Metamorphoses Of Space

All changes, even the most longed for, have their melancholy; for what we leave behind us is a part of ourselves; we must die to one life before we can enter another.

~Anatole France
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If human ecology is the study of the distribution and abundance of people and the affects of their interactions with the environment, then the densest distribution of people would be in the urban environment. A community is a system that shows the interactions of people with their environment and their direct and indirect affects on the area. This suggests that the project should center on investigating a community within the urban environment, and should consider how architecture can affect and adapt with the community ecology.

Communities have learned to change and adapt over time to new circumstances and the movements of people from one area to the next. There have been great movements of people from tight urban neighborhoods into more spacious and less unified areas in the suburbs. These movements have caused holes within, and disregard for urban communities. The city is littered with vacant lots, brownfields, and abandoned buildings that further this disregard and movement away from city centers. If instead we were to approach these brown spaces as prime places for intervention and reconstruction of human interactions, these communities could start to regain their strength and flourish once more. The brownfields, vacant lots, and abandoned buildings are places that were once part of the community history and interactions, and new architecture can draw from the past presence of these spaces. These spaces should be rethought and reconsidered as spaces in need of adaptation for the life that will reclaim the landscape. They should be reconstructed as spaces that are open for experimenting with the study of interactions between the community, commuters, city, and the urban environment. An architecture that would better serve the urban environment would be one that adapts to the elements and natural occurrences as well as the interactions between the environment and the living community that occupies the area. As the community learns to adapt and change over time so should the architecture that shelters the community to best fulfill the needs of the interactions in the community. The thesis project proposes then that a new intervention must be rooted in the current conditions of a place as well as the specific future trajectory that may be implied by those specific localized conditions.
SITE CIRCUMSTANCE

For this project a site would ideally be located within a city that can draw and reflect the community around it. The site would maintain the urban fabric and be located in a brownfield location that is vacant or has abandoned buildings. The site should be important in elaborating on the community needs for the program. The site should be located in a city like Chicago or Detroit; areas of urban decay and neglect where the community is strong and can become a renewed and sustainable structure into the future.

The site and the program will be connected on many levels as they should be when constructing within the urban fabric. The program will have a strong relationship to the community and the existing context that surrounds it. The program will consider the importance of rejuvenating the Brownfield and providing sustainable growth. The program will also take into account the ecology of the community, and the urban landscape of the city that the site is part of.
This thesis approaches an architectural response to past, present, and future, by first understanding how ecology, culture and human interactions can transform a space through time, leaving marks on the space that can be used as building blocks for the community. A design is developed based on how the built environment should respond to the existing context of the site through the exploration of brownfields, adaptive reuse, and the palimpsest of a site. This project will challenge the existing typologies of buildings that celebrate the past, present, and future of a site to also respond to the community and human ecology of the area. This thesis project hopes to create an architecture that responds to the metamorphosis of a space across time and context, and transform the forms and functions of the past context into the active and utilized spaces of the future.

This thesis first approaches the meaning of human ecology, community, culture, and metamorphosis to grasp the effects of the inhabitants of the space. Human ecology is the study of the distribution and abundance of people and the affects of their interactions with the environment. The densest distribution of people would be in the urban environment, and it would be a prime space to visualize their affects on the environment. An area is formed by its community, or the people with common backgrounds or shared interests that live in the same area and interact with one another. The group of people’s shared beliefs and practices identify a place or time in which they belong, is defined as a culture. People’s beliefs, interaction, and practices in a space can change and alter the physical space as well as their perception of that space. Every person is involved in changing their environment. Metamorphosis takes place as “a striking change in appearance, or character, or circumstances,” of
an object or space.\textsuperscript{4} The idea of metamorphosis then lends itself to the fact that the constant changing of an urban fabric is a type of metamorphosis of the environment caused by the interactions of the people who inhabit it. Metamorphosis is a natural change that occurs in many animals, and this project suggests that the environment of people also goes through a type of metamorphosis, and should consider how architecture can respond and adapt with the community, culture, and human ecology.

The present American urban fabric continues to change with the city’s always changing strengths and identity leaving traces of architecture and brownfields that remain as memory of the past. Brownfields are the remnants of a city that is changing from an industrial based economy to the more service based economies of today. As the city changes, the Brownfield areas are left in neglect with existing buildings, and pollutants. Brownfields have caused holes within the urban fabric, and a disregard for urban communities. A brownfield site requires more attention and consideration since the existence of an urban Brownfield means that it has previously been built upon. The existence of past architecture on a site can be a strength to a design that adapts the architecture to work for the community of the present or future.

Brownfields can be seen as a strength to the city that embraces the metamorphosis of the communities character from what is was to what it is to become. The community is the human context of a site and builds the character of the space. So the celebration of the present would mean a celebration of the community that exists around the site. There are many layers to a Brownfield site that
Connect it with a community’s history and heartbeat which should be celebrated as it transforms into the community’s future. If architecture were to approach these brown spaces as prime places for intervention and reconstruction of human interactions, these communities could start to regain their strengths and flourish once more. Architecture should approach brownfields as a space that has been detached from the community and is in need of reconfiguration to blend it back into the society that surrounds it.

An urban Brownfield is like a palimpsest of writing that is just barely visible, and at times just below the surface of the ground hinting at a previous existence. Just as in nature, a site goes through a series of transformations as it metamorphoses through time. After a space has been altered from its original existence as part of nature, the traces of the people interacting with the space are engraved and form the new existence of the space. The natural existence of a space is the first layer of palimpsest that a space holds. The subsequent layers of metamorphosis on the space leaves traces in the ground and in the character of the space.

The palimpsest of the site is a strength that can be used to explore and celebrate the past of a community or culture, and the human ecology that exists within it. The brownfields, vacant lots, and abandoned buildings are places that were once part of the community history and interactions, and new architecture can draw from the past presence of these spaces. “The sites and the artifacts they contain are messages from and about the past” that allows you to learn about “the culture and lifestyle of people.” The past is a trace of one existence in a space, and the traces that remain can be transformed into a new existence. The
METAMORPHOSES OF SPACE MAY CARRY WITH IT CHARACTERS OF THE PAST THAT SPEAKS THE LANGUAGE OF THE FUTURE.

ARCHITECTURE NEEDS TO PROGRESS INTO NEW AND EFFECTIVE TECHNOLOGIES WHILE MAINTAINING AN ACKNOWLEDGEMENT OF THE PAST TECHNOLOGIES. ARCHITECTURE THAT ADAPTS WITH THE SOCIETY AND COMMUNITY TO FIT THEIR NEEDS WILL ADVANCE WITH THE GROWTH OF THAT CULTURE. THE ONLY SURE THING ABOUT THE FUTURE IS THAT “THING(S) THAT ARE FUNCTIONAL ARE ONLY FUNCTIONAL BECAUSE THEY WORK IN THAT CONTEXT. WHEN THEY CEASE TO BE FUNCTIONAL THEY ARE REPLACED BY THAT WHICH IS FUNCTIONAL.”

AS THE CITIES OF TODAY GROW THEY HAVE BEGUN TO SPRAWL AND SPREAD INTO SUBURBAN AREA. THE RECLAIMATION AND ADAPTIVE REUSE OF THE BROWNFIELDS AND VACANT LOTS IN THE URBAN CENTER OF THE CITY IS MORE BENEFICIAL TO THE FUTURE.

ADAPTIVE REUSE IS A WAY OF GIVING A NEW FUNCTION TO AN EXISTING BUILDING WITH ADAPTATIONS OF THE FORM AS WELL. THROUGH ADAPTIVE REUSE ARCHITECTURE CAN RECLAIM THE BROWNFIELDS AS WELL AS ACKNOWLEDGE PAST ARCHITECTURE AND FUNCTIONS OF THE SPACES WITHIN THE CULTURES OF THE TIME AND PLACE. ADAPTIVE REUSE CAN ALSO BE A MEANS OF REUSING MATERIALS FROM AN EXISTING OR RAZED BUILDING. THIS TYPE OF RECYCLING OF BUILDINGS, SITES, AND MATERIAL SAVES ON OUR RESOURCES AND CHALLENGES THE DESIGNER TO IMAGINE A NEW USE OF AN EXISTING ELEMENT.

AN ARCHITECTURE THAT TRANSFORMS WITH THE CHANGES OF THE INHABITANT MUST ALSO REACT AND INCLUDE THE INHABITANTS INTO THE ARCHITECTURE THAT IS FORMED. THIS PROJECT APPROACHES THE IDEA THAT A MUSEUM THAT CELEBRATES THE CHANGES OF METAMORPHOSES OF SPACE SHOULD ALSO EXHIBIT AND EXPRESS THE CHANGES IN AN INTERACTIVE WAY. THE HUMAN ECOLOGY OF A SITE SHOULD BE WORKED INTO THE PROGRAM AND CIRCUMSTANCE OF THE
museum. Since the community has formed the past and present of a site then it is important for the architecture to celebrate the interactions of the people as much as it celebrates the changes of the site from the past, present, and into the future.

The normal typology of a museum restrains and eliminates any real interactions with the exhibits, but an interactive museum can express the exhibits in a lasting way. A history museum is there to “make history tangible” and allows us to “define ourselves in the present” and “propel us toward a future” and in its preservation it limits interactions with the past. This project challenges that concept by recognizing that today is the past of tomorrow and that to know the past one must understand and interact with the present as well. The community and the people that have built that past should become the carriers of the knowledge of their past.

A community center is used as an incubator that supports the community, culture, and human ecology of an area, and can be a “great opportunity for an exchange between our youth and seniors.” A community center builds relationships and is a “meeting place used...for social, cultural, or recreational purposes.” History and cultural connection is the backbone and strength to a community. Then a community that embraces and celebrates its history has a stronger connection.

The strength of a community that adapts and transforms through time can be connected through the architecture that celebrates past, present, and future. The past lies in the palimpsest of the layers that have existed on the site, and the presence it once had. The present exists in the community that supports and interacts with the space. The future is the metamorphosis of that space from how the past has built it and
the present will leave it. This project focuses on one space, but the language and spirit of the site pays homage to the past, present, and future.

This project considers architecture that can embody the metamorphoses of space. It is important for architecture to integrate and celebrate the interactions between the community, commuters, city, and the urban environment. An architecture that would better serve the urban environment would be one that adapts to natural occurrences as well as the interactions between the environment and the living community that occupies the area. As the community learns to adapt and change over time so should the architecture that builds that community to best fulfill the needs of the interactions in the community. This thesis project proposes then that a new intervention must be rooted in the current conditions of a place as well as the specific future trajectory that may be implied by those specific localized conditions.
FOOTNOTES


Precedent Studies
Seatrain House
Jennifer Siegal

Los Angeles, CA
2003
300 Loft Live Artist community
“The Brewery”

3000 Square Foot House

Influences on Project:
- Building formation from site
- Use of Shipping containers
- Climate friendly vegetation
- Sustainable design

The Seatrain house is built in an artist community called “The Brewery” in Los Angeles, California. It a 3000 SF home that is sited between an industrial building and metal scrap yard. The house was designed by Jennifer Siegal and the office of Mobile Design (OMD) to be a house that is user friendly and can be adaptive to the users needs. A house that reuses existing materials and is constructed to be easy to maintain.

The materials used in the house were found on the site as overflow from the scrap yard next door. The Seatrain house is constructed with four 40 ft shipping containers that act as the building blocks to the house’s design. The four containers are used as book end in the floor plans and stacked double height. The durability of the containers as well as the abundance of them allow them to be beneficial to the design. The four container segregate the library, office, dining room, and master bedroom. Wood cross beams and the ceiling decking were also found on the site.
In the inbetween spaces Siegal utilizes exposed wood cross beams, that were found on the site as existing debris, to soften the steel of the containers and allows the exposure of the steel ceiling decking. In most cases the flooring in the shipping containers have wooden floors that connect beautifully to the wooden floors that connect the spaces. The materials start to work together to create an atmosphere that is soothing the owner. Large glass windows allow for views out onto the natural vegetation and stone paths in the front of the house. Then a fence is used to block the views and further overflow from the scrap yard next door.

top: Steel and Wood beams are found material on the site. Middle: part of the steel containers used in the design. Bottom: Glass material that opens onto the front garden as part of the living room.
Left Page: Floor plans
Right: contrast between Seatrain House site and Salvage yard next door.
Top Left: Illustrates the blending of lines between the pool, the glass windows, and Steel metal containers that form the upstairs spaces.
Top Right: Siegal blends a wide range of materials to forma zen environment. (Glass, Wood, Steel)
Right: The landscape done with native plant-life.
Top: The indoor pool created with a steel container.
Left: shows the connected waterfall that helps to purify and recycle the water.
Jennifer Siegal doesn’t use the shipping containers in just the normal fashion. She utilizes the textures, material quality, and shaping of the containers in merit with their abilities. The shipping container’s textures blend with the other materials in the house and give the eye extra interests. The steel allows for the outside and inside of the house to relate to one another. The trees on the exterior brush against the steel and create a soothing quality. The steel heats up with the sun’s glare, and the sounds of rain can be heard inside; the steel material qualities carry the environment into the occupants of the house. The shape of the container lends itself easily to become an indoor pool for the waterfall to feed into and fish to swim in.

The Seatrain House is created in a manner that allows for easy maintenance and in turn lends itself to sustainable design. The natural vegetation in the yard that needs little maintenance and needs no irrigation to survive. The roof that collects water from the rain and flows into the house via an indoor waterfall. The waterfall helps to humidify the house from the dry heat in LA and recycles the water for the fish in the pool. The roof also circulates air through the house via narrow shafts on the shaded lower side of the house and along the roof to the higher end of the house.

This project aims to draw from this Precedent study ideas of integrated sustainability, reconsideration of modular units as building blocks, innovative ideas toward the normal reuses of certain material, the consideration of the material qualities, and consideration of the site; the existing materials, and surrounding context. The influence of the Seatrain house is one that will consider the inside versus the outside through the medium of material, site context, natural cycles, natural elements, and the possible interactions between the occupant and environment. This is an adaptive architecture that adapts the modular unit into a graceful alliance with the surroundings.
**Nomad House**  
**Sadar Vuga Arhiteckti**  

Ljubljana, Slovenia  
2000

*Residential suburb of Ljubljana*

*Influences on Project:*  
- Attention to natural cycles  
- Adaptability of the space for best comfort of the occupant

**Boiler Room**  
**Odile Decq Benoit Cornette**  

Brussels, Belgium  
2001

*Old Veterinary school at Cureghem  
Urban Project*

*Influences on Project:*  
- Adaptation of an existing building  
- Using strengths of existing elements  
- Experimental furniture and fittings

**Suitcase House**  
**Edge (HK)**  

Near Great Wall, China  
2000

*Communal House*

*Influences on Project:*  
- Adaptation of space to individual  
- Layers of flexibility  
- Questions space division
The nomad of the house is shown moving from one area of the house to the next based on times of the day and the season changes. As the sun is more predominant the nomad of the house stays in cooler patio areas of the house and circles around as the sun moves from East to West. Then in cooler months the Nomad stays in the heart of the house and doesn’t venture to close to the open patios.
The Nomad House is built around four porches, one on each side of the house. The house uses the site to give the best advantages of the seasonal changes. The occupant is seen as a nomad that travels through the house during the day and changes the duration of occupancy in each of the spaces based on the seasons. The main design of the house is two protective walls that enclose the space and give a thermal barrier to the elements. The secondary design is of the two side patios that allow for the elements to penetrate the house, and variations for the best comfort of the occupant.

The transitional spaces around the house allow for the occupant to wander through the house and find a comfortable spot that is best to their liking. Other than this consideration of comfort and attention to the cycles of nature the house is not completely understandable, and carries no adaptation for the house, only the occupant.

Top to Bottom: Gives views onto the exterior spaces and except for one elevation the building does not quite portray the nomadic behavior of the interior.
The Boiler Room is one of the secondary buildings located on the edge of the site and is converted into four houses and a cafe area. The design accentuates the structure and strength of the boiler itself. Instead of destroying the existing and building new the houses are in the connected building and the cafe utilizes the first and second floor in the boiler room. The bold shape and connection to previous usage of the boiler stack is preserved and exaggerated by the cafe that wraps around it and allows it to flow through the building.

The houses that are in the connected building are created with transformable spaces. The houses have movable partition that create larger and smaller rooms. Then the architect play with the adaptability of the furniture and fixtures. Kitchens and bathrooms fold into boxes or closets. The closing of a partiton creates public versus private areas within the house. In the basement house the lighting is created through openings in the above courtyard and garden areas.
Collage of images of the building that illustrate the predominating boiler stack. The floors that interact and walk around the structure of the existing.
The Suitcase House looks at how a house can adapt and change as the occupancy demands, the seasons change, and needs shift. The suitcase part of the house is that the adaptable pieces all fit into the floors and ceilings of the structure creating level changes between spaces, and barriers to close off one space from another.

As the house changes with the requirements of the moment, the house appearance also becomes different and changes in translucency, and interior opaqueness. This project shows the ease and simplified views of spaces created with thought to how the occupant would use the space.

Bottom: Elevation with existing context. Opposite Page: the stages of the house through the changes of interior panels, windows, and other fold out elements. Shows the adaptability of the house.
Ara Pacis Museum
Richard Meier & Partners
Architects LLP

Rome, Italy
2006

Historical center of Rome on the Tiber River

Influences on Project:
- The program of museum/community connection
- Ways the project pays attention to the historic references
- The ideas of preservation and addition

The Ara Pacis Museum is located along the Tiber River in the history center of Rome, Italy. Ara Pacis means "Altar of Peace" and was originally built 2,000 years ago. The altar was then protected during the time of Stalin and housed in a very Roman solid stone structure. That structure then started to deteriorate and Richard Meier then designed a building that would house the altar and also be converted into an exhibition space.

This project then deals with layers of history on the site, and the structure of history from the city in which it is placed. The project has this play of pull and reverence to history and addition of new space that will display new modern exhibits. The project balances the ideas of showing the history and structure of the building, and blending a new and vibrant interaction spaces for the public.

Richard Meier designed the first modern building in the historic center of Rome. The modern building uses glass that protects the history and at the same time exposes it for people to see. Then in place the skin of the building sits and rests on an existing wall. The fact that this is a modern building usually means that it should be light, airy, and open, abut the existing architecture and presence of Rome.
is very much more structured, solid, massive, and made of stone. With this project Richard Meier had to find a peace between the two different architectural styles without giving up the integrity of either. So the use of a transparent skin the allows views onto the history of Rome through the addition of new technology is a wonderful way of capturing both worlds.

Top: A view through the new glass wall onto the existing art of the altar. The window creates the idea of a showcase for the architecture.
Bottom: An interior view of how the altar sits placed in the middle of the glass shell and can be viewed all around.
The project is located along the Tiber River and connected to the western side of the Piazza Augusto Imperatore, and must make connections to the community and the visiting public. Meier forms spaces that are public and historically referenced by fountains, landscape that allows the pedestrian to feel invited into the area and vegetation that allows for comfort. This integration of the components of public, history, openness, layers, and museum are pieces that I hope to bring into my project with a blending or tension that allows the elements all to be admired.
Top: A cross-section of the existing building and the new modern architecture that encases it. The red area marks where the exterior introduces the visitor to the museum with water features and helps to blend the new modern architecture with the existing context.

Bottom: A site layout of the exterior water features and entrance into the building. Creates a nice flow into the plaza as well as into the building.
The connection of Modern and history is done with great care of the existing context of the site.

Right: View from the gardens in the front and into the glass curtain facade that encases the altar.
Below: Illustrates the connection between the existing wall and the new glass curtain facade. So the architecture just doesn’t encase, but also interacts with the existing.
Bottom: A model done to show the overall form of the building. Seems to lack a good representation of new vs. old.
Top: View onto the entrance where the visitors can flow from the plaza into the new created space. Left: A closer detail that shows interaction between the existing and new architecture.
SITE INVESTIGATION

CHICAGO

DETROIT
SITE CONSIDERATIONS

PHYSICAL CONSIDERATIONS:
BROWN FIELD SITE/VACANT LOT/ABANDONMENT
SITE IN AN EXISTING BUILDING/ARCHITECTURE
VISIBILITY TO NEIGHBORHOOD
ACCESSIBILITY FOR COMMUNITY AT LARGE
RELATION TO CITY ON LARGER SCALE
LOCATED CLOSE TO PLACE OF IMPORTANCE FOR CITY
OR...
ATTACHMENT TO CITY IDENTITY

COMMUNITY CONSIDERATIONS:
SENSE OF STABILITY/GROWTH
ACTIVE CONCERN AND PRIDE IN NEIGHBORHOOD
YOUTH POPULATION
ATTENTION TO SCHOOLS AND YOUTH PROGRAMS
Detroit

“The Motor City”
Detroit has the urban setting and strength in it’s history that could prove very beneficial to this site and program. Detroit is a large metropolis that has fallen victim to suburban sprawl and decentralization. The city is making bold movements in reviving the city structure and identity.

The history of Detroit is free of controversy and interest. Detroit has a history that at one point welcomed public transportation, then turned to solely private transportation. Detroit is a city now that has turned it’s views to reinventing a transportation system that can unite the city and the suburbs. The site and program could aim at expanding and encouraging the growth of the city in this fashion of connection within the city.

Detroit has been striving to find it’s own identity as a Black city, or Motor City, or somewhere in between. The city has many cultures that are strong in pride and ready for the encouragement of exploring their identities. At the moment there are only pocket neighborhoods that emulate their cultures proudly, but with regrowth of the city there is great potential for new kinds of merging between cultures. The fact that the communities in Detroit are proud of their past and hopeful for their futures could help to build a stronger thesis and outcome for this project.

Chicago

“The Windy City”
Chicago is a city that has a strong sense of identity, urban density, a history that is diverse in its changes, and a future that is sure and sound. Chicago’s history ranges from Midwest ports to a gangster city to a highlight of economic growth. There are communities in Chicago that embrace their connections and differences to build neighborhoods that thrive among the city background, and some that need slight pushes of encouragement to become an interacting community.

Chicago has a tighter urban fabric that has places of abandonment and neglect. The transportation of the city allows for a better connection of the communities to the entirety of the city. A strong history that spreads across the city limits allows for many places that could connect to the city identity or historical importance.

Chicago has a strong industrial background that has spotted areas of the city. Chicago has grown beyond the industrial market and into the commercial and business markets to build the city. This growth from industrial centers has allowed Chicago to find ways of adaptation that can help in utilizing the empty lots and bring in the new shape of the city. The fact that Chicago has some industrial sites that are left as brownfield, and a willingness to encourage or even emphasize adaptation of the site makes Chicago a city worth looking at and investigating for sites that could fall into the scope of this project.
Detroit Sites

Detroit’s Old Industrial Area
A site within the area of:
Kercheval St, & Cadillac Blvd
E. Jefferson Ave, & Holcomb Ave

Advantages:
Relation to the riverfront and the industrial brownfields in the area.

Disadvantages:
Urban fabric is not very tight and the community is very dispersed.

Detroit’s Railroad Areas
A site towards the north of Detroit that is within the area of:
7 Mile rd & Mound Rd
E. McNichols & Conant Ave.

Advantages:
Relation to once existing railroad tracks that have been torn out. A community that is growing and takes pride in the area.

Disadvantages:
The access to the sites are restricted and hard to reach within the community area.
Detroit’s old Railroads:

A site within the area of:
E. McNichols Rd & Van Dyke
Mound Rd & Marcus St

Advantages:
Unused railtracks that are still exposed, could become connection for the city.

Disadvantages:
The view of rail area was completely restricted and it is only working industrial sites that have no connection to the community around it.

Detroit’s old Railroad Industrial Yards

A site within the area of:
Dix Ave. & Lonyo St
Michigan Ave & Junction St

Advantages:
Advantageous views onto the rail tracks, the active tracks could bring life into the area. Community has great pride in the neighborhood. Brownfields in areas accessible to community.

Disadvantages:
Industrial buildings stand between possible sites and the community behind.

This is the area os further investigation for a site possibility.
This site located on Bruckner St & Clayton Ave is a brownfield site that was abandoned with the decline in industry and rail station. There is no existing architecture left on the site to build from, but it wraps around two houses that connect into the neighborhood. This neighborhood is very proud of the area and continues to keep the appearances of the streets and houses in good shape. The rail tracks are open and visible to the neighborhood and can be drawn upon to feed the design and program of the project.

Though the rail tracks are visible to parts of the neighborhood it is cut off from the site physically and visibly. It is then hard to draw from the existing to adapt to the needs of the community.

Ultimately:

This site has many good pieces that could benefit the program and project. This site is not the best site.
Chicago Sites

Chicago Bridgeport Community
A site within the area of:
Wood St & 36th St
Racine Ave & 31st St

Advantages:
This area has a well unified community and a strong urban fabric. The area is open and very visible. Connected to a major Chicago port in the beginning of Chicago's history.

Disadvantages:
The area has very little neglect or abandonment. There is no real access or relationship to the canal. Plenty of youth programs and schools in the area.

Chicago Back-of-the-Yards Community
A site within the area of:
Halsted St & 40th St
Normal Ave & 46th St

Advantages:
The community is open and interactive with a walkable neighborhood. Location near the old union stockyard of Chicago that has been transformed into an industrial park.

Disadvantages:
Possible sites have no existing architecture to build from.
Chicago’s Pullman District

A site within the area of:
Cottage Groove Ave &
114th St
Corliss Ave & 103rd St

Advantages:
Pullman District is a planned industrial district. There are still existing architecture from origin of the district. Community is trying to be active and active use of the public transportation.

This becomes the area of the most interest.
This site in the “Back-of-the-yards” community is located on 43rd Place and Racine Ave. This site has potential connections to the industrial building across the street. It is a site that serves as a gateway to the community. The community is very open and there is activity in the neighborhood. The original gate to the Union Stockyard of Chicago is still standing and is visible to the neighborhoods.

This site fits the needs of the project and the community could be easily boosted. The site would better fit the project if it had an existing architecture to adapt for the community.
This site is located in the Pullman District on 111th St and Cottage Groove Ave. The site has an abandoned building and a larger site that can be used in many ways. Across from the site is an open park area. The location of the site is on high traffic streets that are visible to the community as well as to visitors to the area. The location above the street rail tracks will also add interest and connection to the city. The public transportation is also used frequently by the people of the community.

This is the site that will be used to further the program.
Above: Chicago highways and transit systems
Yellow = highway
Blue = transit lines
Right: Figure ground map of the site and surrounding areas
The site for the project is located in the Pullman District of Chicago, Illinois. The site is the old factory site of the Pullman car company at the corner of 111th St and Cottage Grove Ave. The site is located directly off the main transit system of Chicago. There are many bus stops along Cottage Grove Ave that feeds the surrounding community and the site. There are main highways that connect into the local streets, and there is high traffic flow on 111th Street from I-90. Then Cottage Grove Ave has a medium flow of traffic from the connections between the main roads through the city.

The first thing about the Pullman District is the amount of history that is contained in this area. A history that is mostly centered around the site and directly surrounding areas, a history that had an affect not only on the community and Pullman District, but also a history that entangles throughout the history of Chicago, the United
States, and work laws and unions of today’s society. Pullman was built as a utopian city that would produce happy works and create a higher standard of living for the common person. George Pullman had many ideas of how to think outside of the box of normal working of the period and create a city that would produce comfort coach cars for the expanding railroads while minimizing waste and creating an environment for workers to receive the best treatment. Pullman was city built for the workers and through the happiness of the workers would produce a better product.

The main symbol of Pullman was the clock tower, which could be seen from the very first glimpse of the city. The clock tower became the first experience for visitors and newcomers to the city. A view that would show the magnificence and strength of the area. The clock tower still stands today and is on the site that this project will transform.
The community is a strong element in the history, present, and future growth of this site. Through the past the community was a major building factor for the city of Pullman by George Pullman. George Pullman designed the city to create a community and become a society that was happy and good workers. The city only existed because the people wanted to be there.

Even today the community is a main piece of being able to develop an area. Without the community there will be no reason or support of any progress to the area. The community is still a strong and active source of life. The community rides bikes, walks about the neighbor, sits on porches, and celebrate the history and story of the Pullman District.

The community is the reason for transforming this site from a gated, closed off site into an active, integrated piece of the community. This site calls for a
Respect to the history of the site and district, as well as a respect for the community and families that live around it.

Another part that needs to be understood is the amount of transformation that has happened already to this site through time. Since the Thesis plays a part in the transformation from the past to the present to the future. This site was the strong point of the original creation of the city of Pullman, but through time has gone through many transformations as there were changes in industry and the assembly process, as the railroads expanded and needed more customized spaces.

The clock tower and railcar factories were originally built in 1886 as a progresional assembly of iron and wood coach traveling railcars. It stayed the same until just after the turn of the century where they had come under new management. Then changed with the growth and needs of the railroad companies.
They were mostly interior changes and few changes in the length of the building for more bays. Then in 1910 with the changes in technology it transformed again into a factory that would build steel cars in a linear assembly and leave behind the progressional assembly. In this stage the factory buildings were enlarged on the south side and connected to the factories in on the east of the site. The north wing was changed in the front facade by cutting holes beneath the windows for more space to the assembly.

The factory and clock tower stayed like this until the decline in railcar production and then it was used as big box industry warehouse. It was left vacant and abandoned around 1967 as it lacked the needs of the growing industry. The last transformation came in 1999 when the south wing, and clock tower was burned in a huge fire. The south wing was not able to be saved and the clock tower astonishingly stayed together. That is how the site remains in the present.

The site now holds traces of the past and standing proof of the present. There are perceived traces within the community of the presence and history of the site. There are traces in the ground on the south
OF THE SITE WHERE THE FACTORY USED TO
STAND, THERE IS THE TRACES OF THE RUINS
IN THE SHELL AND ROOF STRUCTURE OF
THE FACTORY BUILDING AT THE EAST OF
THE SITE. THEN IN THE CLOCK TOWER AND
NORTH WING OF THE FACTORY HOLDS MANY
TRACES OF HOW THE SITE WAS IN ITS MOST
ORIGINAL FORM. THESE TRACES SHOULD
BE CELEBRATED AND THE COMMUNITY
SHOULD BE INVIGORATED AND INCLUDED
IN THE FUTURE DESIGN AND GROWTH OF
THE SITE.

THIS SITE IS STRONG IN HISTORY, TRACES,
COMMUNITY, AND PRESENCE. THIS SITE HAS
MUCH TO DO WITH HOW THE PROGRAM
WILL BE DETERMINED. A PROGRAM THAT
INCLUDES THE FUTURE GROWTH OF THE
AREA, THE COMMUNITY, THE HISTORY, AND
THE SYMBOL FOR THE PULLMAN DISTRICT.
With the growth of the industry into steel cars, the factory is remodeled to fit the larger frames and machinery.

Addition annexed on to the hotel across on the east side of the lake.

The grade building which housed the district library, post office, hotel and Savings Bank, steamers, and 306 seat theater, is demolished as urban decay. It is the first building that draws the community attention and brings forth the pride in the history of the Fullman District.

The district is threatened with complete demolition. The community reaction is to wait and give this Fullman Civic Organization to protect the history of the Fullman District.

The entire district of Fullman is given the title of an Illinois Historic District.

The lower part of the Fullman District receives State Landmark qualification and is then protected even further from decay.

The upper half of the District joins in the lower half in receiving State Landmark qualification and is also protected.

The Civic Center is constructed on the site of the old Arcade building site to house the history of the district and to be a place to hold community meetings.

A fire destroys the Factory Site. The fire destroyed much of the factory and steamer buildings. Only the shells remain. The columns were promptly restored to previous condition and the shell of the factory space is left as a shell with the roof structure.

The Fullman District starts a streetscape program that will improve the sidewalks, street lighting, and facades of historical buildings. The program is set to intensify the historic presence of the community.
1879 - 1,000 acres of land west of Lake Calumet is purchased by George Pullman for his model of the utopian industrial city. 600 acres are used for the industrial buildings and the rest is used to design the model city for the workers of the company.

1881 - January 1st. Arrival of the first citizens of the new town of Pullman. The city is furnished with a Market square, Hotel Florence, Arcade Building, and city Clock Tower as the main pieces along the rail line on Cottage Grove Ave.

1885 - Pullman population has reached 9,000 people.

1889 - Pullman becomes annexed into the city of Chicago.

1892 - Pullman Market Square is destroyed by a fire leaving only a shell. The new Market Square is rebuilt with new surrounding residential buildings.

1894 - Pullman unionized strike occurs because of recent economic depressions. The workers are reduced to offset costs and rents stay high leaving the workers unhappy and unable to leave the town. The unionized workers are lead by Eugene Debs. The strike is the first major unionized strike in the nation and gives controversy throughout the nation and the entire rail industry. President Eisenhower sends in military troops to break up the strike and get the rail lines working again.

1896 - Pullman is recognized as “the most Perfect town” by International Hygiene and Pharmaceutical Exposition in Prague.

1897 - With the death of the creator of Pullman, George Pullman, the city starts into a downward spiral. The landscape is slowly dismantled and the grade is raised and the paths for carriages are destroyed and replaced with structured roads for cars.

1897 - With the growth of the industry into steel cars the factory is remodelled to fit the larger frames and machines.
The site that has been selected for the project thesis has a number of elements that may be influential to the programming of the project. The site has a strong history element, community element, youth presence and existing structures that will help build the program and relate it to the site. The historical presence of the clock tower and remainder of the old factory building are seen as a strength in the programming of the site. The program then becomes connected to adapting the history and structure of the existing conditions. The community has a strong sense of pride and celebration of the history of the district. The program then will celebrate the history and pride of the neighborhood that is made of beautiful brick structures and an area that was first designed to be self-sustaining. The presence of youth on the streets riding bikes and listening to music, enjoying a neighborhood setting that is pleasant and safe is also important to the program. The program then considers the need for the youth to get involved with the community and learn the history of the area they come from. Then the historical element that is a strong piece of the history of America, Chicago, industry, and the neighborhood can be celebrated with by the community and can be fully shared with all people.

The program can then connect the strengths of the site and investigate how to best play up those strengths. The program is an interactive history museum with connection to the community through engineering study programs for the youth. The museum will approach history in an interactive way that will bring in different level of relationship between the past, present, and future. The building structure will play off of the current existing condition, the past presence, and the future growth of the area as a reflection of the metamorphosis of the space. The project will also investigate how the building will celebrate the elements of the site in the sense of adaptive reuse. It is the design of the thesis for the program to bridge the connection of the site to the community and the past contexts to the present uses through building functions and structures. The program will bring the community and visitors in more direct connection with the existing history on the site.
PROGRAM
STATEMENT

INTERIOR SPACES-

ADMINISTRATION-

ADMINISTRATOR- 300SQ_FT
YOUTH DIRECTOR- 300SQ_FT
ASSISTANTS OFFICES- 4 (100SQ_FT) 400SQ_FT
OFFICES- 6 OFFICES 1000SQ_FT
CONFERENCES- 2 ROOMS (500SQ_FT) 1000SQ_FT
SECRETARY- 2 DESKS (150SQ_FT) 300SQ_FT
MECHANICAL ROOMS 3 ROOMS (300SQ_FT) 900SQ_FT
RESTROOMS- 500SQ_FT

SUB –TOTAL 3700SQ_FT

MAIN ENTRANCE-

CIRCULATION DESK- 300SQ_FT
WAITING AREA- 500SQ_FT
RESTROOMS- 1000SQ_FT
COAT CHECK- 500SQ_FT
STORAGE- 500SQ_FT
FOYER- 1500SQ_FT

SUB-TOTAL 4300SQ_FT

CAFÉ-

SEATING- 75 SEATS 2500SQ_FT
RESTROOMS- 700SQ_FT
KITCHEN- 1200SQ_FT

SUB-TOTAL 4400SQ_FT

GIFT SHOP-

CASHIER- 400SQ_FT
WINDOW DISPLAY AREA- 600SQ_FT
SHOPPING SPACE- 1000SQ_FT

SUB –TOTAL 2000SQ_FT

THEATER/LECTURE SPACE-

LOBBY- 800SQ_FT

61
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<thead>
<tr>
<th>Description</th>
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<tr>
<td>Seating</td>
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<tr>
<td>Stage</td>
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<tr>
<td>Balcony Space</td>
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<tr>
<td>Exhibit Spaces</td>
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<td>Pullman Exhibit</td>
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<tr>
<td>Future Travel Exhibit</td>
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<td>Restoration Storage</td>
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<td>Security Area</td>
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<td>Activity Area</td>
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<tr>
<td>Experimenting Lab</td>
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<tr>
<td>Storage</td>
<td>100 SQ FT</td>
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<tr>
<td>Learning Space</td>
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<tr>
<td>Track</td>
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<td>Activity Area</td>
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<td>Technology Teach/Learn Space-</td>
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<td>Classrooms</td>
<td>3 rooms (750 SQ FT) 2250 SQ FT</td>
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<tr>
<td>Experimental Labs</td>
<td>2 rooms (700 SQ FT) 1400 SQ FT</td>
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<tr>
<td>Teachers Offices</td>
<td>2 (200 SQ FT) 400 SQ FT</td>
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<tr>
<td>Administrator’s Office</td>
<td>300 SQ FT</td>
</tr>
<tr>
<td>Storage Room</td>
<td>2 (100 SQ FT) 200 SQ FT</td>
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</table>
Restrooms - 600 sq ft
Entrance Area - 600 sq ft
Exhibit Space - ~700 sq ft
Sub-Total - 6450 sq ft

Computer/Network Space -
Desks - 10 desks (100 sq ft) - 1000 sq ft
Server Room - 300 sq ft
Sub-Total - 1300 sq ft

Library
Offices - (3 offices@ 200 sq ft) - 600 sq ft
Break Room - 500 sq ft
Storage - 500 sq ft
Circulation Desk - 250 sq ft
Entrance Area - 500 sq ft
Reference Desk - 300 sq ft
DVD/Video Collections - 500 sq ft
Conference Rooms - (2 rooms @ 200 sq ft) - 400 sq ft
Microfilm Area - 500 sq ft
Historical Books - 700 sq ft
Reading Area (formal) - 1000 sq ft
Sitting Area (non-formal) - 1000 sq ft
Restrooms - 700 sq ft
Carrels - 12 carrels (50 sq ft) - 600 sq ft
Books Shelves - 4000 sq ft
Sub-Total - 12,050 sq ft

Circulation - (20%) - 25,660 sq ft
Total Interior - 153,960 sq ft
Exterior Spaces-
  Picnic Space-  20,000 SQ FT
  Breezeway/Train “station”-  80,000 SQ FT
  Paved Testing Track-  10,000 SQ FT
  Landscaped Areas-  100,000 SQ FT
  Sports Area-  50,000 SQ FT
  Parking Lot-  60,000 SQ FT
Total Exterior-  320,000 SQ FT
Total required Space-  473,960 SQ FT
Total Site square feet-  489,419 SQ FT
SCHEMATIC DESIGN
Diagram of the exiting conditions (white) and the first thoughts on the placement of program spaces

Diagram of just the programmed new spaces shows interior and underground areas
Diagram of just the existing conditions on the site. Traces of the foundations.

Diagram of translucent overall ideas. Helps to visualize all the components together.
Diagram analyzing the existing infrastructures and Community layouts.

Diagram looking at the sight lines into the site from the park area.
Existing Walls

Traces of Old Walls

Buried Foundations

Analyzing the traversing over the rail tracks
A building form that responds to the traces and past transformations without replication. Show the new with glimpses to the past.

Layers of writing with only pieces exposed of what lies beneath.
Ideas of uncovered traces—A museum to showcase the lost pieces

Study with first thoughts on placement of program and building form
Canopy & Building form studies
Understanding the connections between the Community spaces and the Museum spaces. Breaking the existing orthogonal rules.
Sketches and ideas of the spatial context. Integration with the past, present and future.
Connections between old and New
Looking at the connections between Community/Museum and Old/New

Analyzing spatial presence, Volume, and connections.
Traces of the Site
Understanding and looking at the traces that exist on the site or the remains of the original function and form.
Traces of the Site

Rail Tracks

Wall Ruin

Reconstructed piece of Original

Cistern Traces

Traces of the Site
Existing Shell Wall

Old Loading Dock

West Area of Traces

Sunken and Lifted Concrete Traces
Space Detail
Summaries
Exterior Breezeway

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<th>No. of units</th>
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<tr>
<td>-</td>
<td>1</td>
<td>80,000</td>
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Purpose/Functions
- This is a open and public space that joins the museum and community spaces together

Activities
- Walking, looking at history on the site, sitting,

Spatial Relationships
- This is the connector space that stitches all the buildings together. Connections into museum entrance area, cafe, library, teaching area, and exterior spaces.

Qualitative Considerations
- Very open area with need for attractive artificial lighting.

Equipment/Furnishings
-

Behavioral Conditions
- Should behave as a open space with slightly covered areas for visitors and at connections into other spaces.

Structural Systems
- Steel long span truss system, steel structure

Mechanical/Electrical Systems
-
MUSEUM ENTRANCE SPACE

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<th>Capacity</th>
<th>No. of units</th>
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<tr>
<td>400</td>
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<td>2600</td>
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**PURPOSE/FUNCTIONS**
- This is a public space that is to welcome and give information to the visitors that come to the museum.

**ACTIVITIES**
- Shed coats, gather in groups, gain information, and create introduction to the museum.

**SPATIAL RELATIONSHIPS**
- This space will have connections into exhibit areas, and lecture space. This space will connect off the breezeway space.

**QUALITATIVE CONSIDERATIONS**
- This area will have openness, natural lighting form the west and possibly through the east. Access to the exterior of the project and the breezeway.

**EQUIPMENT/FURNISHINGS**
- 

**STRUCTURAL SYSTEMS**
- Brick construction with post and beam assembly.

**MECHANICAL/ELECTRICAL SYSTEMS**
-
Theater/Lecture Space

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Purpose/Functions
-A space that is semi-private and allows for speakers to lecture and audience to gather with good sound conditions and seating.

Activities
-Sitting, Listening, movies, lectures, projections

Spatial Relationships
-This space will be connected to the Museum Entrance and emergency exits, and will have a balcony access that connects from exhibit spaces.

Qualitative Considerations
-Need for control lighting for projection abilities, a sound absorbing space so as not to disturb exhibit areas. Flexible space that can be changed for the needs of the groups enjoying the space.

Equipment/Furnishings
-

Behavioral Conditions
-A space that conducive for speakers with ability of graphic/computer presentations

Structural Systems
-Steel Construction

Mechanical/Electrical Systems
-
Pullman Exhibit Area

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Purpose/Functions
- This is a more Public Space, which will be the exhibit of Pullman history and train memorabilia.

Activities
- Experiencing, learning, thinking, sitting, standing

Spatial Relationships
- A space connected to some of the other exhibit areas. Areas where the exhibit blends or forms into the future or past exhibits.

Qualitative Considerations
- Control of lighting, natural lighting that is restricted and controlled. Space for the visitors to move and examine.

Equipment/Furnishings
- 

Behavioral Conditions
- Should behave a incubator where students and visitors can gain knowledge and understanding.

Structural Systems
- Steel/Brick/Cement panel construction

Mechanical/Electrical Systems
-
PAST EXHIBIT AREA

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PURPOSE/FUNCTIONS
- This is a more Public Space, which will express past means of land travel

ACTIVITIES
- Experiencing, learning, thinking, sitting, standing

SPATIAL RELATIONSHIPS
- A space connected to some of the other exhibit areas. Areas where the exhibit blends or forms into the future or Pullman exhibits.

QUALITATIVE CONSIDERATIONS
- Control of lighting, natural lighting that is restricted and controlled. Space for the visitors to interact and explore.

EQUIPMENT/FURNISHINGS
-

BEHAVIORAL CONDITIONS
- A space that is interactive with history and allows for the visitors to experience the past.

STRUCTURAL SYSTEMS
- Existing Brick Masonry structure and additional steel structure to support in any issues

MECHANICAL/ELECTRICAL SYSTEMS
-
FUTURE EXHIBIT AREA

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PURPOSE/FUNCTIONS
- This is a more Public Space, which explore the ideas of future technology

ACTIVITIES
- Experiencing, learning, thinking, sitting, standing, interactive play with technologies

SPATIAL RELATIONSHIPS
- A space connected to some of the other exhibit areas. It will have areas that connect to areas for experimentation.

QUALITATIVE CONSIDERATIONS
- Control of lighting, Natural lighting that is restricted and controlled. Space for the visitors to interact and explore

EQUIPMENT/FURNISHINGS
-

BEHAVIORAL CONDITIONS
- A space that allows for change in exhibits and different size exhibits.

STRUCTURAL SYSTEMS
- Steel structural system with brick wall and cement paneling.

MECHANICAL/ELECTRICAL SYSTEMS
-
TEMPORARY EXHIBIT AREA

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PURPOSE/ FUNCTIONS
- TO ALLOW NEW AND TEMPORARY EXHIBITS TO BE SETUP AND EXPLORED BY THE VISITORS.

ACTIVITIES
- EXPERIENCING, LEARNING, THINKING, SITTING, STANDING

SPATIAL RELATIONSHIPS
- A SPACE CONNECTED TO SOME OF THE OTHER EXHIBIT AREAS. AREA THAT IS FLEXIBLE AND ADAPTABLE TO EXHIBITS.

QUALITATIVE CONSIDERATIONS
- CONTROL OF LIGHTING, NATURAL LIGHTING THAT IS RESTRICTED AND CONTROLLED. LIGHTING THAT CAN BE ARRANGED FOR THE CHANGING EXHIBITS. SPACE FOR THE VISITORS TO MOVE AND EXAMINE.

EQUIPMENT/FURNISHINGS
- 

BEHAVIORAL CONDITIONS
- THIS SPACE WILL BE ACCESSIBLE WHEN NEEDED AND ABLE TO BE CLOSED OFF.

STRUCTURAL SYSTEMS
- EXISTING STRUCTURE WITH ADDITIONAL STEEL STRUCTURE WHERE NEEDED.

MECHANICAL/ELECTRICAL SYSTEMS
-
Technology Teach/Learn Room

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**PURPOSE/FUNCTIONS**
- Private area for the community for student learning. To encourage growth of knowledge and imagination of new ideas.

**ACTIVITIES**
- Learning, sitting, teaching

**SPATIAL RELATIONSHIPS**
- Connection to experimenting labs and other classrooms. Near area of exterior testing track.

**QUALITATIVE CONSIDERATIONS**
- Natural lighting, configured space to assist in teaching.

**EQUIPMENT/FURNISHINGS**
- 

**BEHAVIORAL CONDITIONS**
- Allows students to explore their imaginations and thoughts with work area to experiment in.

**STRUCTURAL SYSTEMS**
- Steel construction with Copper siding

**MECHANICAL/ELECTRICAL SYSTEMS**
-
EXPERIMENTING LABS

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PURPOSE/FUNCTIONS
- PRIVATE AREA FOR THE COMMUNITY FOR STUDENT EXPERIMENTING WITH NEW DESIGNS AND IDEAS.

ACTIVITIES
- LEARNING, EXPERIMENTING, BUILDING,

SPATIAL RELATIONSHIPS
- CONNECTION TO CLASSROOMS AND LIBRARY. NEAR AREA OF EXTERIOR TESTING TRACK.

QUALITATIVE CONSIDERATIONS
- NATURAL LIGHTING, CONFIGURED SPACE TO ASSIST IN EXPERIMENTING WITH ENGINEERING.

EQUIPMENT/FURNISHINGS

BEHAVIORAL CONDITIONS
- CREATE AN OPEN ATMOSPHERE FOR PRODUCING WORK AND NEW DEVICES

STRUCTURAL SYSTEMS
- STEEL CONSTRUCTION

MECHANICAL/ELECTRICAL SYSTEMS
- FORCED AIR AND PLENTY OF EXHAUST FOR WORK.
COMPUTER/NETWORK SPACE

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PURPOSE/FUNCTIONS
- SEMI-PRIVATE AREA FOR COMMUNITY USE AND NETWORKING AREA FOR COMMUNITY COMPUTER USE AND STUDENT REFERENCE AREAS.

ACTIVITIES
- COMPUTERS, LEARNING

SPATIAL RELATIONSHIPS
- CONNECTION TO LIBRARY AND CLASSROOMS.

QUALITATIVE CONSIDERATIONS
- NATURAL LIGHTING THAT IS ONE DIRECTIONAL OR ABOVE TO REDUCE GLARES ON COMPUTER SCREENS

EQUIPMENT/FURNISHINGS
- COMPUTERS AND SEATING WITH LIGHTING THAT BENEFITS COMPUTER USE

STRUCTURAL SYSTEMS
- STEEL CONSTRUCTION

MECHANICAL/ELECTRICAL SYSTEMS
-
LIBRARY ENTRANCE

<table>
<thead>
<tr>
<th>Capacity</th>
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<tbody>
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Purpose/Functions
- Public Space for community and visitors, to be welcomed into the library.

Activities
- Gathering, information, sitting

Spatial Relationships
- This space will connect into the main library areas and off of the breezeway, and outdoor sports area.

Qualitative Considerations
- Natural lighting, and views out onto the environment

Behavioral Conditions
- Welcome community and museum visitors into library space

Structural Systems
- Steel construction

Mechanical/Electrical Systems
-
LIBRARY SITTING AREA

<table>
<thead>
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<th>Capacity</th>
<th>No. of units</th>
<th>NSF/ Unit</th>
<th>NSF/Total</th>
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<tbody>
<tr>
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PURPOSE/FUNCTIONS
- PUBLIC AREA FOR USE OF THE LIBRARY IN A CLOSED SEMI-QUIET AREA.

ACTIVITIES
- STUDYING, SITTING, READING

SPATIAL RELATIONSHIPS
- CONNECTION TO THE LIBRARIES MAIN AREAS, STACKS, ENTRANCE, AND COMPUTER LAB AREA.

QUALITATIVE CONSIDERATIONS
- NATURAL LIGHTING WITH CONSIDERATION OF NOISE LEVELS AND VIEWS ONTO PULLMAN AND SPORTS AREAS.

EQUIPMENT/FURNISHINGS
- SEATING AND TABLES FOR VISITOR USES

BEHAVIORAL CONDITIONS
- QUIET SETTING WITH LIGHTING THAT IS GOOD FOR QUIET READING OR STUDY

STRUCTURAL SYSTEMS
- STEEL CONSTRUCTION

MECHANICAL/ELECTRICAL SYSTEMS
-
Cafe

<table>
<thead>
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Purpose/Functions
- Public area for relaxing and enjoying the visit.

Activities
- Sitting, drinking, talking

Spatial Relationships
- Connected to the breezeway, with direct access to Museum entrance and Library entrance. Directly connected to the Gift shop.

Qualitative Considerations
- Natural lighting and atmosphere conducive to talking, gathering and experiencing.

Equipment/Furnishings
- Seating and tables for eating and talking

Behavioral Conditions
- Open atmosphere for talking and eating while enjoying views

Structural Systems
- Train structure from unused train cars

Mechanical/Electrical Systems
-
Gift Shop

<table>
<thead>
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<th>No. of units</th>
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<tbody>
<tr>
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</table>

Purpose/Functions
- Public space for visitors for displaying and purchasing memorabilia

Activities
- Talking, looking

Spatial Relationships
- Direct connection to the Cafe space and Exterior breezeway. With access to Museum entrance.

Qualitative Considerations
- Natural lighting and lighting adaptable to the display of objects.

Equipment/Furnishings
- Shelving and sales equipment

Behavioral Conditions
- Small area for selling mementos from the museum.

Structural Systems
- Steel construction

Mechanical/Electrical Systems
-
TESTING TRACK AREA

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<tbody>
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PURPOSE/FUNCTIONS
- Open public space for testing of designs by the community youth

ACTIVITIES
- Moving objects, shouting, racing

SPATIAL RELATIONSHIPS
- Connected to the Experimenting labs. Loop that wraps around the buildings.

QUALITATIVE CONSIDERATIONS
- Exterior space that is open, only covered in certain areas.

EQUIPMENT/FURNISHINGS
- Track and storage cabinets for necessary equipment

BEHAVIORAL CONDITIONS
- Open space that has test tracks and allows for any exhaust to be vented. Space that contains testing of new ideas.

STRUCTURAL SYSTEMS
- Steel construction with brick cavity walls

MECHANICAL/ELECTRICAL SYSTEMS
-
**Sports Area**

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<tbody>
<tr>
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<td>50,000</td>
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**Purpose/Functions**
- Public space for community and visitors to use at all times

**Activities**
- Basketball, football, open play, noise

**Spatial Relationships**
- Connection to the environment and community areas

**Qualitative Considerations**
- Artificial lighting at night times

**Equipment/Furnishings**
- Basketball hoops and other sport fixtures

**Behavioral Conditions**
- Open space that has existing structure surrounding the players and availability to play sports or other activities for the community

**Structural Systems**
- Existing structures
PICNIC AREA

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PURPOSE/FUNCTIONS
- Public space for community and visitors to use at all times

ACTIVITIES
- Eating, Laughing, Enjoying

SPATIAL RELATIONSHIPS
- Connection to the environment, Parking area, Sports area, and Breezeway

QUALITATIVE CONSIDERATIONS
- Artificial lighting at night times, trees and landscape for cover and natural protection, sitting areas with tables.

EQUIPMENT/FURNISHINGS
- Picnic tables

BEHAVIORAL CONDITIONS
- Open space that interweaves through existing remains of train tracks and testing track.
Parking Area

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<td>60,000</td>
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Purpose/Functions
- Public space for parking cars as a show place for present land travel.

Activities
- Parking, walking, talking

Spatial Relationships
- Connection to the Breezeway and community areas

Qualitative Considerations
- Artificial lighting at night times, consideration of the pedestrian walking around
FINAL
PRESENTATION
MODEL
Grey tones that show distinctions between paved, landscape, and Walk paths.
The uses of the traces in the integration and connections with the new construction allows for the visitor to become a piece of that space, having a purpose in that space.
The structure of the library will become connected and integral to the structure and existence of the shell. The structure in the cafe becomes important to express the importance connected and integral to the structure.
The water feature in the cafe space is a trace that is on the west side of the site. It is the trace of an old cistern and has become a water feature for people to interact with.

Even in the library space, you can connect the existing structure of the shell and the skylights that open onto the site. Through the site, you can see theLiverpool clock tower with the past presence of the site.
SKYLIGHTS

Library sitting area with sun and shadow from
Interior Museum Entrance Area

Gift shop with use of Existing ruin wall

The gift shop uses the existing ruin wall that is connected to the existing solid structure at the North of the site as a second entrance.
Blended Program Diagram

Lower Level

Blues - Museum space
Reds - Community spaces
Purples - Blended space of community and Museum
CONCLUSION

This Project has gone through several investigations of how the traces of the past may transform into a present form. It has gone through the past and looked at the transformations that it has taken place in the past, and looked into how the new architecture should recognize and represent the past without becoming part of the past. The Community Program integrated with the larger Museum Program allows for the integration of continued use throughout the seasons and time of day with a representation and learning ability from the past transformations. The project makes careful connections with the existing ruins on the site to allow appreciation of the previous uses of the site and importance it held in the Pullman District, while making it useful to the community and visitors of today. A museum that does more than capture a time and place but shows how it was and changed over time into a new place.

The project came to a very nice ending with knowledge and position of where and how the past should travel into the future, but lacked the completion of a study into the depth of how the program could become fully integrated into that challenge. A further study and exploration of the program of museum and the role it plays in the idea of transformation would have brought about a stronger and more complete. The museum program is questioned in the beginning and how it should not capture a moment but also bring capture this moment. The integration and study of this thought and questioning would have developed a more complete project that finished the thoughts it began.

The project was a success in that it brought about a solution to a question and produced a learning experience. Had there been more time, there would have been areas in need of further study, and yet the project still has qualities that could capture the imagination. Maybe the answer isn’t more time, but rather starting at one point and letting it manifest in the minds of the people who use it... maybe this is just the first of the many things to come. The thesis is about looking at the transformation of a space through time, but as you start to look at the changes time has past and new changes have filled that space.
BIBLIOGRAPHY:


WEBSITES:


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