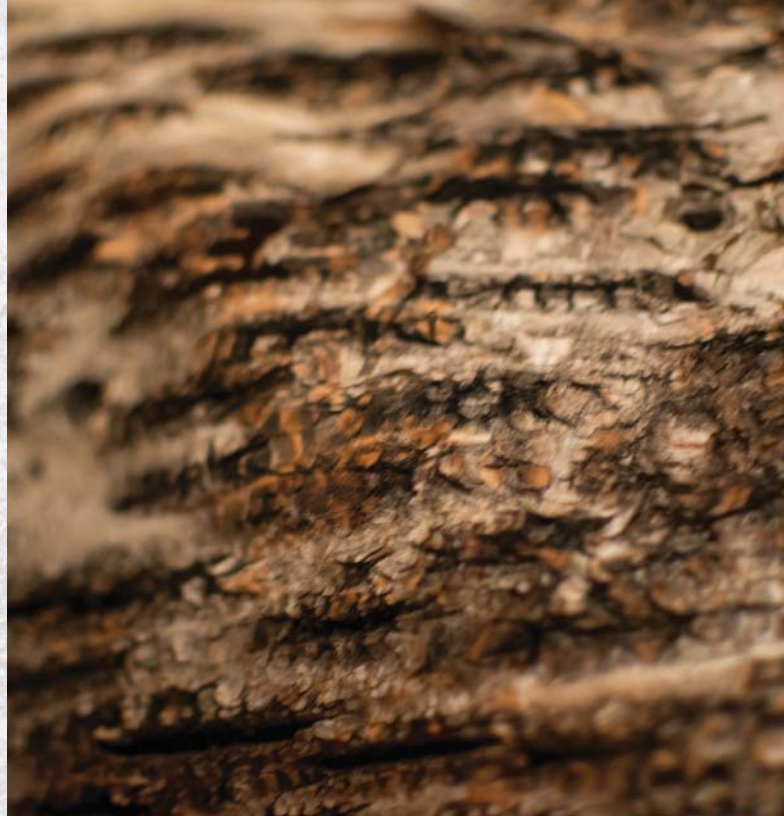




# THE BEAUTY OF THE PAST

An attraction to the past is a natural interest in people, we are always interested in where we came from in the hopes to see where we are going. Along with this interest of the past there is a similar interest to the ruins from the past. These ruins take various forms, Technology, Nature, Architecture, artifacts, the similarity these all have with each other is their ability to tell a story about the past. In a few of these instances there is even more life in the ruin than there was in the living thing, a dead tree is an appropriate example of this.





## TECHNOLOGY

Even in something as quickly changing as technology there remains an attraction to the past. It is impressive how the old can compete with the new in such a way. While the



new offers a more efficient product the past provides that nostalgia that is a powerful draw for many. Cars are a good example of this, classic cars continue to be a major market today because of that want for something old. To be able to own that artifact and use that artifact provides a much more personal experience that may not be offered by the newest products.



## THE NEW TREND IN ARCHITECTURE

Over the last decade, there has been a sharp increase in the amount of construction that involves taking an old, dilapidated building and restoring it into something new. This draw to adaptive reuse continues to keep architects busy, and is a strong candidate for the style that will define this area in architectural history. This is due to the convenient timing of both the availability of buildings to be restored, and also the public's, or clients, attraction to this type of architecture.



## WHY NOW?

The availability of buildings to be restored has reached a peak due to multiple factors. First, the materials that were used to build buildings back in the early 20th century, like today consist of both very durable materials but also materials that are of lesser quality. For example, the brick that was used on buildings 100 years ago remains a durable material today even after 100 years of exposure to the elements. The wood in these buildings is more dependent on the condition the building was held in throughout its life. While wood that has been exposed to the elements will rarely last that long, if it remained protected it can continue to be used. The material that has advanced the most since these buildings were first built has been glass. The quality of glass has increased so much that the use of single pane plate glass is a rarity today.



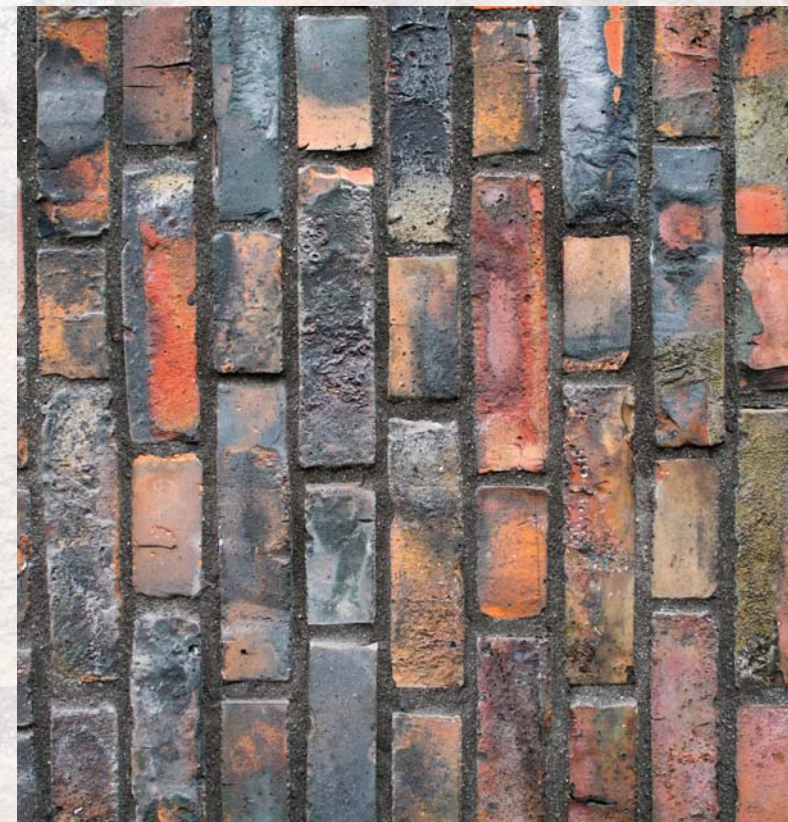
Looking at the lifecycle of these materials around the 100 year mark is where, without consistent repairs, they start to break down and need to be repaired. This is the result of new construction methods and an increase in building in the early 20th century. This massive collection of well-built buildings are starting to fail, so the best option is to reuse them.





## IMPACTS

While the reuse of these buildings has a lot of positive impacts such as the promotion of reuse rather than building new, or the increase market for architects, there are also negative impacts. The most obvious is due to the popularity this building type has gained. Gentrification of our cities is impacted by the increase in these reuses. While

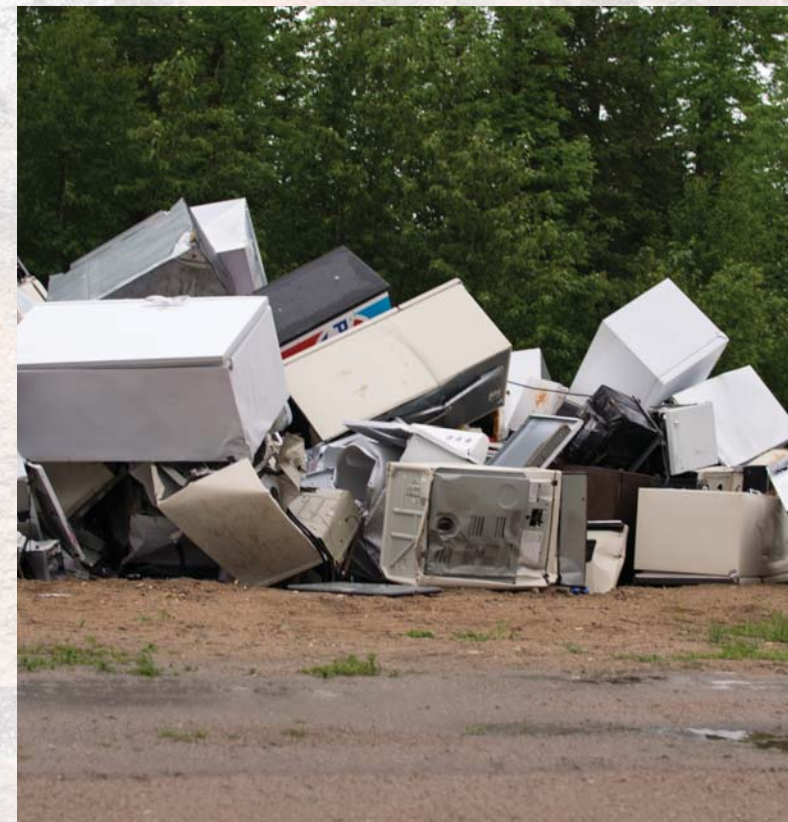


there are other factors impacting gentrification, every brick warehouse that is converted into apartment lofts is another drop in the bucket. This shift to the cities has effected the poorer classes because of their rent increasing for these newfound valuable properties. Another negative impact, is while these buildings are notorious for being very energy inefficient. Through our advances in building technology our wall systems are much more efficient than the standard brick wall construction used 100 years ago.



While reuse in itself is good for the environment, each building should be closely studied to see the effects on the building over its renewed life on the environment. While adaptive reuse may be sustainable up front, it may in fact be less sustainable over the life of the project, once hazardous materials are removed (Lead, Asbestos), and the building

can match new buildings energy standards. There become a grey ethical line for each adaptive reuse project. While issues like sustainability can be easily overcome through good design and a strong budget, is that the right ethical choice for the clients' money.





# OUR INTERACTIONS & ATTRACTION TO RUINS

Through the examination on our interactions with ruins, Robert Harbison questions why humans are drawn to ruins, while we remain suspicious of the smooth and continues. In his book *Ruins and Fragments*, Harbison examines literature, architecture and other art forms, to see examine their fascination with ruins. Maybe this fascination with adaptive reuse is also effected by human's natural inclination towards ruins. Ruins are the physical remanence of a past event, while they are physical in nature, they are also very theoretical in nature. Ruins can be examined, not by what is physically there, but what was culturally lost.





While similar, building into ruins offers a different insight that adaptive reuse cannot offer. The integration of ruins in a project helps to create historical significance in the project. A very literal example is the Tribune Tower in downtown Chicago. At the base of the tower are many different stones cast into the side of the building. Ruins are taken from their original location and help here as a new part of this building. It acts almost as a museum for this collection of ruins for exhibition to the public.



When new architecture comes into contact with a ruin, there are three different routes a designer can take. While the initial decision is quite simple, each route has its complexities.

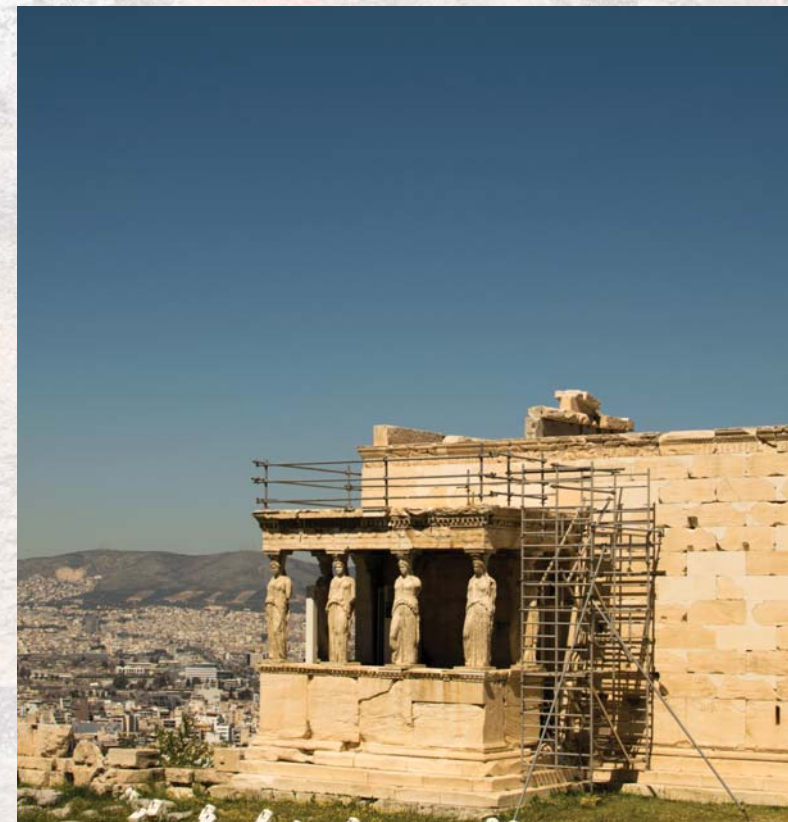




## REPLICA

The first option is to rebuild the ruin, filling in the gaps to create the initial artifact again, but combining the ruins with new replacements. An example of this would be the acropolis in Athens, Greece.

The Parthenon is undergoing reconstruction to be built exactly how it once was. The combination of the old stone and the new stone offers a juxtaposition that helps to frame the overall artifact, but the stones are also different enough in color that it is easy to spot which are real and which are fake. This offers the option for visitors to see what it once was like when it was first built 2500 years ago.



# REPLACE

The next option on how to approach ruins is to remove the ruins, while still memorializing them. This requires more context on how what once was there affected the surroundings and what of that is worth restoring. An example of this would be the ruins of the World Trade Towers after the 9/11 attacks. While there is that image that most American can picture of fire fighters raising the flag among the rubble of the towers, what was going to be built there next had to capture that essence of that photo. While One World Trade center stands today, it is not on the spot of the previous towers, instead there are two reflecting pools that match the foot print of where towers 1 and 2 once stood. These pools offer a similar impact that the ruins had by emphasizing the huge scale of both buildings and the loss of life inflicted.





## REUSE

The final option is to leave the ruins as they are and to build around them. While this could easily be confused as adaptive reuse, because they share similar traits, this is specific to ruins rather than forgotten buildings. While there is no clear distinction between the two, an example of this option would be Mill City Museum in Minneapolis, MN. The remaining walls of a flour mill on the Mississippi are used alongside more modern

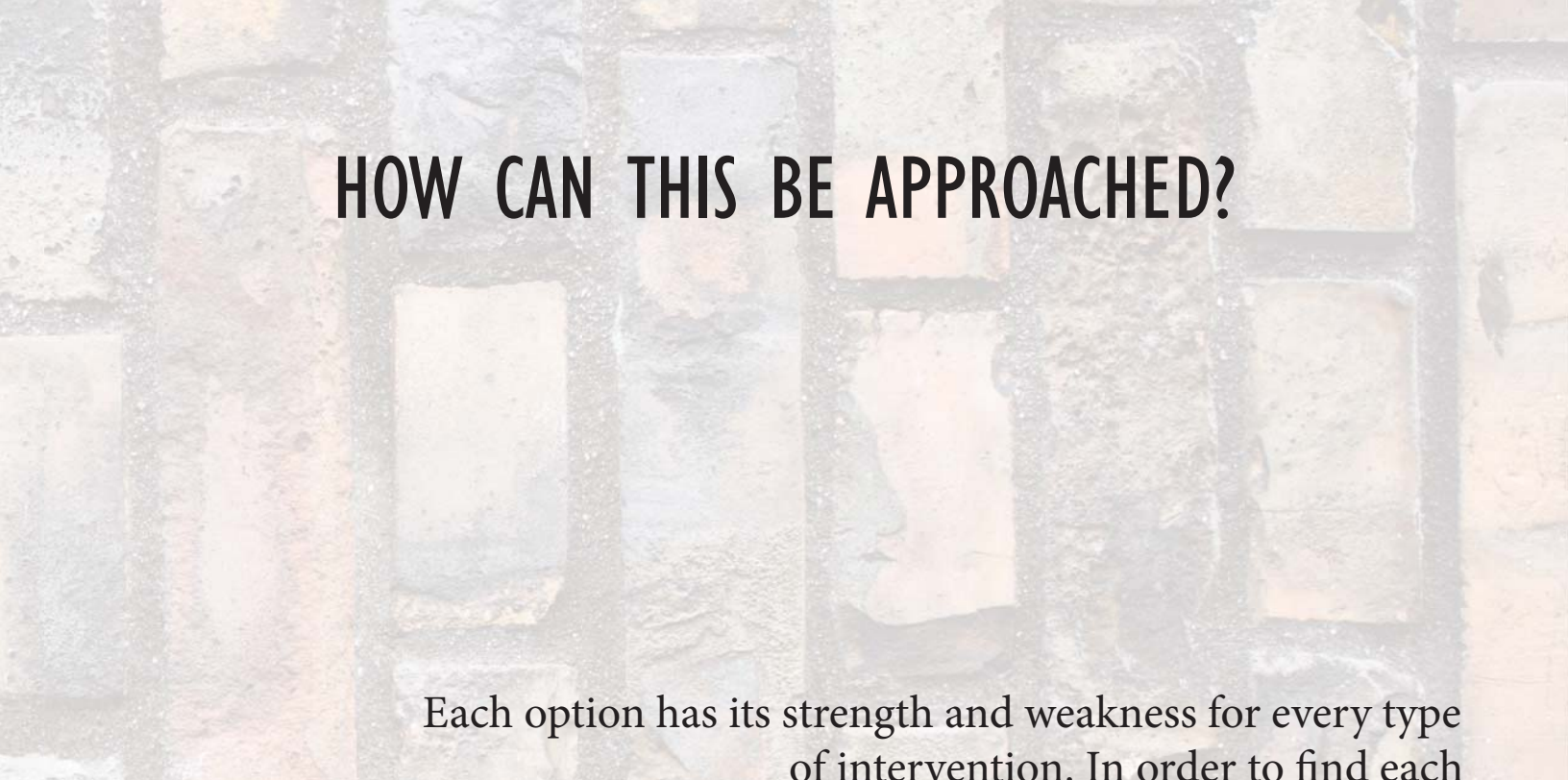


collections of glass and steel to create a unique experience. While the original flour mill is replaced with a museum, the essence still remains due to the ruins that are intertwined between the new modern architecture. This transparency of the addition only helps to reiterate the ruins as they are visible from almost every part of the building. This offers a unique approach rather than rebuilding a replica because it offers a closer look to the actual ruins rather than disguising them.

RUHR MUSEUM

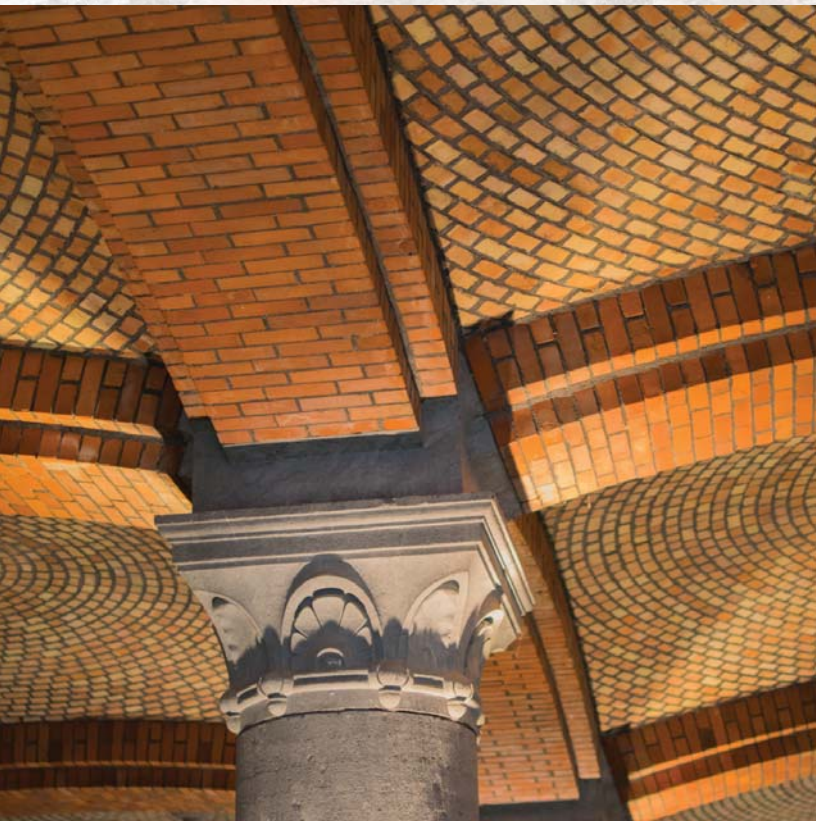
By following one of these routes it helps to recreate what was once there, either in physical form or its essence. But before any interventions can begin, the previous building must be studied. Examining the previous building, whether it is still on the site or not, to see what it was once was, both in its physical form, and its impact on the surroundings. Taking what is found in this examination helps make the decision for what type of intervention is needed.





## HOW CAN THIS BE APPROACHED?

Each option has its strength and weakness for every type of intervention. In order to find each strengths and weakness it is important to study what was lost in the ruin. After knowing what is lost the next step is to use that information to see what can be revived from that loss. Any loss that is reversible should be reversed and that is most easily done through either Replication, Replacement or Reuse.



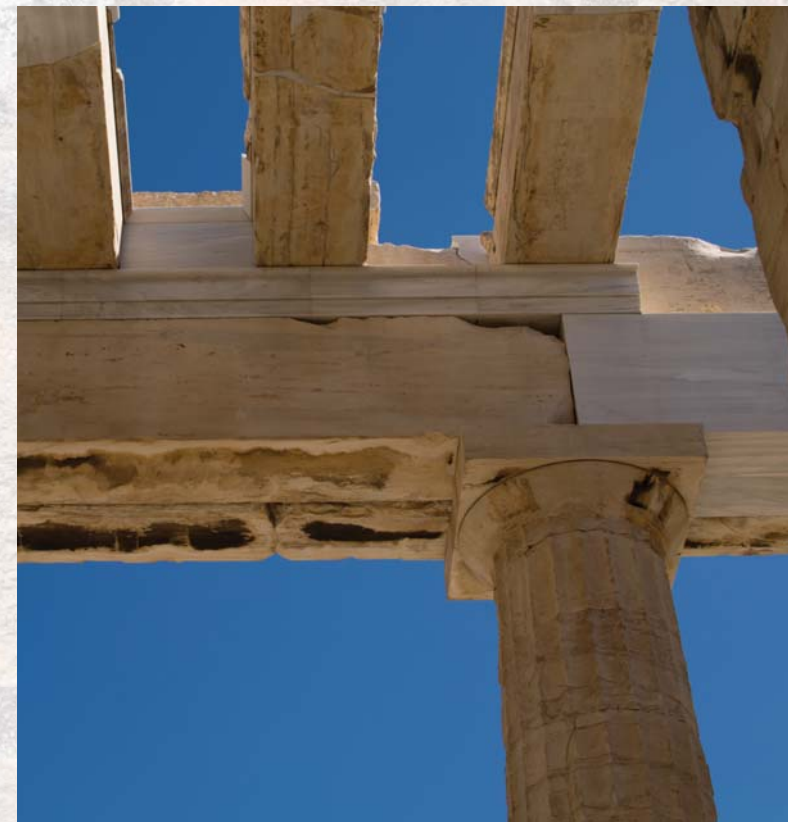




When to use?



## REPLICA



Replication offers strengths when there is a building presented where the physical building is the key aspect that was lost. While there may be some loss of essence of the previously building, replacing the building is more important, and the ideas of the previous building (and even the function) are less important.

# REPLACE

Replacement is the most complex of the three because it is best used when there is a balance between the previous buildings presence was created by both its physical form, but what the building offered to the community in a more theoretical way. This can be viewed as the most beneficial of the three because both the physical and theoretical loss are reversed, although it is also the most difficult to do well.





# REUSE

Reuse is the most nostalgic of the three because it holds on to what was lost, and memorializes it by building new around or within it. It is best used when the essence of the building is the most important aspect to the community, and even though the physical loss of the building is irreversible, the idea of what the building once was can be reversed.



# INTERVENTION



## TRUCK NO. 14

Designed by Philip Johnson in 1904, Truck No. 14 was a functional firehouse for nearly 60 years. After it was closed in 1962, the building remained vacant until 1982 when the city made an attempt to convert the building into a community center. When that failed due to a lack of funding related to the recession in the 80s the firehouse remained abandoned for another 10 years. After its demolition in 1994 there was discussions to use that lot as a coop vegetable garden, but failed due to a lack of interest. To this day the lot remains an empty space in the urban façade.



# STRAWBERRY MANSION, PHILADELPHIA

Located in North Philadelphia Strawberry mansion is a predominantly African American Neighborhood. This neighborhood has developed the reputation for

being one of the most dangerous in Philadelphia. The combination of its large footprint and a lack of funding this neighborhood struggles. This lack means fewer, police in the area, fewer funding for schools and fewer community opportunities. This lack of funding also is why there are many abandoned buildings throughout that are in varying states of disrepair.



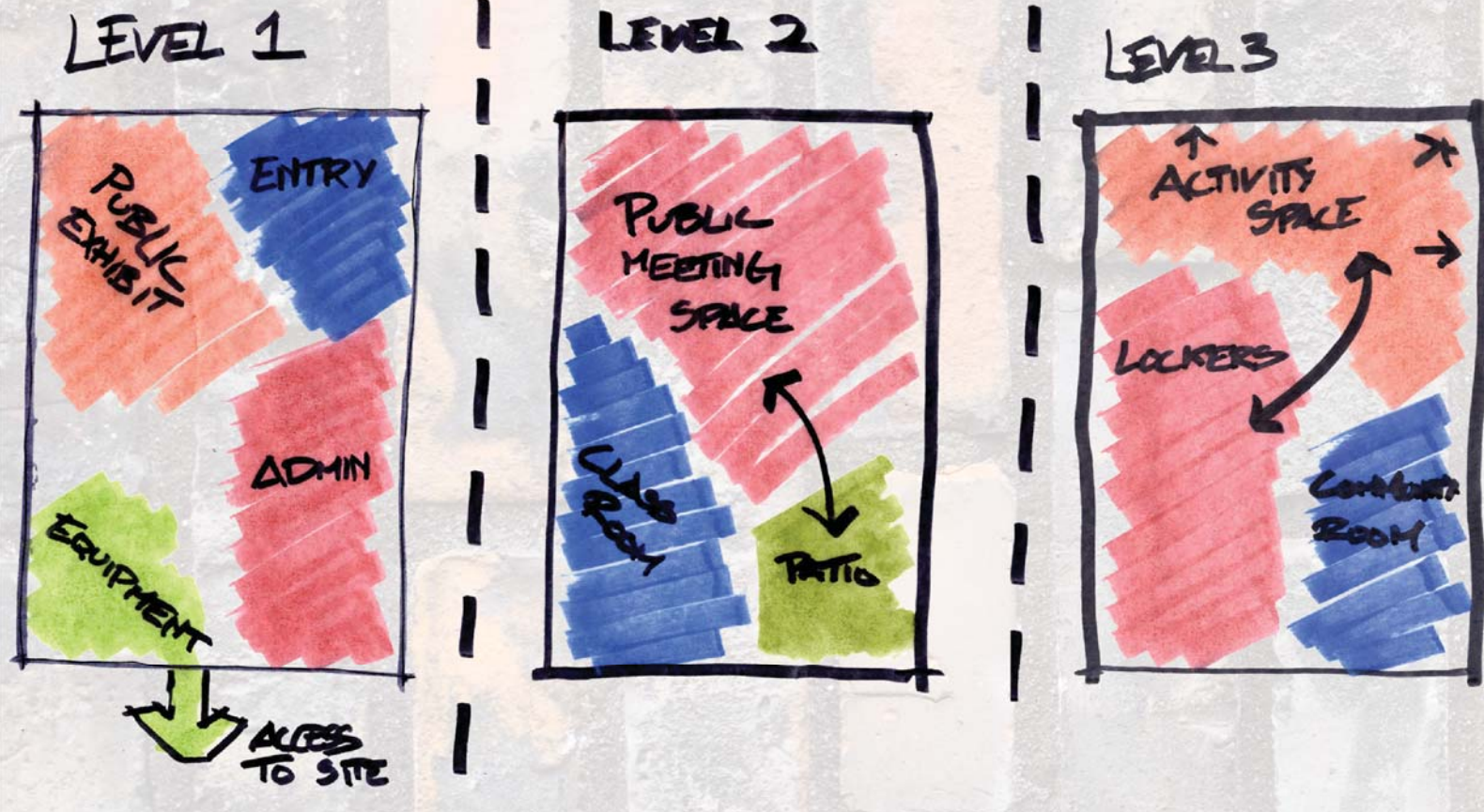
# PROGRAM

Located in a party of Philadelphia with a high crime rate, but also a lot of low income housing there is an overall lack of community connectivity. By building a community center within the old fire station it will bring the community closer and provide opportunities that they do not currently have. Community connectivity can be achieved in this building through spaces such as, classrooms, Assembly spaces, activity rooms and exhibition spaces. In order to provide a safe community for all ages it is important to have a reception space at the entrance, along with office spaces for advisors in the community.

| ROOM                  | SQUARE FOOT         | LEVEL         |
|-----------------------|---------------------|---------------|
| EXHIBIT               | 620 SQ FT           | LEVEL 1       |
| RECEPTION             | 170 SQ FT           | LEVEL 1       |
| LOBBY                 | 1,600 SQ FT         | LEVEL 1       |
| OFFICES               | 1,050 SQ FT         | LEVEL 1       |
| STUDY SPACE           | 1,000 SQ FT         | LEVEL 1       |
| RENTAL OFFICE         | 250 SQ FT           | LEVEL 1       |
| VERTICAL CIRCULATION  | 600 SQ FT           | LEVEL 1, 2, 3 |
| CAFÉ                  | 800 SQ FT           | LEVEL 2       |
| CLASSROOM             | 525 SQ FT           | LEVEL 2       |
| MEETING SPACE         | 650 SQ FT           | LEVEL 2       |
| OUTDOOR ROOFTOP PATIO | 550 SQ FT           | LEVEL 2       |
| TOILETS               | 435 SQ FT           | LEVEL 2, 3    |
| CIRCULATION           | 2,425 SQ FT         | LEVEL 1, 2, 3 |
| LOCKER ROOMS          | 1,000 SQ FT         | LEVEL 3       |
| COMMUNITY ROOM        | 675 SQ FT           | LEVEL 3       |
| ACTIVIY ROOM          | 1,200 SQ FT         | LEVEL 3       |
| STORAGE               | 175 SQ FT           | LEVEL 3       |
| <b>TOTAL</b>          | <b>13,725 SQ FT</b> |               |

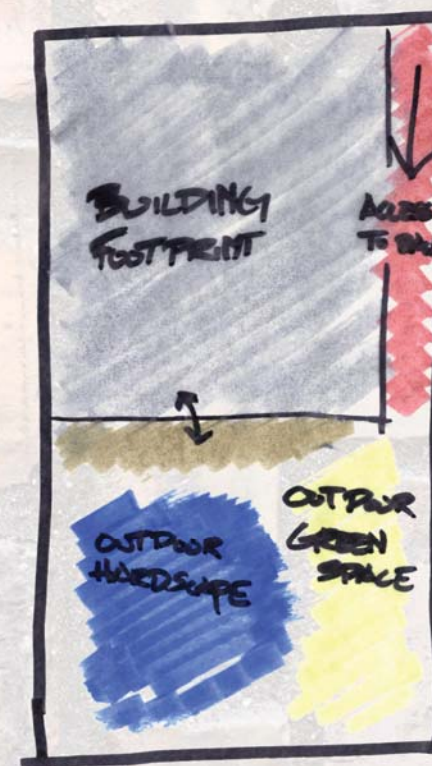


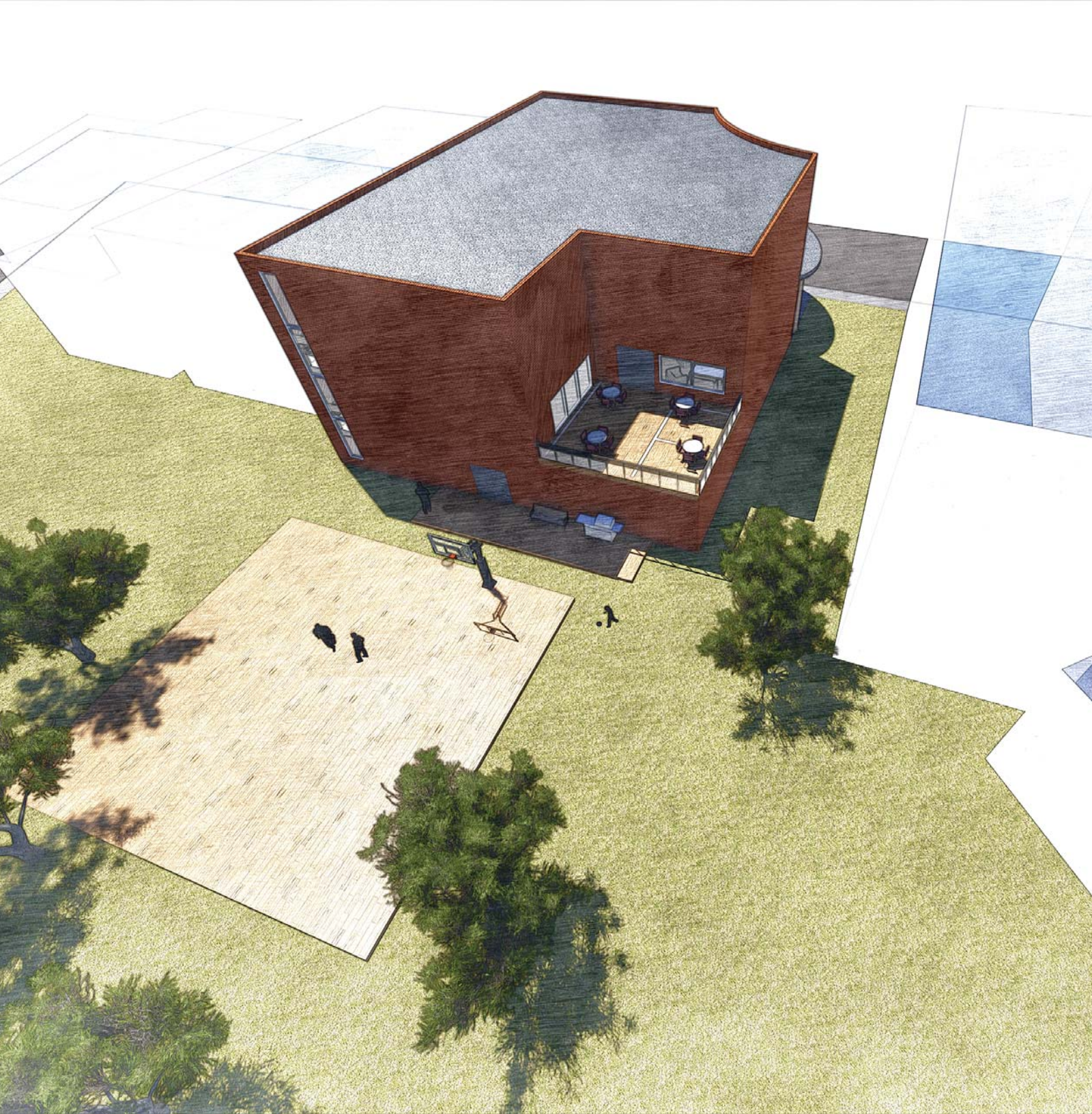
# SPACE PLANNING



Space planning for the intervention had multiple iterations but what was similar in all of them was for the building to fill in the gap in the street. Locating offices, and a public exhibit space on the ground floor offer the opportunity for visitors to easily stop in to explore the exhibit or for a meeting.

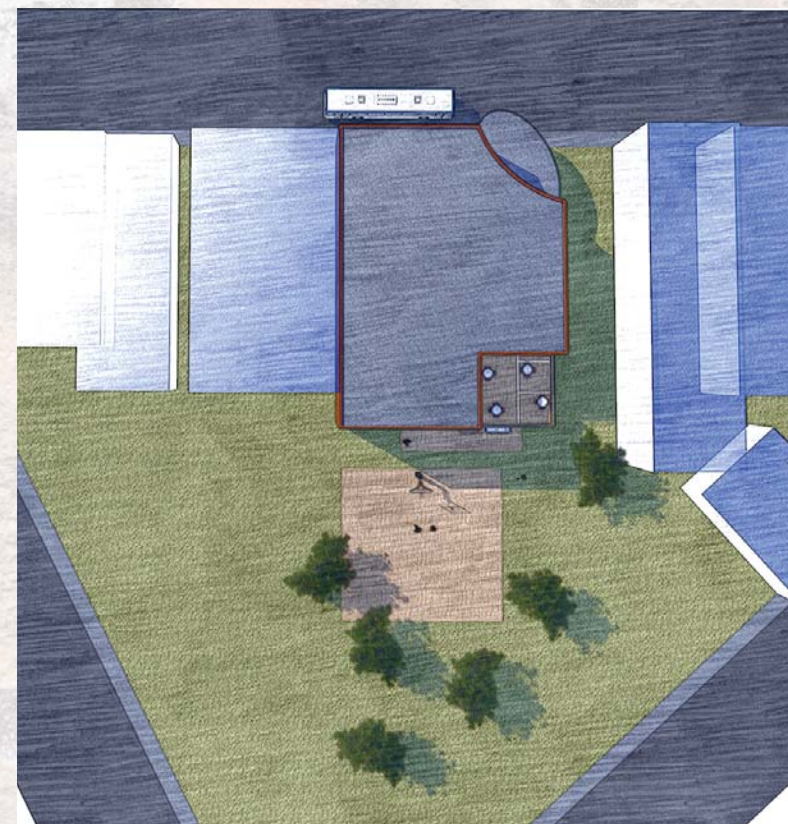
Equipment rental is located at the back of the building for easy access to the site. The second and third floor offer a more private spaces for regular visitors of the community center. The second floor is primarily public meeting space, while the third floor offers an activity space that overlooks the street.





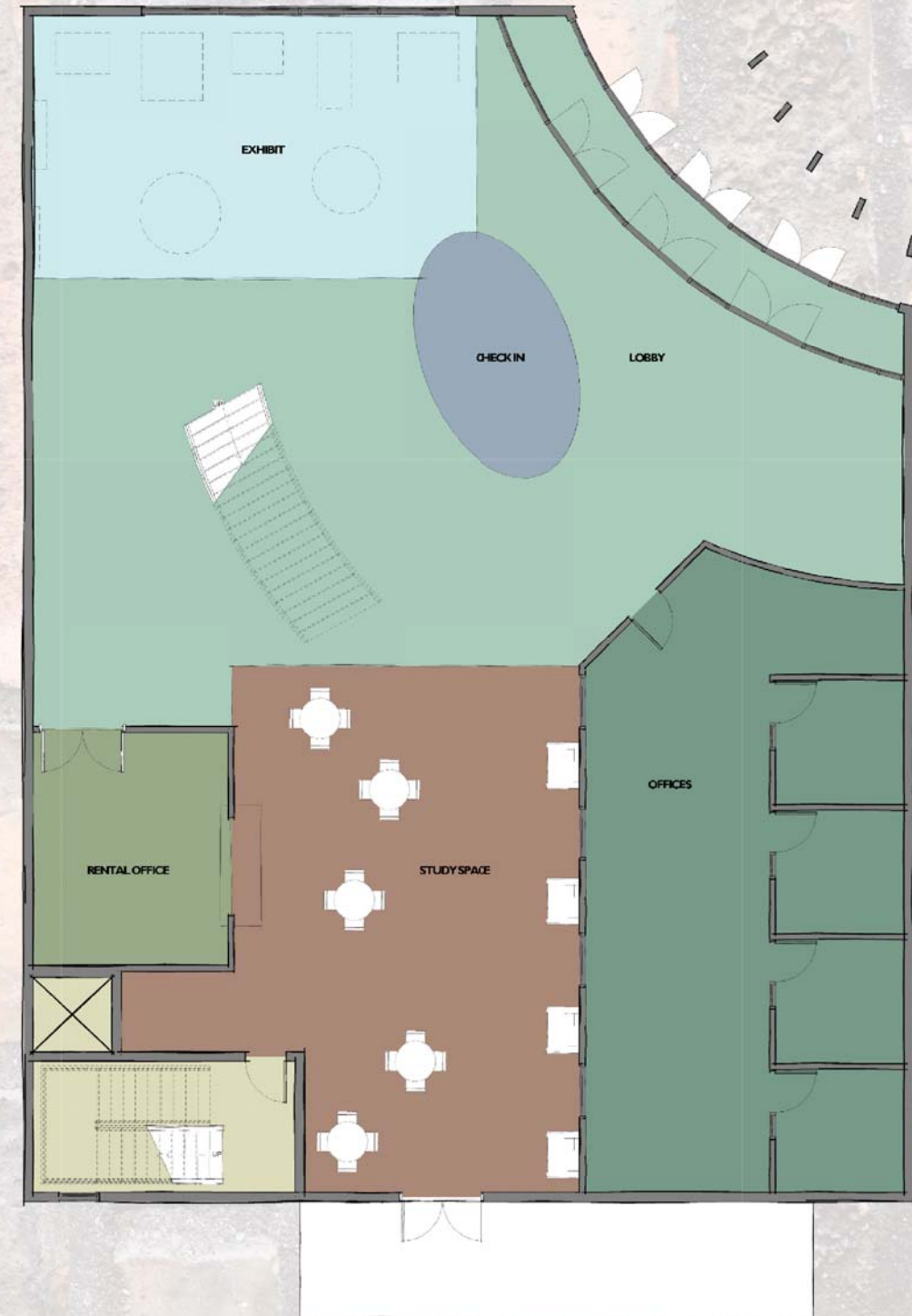
## SITE

The site for the community center has an emphasis on providing outdoor activities. With a small access from the street to the back lot there is a lot of open green space and a half size basketball court. This in combination with the equipment rental encourages pickup basketball, football, soccer ect. games in the back. The site is protected by a variety of trees to protect and hide the lot from surroundings. The back also has a small patio and grill in the hopes of outdoor community gatherings.



# FIRST FLOOR

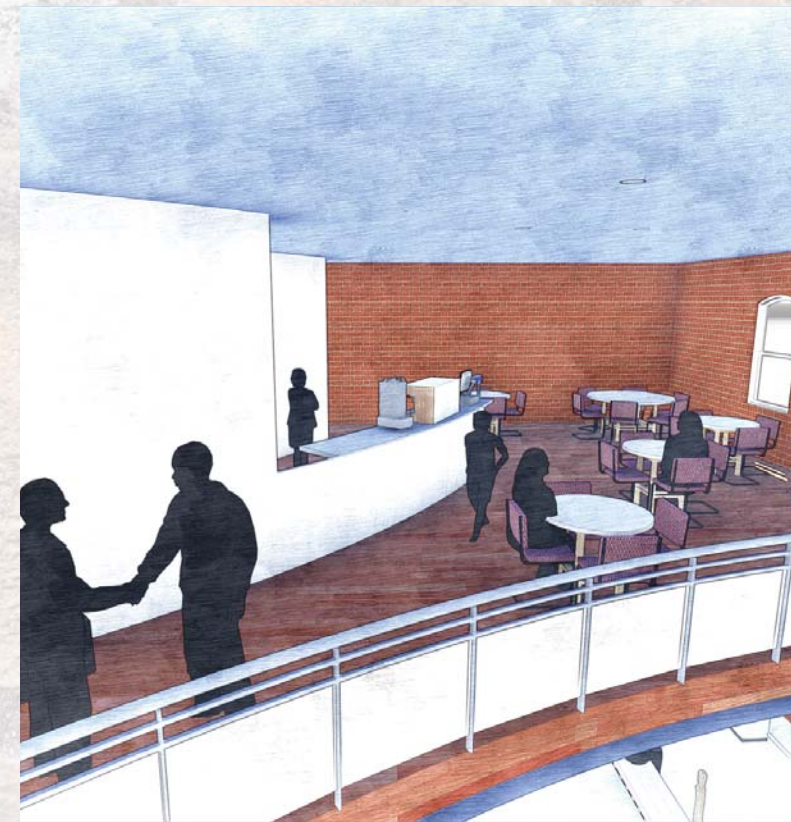
The first floor offers a variety of spaces that balance security along with need for the ground floor. Then entrance is accentuated with an elliptical canopy that pulls people in. Once inside there is an immediate reception area for security and to provide information to guests. The first floor has a lot of open space and tables for people to meet at or work. The offices on the level will house the administration of the center. A rental space towards the back will rent out equipment to be used out back. There is also a exhibition space for art that is created by the community.



## SECOND FLOOR

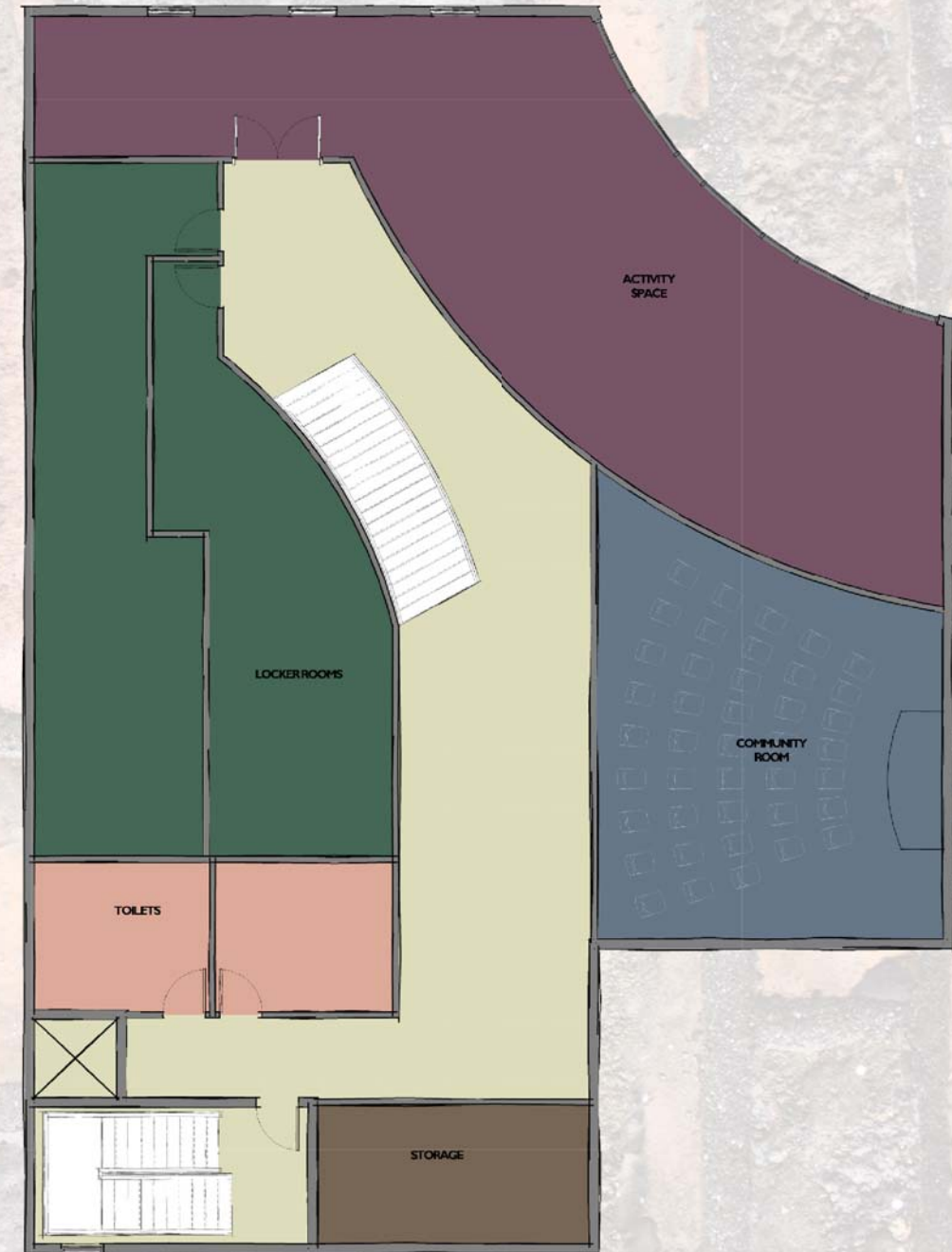
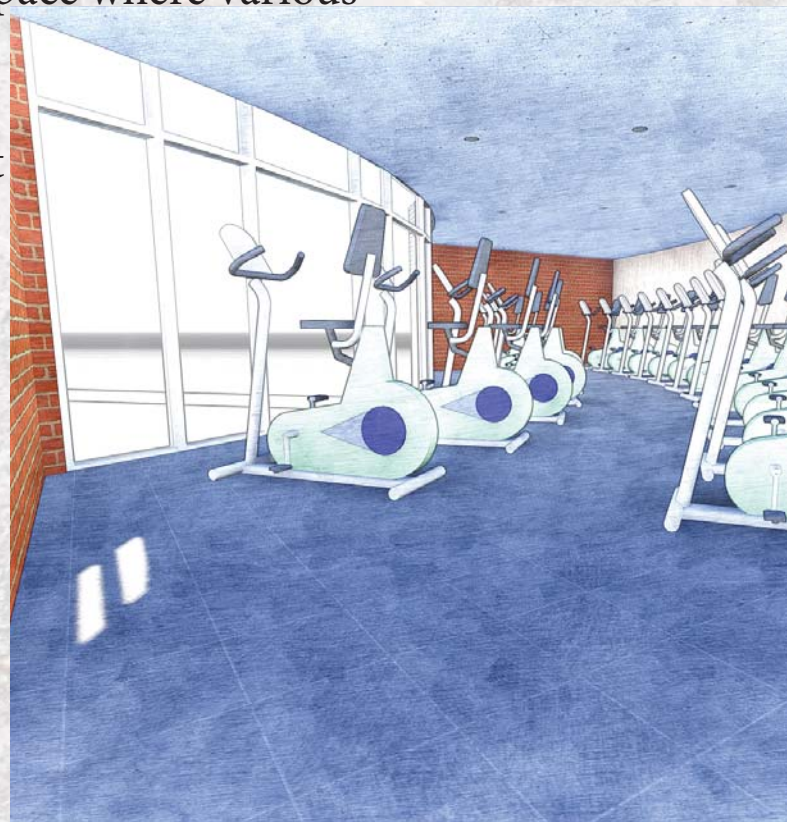


The second floor's key aspect is the coffee shop as a meeting place, similar to the first floor it offers a lot of open space for people to meet or work. On this level there is an outdoor patio. This floor overlooks the lobby and provides a very open high atrium that along with the canopy draws people into the entrance. There is a large multiuse classroom on this floor that can be used for various classes, from cooking classes to pottery classes.



# THIRD FLOOR

The third floor's two main features are the large activity space and the large community room. First the activity space, with adjacent locker rooms is another space where various classes can be offered here from spin classes, to yoga. This space overlooks the street allows for a lot of natural light for these classes. Next, the community room is the appropriate space in the building for lectures to the community or city hall style meetings. With a small stage and multiuse seating this space could also be rented out for various events.





SUCCESS OF INTERVENTION

# RESTORE ANALYSIS

By rebuilding what the essence of the building that once was there this community center is able to replace, but not in a physical way. This replacement is best evaluated by the impact the community center can have on the community compared to the fire house that once was there. While offering different opportunity's to the community, than a firehouse, the importance comes from the growth this center can provide to the community. By having a center that can bring people together there is a hope that it can take the poor violent neighborhood of Strawberry Mansion and turn it into a more peaceful place.





## REPLICA ANALYSIS

Cologne Cathedral is a good example of a building that was partially destroyed and then was rebuilt the same. The cathedral was heavily bombed during World War 2 which destroyed much of the roof that was built in the 1400s. Along with the destruction of the roof, the entirety of the precious stained glass windows were entirely destroyed. It was quickly repaired, but not to what it once was in the 1940s. It was not until 2007 when the previous repairs were undone, and the cathedral was replicated to the building it was before the bombing.





# REUSE ANALYSIS

St. Nicholas' Church in Hamburg Germany offers a unique insight to the restoration of a destroyed building. This sight in Hamburg was continually being built upon and the first Church was built there in late 1100s. Fires and collapses resulted in the church being rebuilt in the 1840s in the gothic fashion that it is known for today. During WW2 the church was extensively bombed destroying all of it but the nave and the crypt. The only part of this church to be reused was the crypt where there is now a small museum. Entering into the dark crypt while seeing the destroyed nave is the first exhibit of the museum about the destruction of Germany during WWII.





## HOW CAN NEW TECHNOLOGY RESTORE PAST

Through the constant changing world of today new opportunities for restoration are made every day and new ways to approach them are created through new technologies. A simple example of this is while buildings in Brussels Grand Place are being restored they hang printed images of the buildings over the construction so that people can see what is being the scaffolding. Taking this and adding the latest technology to it brings new opportunities. For example, can projections be used to show to people what once was there instead of physically rebuilding? Could the Buddhas of Bamiyan that was recently destroyed by terrorists be brought back by a projection that would offer a cheap and safe way to restore that loss? Can the newest advances in Augmented Reality and Virtual Reality be used in a way to study and examine building that once stood in a way that would replace the need to restore those buildings?

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All other photos are the authors.



# JOE MILLER

Photography was the first medium that Joe first started to explore ruins, for they always offer unique ways of being photographed. His thesis is studying the history of a flour mill that burned down in 2008 and how to examine the ruins and rebuild a relevant replacement for the mill.