s.f

Restrooms- 1000 s.f

### **Program Total (51,500 s.f)**

The program will need to be divided into different zones, including public and private within the Art Center, but there will also need to be considerations taken for the more private live-work units. Since they will be entering the building at all hours of the day and night a private entrance off the street will also be important.

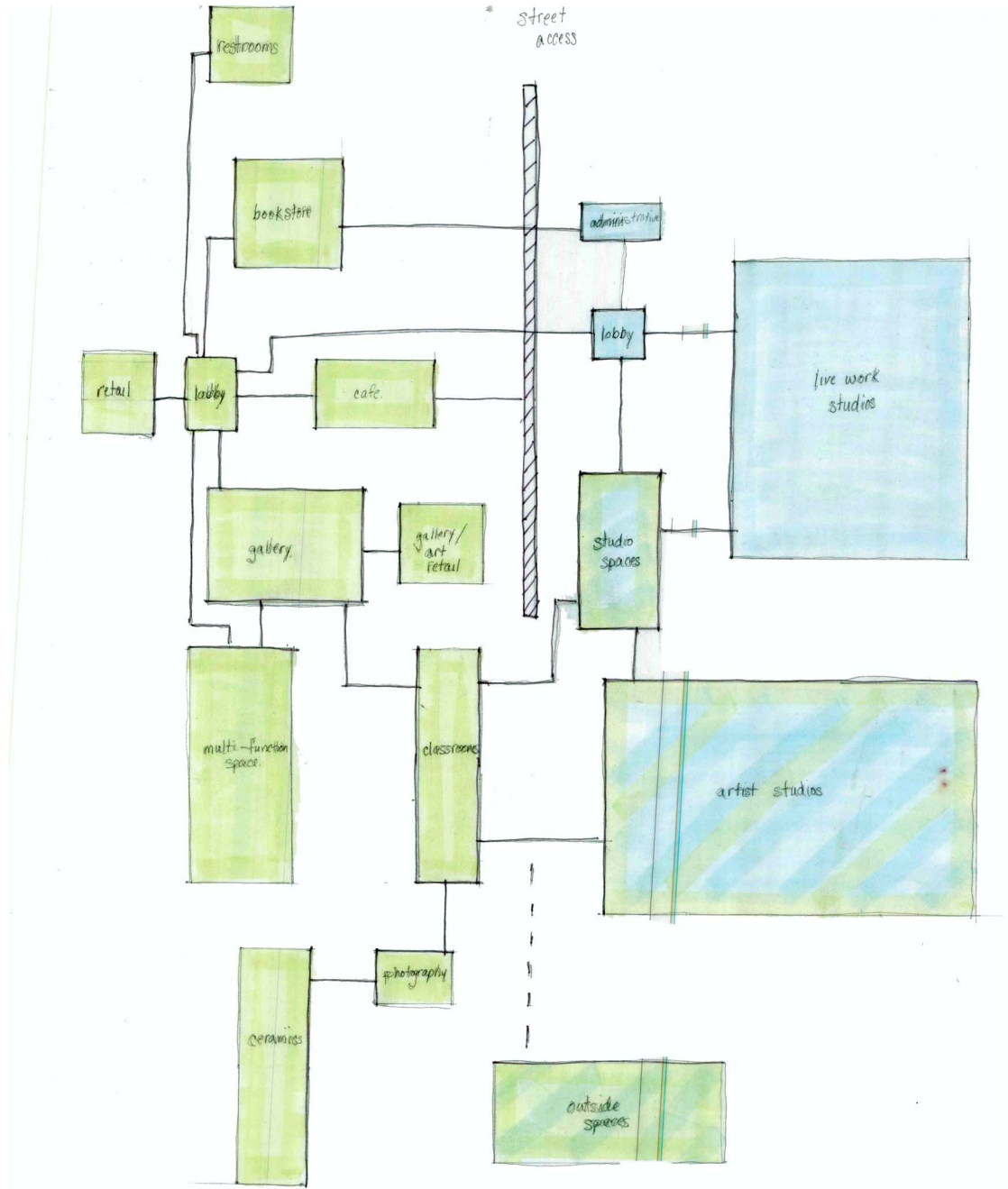


Figure 82 Programmatic adjacency diagram (Author)

## **Design Approaches:**

### **Design Guidelines**

The character of the neighborhood has a distinct image that should be upheld and not abolished with the addition of a new building. The specific goals and intentions to be addressed throughout the design process are as follows.

#### **At The Site Scale**

- Reclaim the under-utilized area on the corner of Petersburger Strasse, (removal of the one story structure will need to occur).
- Incorporate the existing historic apartment building structure, with the elements of new construction creating a design that works as a whole.
- Respect the height of the surrounding buildings as well as the courtyard typology, and porosity on the ground level to integrate retail.
- To organize the building around the central courtyard as well as connection to the streets that create the exterior border.
- To use visual and physical connections between both the park and courtyard as well as interior spaces, creating areas of overlap, overlooks, and transitions.
- To utilize landscape design elements, like paving patterns, water features, trees, and plantings to connect the built structure, roof terrace, and interior courtyard back to the park and the surrounding green spaces throughout the city.

#### **At The Building Scale**

- To use under utilized spaces like rooftops, with roof gardens, green roofs, and terraces.



- Create a hierarchy of the levels in the building reflecting the public to private transition.
- To create an extension of the historic building with porosity through the party wall while maintaining the structures' integrity allowing the building to serve a new use to better fulfill the needs of the community art center.
- Understand natural lighting requirements of the program and incorporating day lighting as design tool.
- Let the inside of the building shine and express the playfulness with the architecture creating an expression of the art, while letting the shell of the building be respectful to the historic neighborhood.

#### At The Detail Scale

- To utilize a language of solid and void which references the design of the historical structures in the area.
- To employ this language to create a visual dialogue between the old and the new as well as promoting the spirit and culture of the area.
- Create a palette of materials that reference the historic brick in richness of tone and temporal quality while creating a more civic presence adjacent to the historic housing.

Additionally the program suggests certain relationships among the various elements: the studios, café, retail, gallery, and main public spaces should be arranged as close as possible to the open public space, or vertical circulation within the building, making these spaces easily accessible from the sidewalk. The courtyard becomes the inner heart of the building while also continuing on the history of the building forms of

the Friedrichshain area.<sup>45</sup> The studios, classrooms, live work studios will rise to the top of the building, since they do not need to be as close to the sidewalk as the other specific program elements.

“An architect is the drawer of dreams”

-Grace McGarvie

## **Chapter 6**

### **ARCHITECTURAL DESIGN STRATEGY**

## Massing Studies

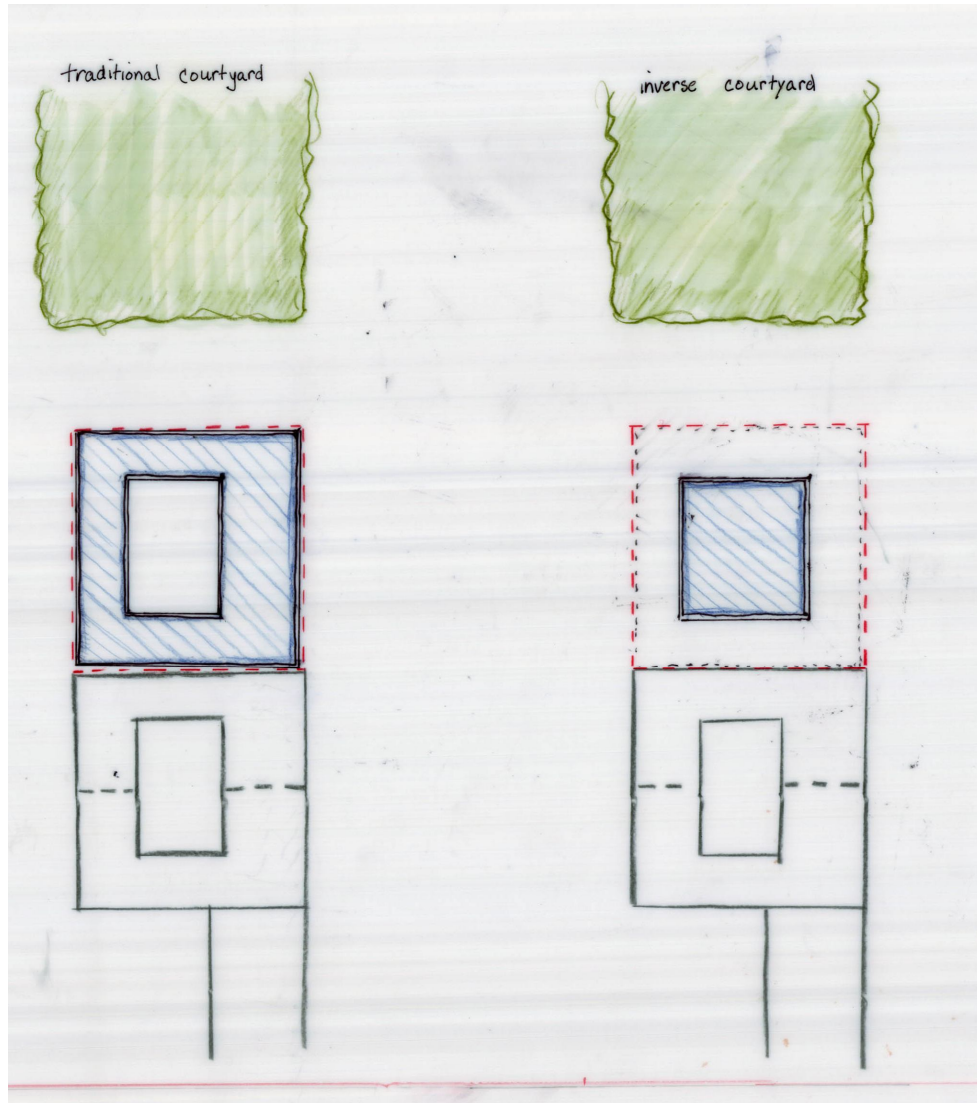


Figure 83 *Traditional Courtyard, and Inverse courtyard.* (Author)

Investigating the massing of the traditional courtyard square, and then its inverse, finds both work well on the site. The traditional courtyard respects the spirit of the neighborhood, and holds the street edge. While

the inverse courtyard holds the street edge, it doesn't allow for the active program pieces to be near the street, and allow for transparency into the activities of the building, therefore it is not the best solution.



Figure 84 *The tower and street edge massing options. (Author)*

Here the tower and street edge options for the building were addressed. Both of these options leave a considerable portion of the footprint open, but the downside is that



the height of the building would be such that it would be out of the character of the neighborhood. There would be space making with the two buildings, but not an enclosed space which is out of character with the surrounding context as well.

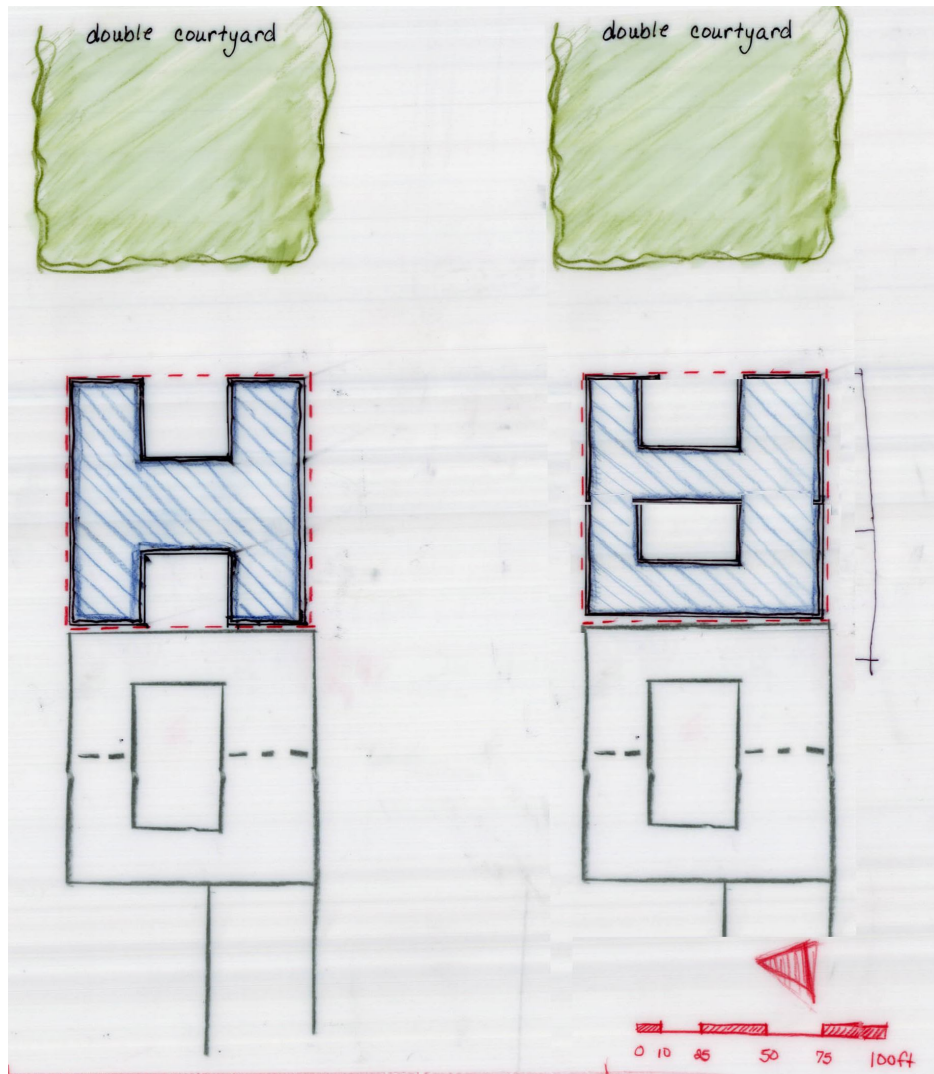


Figure 85 *Double Courtyards. (Author)*

This was the investigation of the double courtyard, keeping with the tradition of the neighborhood. The solution at the left would mean tearing down the housing unit so that the courtyard building would be reversed, while the solution on the right promotes preserving and reusing the existing housing

building on the southern portion of the site and adding a duplicate mass to act as a gateway that catches the activities from the park funneling them into the Community Art Center. This is the most successful massing solution and will be developed further throughout the design process.

The massing options were also translated into sectional diagrams. The traditional courtyard running completely through the building will present challenges about program pieces, and larger elements will be more difficult to incorporate since each floor plate is also housing the open courtyard piece.

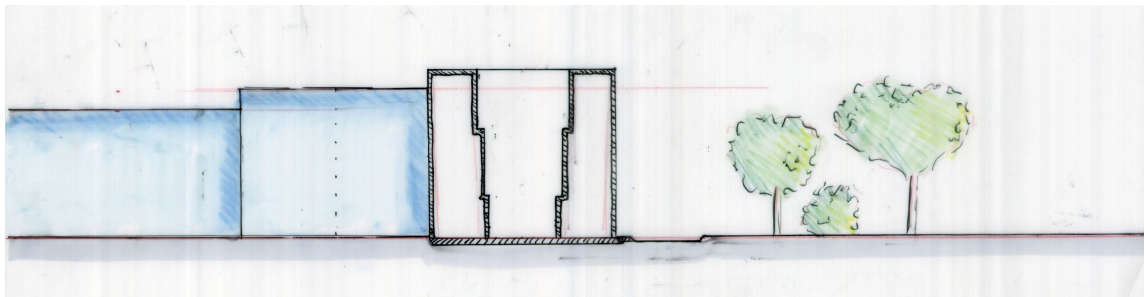


Figure 86 *Traditional courtyard section. (Author)*

The tower option leaves an awkward break in the street wall, as well as being too tall for the context that it is being built in. So having the building contained in one tower has been ruled out as an option.

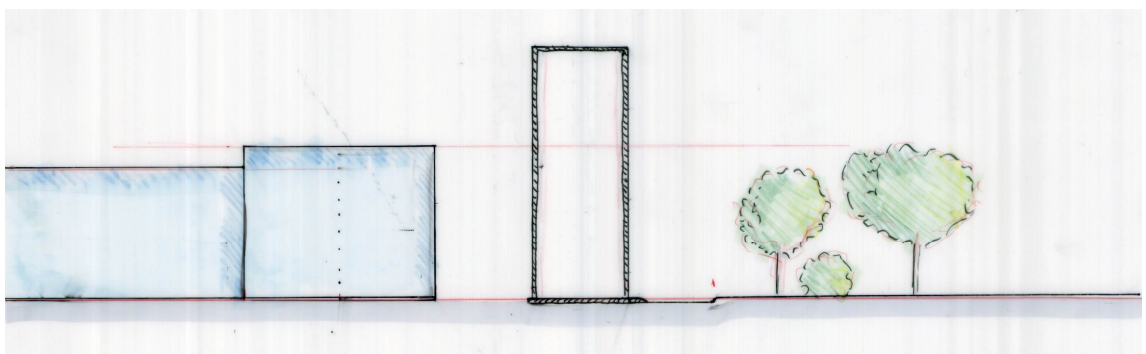


Figure 87 *Tower building in sectional form. (Author)*

Raising the courtyard to the upper floors of the building is an option for fitting in the large program elements. This diagram also looks into the idea of dropping program elements underground. By having people underground it opens up the possibility of direct connection to the park under the street.

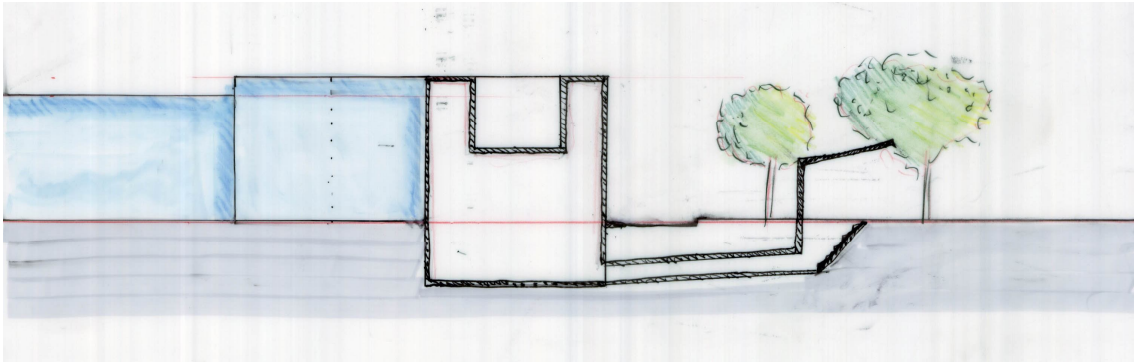


Figure 88 *Raised courtyard floor with underground connection.* (Author)

The last sectional diagram visualizes having two different courtyards within one building. Pulling the courtyard at ground level to the edge of the structure allows the building to capture the activities from the park, incorporating the energy inside the Community Art Center. By having a second courtyard elsewhere in the building, it provides opportunity for outdoor spaces, lets natural light fill deep inside the building, and also lets program elements span across the whole footprint.

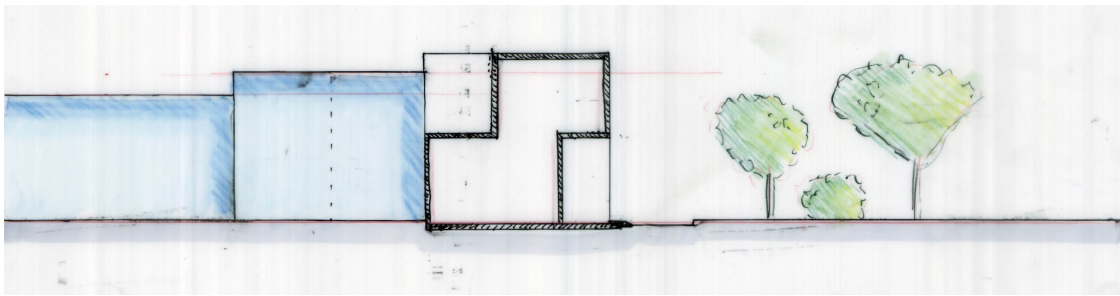


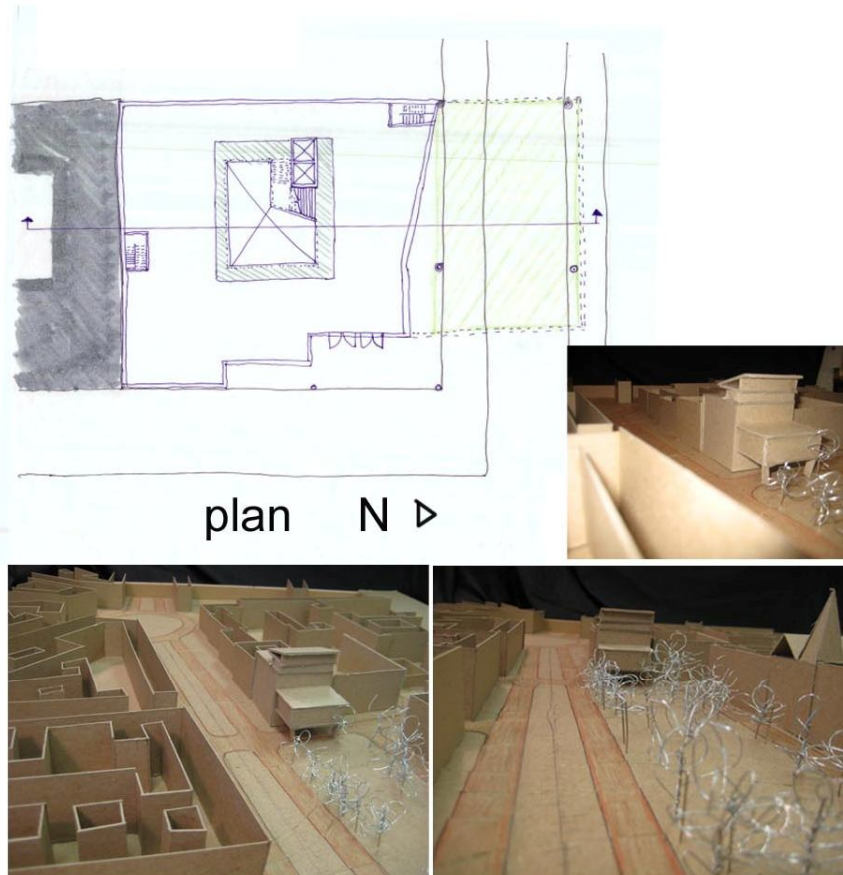
Figure 89 *Courtyards at different levels throughout the building. (Author)*

## Initial Schemes

Scheme 1 investigated the idea of keeping the traditional courtyard on the ground level, as well as projecting a large public space over the road to create a connection to the park. This scheme is not one that will be investigated further, because it is completely out of character for the neighborhood.

Scheme 2 looks at the idea of creating an indentation in the wall to create a recessed entrance which works as a gateway capturing the movement from the park and pulling it into the Community Art Center. This scheme also has a courtyard on the ground floor respecting the tradition of the community.

Scheme 3 places the entrance on the corner, having a connection to Petersburger Strasse as well as the park. Since the corner is important to this scheme there is a iconic tower created on the corner to not only highlight the entrance below, but also as a nod to the steeple of the church on the short axis of Petersburger Platz.



section looking west

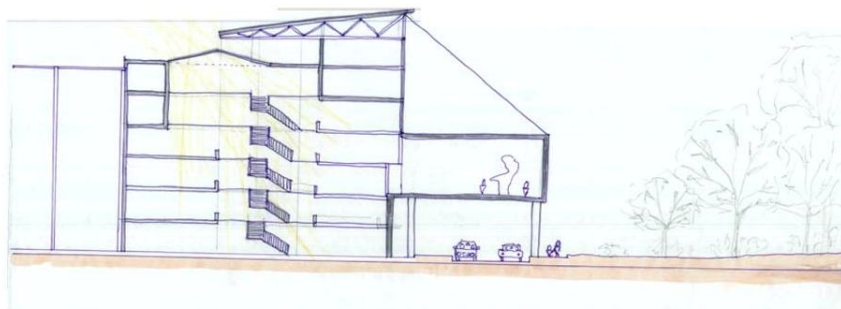
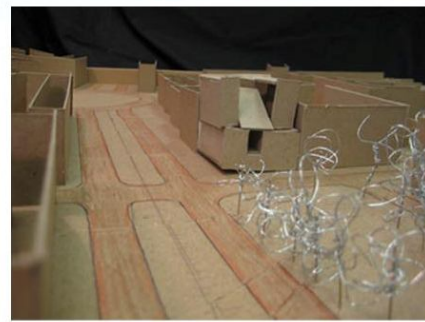
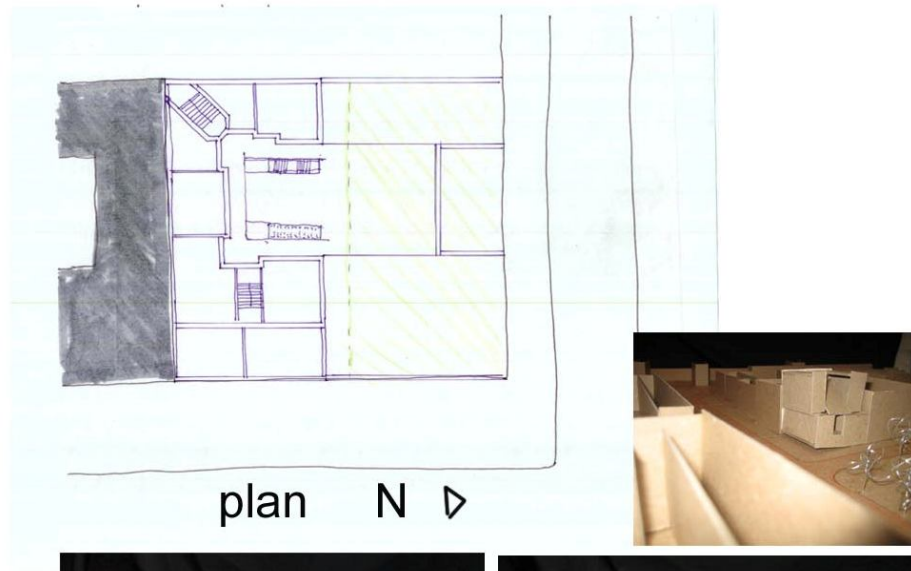


Figure 90. *Scheme 1 (Author)*





section looking west



Figure 91 *Scheme 2 (Author)*



Figure 92 *Scheme 3 (Author)*

## Design Process

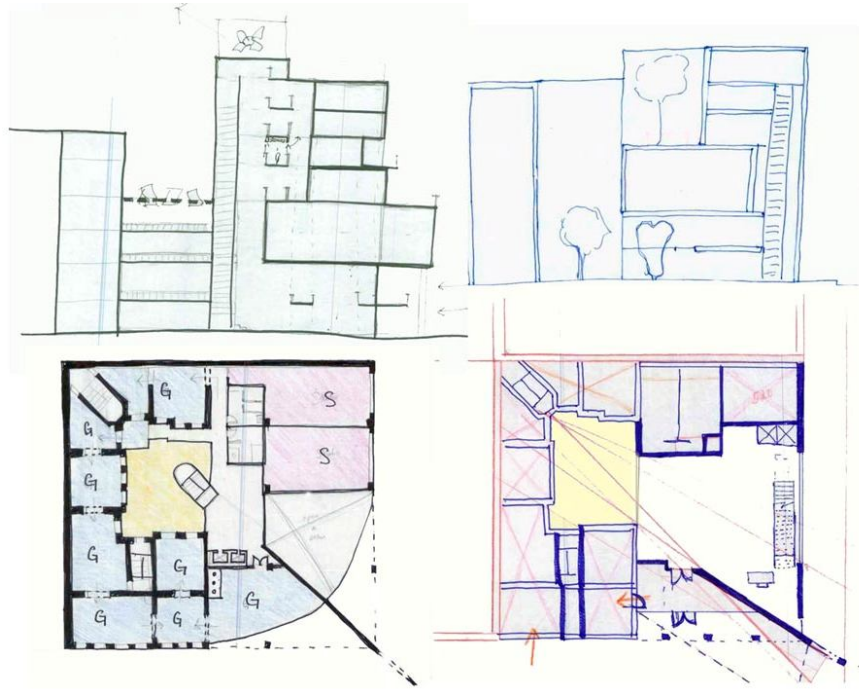


Figure 93 *Process diagram of the corner entrance scheme further development. (Author)*

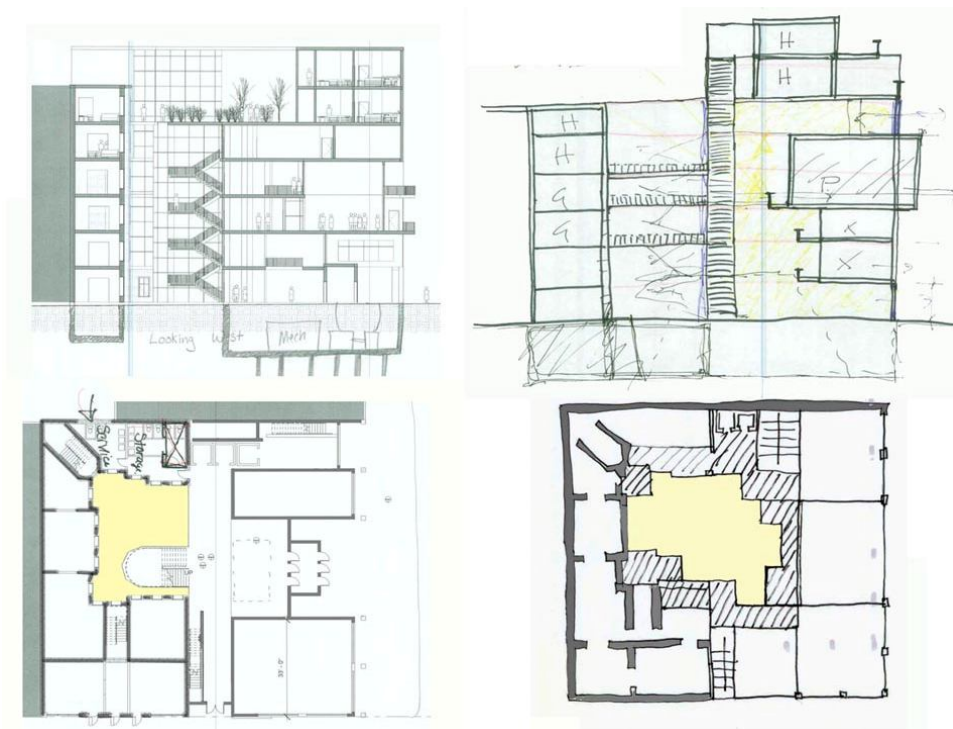


Figure 94 *Process diagram of park axis entrance. (Author).*

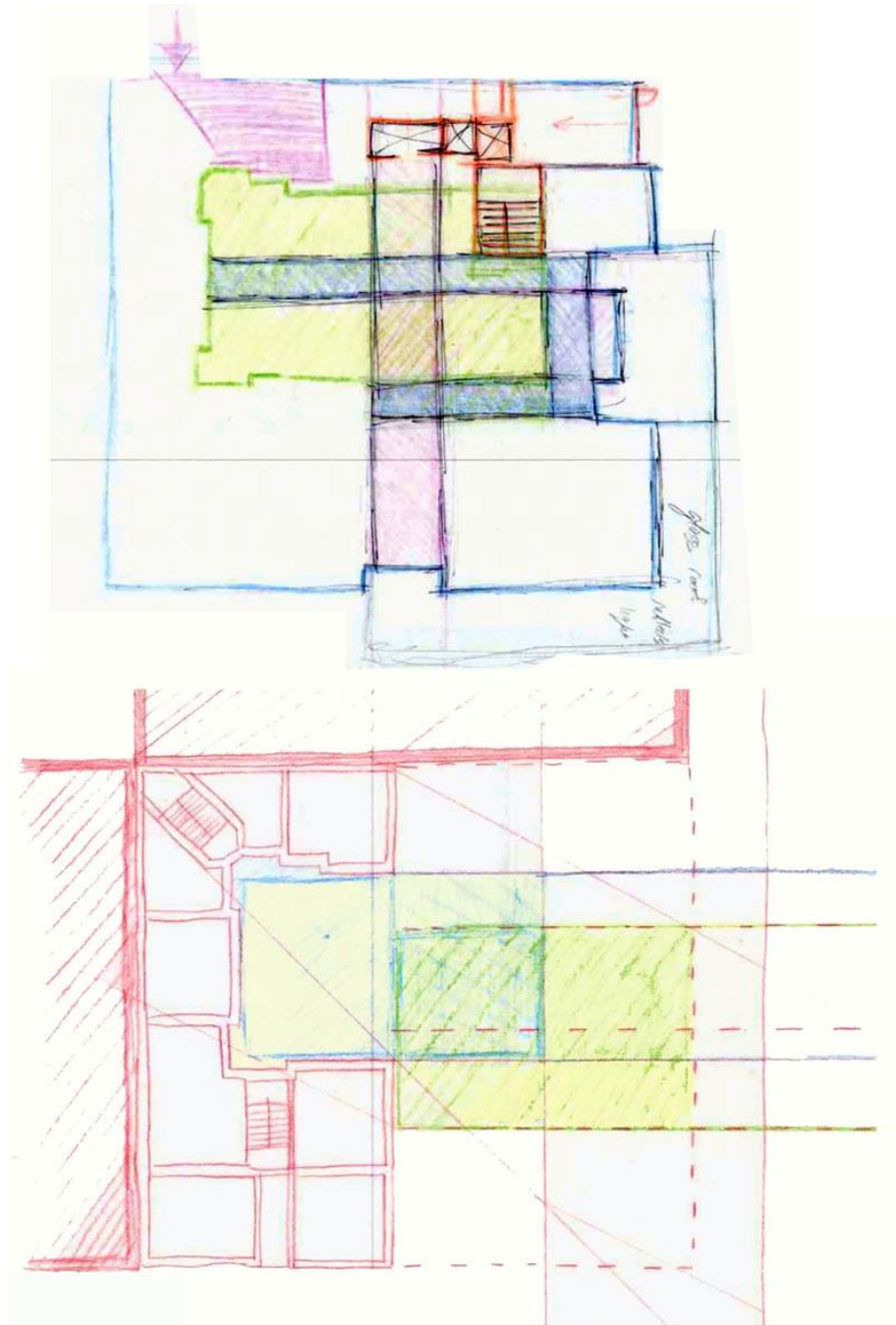


Figure 95 *Process sketch of courtyard and circulation development. (Author)*





Figure 96 *Historical Façade analysis. (Author)*



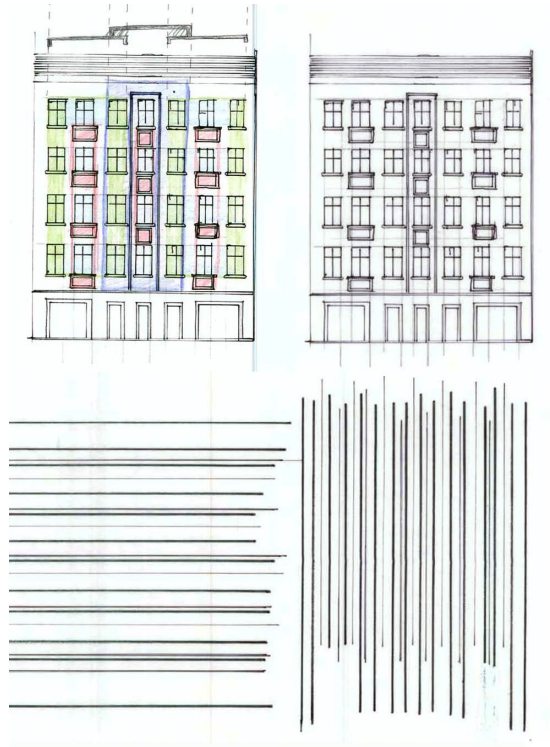


Figure 97 *Process sketch of elevation guidelines. (Author)*

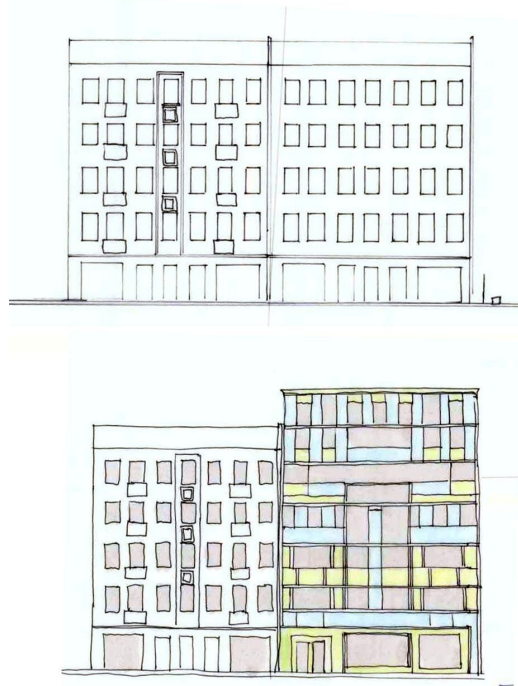


Figure 98 *Process drawing exploring traditional and modern façade connections. (Author)*

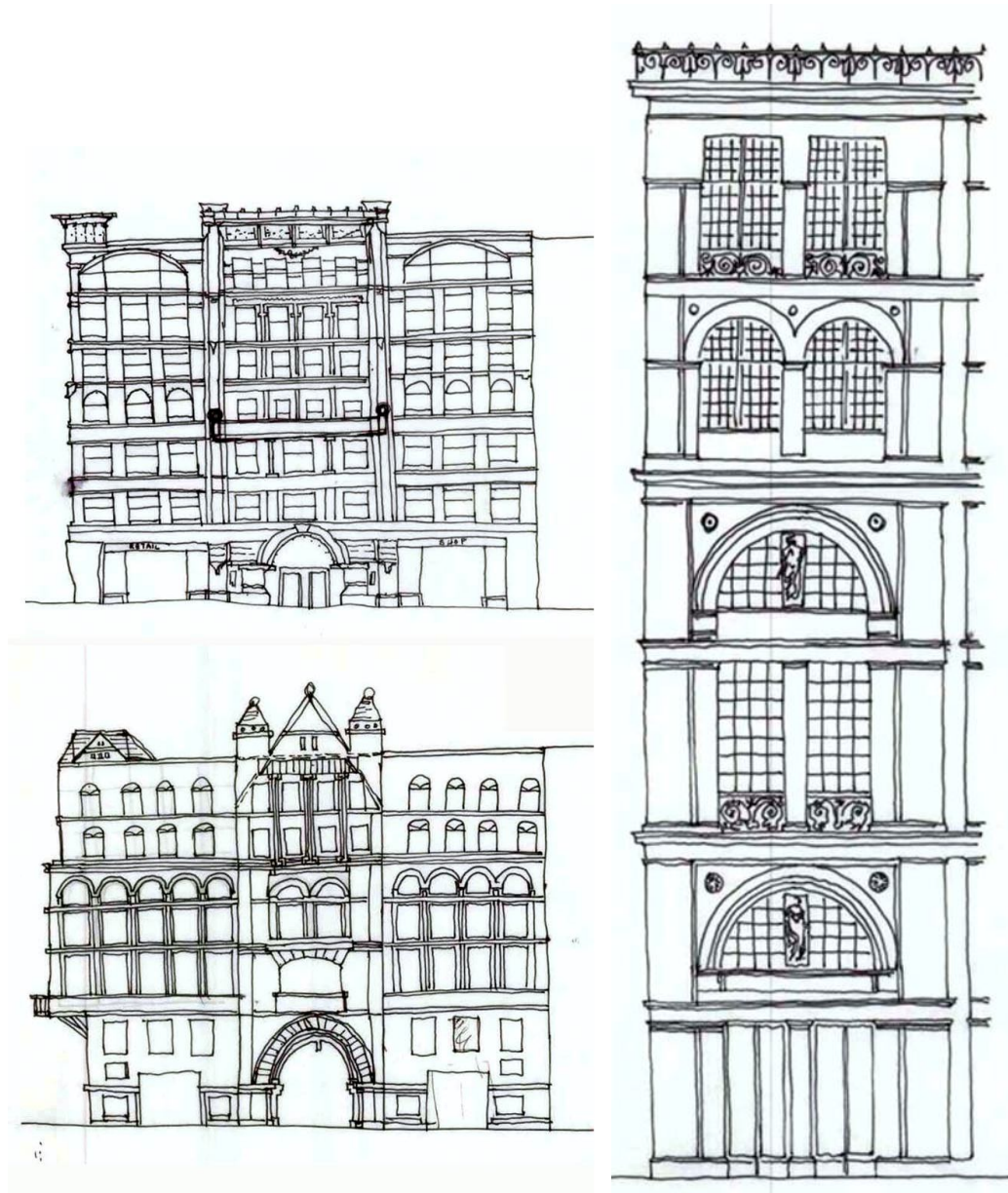


Figure 99 Process sketches of historical facades. The rhythm of openings and solids can help inform the development of the final elevations. (Author)

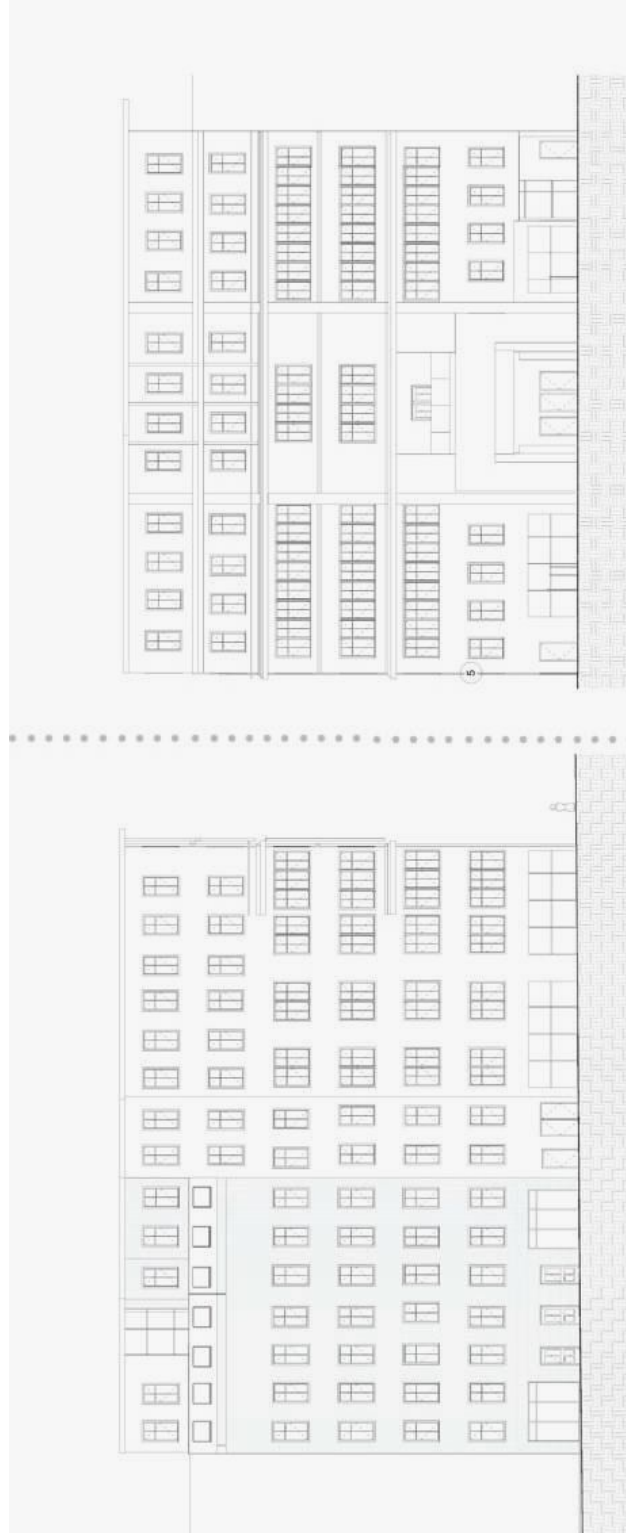


Figure 100 *Process work on east and north façade. (Author)*



Figure 101 *Façade process models (Author)*

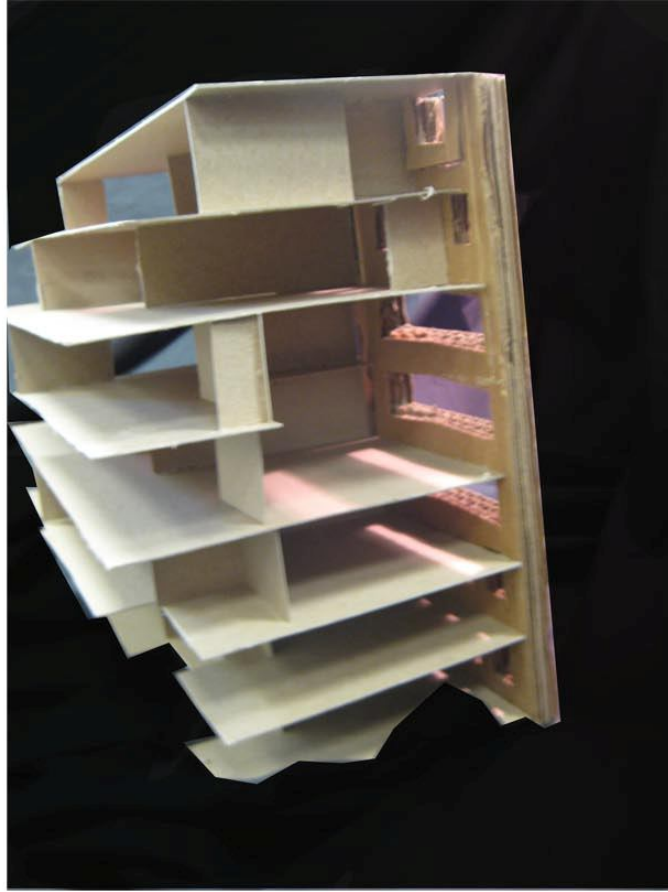


Figure 102. *Process models of interior spaces and light infiltration.* (Author)



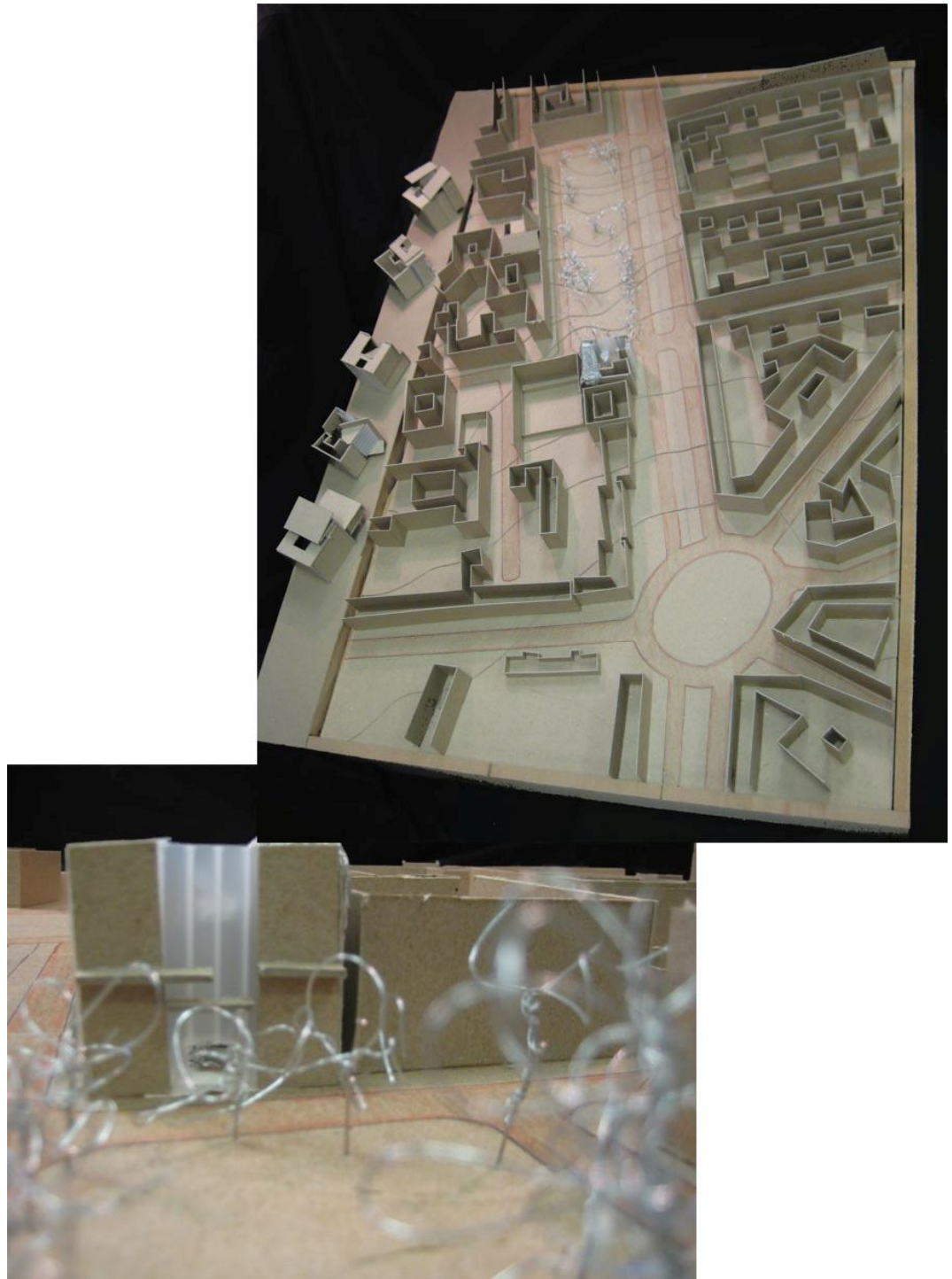


Figure 103 *Process model.* (Author)

“Fashion is architecture: it is a matter of proportions”

-Coco Chanel

## **Chapter 7**

### **ARCHITECTURAL DESIGN STRATEGY**

## Design Solution

The final design relied on creating a cultural arts center, housing, public retail, exhibition spaces, art studios, and live-work housing. Out of the three schemes mentioned above 2 or 3 were pursued further, later evolving into one scheme producing the final product. The final design solution included the restoration of the historic housing apartment building, keeping the existing courtyard, and an addition to the building which kept a solid street edge ultimately creating a civic building with an emphasis on the symmetrical entry facing the adjacent park. The historic apartment building has been restored and renovated into galleries on the second, third and fourth floor, with the staff office and lounge residing on the fifth floor. The top floor of the historic building has been modified to house the photography lab and studio, as well as the ceramics studio. In order to make all of these spaces function and flow effortlessly there has been glass enclosed walkways have been inserted into the corners to make a continuous circulation loop through the spaces and around the central courtyard.

In addition to renovating the historic building, the one story structure was removed from the site and a new building has been inserted in its place finishing the street wall. The interior wall completing the courtyard is a curved glass wall pulling out and extending the ground floor courtyard allowing for the greatest square footage. The courtyard's modern glass wall is the south wall of the new building and allows for the greatest amount of light to filter into the northern portion of the building.

By completing the building in the round and holding the street edge the façade facing the park provides a new front for the building. The main entrance is in line with the park and captures the movement, drawing people into the Community Art Center while the secondary cross axis still allows for visitors to enter off of the boulevard. The decision has been influenced by critiques from Post Modernism critic Kenneth Frampton who faulted a Graves tower for its lack of connection between the public internal spaces and the park, and allowing movement through the heart of the building<sup>46</sup>. He made these points in a RIBA Annual Discourse in December 1982. These accounts and analysis helped inform the park side entrance into the ground floor of the Community arts center. It also influenced the development of the transparent central axis of the northern façade, which faces the park, creating a visual connection through the building, and a glowing iconic triumphant arch when the lights are glowing.

The strengths of the design solution are most evident in the interior views of the building. The proposed infill construction has a modest exterior which respects the traditions and building style of the neighborhood, making a very subtle statement, while the inside of the building is where the design sings. The proposed infill plan has the potential to enrich the lives of the artists living there as well as the visitors and students, but also the block and neighborhood as a whole. The woven character of the new construction offers a point of connection between that past and the present. The correlations of spaces and light throughout the new portion of the building allow for an openness as well artistic spirit to shine through with models, paintings and textures transforming the spaces into a

truly enriching space. Further exploration of the project could better pull these qualities through design in section, elevation and exterior plantings to provide a richness of detail throughout the design.



Figure 104. *Illustrative site plan (Author)*



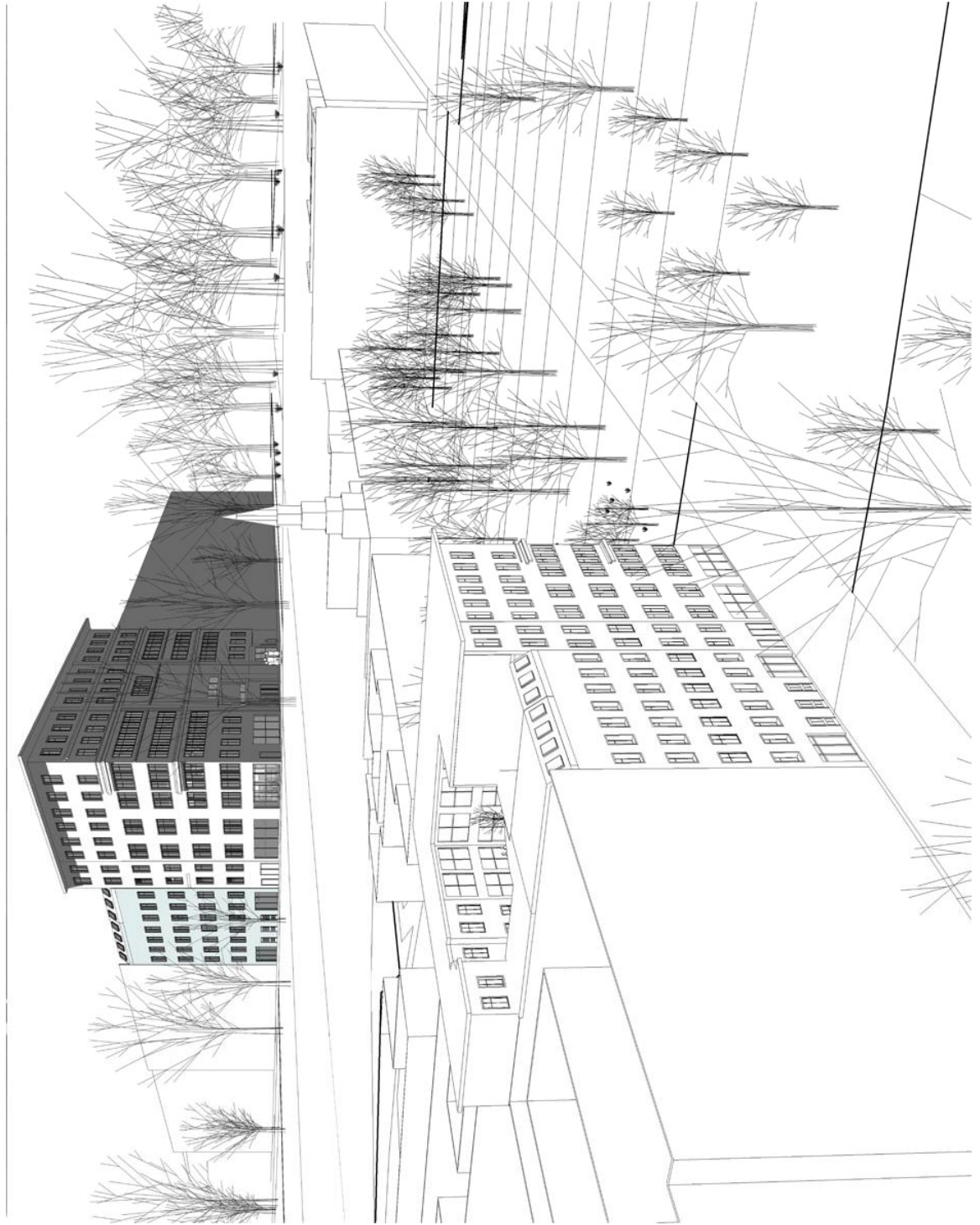


Figure 105 *Aerial Perspectives.* (Author)

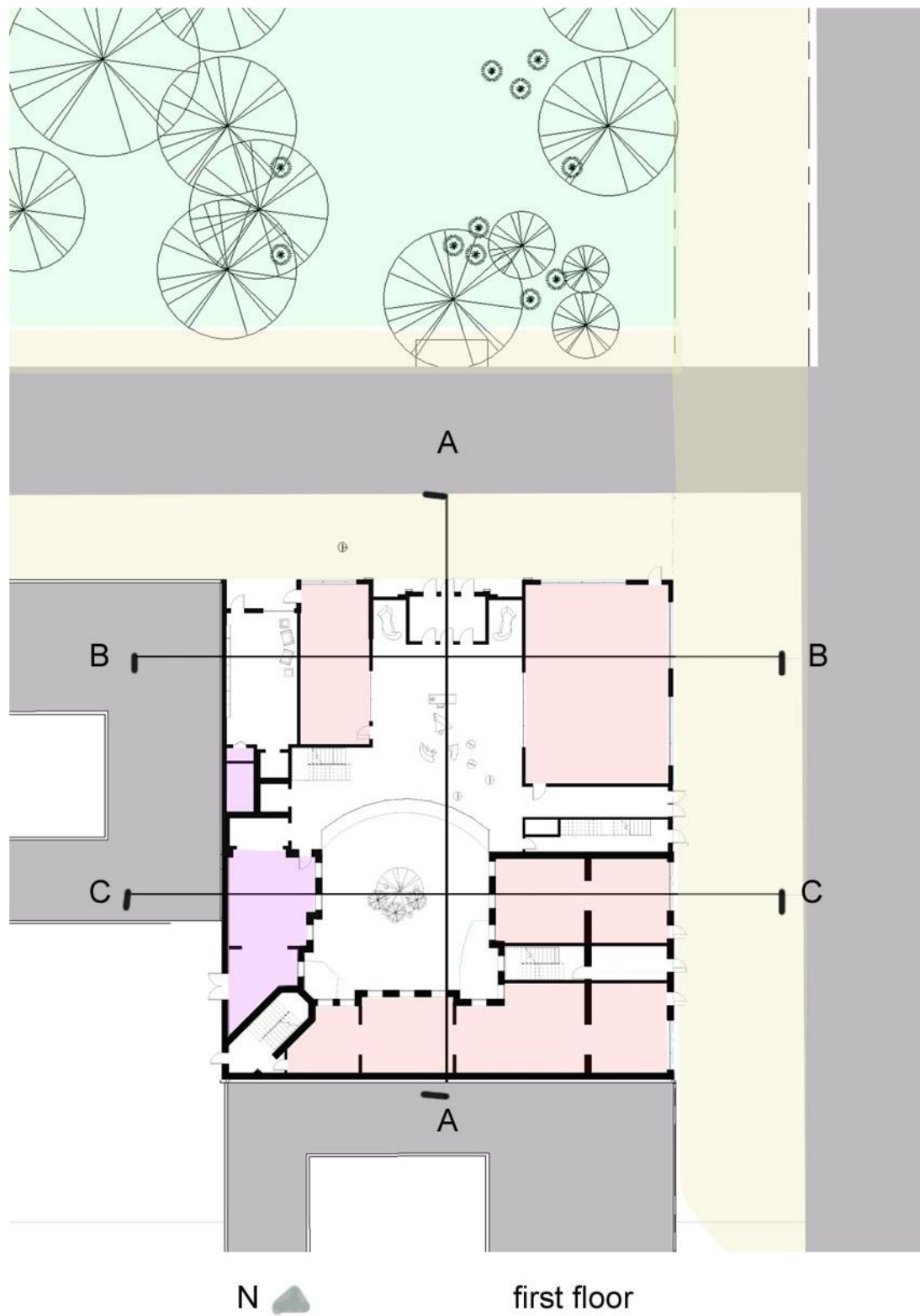


Figure 106. *First floor plan. (Author)*

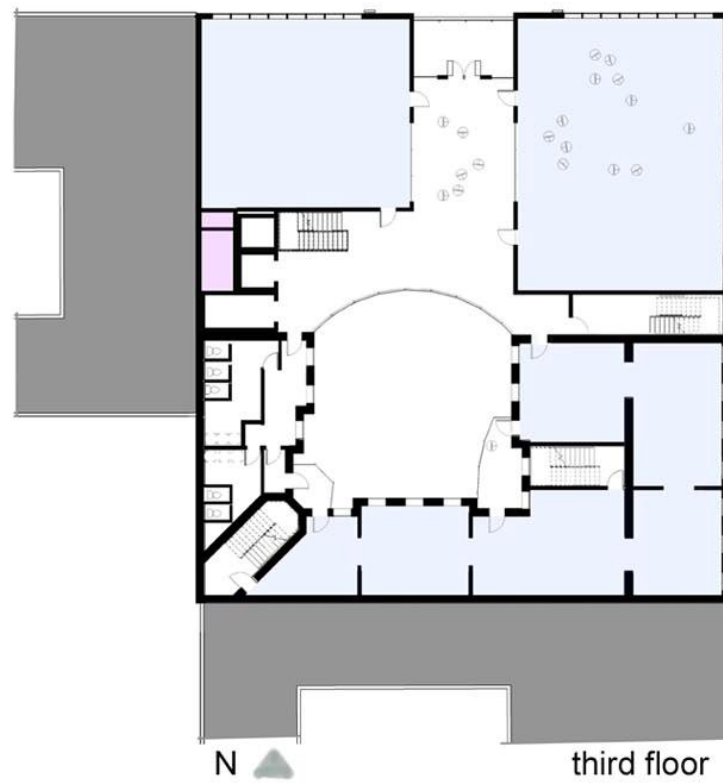
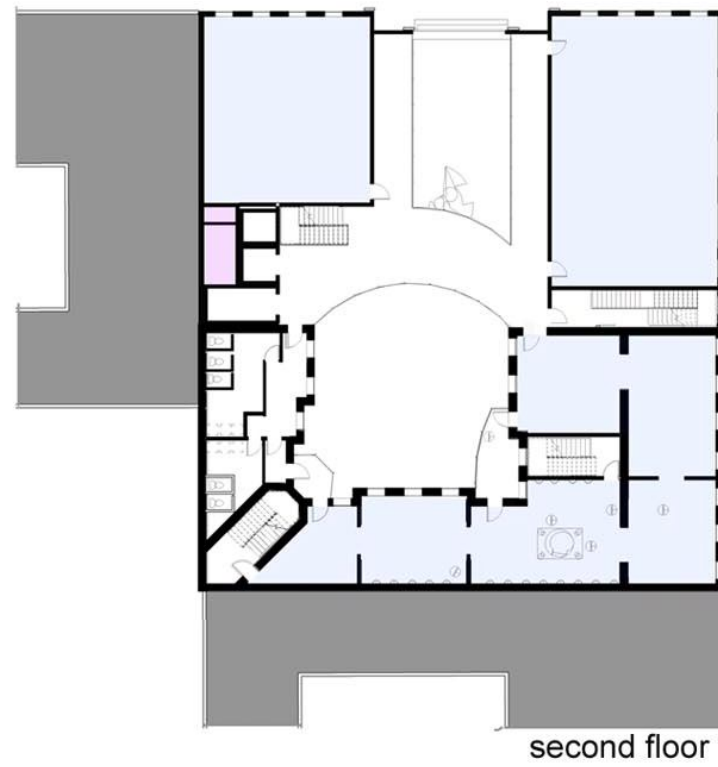


Figure 107 *Second and Third floor plans. (Author)*

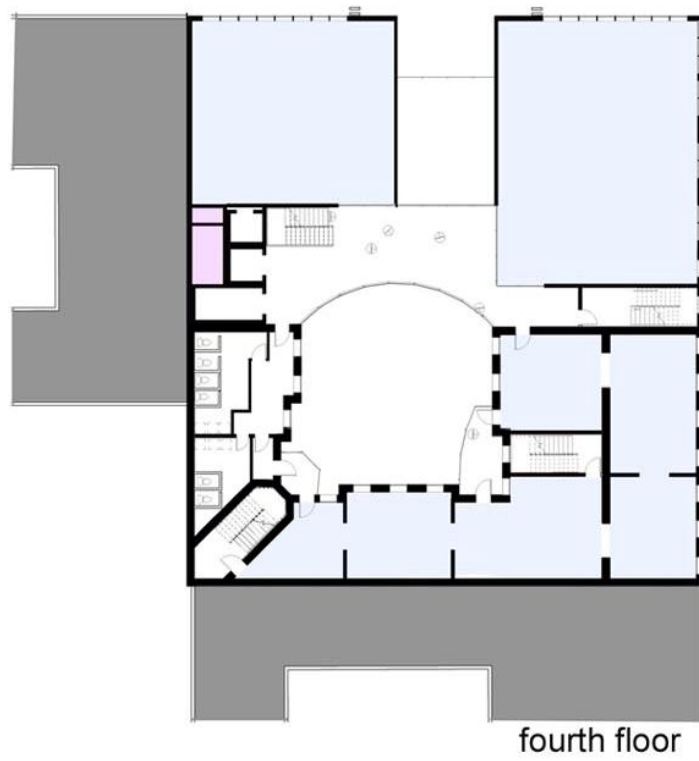


Figure 108 *Fourth and Fifth floor plans. (Author)*

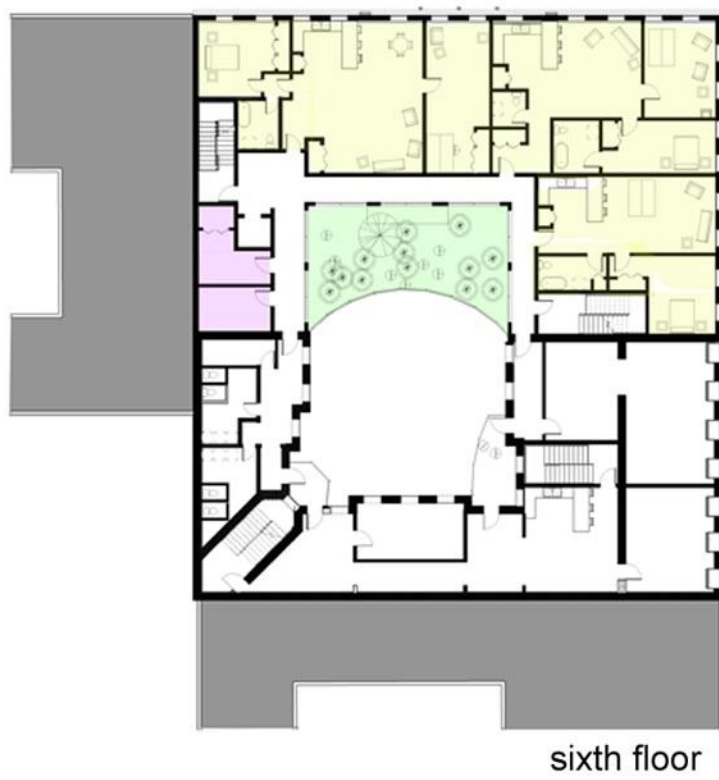


Figure 109 *Sixth and Seventh floor plans. (Author)*



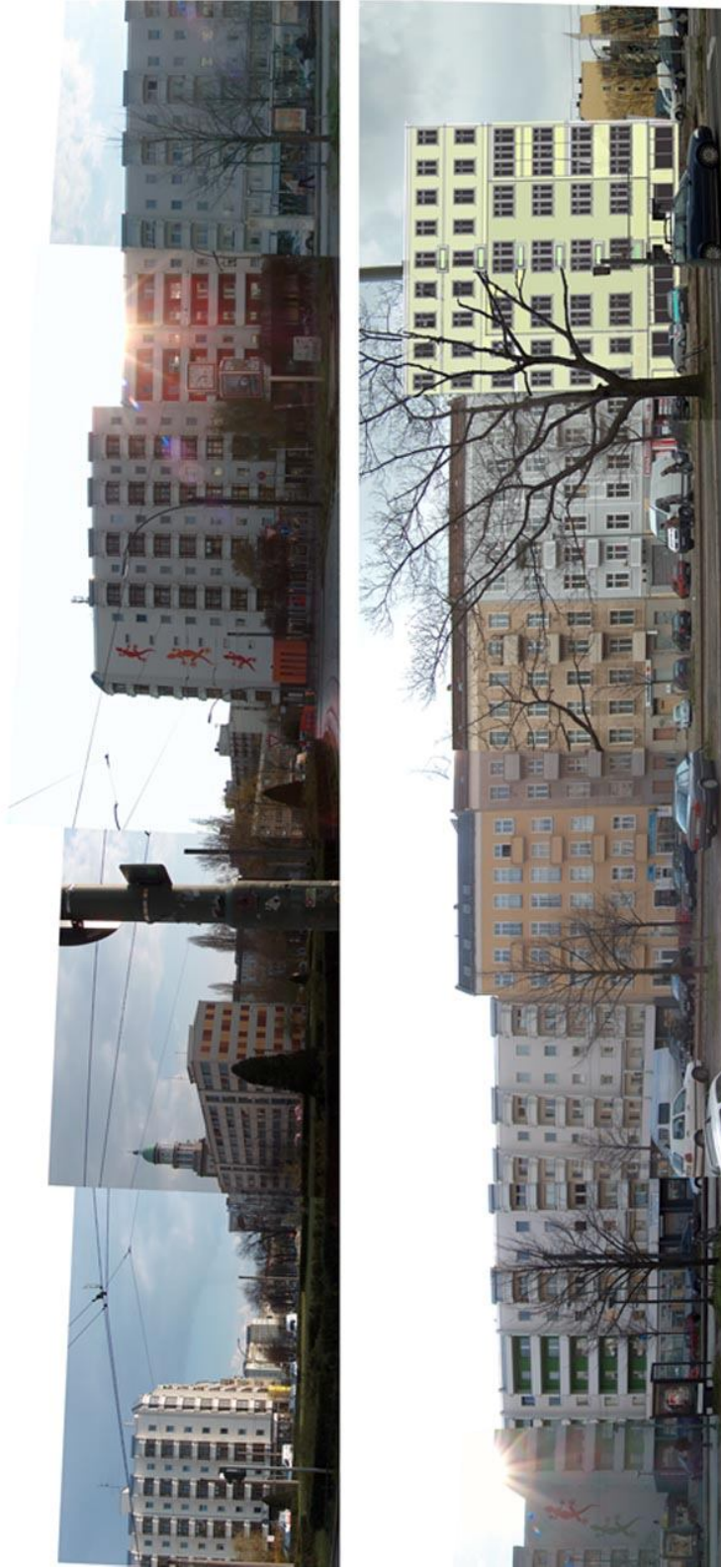


Figure 110. *Petersburger Strasse Elevation. The top portion connects to the bottom for the completion of the entire block in picture form. (Author)*



Figure 111. *Looking north up Petersburg Strasse, night and day. (Author)*



Figure 112. *North Elevation.* (Author)





Figure 113 *View of North elevations of the Community Art Center, (top standing in park) (bottom standing across street) (Author)*

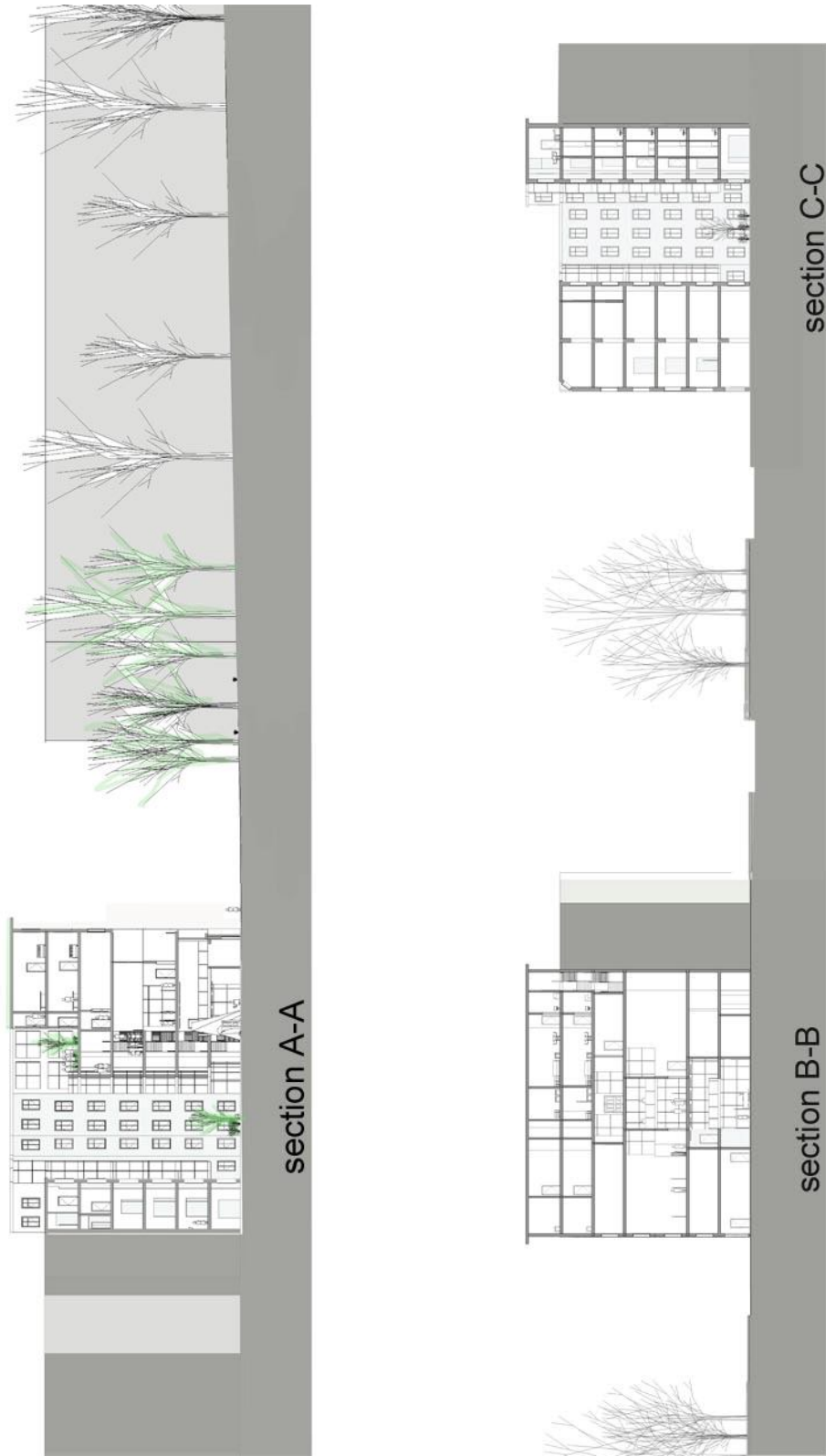


Figure 114 *Sections through building. (Author)*



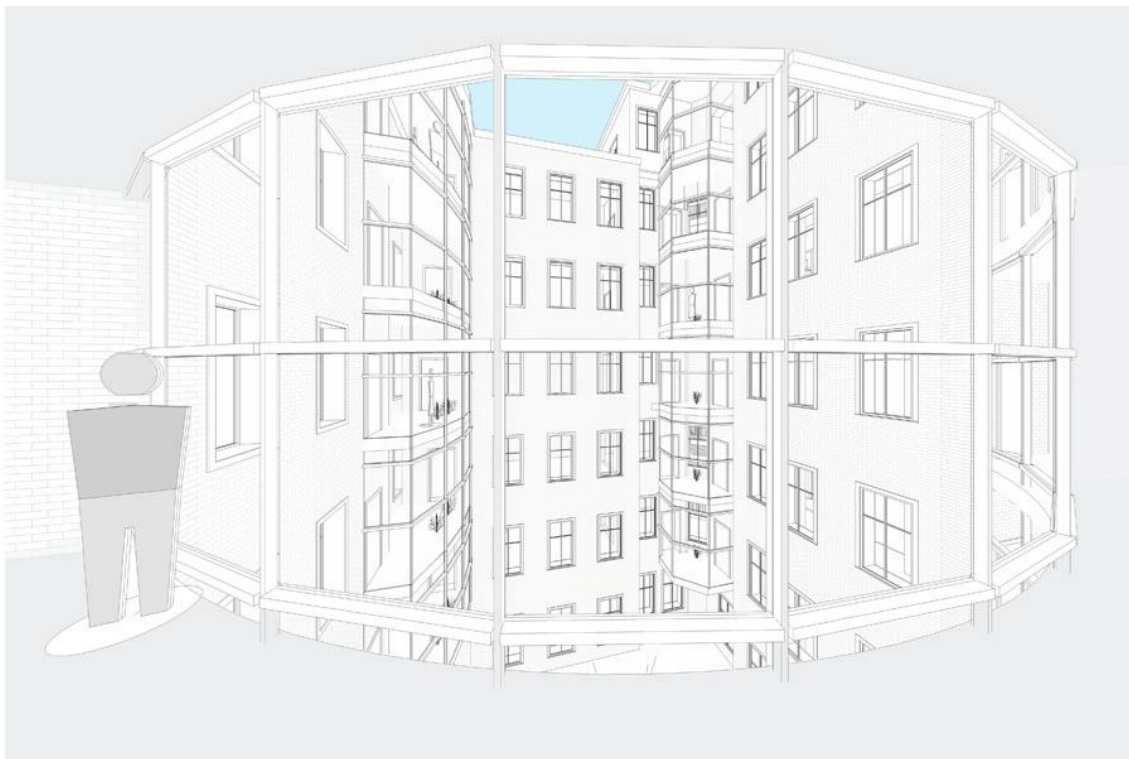


Figure 115 *Fish eye view looking into courtyard. (Author)*

Figure 116 *View standing in courtyard looking at north curved wall. (Author)*



Figure 117 *View of Lobby at night. (Author)*

Figure 118 *View of break out space highlighting the transparency of the interior spaces and connection to the galleries below and park across the street. (Author)*





Figure 119 *View of Gallery space restored portion of historic building. (Author)*

Figure 120 *View of large gathering space. Double height space can function as additional gallery space or community meetings, lectures, or classes. (Author)*



Figure 121 Views from corner circulation addition structures. (Author)

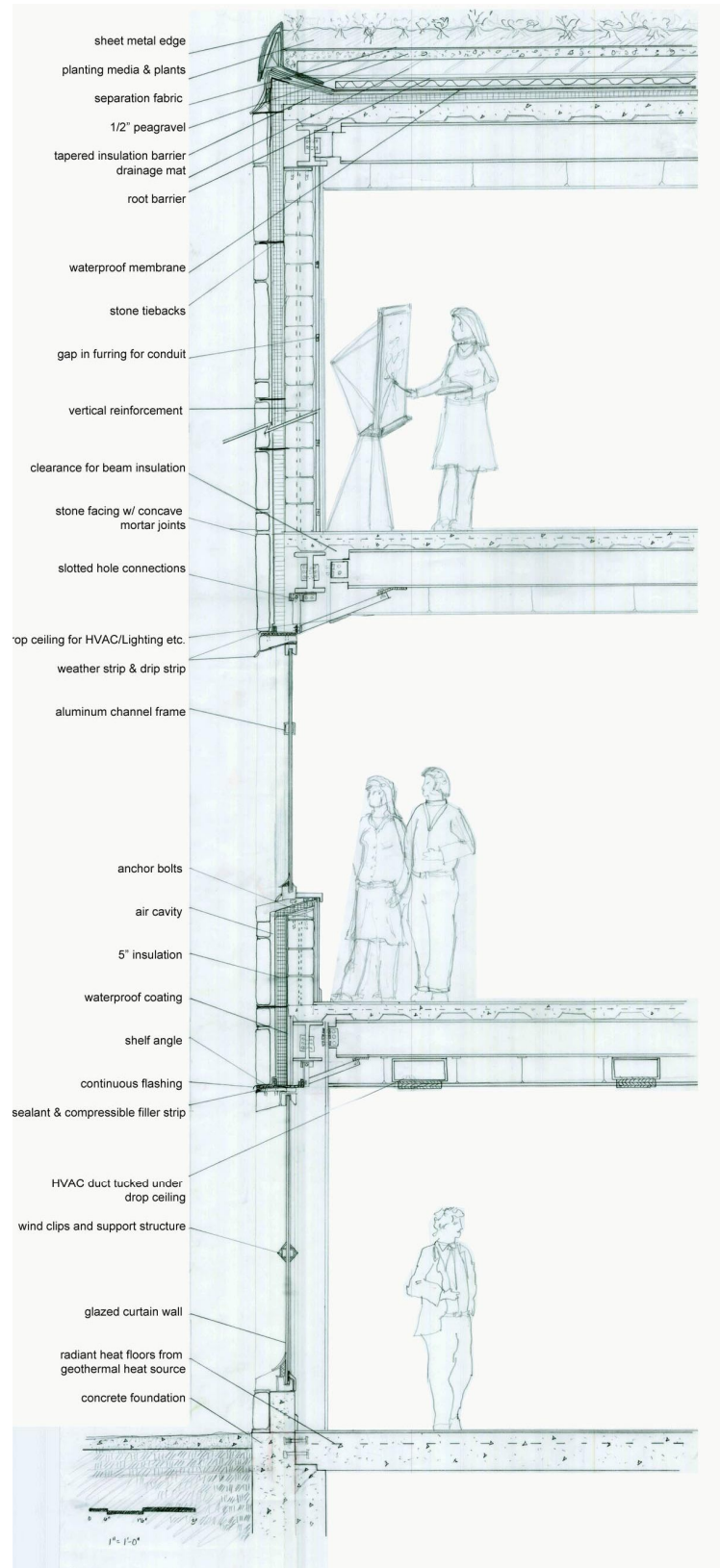


Figure 122 Wall section through the north face of the building. (Author)



## **Summary of the Jury's Assessment**

The public review of this thesis provided an opportunity to gain the feedback and criticism from a jury of seven architects. The main premise of the thesis is respecting the building traditions in the area, treating the historic structures as an active part of influencing the present started the discussion that architects tend to always have: the idea of where do you draw the line on being respectful, and when do you leave that all behind you and just move on letting the past be the past and let the future drive the present. It is because this discussion occurred that I feel as though the jury may have underappreciated the concept of my project. One juror said that he “respected my respect” even though he may not have taken the same approach of creating such a subtle exterior expression. This allowed for thoughtful constructive comments on the project that was presented, while other comments were not as helpful (communicating their desire for a more modern expression), the jury did state that the idea of the courtyard as the heart of the building was a good one. It was also agreed upon that allowing the courtyard to bring light into the building and bring a greenery connection from the park into the building was important as well. However, the jury felt the courtyard could have been made into an even grander location or destination within the building. They liked the sixth floor terrace overlooking the courtyard, and even suggested that it worked so well that perhaps there was a need for another one at another level of the building.

There were several aspects of the design that the jury suggested for more exploration including: 1. investigating how well the courtyard allows for light to be distributed, 2. the building elevations, and 3. the idea that the courtyard could be raised up a few levels off of the ground floor. They felt that there needed to be a logic and dynamic reason for the curved South facing wall in the courtyard, other than providing the largest outdoor space. In regards to the interior courtyard location it was suggested that there should be more exploration about how deep the sunlight travels. Enclosing the ground floor completely allows for more retail space and perhaps a more appropriate location for the ground stair. If the second floor was completely enclosed, more of the public spaces could be shifted down through the building so that the public/private line could drop to a lower location in the building.

The elevations received the most criticism. Most jurors did not feel that the subtle modifications to the elevations were the most appropriate design method; rather, they were mostly pushing for a more contemporary feel abandoning the typology of the surrounding historic building. There was some discussion that if the façade were to remain influenced by the surrounding context that it felt flat, and could use some further refinement. They felt another pass at refining the design would add a layer of plasticity, depth and materiality that would improve the interest and complexity. One juror mentioned that the idea of layering with projecting planes, terraces and recessed windows would give the façade interest and depth without having to change the parti.

## **Conclusion**

Overall, this project was a successful exploration in developing a building within the parameters of historic preservation and a study of how infill development can mend broken fabric and create a sum greater than the two parts. The development of the Community Art Center shows not only how a building can be restored and expanded while remaining true to its unique character, but also how such an intervention could create a connection with the past and facilitate the needs of the present while allowing for further changes in the future. The project responded to the context at a variety of scales, from the adjacent structures to the character of the neighborhood as a whole. Included were all aspects of architectural design from building orientation, scale, proportions, massing, materials and architectural language. More important than the site, the building addition and renovation was a rich and deeply contextual building that respected the people who live there.

After going over the comments from the jury the exploration of the thesis continued. The facades were addressed by complimenting the original parti with the addition of a layering of windows, terraces, and planes. The inside of the building helped to inform the location of the windows, but the design intent is not expressing the inside on the outside. Windows and planes were grouped together to create patterns of hierarchy, connection, overlap and layering creating a richer deeper façade overall. All of these adjustments were made without having to abandon the idea that the elevations needed to be respectful to the context.



Figure 123 *North façade focusing on window grouping and popped planes creating more texture and depth. (Author)*



Figure 124 *Final North Elevation, by grouping windows and creating planes of connection the façade has a more cohesive read and allows for a more contemporary read without abandoning the solid void typology of the area. (Author)*



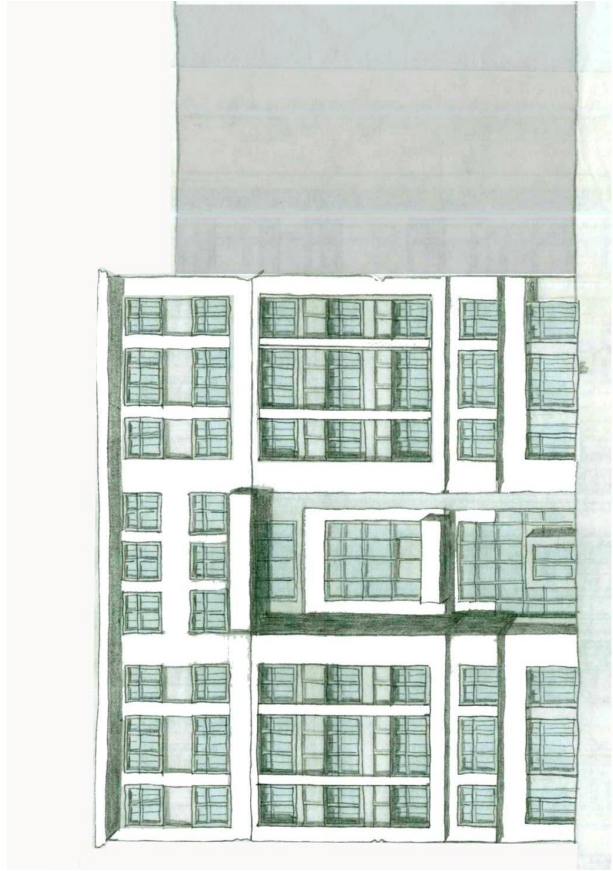


Figure 125. East and North Elevation side by side. The planes push and pull on both facades creating depth and a connection around the corner by having floating planes pull away from the typical flat face creating a depth and hierarchy in the elevations. (Author)

There was also an investigation on the curving south facing glass wall in the courtyard. Since the wall is concave there is actual scientific proof that the curve of the wall will help distribute the light throughout the building. If the surface is completely reflective, it will bounce the light off the south wall and directly onto the opposite northern wall, therefore focusing more direct light into portions of the building that typically would not see that quality of light.

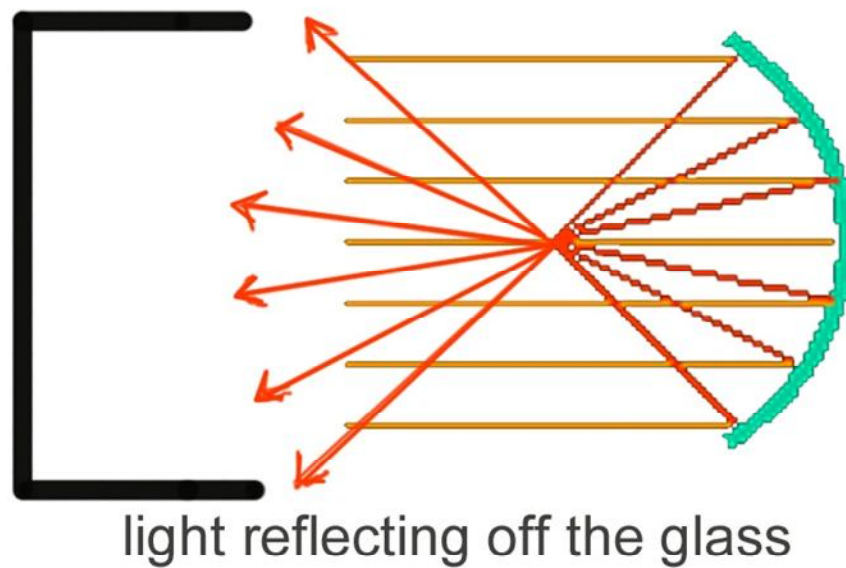
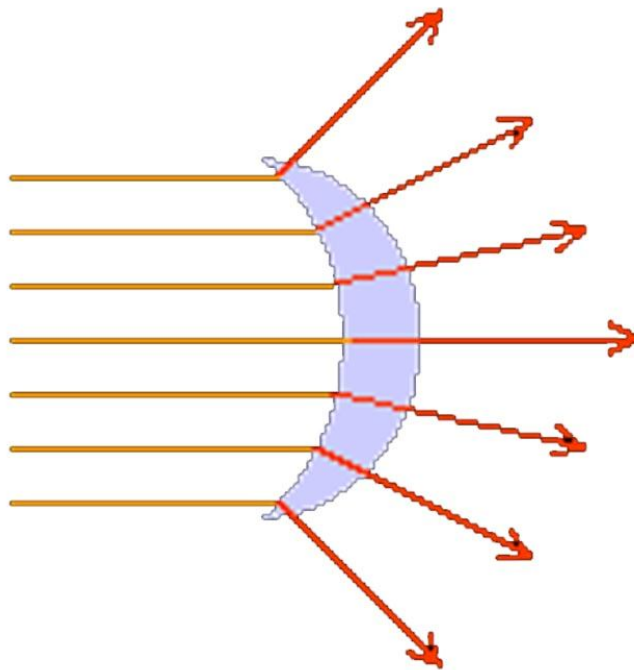


Figure 126 *Light rays bouncing off the reflective glass change direction and cover a wider surface area than they would have with their direct rays. (Author)*

By making the wall transparent and by curving the glass, the glass wall acts as a prism so the light becomes fractured and spreads outward in a fan shape to give a wider distribution of the direct sunlight. The research has supported the decision to leave the glass curtain wall in the courtyard, as it connects inside portions visually to the courtyard, and also helps distribute light deeper into sections of the building that without it would not receive direct light.



light passing through the glass

Figure 127 *Light traveling through the curved surface refract and spread out covering a much wider area than the direct sun rays. (Author)*

Since the courtyard is such a large part of the history and culture that makes up the neighborhood where this thesis was taking place it did deserve another look to see if there was a better solution. Raising the courtyard up two floors does have some benefits to it. The newly established ground floor would

receive more direct sun rays, which could create a more desirable outdoor location, and provide more interior spaces on the ground floor. However, it also has very distinct problems as well.

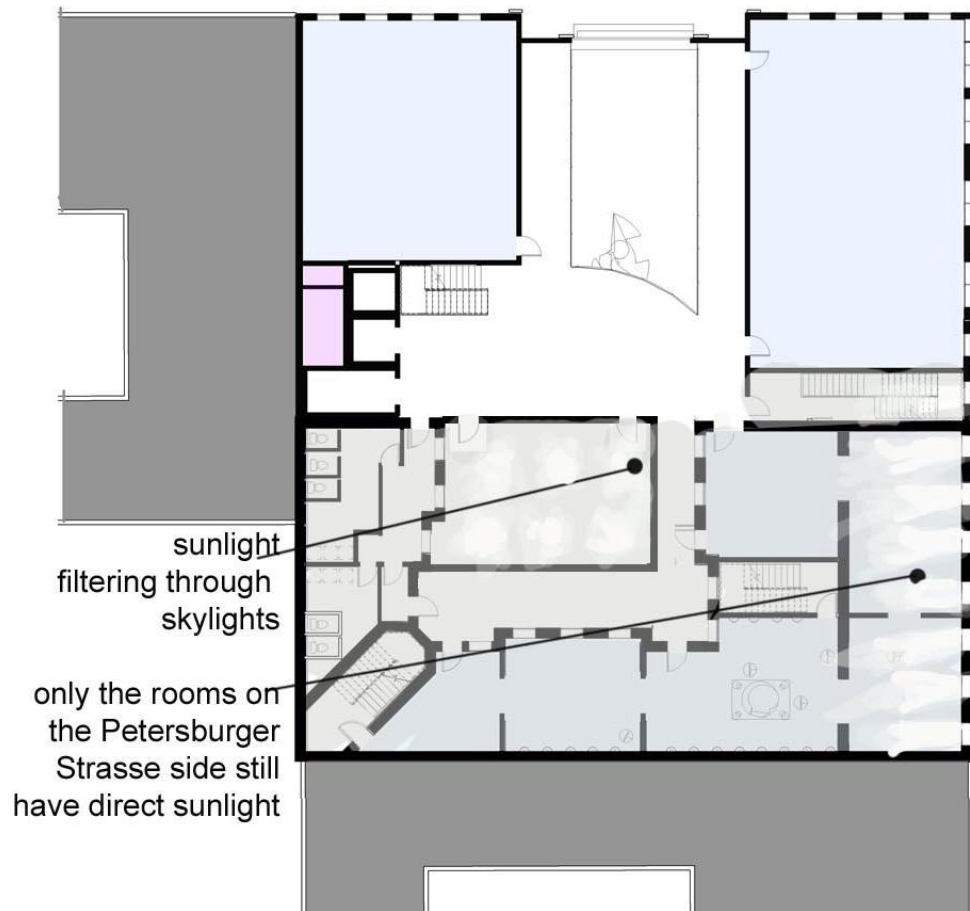


Figure 128 *Plan showing that if the courtyard level was raised many of the rooms would essentially become interior rooms with no access to light and air. (Author)*

After carefully looking at the new section that was drawn to explore a raised courtyard it took only a minute to remember why this solution had been ruled out earlier in the design process. All of the rooms in the old building rely solely on the courtyard for light and air, both of which are very important to the German society. When you enclose the courtyard it makes almost two entire floors of the renovated portion of the building function as interior rooms as they have a party wall on one side, room divisions on the other, and a filled in courtyard to completely enclose the space. There is the technology to make these newly dark spaces work, but in order to do that extra energy would be consumed to create the artificial environment that the existing courtyard creates already. The other option is to enclose the space with a translucent glass material which would allow light to filter through. While it could be constructed so that people could still walk on the surface it would no longer have the solid ground feel that the courtyard typically has, and this does not really respect the courtyard typology of the area. Although raising the courtyard solution might make for a better “ground plane” in the outside courtyard itself, it most certainly does not help 1/3 of all the spaces in the historic building, or respect the function, or memory of the courtyard on the actual ground level.





Figure 129 Section showing light infiltration into the building if the ground floor inside the courtyard was raised. (Author)

If I were going to give more design considerations to the building courtyard, as well as the terrace, and the park area across the street I would update each of these spaces planting arrangements.

### The Park

By redesigning the southern most portion of Petersburger Platz a physical connection of art pouring out into the park could be created. The park would function as an extension of gallery displaying large pieces of art outdoors. There could even be a reflecting pool with sculptures becoming the outer edges creating space and clearly marking the symmetrical entrance of the Cultural Art Center. This arrangement would create a stronger sense of connection between the park, internal design spaces, galleries and the courtyard inside the building.



Figure 130. *Image of Taj Mahal, displays the idea of a reflecting pool on axis with the entrance of the building, as a grander scale, but the principles are the same. The reflecting pool is flanked with trees, but sculptures could easily be integrated into the design. (Author)*

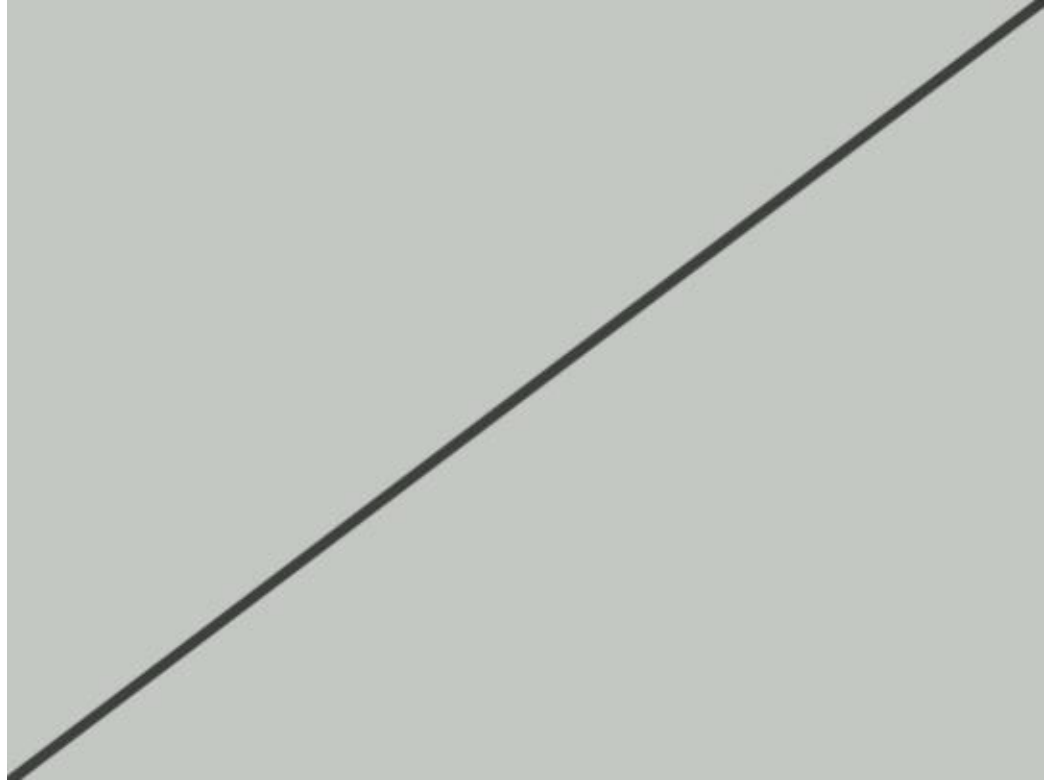


Figure 131 *Richard Serra display of “Section II” and “Torqued Ellipse IV” stand in the sculpture garden at the museum of modern art NYC. This example shows an art display which would be a compatible with the landscape, as well as indicating the introduction of reflecting pools, hard surfaces and plantings all to compose a pleasing design that visitors and artists alike can walk through and experience. <http://moma.org>)*

### The Courtyard inside the Building

Designing the interior courtyard space so that the greenery itself becomes an art display would be an appropriate solution. The ground plane would be composed of solids and voids arranged at variable densities can involve the visitor into the design pattern, without having to see the vegetation layout from above.<sup>47</sup> The pattern of the pavers can form designs that encourage movement and connection between the inside of the building and the outside. By keeping the design composed of small pieces it also allows the spirit of art and design allowing for the arrangement to be changed with ease as the occasion called for it. As a result

of introducing patterned greenery onto the terrace it not only creates a feel of the continuation and connection to the art gallery but also provide homage to the historical hard surface courtyard.

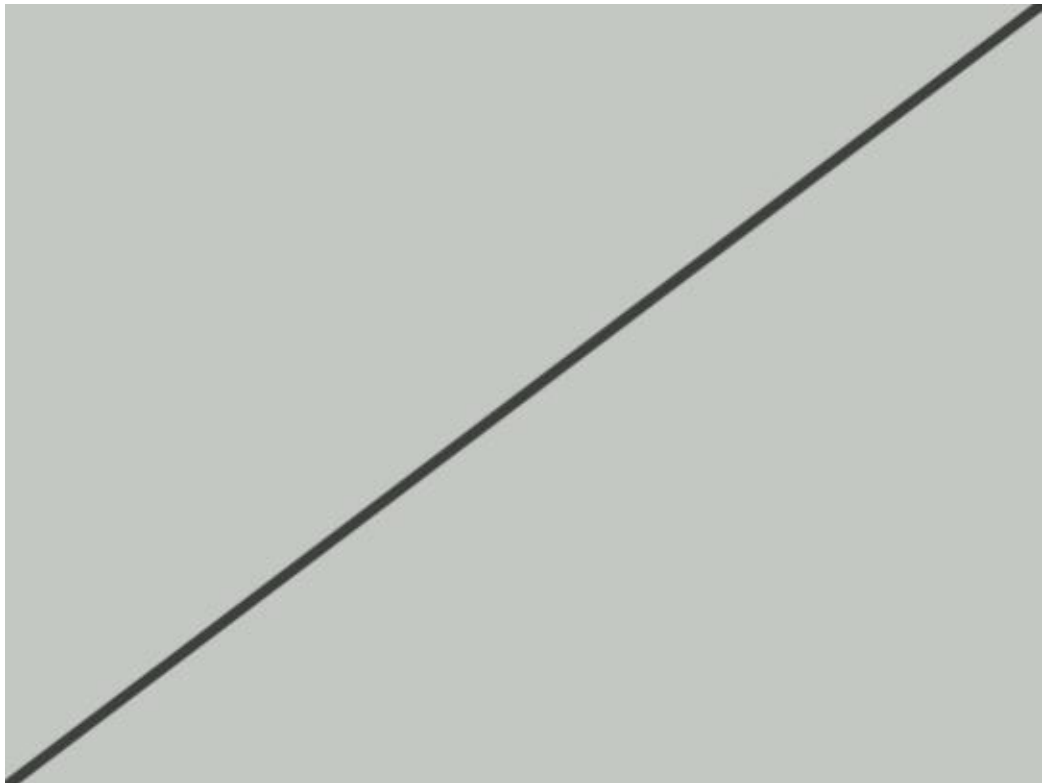


Figure 131 *Nogushi Roof garden designed by Michel Desvigne. The roof garden reflects the sculptural design feel with the placement of the greenery, as well as art installations. (Kottas 108.)*

In my opinion this project set out to stay true to the values of the neighborhood it was being designed for, therefore the design solution was the appropriate one to implement. The exterior of the building may very well be more subdued than some critics may prefer; but the intervention was done to revitalize the area for the people who are living there. They needed a building that was going to respect the past, complete the memory of what once was, and

restore a civic presence to an area that can once again be the awe-inspiring neighborhood that it once was. These goals and values were reached by weaving together the old and the new, creating continuity and a sense of place that will be an example that will encourage preservationists and design professionals to strike a balance between history and the desires of tomorrow.



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