audience of **s t r a n g e r s:**

exploring theatrical public space in the design of a rail station

a design by shelby augustine

AUDIENCE *of* STRANGERS

EXPLORING THEATRICAL PUBLIC SPACE IN THE DESIGN OF A RAIL STATION

A DESIGN THESIS SUBMITTED TO THE
DEPARTMENT OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE
OF NORTH DAKOTA STATE UNIVERSITY

BY
SHELBY AUGUSTINE

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF ARCHITECTURE

PRIMARY THESIS ADVISOR

THESIS COMMITTEE CHAIR

MAY 2015
FARGO, NORTH DAKOTA

TABLE *of* CONTENTS

LIST *of* TABLES *and* FIGURES

thesis abstract

How can public space facilitate more dramatic interactions between strangers during their brief moments of transitional encounters?

narrative
of theoretical aspect

The city of Seattle, Washington is the fastest growing major city in the United States. According to the *Seattle Times* in an article called "Census: Seattle is the Fastest Growing Big City in the U.S.," the city has a metropolitan area of over 3.6 million people and is the 15th largest city in the United States and it continues to grow. With it's increase in population, Seattle's infrastructure has become more crowded and the issue of transportation has emerged.

As new technologies are created and time continues to pass we notice that not only has Seattle's population increased but so has the amount of pollution the city produces and the amount of resources necessary for the city to function. This has made designers and environmentalists aware and exposed the need for sustainable design solutions while forcing the recognition of our depleting resources. Perhaps the most wasteful of resources and leaders in polluting the city, is the city's current method of transportation.

The city has lost it's sense of community and there are fewer shared public spaces since it now relies heavily on the use of automobiles. This is a problem many cities in America currently face and more elegant solutions are desired. Privatized transportation has led to lack of interactions in the public realm. Over time, these lost interactions are being forgotten and formal gestures, such as a wave or a bow, gestures that demonstrate respect are missed in society. Audience of Strangers will encourage social interactions and promote well-being while also renewing the city's sense of place.

In order to design a space for the public, we must first look at what public space is. Public space in the last few centuries has changed and our understanding of what public space is today is pale in comparison to the ancestors of our past. A Google internet search of public space will give you the definition that, "public space is a social space that is generally open and accessible to people." No longer do we recognize public space as a place where people come together to experience culture and indulge in life but rather, it's become a place of formal obligation.

Before modern technologies people had no other option than to appear in public if they were to be recognized or desired to make new friends. Today we have Facebook, Myspace, television, news, magazines, etc. One no longer has to appear at social gatherings or be seen on the street to be known. A political representative no longer has to go city to city or door to door to inform people who he is and what his views are; all he has to do it record a commercial or post an article on the internet. We have lost the need to interact with one another on a face to face basis and have even become reclusive and dependent upon commercial interests and privatized space.

In Richard Sennett's book titled "The Fall of Public Man," he states that "silence in public became the only way one could experience public life," and that "public behavior was a matter of observation, of passive participation, of a certain kind of voyeurism" (p 27).

The private life became part of public life. The automobile reinforces the need for private space. You can now travel alone and never be seen. Your vehicle has become a transportable private bubble where one can travel and feel safe and protected from outsiders.

The automobile has not only made our journeys more private, they have encouraged urban sprawl: the uncontrolled spread of urban development into neighboring regions (thefreedictonary). People have begun to spread out and separate farther away from city centers in search of more privacy and more space. Urban sprawl likewise promotes more automobile traffic leading to increased pollution and has even been linked to obesity since walking or biking are no longer viable options when commuting from the outskirts to a city center.

People spreading out and away from one another also causes a violation of our base instinct; it's human nature to be with other humans. We are social animals by nature. Moving farther away from each other rather than becoming a closer community network breaks the fundamental law within each of us.

The transportation station will provide another option for commuters and decrease the vehicular traffic reaching the city center. By offering more dramatic public space in combination with different modes of transportation, we make the space not only a place for exchanging locations but a destination where people can express themselves and share in cultural activities.

project justification

Audience of Strangers is imperative to American society for we are losing basic social skills due to modern technologies and therefore are unable to interact effectively in the public realm. A transportation station, like the Greek theater, exemplifies possibilities and fiction within to create an environment of strangers sharing in common time and place. The architecture will ignite a stage for expression while inviting the audience of strangers to participate with one another strengthening social understanding and willingness to communicate with various peoples.

The project is important to me because I recognize America's auto-centric attitude and need for privatization. Private, though good, is not always better than public. Because I am a child of this generation, I can speak first hand that even my communication skills with new people are weakening by diminishing interactions caused in big part because of social media and the private realm of travel that we, as a society, have created with the automobile.

Social behaviors and cues are being forgotten and basic interactions are no longer being passed from one generation to the next. Privatization of travel is causing culture to be lost.

The automobile limits opportunities of human interaction that a transportation center can offer. A transportation center offers invitation back into the public realm.

Audience of Strangers is an applicable thesis project because the issue is current and relevant to society. The project's building typology offers a range of design solutions. Transportation centers have the capability to be functional yet extremely expressive spaces and forms. The combination of both will allow to me investigate further and have a broader range of design knowledge and skills.

In doing so, I hope to demonstrate my strengths in design, drawing, software knowledge, literature, research skills, site analysis, historical context, ability to mesh architecture within a community and to prove my ability to integrate a problem with a solution.

research

THEORETICAL PREMISE

The definition of Public space has changed and been altered over the last few centuries. Our understanding today is much different than that or the ancestors of our past. Formerly, public space was a thriving interactive place where citizens approached ritual interchanges and dealings with strangers on a day to day basis. Public space was a place to join ties with people outside the family or one's immediate associations. Out in public, experiences, sensations and human relations were formed that you couldn't experience anywhere else.

Richard Sennett, a professor of sociology and humanities, in his book, "The Fall of Public Man," written in 1974, describes in detail how public space today is lacking. He informs us that life today is deprived of the pleasures and experiences in the public realm for we have lost basic interchanges with fellow citizens. He discusses public life from the past to the present in his book and makes clear that because of the changes, society today is focused primarily on privatizing our experiences.

A Google internet search today will tell you that public space is a social space that is generally open and accessible to people. No longer do we recognize public space as a place for people to come together to experience culture and indulge in life, but rather, it has become a place of formal obligation. As google defined it and our modern-day thinking knows it, it has become a "general" space.

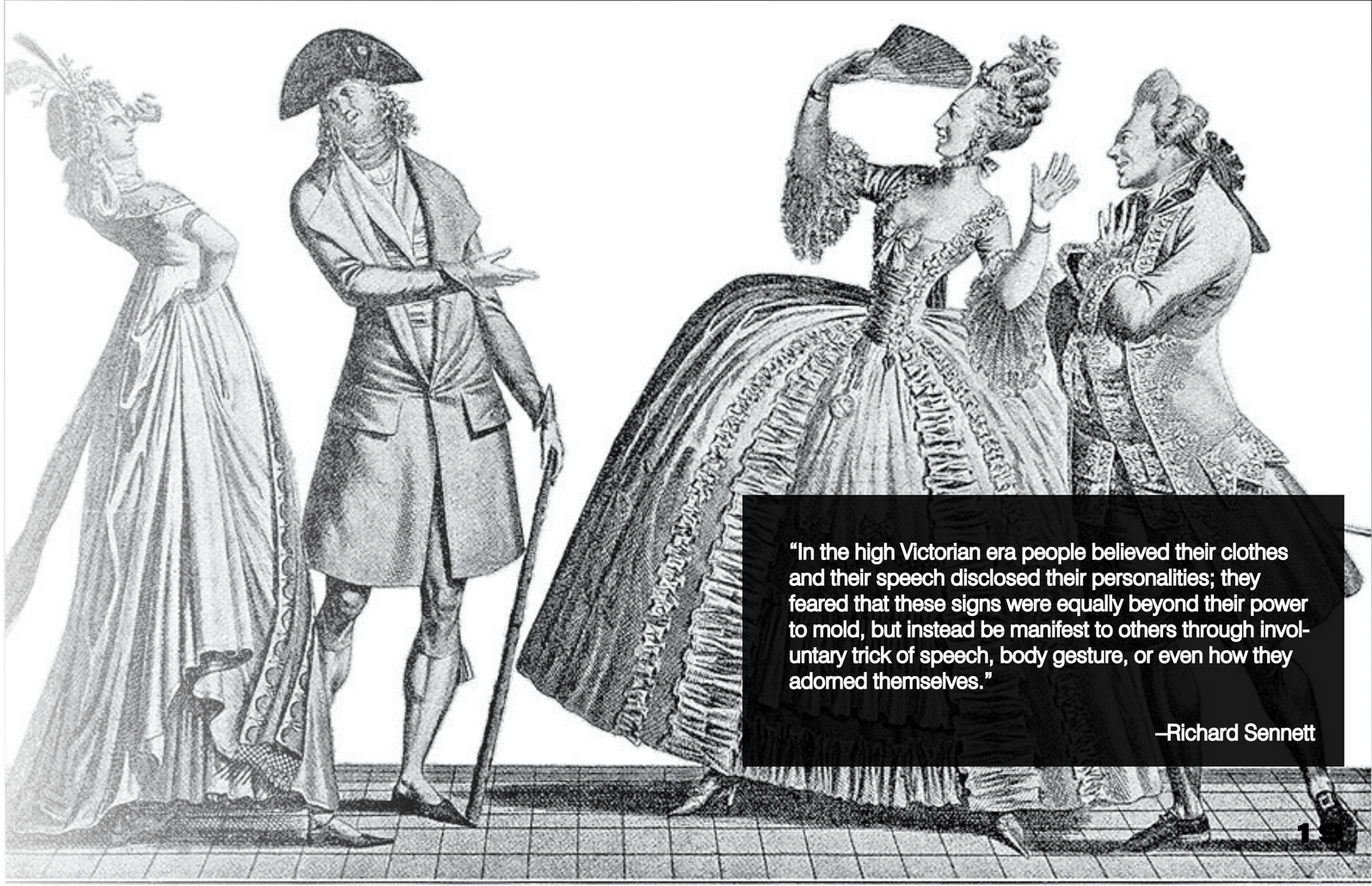
As Sennett describes it, public meant 'a life passed outside of the life of family and close friends'-- meaning that the public is a place of people whom you've never met, strangers if you will.

Richard Sennett

the **stranger**
then and now

In the 17th century the stranger held intrigue and wonder to members in society, yet today the stranger is a threatening figure. In the past, being a stranger was how you identified and presented yourself and your character to others. The elitist identified with other elitists and the beggars with the beggars. Classifying oneself through presentation and behavior determined which social relationships one was permitted to form.

The public realm was literal theatrics on the street. You had to sell to the audience who you were-- the audience of strangers. Richard Sennett states that, “Belief in a stranger is a matter of taking the immediate encounter as the limit of knowable reality.” The tangible experience became the truth of a person’s identity and even if nothing else was known about the person, they were easily categorized by presentation. Much like the Greek theater, the street became the stage for expression. In the theater, similar to a stranger, belief in the actor and the character he portrayed was what gave them their credibility and made the story real.



17th Century Clothing

“In the high Victorian era people believed their clothes and their speech disclosed their personalities; they feared that these signs were equally beyond their power to mold, but instead be manifest to others through involuntary trick of speech, body gesture, or even how they adorned themselves.”

–Richard Sennett

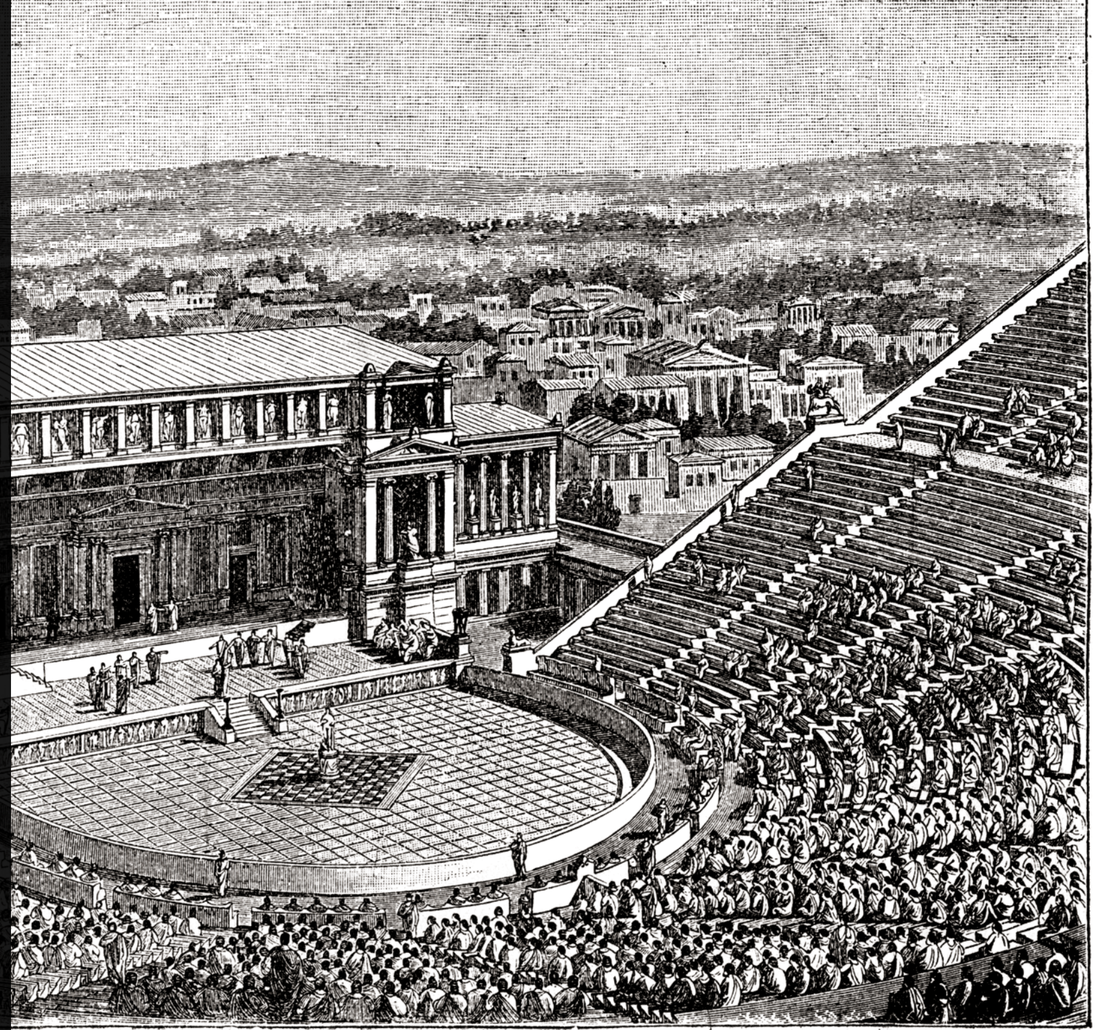
The Greek theater offers a variety of comparable symbols to the streetscape. The stranger on the street, being both the actor you come to learn on the stage and the strangers in the audience surrounding you in watching the shared performance. Likewise, the performance itself must sell to the audience a believable story much like you must sell your image on the street. Sennett argues four comparisons between the theater and the public realm.

1. Arousing belief in ones appearance among a milieu of strangers. Your appearance, like a mask, can be changed and interchanged. Do we not place a mask on our self each day? The student, the worker, the son or daughter.

2. There can arise rules for believable appearances that have a continuity of content based on a given time. Thus, the audience can share in knowledge and beliefs about the performance. For example, the clothing of their time to the clothing of ours. It's the rules and conventions of the current time.

3. Social circumstances and groups of strangers aid a common code of comfort among people. Like the theater, the audience is brought together in the social setting for the same reason mean that strangers are sharing the same experience.

4. Social expression is conceived to other people that must be able to relate in and out of themselves.



Greek Theater

Public space and comparisons to the Greek theater still hold true today, yet why has the public lost its sense of theatrics and need to participate in society?

Clothing and make-up are no longer easily defined and have lost their highly ornate and distinctive forms. Society has transformed over the years into an "equal" and homogenized place where important differences, necessary to know if one is to survive in a rapidly expanding realm of strangers, have become hidden and the stranger has become an even greater mystery. Identifiables are lost and not knowing the stranger has become a puzzle, a puzzle associated with fear.

Why do we find contact with a stranger something to avoid? Proper introductions and once ritual interchanges with strangers are today at best formal and dry, and worse, phony. The half-smile or nod you give to someone in passing, a mannerism taught to us but not ever an actual invitation for contact with that person, nothing more than formal behavior. The stranger has become threatening and few people take pleasure amongst them.

How has it become such tense interaction among people in the public realm or even worse, to have no bodily response or care at all for your fellow man? Why has it become a natural response and even instinct for a woman to clench her purse when passing someone on the street? Why do people leave seat or two gaps on park benches or movie theater seating rather than sit next to someone and form introductions?

how is fear of the stanger reinforced by modern society?

Perhaps the number one influence of how fear is reinforced by modern society is social media. From personal experience, I can tell you there are people out there today who truly believe everything the media tells them.

Its things like the news-- with constant information about the war in the Middle East, murders and rapes in our communities, drug abuse and drunken driving accidents. It's no wonder we've lost trust in the people around us when any one of those 'strangers' could be the next culprit.

Then there are the programs on TV displaying the lives of other people in much more exciting ways; an action film with guns blazing or Law and Order. Pop culture in television is much more exciting and safe then real life. And tell me, why I should risk myself with strangers in the public realm when I can sit in the safety of my home and have the theatrics of Brad Pitt or Angelina Jolie?

Our magazines tell us that at any moment we could catch a killer virus and you should beware contact with other people…our radios, cell phones, the internet.

The internet informs us with all the headlining events such as war, gossip, stock market information, the news and offers us with social networking such as Facebook. Rather than a tangible meeting with someone, you can instead have 6,000 friends and never actually meet a single one of them. Howver, you feel important and justified based on your personal profile. It's no wonder we have fear of interacting with others in the public when so much of our life has been privatized and is based in cyberspace—a space with no accountability or visible limits to the vast information formulated on the web.

This lack of accountability created by the web has strengthened our desire for privatization and safety of the home. We're so focused on staying within our safety net, that even travel has become about getting only from point A to B in the fastest most efficient manner. Interaction with other travelers is rare. No longer do we walk to every destination, or even cross paths by horse and buggy where at least an opportunity for communication was viable.

In American cities, towns, and countryside's our primary mode of transportation is the automobile. In fact, the automobile's design creates a safety and social barriers to other drivers.

Early Streetscape

"Not TV or illegal drugs, but the automobile has been the chief destroyer of American communities."

–Jane Jacobs

Jane Jacobs was a journalist, author and activist on urban studies. She wrote the book called "The Death and Life of Great American Cities" written in 1961. She argued that city planning and rebuilding have met many failures with designs that lack overall integration of the city as a whole. The book offers insight and problem solving advice to solving the crisis of the modern day city and the communities within.

Jane Jacobs

“Vehicles compete with each other for space and for convenience of their arrangements. They also compete with other uses for space and convenience.”

-Jane Jacobs

Major Highway

“Good transportation and communications are not only among the most difficult things to achieve; they are also the basic necessities.”
-Jane Jacobs

Because of the automobile, we are losing public space due to expansion of roads, widening streets, bridges expanding to be double decked to support max capacity. More and more land goes into parking to accommodate the ever increasing number of vehicles while they are idle and passive. What was once a thriving street full of pedestrian activity is now primary focused on automobile traffic. Barriers are even placed between the sidewalk and the street for safety--barriers that removes the invitation for interaction with the other side of the street or with travelers on the street.

Street Changes Over Time

At this point in time, automobiles are inevitable. There is no going back and complete and immediate irradication of cars isn’t possible.

“Ever since the late eighteenth century, cities stopped being articulations of ritual places and became mere circulation; circulations of fluids, such as air, fresh water and sewage for hygienic purposes, circulation of goods for commerce and consumption, and circulation of people, always with a pre-planned destination in order to be significant, now served by a GPS system never to be lost. ”

-Alberto Perez-Gomez

Alberto Perez-Gomez was an architectural theorist and architectural historian. He wrote the essay, “Architecture: The Space of Participation.” In this essay, he discusses that cities have grown and changed over the past few hundred years and our commercial and economic interests have led designs for architecture and city planning. He compares myth to science and urges individuals to participate and challenge architecture as an event.

Alberto Perez-Gomez

“Rather than experience cities by “circulating” (usually in some sort of vehicle), it is rather crucial to walk and linger: To acknowledge out place in the labyrinth and be open to desire.”

-Alberto Perez-Gomez

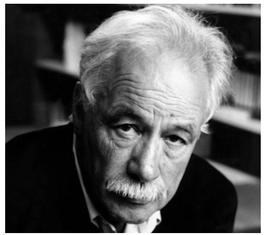
Walk and Linger

Yet with such emphasis on privatized travel, at what point are we given the opportunity to experience desire? To participate in culture and break down fear of the stranger?

"The proper vocation of architecture is indeed the configuration of public space, meaning specifically to a poetic proposition disclosing collective order; one that embraces *fiction* to open us to the abyss, the abgrund [something profound] of human meaning."

- Alberto Perez-Gomez

Who better to describe how transportation stations can encourage social interactions and express the significance of the stranger in a public setting than W.G. Sebald in his fiction Austerlitz.



W.G. Sebald

W. G. Sebald was a German writer and academic. His book, "Austerlitz" tells us about a man named Austerlitz, an architectural historian, who encounters a solitary man in Antwerp's Central Train Station. The two strangers meet at the station over the course of many years and share in the mysteries of Austerlitz's past. The train station is described in his book as an intriguing place where people are strangers to each other which leads them to behave almost like animals in a nocturama.

"The animal moreover, has a particular pattern of behavior. Because it proceeds unsteadily, by trial and error, and has at best a meagre capacity to accumulate knowledge, it displays very clearly the struggle involved in existing in a world into which it has been thrown, a world which it has no key. In doing so, it reminds us, above all, of our failures and our limitations."

-Maurice Merleau Ponty

Animal Eyes

In Sebald's fiction, when Austerlitz is approached for the first time by the stranger in the station, the narrator makes a surprising discovery.

"When I finally went over to Austerlitz with a question about his obvious interest in the waiting room, he was not at all surprised by my direct approach but answered me at once, without the slightest hesitation, as I have variously found since that solitary travelers, who so often pass days on end in uninterrupted silence, are glad to be spoken to."

Is it possible there still exists a place for the Stanger to hold value like that of the 1800's with their theatrical dress and ornamentation? Does the station offer a stage and audience for strangers to interact based solely on behaviors and invite communication between peoples to enhance our culture?

The station holds much more value and hierarchy than we give it credit for. In Austerlitz, it's referenced to a cathedral, a great monument for rituals to take place within.

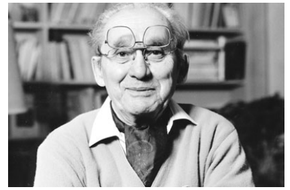
"When we stepped into the entrance hall we are seized by a sense of being beyond the profane, in a cathedral consecrated to international traffic and trade."

Train Station

This brings us to Paul Ricoeur. Ricoeur was a French philosopher who wrote, "The Function of Fiction in Shaping Reality." Ricoeur was best known for his phenomenological descriptions with hermeneutics, but this particular essay discusses how fiction becomes the essence of truth.

In Sebald's "Austerlitz," the fiction describes and evokes the mind to produce imagery of the train station. Without ever seeing the place, we are able to imagine. Paul Ricoeur says that

"Fictions are merely complex ideas whose components are derived from previous experience."



Paul Ricoeur

To have an image of something it to “see” it in the minds eye, without the presence of the actual thing. I want my architecture, like a fiction, to create a presence-- a presence that will facilitate communication and interaction between strangers to form previously nonexistent social bonds.

In researching the stranger in the public realm and their changing perception from the past to the present, we can conclude that the stranger is an intriguing figure. Through fiction we have found that architecture can tell a story and create a time and a place for events to take place. Through the Greek theater, architecture can faciliatete a common place where both the audience and the actor become the performance of social intrigue and the stranger ceases to exist.

context

HISTORICAL, SOCIAL, AND CULTURAL

"Railway termini and hotels are to the nineteenth century what monasteries and cathedrals were to the thirteenth century. They are truly the only real representative building we possess. . . . Our metropolitan termini have been leaders of the art spirit of our time."

–Building News, 1875

In order to understand transportation and how it's changed in America, we must first look at the history of the rail itself. The first railways were nothing more than horse drawn cars hauling freight along iron lines of track. From there, we began to see passenger cars and eventually mechanical vehicles.

The creation of the first modern stations happened almost simultaneously in both America and England, both competing in the trade industry in the 19th century. Early station design were simple "sheds" and went through many evolving forms and functions.
"Some stations bore in them the patterns for the great terminals of the future, others proved abortive." (Meeks, Carroll L.V. p 29).

The first types of rail stations were classified based on how the train would enter and exit the station and design became based solely on the function of the train and not of the station itself. The roof forms and plan designs had to allow for single or multi-track designs. Between 1830-1840 cities across the world were experimenting with wood truss design which was later abandoned for the early steam trains would rapidly deteriorate the material (Meeks, Carroll L.V. p 38).

It was around the 1830's that the first serious railway architects began to ask "which station has the right look?"

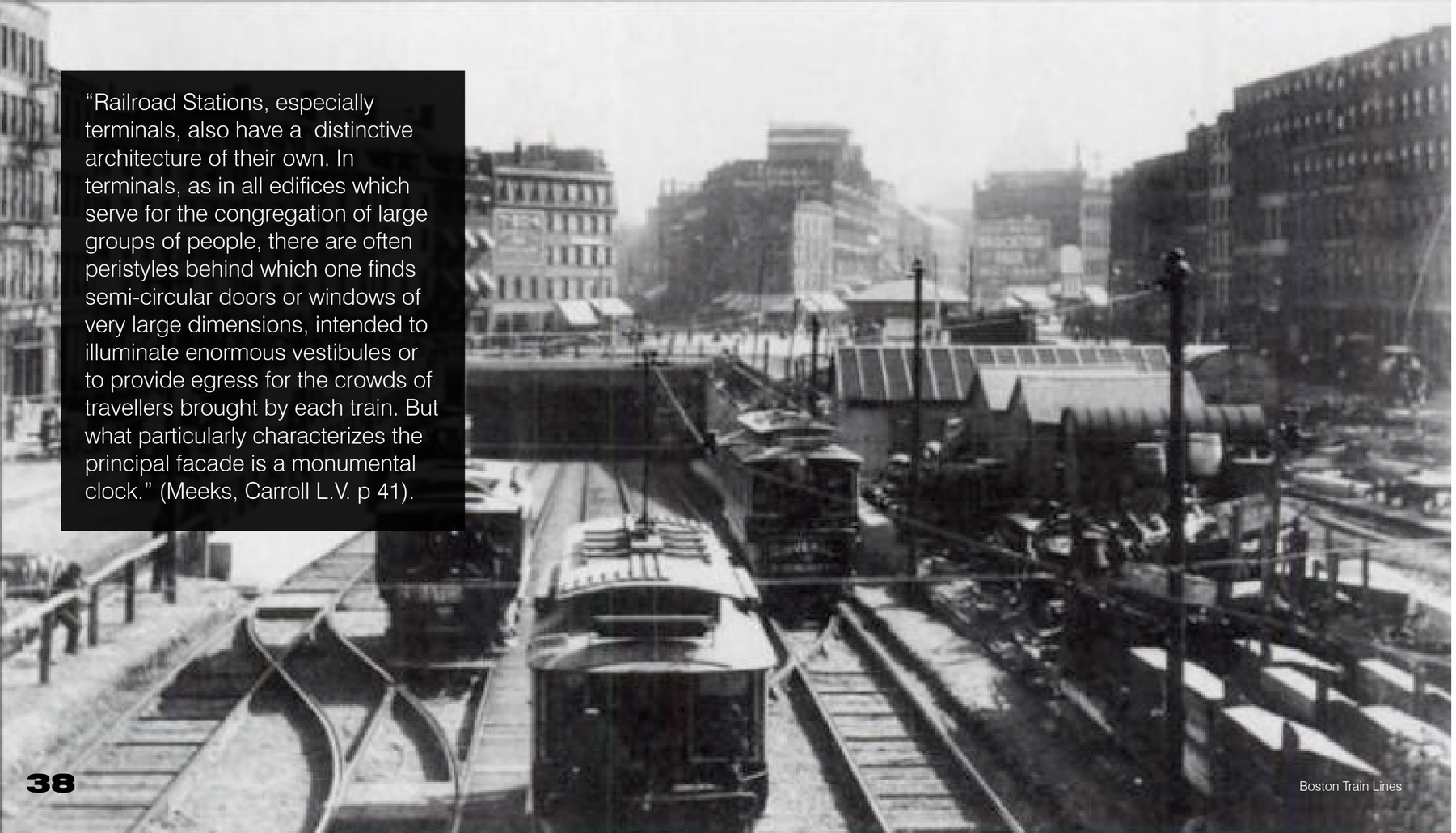
A new building type was evolving.

With the expansion of railways the station grew larger and larger and became too complex for any standardized classification. Should the train shed be the focus, the terminal, or if there was one, the hotel (which was common in the time).

It was a shared thought that railroads were to the modern city what the gate was to the ancient city. The gate being the symbol of opportunity, possibility and hope.

"Romance has always endowed the railroad with a mixture of wonder, astonishment, and awe. Its buildings were becoming the symbol of the age."

Carroll L.V. Meeks



"Railroad Stations, especially terminals, also have a distinctive architecture of their own. In terminals, as in all edifices which serve for the congregation of large groups of people, there are often peristyles behind which one finds semi-circular doors or windows of very large dimensions, intended to illuminate enormous vestibules or to provide egress for the crowds of travellers brought by each train. But what particularly characterizes the principal facade is a monumental clock." (Meeks, Carroll L.V. p 41).

Boston Train Lines

However, in America the monumental and cathedral like design that was taking off in European stations were not an immediate success. America was much more spread out and miles upon miles of track was laid out to connect widely separated cities from coast to coast. Therefore, American stations were small and sometime even temporary structures.

Boston, Massachusetts was the first major railroad center in the United States (Meeks, Carroll L.V. p 51). The city had six different lines of track in 1835 and was a leader in creating the first 'head' or 'central' station design for American stations.

It was around 1850 where passenger trains and freight trains began to split and become two separate building typologies. Passenger trains became more about people being able to linger within the station where freight stations focused more on circulation of goods.

Passenger stations were growing in size and complexity. Hotels and office buildings were housed within these spaces along with cafes and restaurants. Social classes were taken into consideration and separation between economic groups become clear.

Larger and more grand facades and terminals were created on a monumental scale to appeal to the wealthy and inspired the underprivileged. A train station became a means for separation between social classes but also a realm where all were welcome to linger and experience in common space-- an invitation to the stranger in the station.

Between 1869 and 1883 comfort and efficiency along with electricity become among chief components in the station. Lighting fixtures were introduced and more elegant designs including light and shadow were introduced (Meeks, Carroll L.V. p 78). It was this introduction to design that enforced the idea of a ‘central’ station rather than multiple small sheds.

With more central stations and higher density of travelers in one station, circulation of space became a key focus in design. “The traffic flow was direct and unimpeded; waiting rooms and restaurants were off to the side.” (Meeks, Carroll L.V. p 42).

Designers in the early 1900’s began creating the station with large amounts of glass to make the station a more spiritual place where people could come to feel an awe-inspiring and almost God-like presence. The station became a ritual place and people flocked to it. Not only was the station ritual in its design, but the idea of freedom and the opportunity to see the world made it a place of wonder and possibility.

NYC Staion

However, the glorious designs on the early 1900's wouldn't last. With the start of World War I and World War II, transport of food, weapons, supplies, and soldiers, train stations focused more on functional approach and safety rather than architectural meaning and poetic design.

"From the outside, it is as impossible to imagine that these buildings have interiors as it is to visualize the internal chambers of the pyramids. The sheds suggest that a confused engineer was thinking of bomb shelters" (Meeks, Carroll L.V. p 156).

During this time the industrial revolution was beginning to take place and the need for trains to stray away from elegant opportunities of travel became once again merely freight and transportation and production of goods based on fear of the war. It pulled people away from public travel.

"There is no definitive record of how many communities have lost rail service since World War I" (Schwieterman, Joseph P. p 317).

With commercial and economic interest at heart, the railroad began to lose the value it once held. No longer were they ritual places, but instead dry space based on efficiency. The invention of the automobile didn't help. Private ownership of transportation pulled away from and stripped away the need for community travel.

“Railroads once spread across the American landscape, radiating from towns like spokes on a wheel. They were part of the skeleton of almost every community, the back bone of the municipal anatomy, and an essential element of commercial and civic life.”

-Joseph P. Schwieterman

PROJECT TYPOLOGY

Transportation Hub

A transport hub (also transport interchange) is a place where passengers and cargo are exchanged between vehicles or between transport modes. Public transport hubs include train stations, rapid transit stations, bus stops, tram stop, airports and ferry slips.

thefreedictonary

TYPOLOGICAL RESEARCH

T.R. 1

King’s Cross Station
LONDON, England

T.R. 2

Transbay Transit Center
SAN FRANCISCO, California

T.R. 3

World Trade Center Transit Hub
NEW YORK, New York

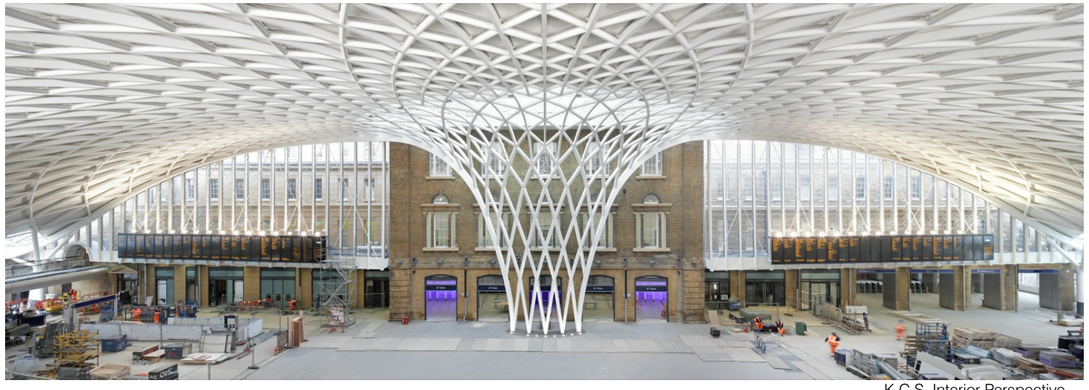
KING'S CROSS STATION
LONDON, England
John McAslan + Partners

K.C.S. Interior of Plaza

King's Cross Station in London, England has been redeveloped into a re-use, restoration, and new build project. The western addition, opened on March 19, 2012, reveals the original facade from the 1852 station while adding a dramatic single spanning structural element to create a new heart in the station.

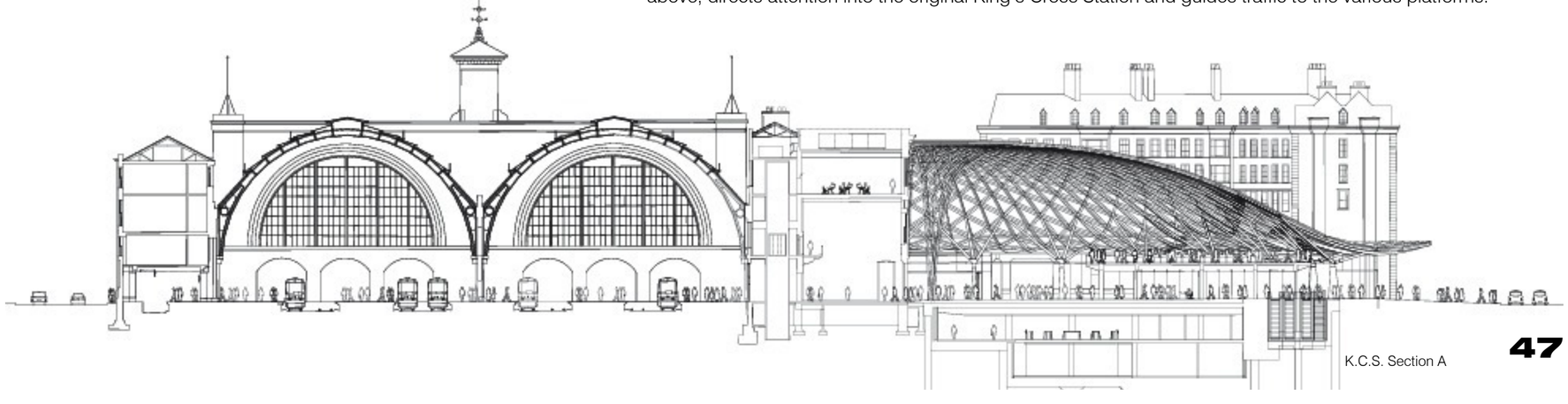
The new concourse rises 20m and spans 150m from the exisiting station. The 7500sqm concourse has become the largest in Europe.

Program Elements:
ticketing hall
retail elements
restaurant elements
Platform that links to the London Underground
Bus Platform
Taxi Platform
Train Platform for connections to St Pancras
A new plaza
A new Entrance

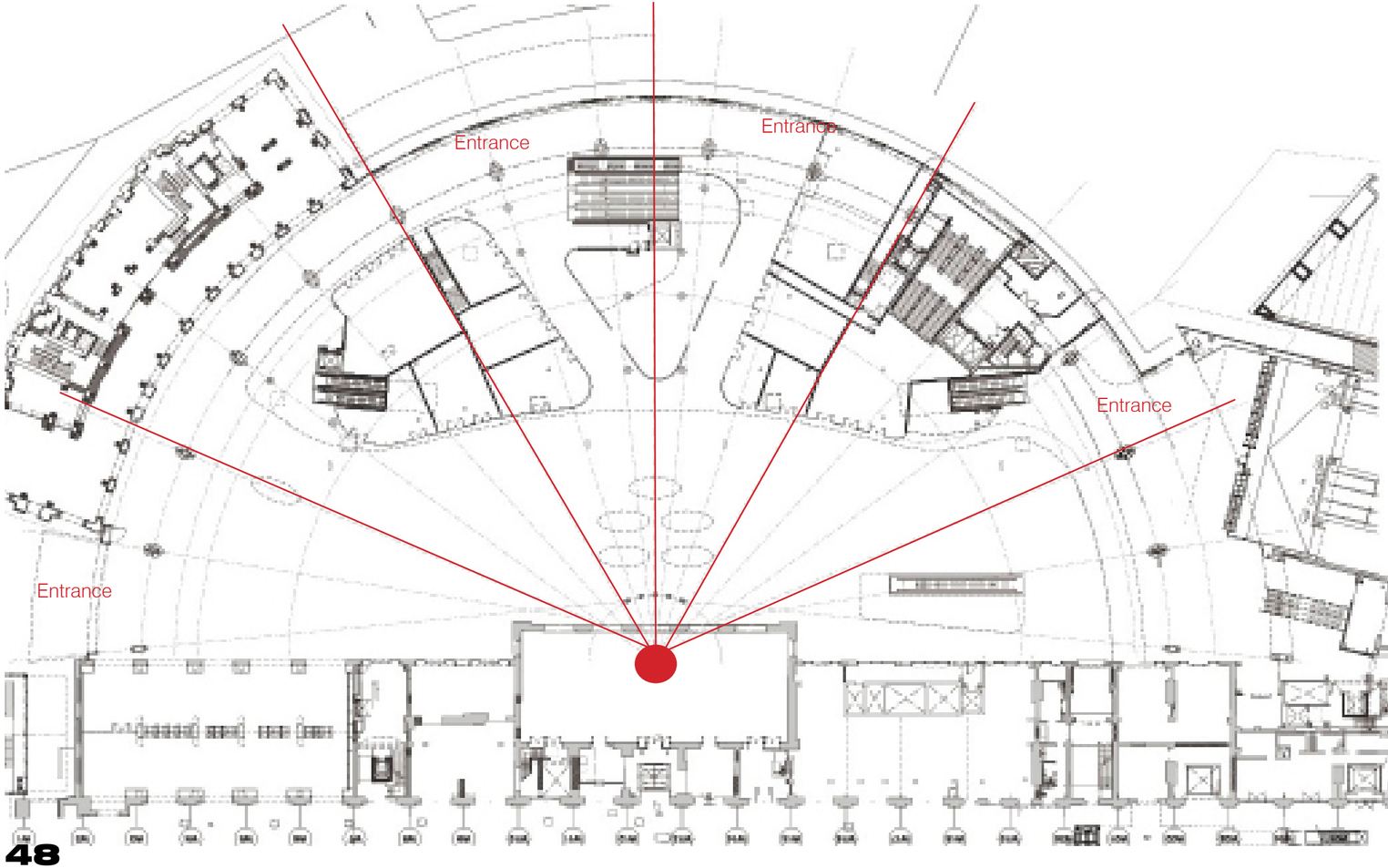


K.C.S. Interior Perspective

The interior of the western addition is a large, open space that incorporates natural day lighting and ventilation for a light airy feel while maintaining its sense of culture and history through the existing facade. The structure itself has a central focal point that spans over the entire public space. The focal point, shown in the image above, directs attention into the original King's Cross Station and guides traffic to the various platforms.

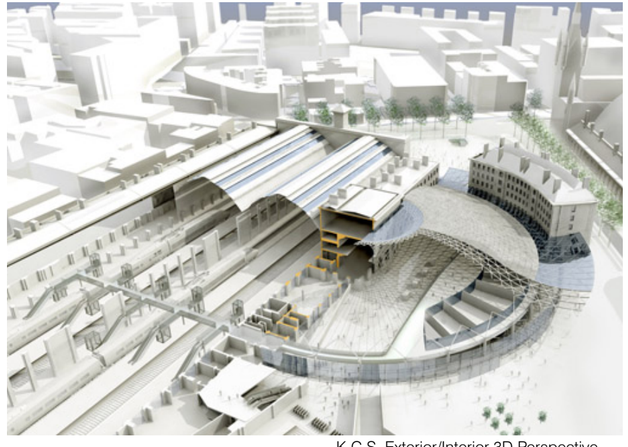


K.C.S. Section A

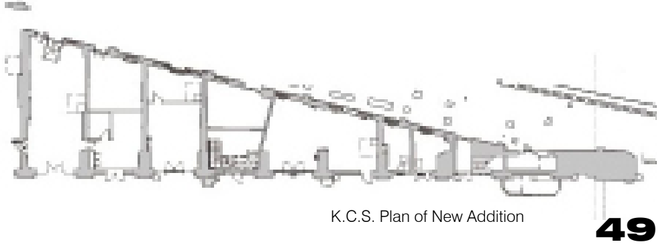


The main entrance to the western addition of King's Cross Station is not defined by one major entrance, yet instead by various access points. Multiple entrances allow users more movement inside and outside the building, increased egress, more options for commercial storefronts, more natural day lighting and ventilation, and better circulation throughout.

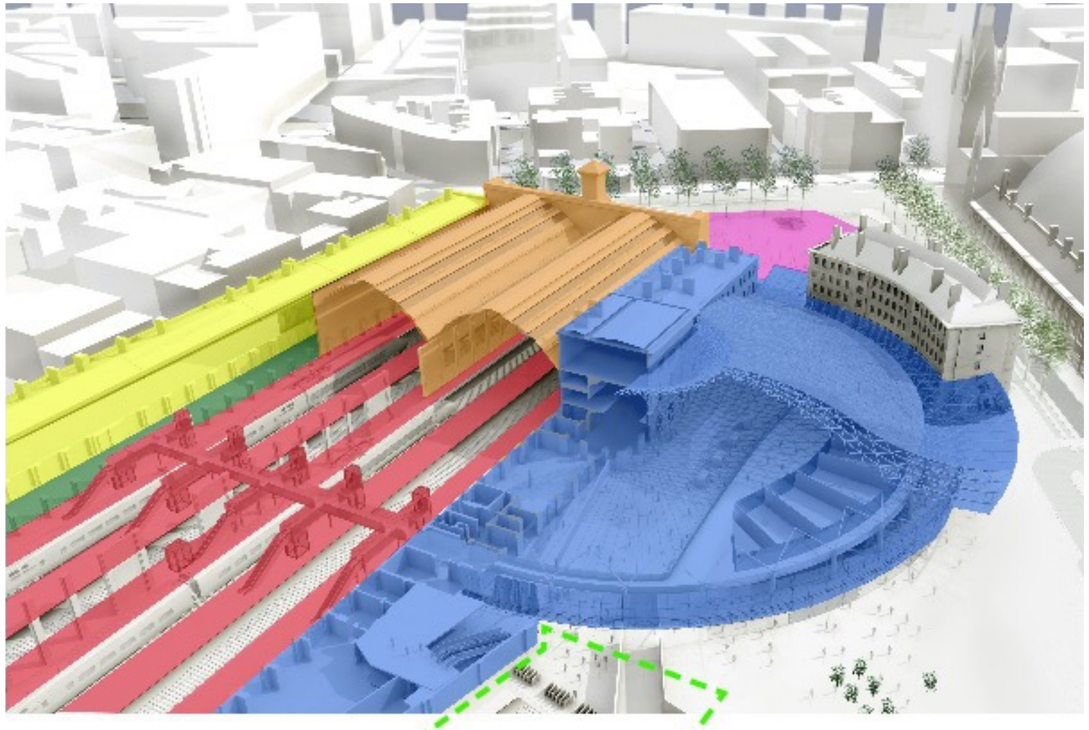
In looking at the plan drawing (see K.C.S. Plan of New Addition to left and below) we see by the lines drawn that radial organization was used and draws circulation towards an important point of interest --the original western entrance to King's Cross Station.



K.C.S. Exterior/Interior 3D Perspective



K.C.S. Plan of New Addition

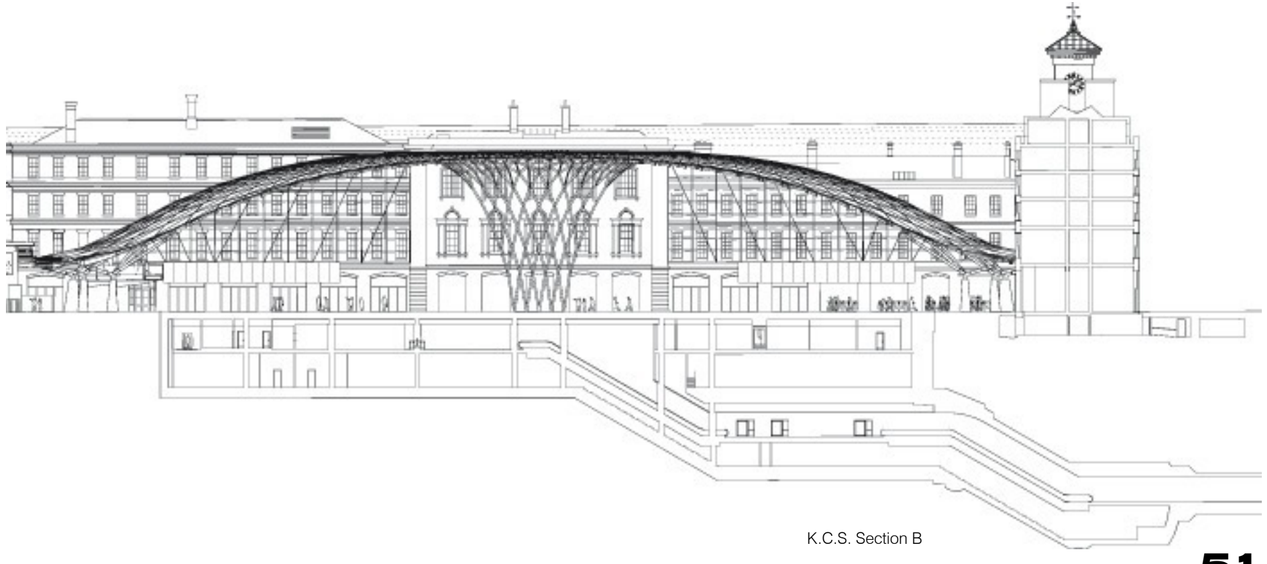


K.C.S. 3D Perspective with Elements

Kings Cross Station integrates numerous modes of transportation into its facility. It reuses the current platforms for the trains and subways eliminating the need for new rail.

The western range and concourse is a semi-circular design that gives it's site design more space and more options. Refer to K.C.S. 3D Perspective with Elements shown on the left, as you can see the semi-circular design allows the site a larger plaza, more greenery, more accessibility and rather than being parallel with the street it's angled to best capture the traffic of the streetscape.

In K.C.S. Section B, we can see that the western additions in a multi-level structure that separates and guides traffic to specific platforms and transportation zones. The section also shows us that additive techniques were used. The original station is in tact and has not been altered for the sake of the addition, but rather the addition is held onto the existing facade.



K.C.S. Section B

TRANSBAY TRANSIT CENTER

SAN FRANCISCO, California

Pelli Clarke Pelli Architects

T.T.C. Exterior Perspective

Program Elements:

ticketing hall
bike storage
retail shops
restaurants
roof-top city park
amphitheater
gardens
children play area
cycling paths
cafe
bus platform
taxi platform
rail platform
cultural art center
educational center
offices
staff area
pedestrian paths

The Transbay Transit Center located in San Francisco California is an all new architectural design created by Pelli Clarke Pelli Architects. The project, set to be complete in 2017, is budgeted at $4.2 billion and takes up five San Francisco blocks.

The project will add 2,600 new homes to the area, a 5.4 acre park, enhanced city streets with retail and a 1.3 mile long extension to the Caltrain Rail Line.

With over 1.5 million square feet of space, the Transbay Transit Center will bring together 11 different modes of transportation and cater to over 45 million people a year.

The Center has a focus on green technology merged with modes of major transportation. The translucent facade and skylights from the rooftop park allow for natural sunlight. The building is on its way to receiving a LEED Gold rating.

T.T.C. 3D Section

1. Transbay Transit Center

The new landmark Transit Center at First and Mission streets in San Francisco features an elevated Bus Deck for AC Transit and other regional carriers (and initially intercity bus operators), ground floor transit amenities and below-grade levels serving Caltrain and future high speed rail. The Transit Center will include retail shops, entertainment, conference, educational and cultural space.

2. Temporary Terminal

3. New Bus Ramps

4. Folsom Street

Folsom Street will be the centerpiece of the new Transbay neighborhood and will feature widened sidewalks for easy pedestrian access, street side cafes and marketplaces with above ground housing and views of the San Francisco Bay.

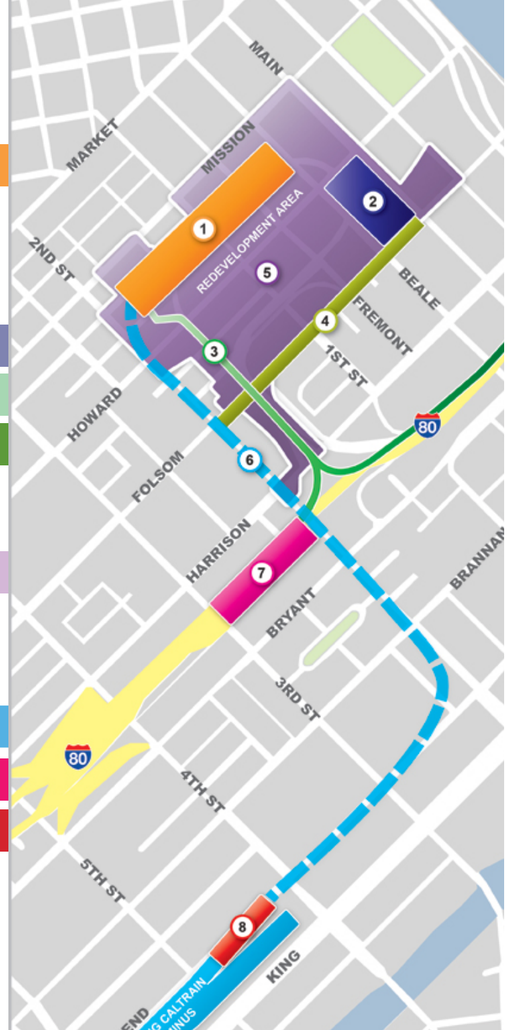
5. Transit Center District and Redevelopment Area

The Project Area is approximately 40 acres in size and is bounded by Mission Street in the north, Main Street in the east, Folsom Street in the south and Second Street in the west. The new neighborhood will feature wide sidewalks, front stoops, new parks and small retail shops.

6. Downtown Rail Extension

7. Bus Storage

8. New Fourth & King Caltrain Station



T.T.C. Program Map

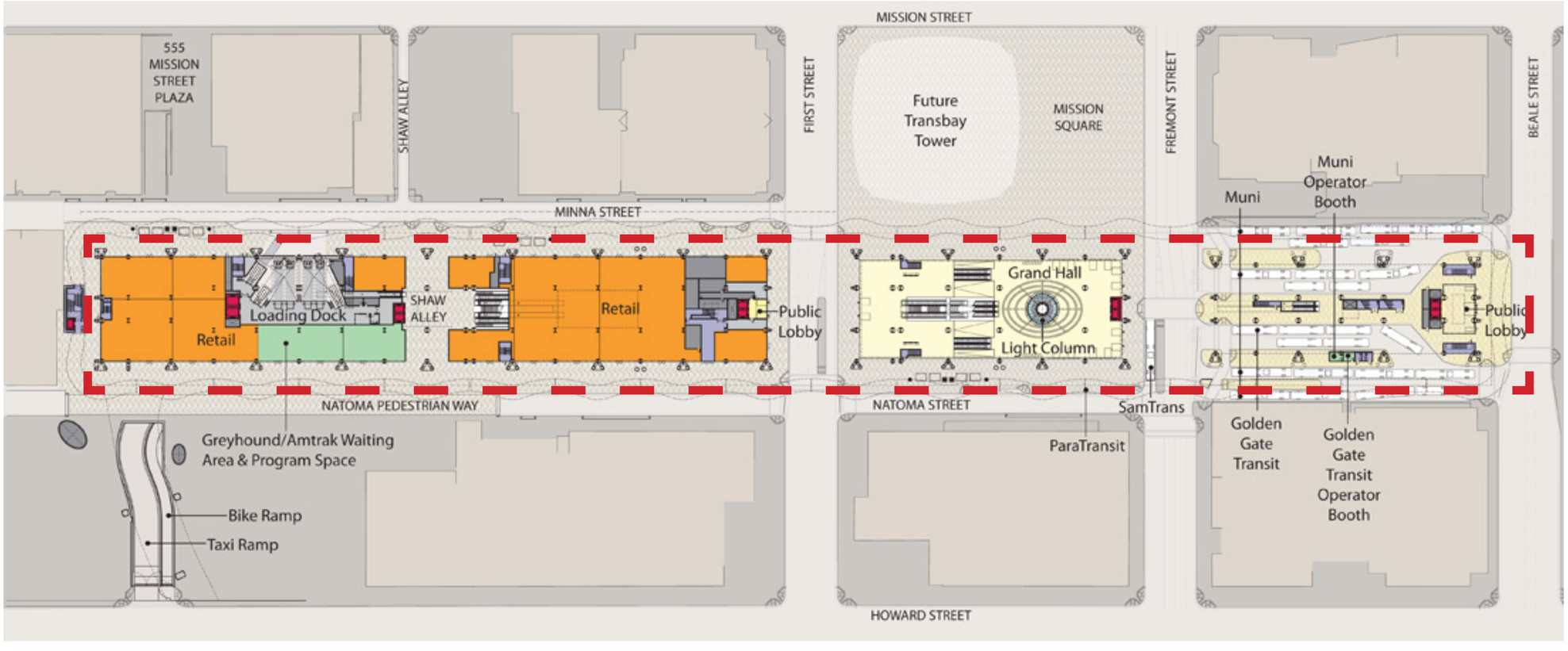
T.T.C. Exterior Perspective of Entrance

The Transbay Transit Center, as shown in T.T.C. 3D Section, is a multilevel structure with a central focus. The various levels break apart different transportation platforms and direct traffic efficiently throughout the transit center. The central structure of the Transbay Transit Center is carried through all levels unifying the space and also allowing natural daylight and ventilation to penetrate even the lowest basement level. This hierarchal organization benefits the building and creates a visual stimulus for its inhabitants while allowing them to experience all levels.

The transparent facade and major structural elements suggest a subtractive approach to the buildings design. Referring to T.T.C. Exterior Perspective of Entrance shown below, we can see that the Southern entrance is open and exposed and the upper levels appear to float off the ground. This effect is created by removing the walls to expose the light steel structure and allows pedestrian traffic to walk safely under the larger mass of the building above.

The structure may appear random at first glance, but it is indeed repeated throughout the transit center. The translucent membrane of the upper levels sits upon a grid system that is visible and exposed.

In the plan drawing (see T.T.C. Plan to the right) we see that linear organization was used. The site itself is long and narrow so it seems fitting that the building itself should also be long and narrow. Also shown in the plan drawing, the circulation of traffic on the ground level is again linear and also follows a grid.



T.T.C. Plan

WORLD TRADE CENTER TRANSIT HUB

NEW YORK, New York

Santiago Calatrava

W.T.C.T.H. 3D Exterior Model

The World Trade Center Transit hub, designed by Santiago Calatrava, is set to be complete in 2015. Once open, the transit hub will cater to over 200,000 daily commuters and to millions of visitors from all around the world (WTC).

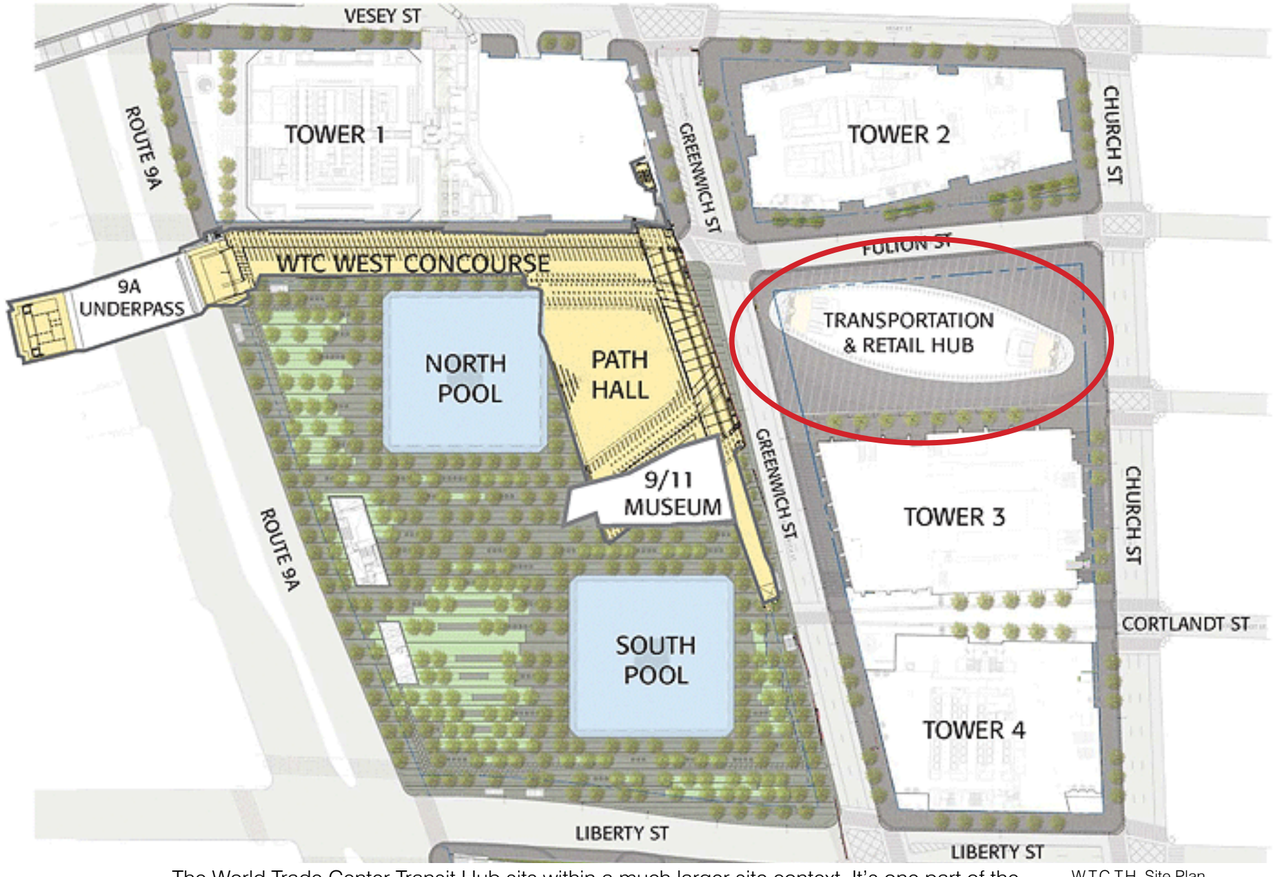
The transportation hub will connect to 11 different subway lines, the Port Authority Trans-Hudson rail system, Battery Park City Ferry Terminal, the World Trade Center Memorial Site, WTC Towers 1, 2, 3, and 4, the World Financial Center and the Winter Garden. The hub will become part of the most integrated underground pedestrian walk in the city of New York.

Program Elements:

Ticketing Hall
Retail Space
Restaurants
Parking Facilities
Memorial Hall
Restrooms
Staff Area
Subway Platform
Transit Hall
Unloading Zone

W.T.C.T.H. Inspiration

Buses, trucks and cars will have accessing to the World Trade Center site and its parking facilities. When complete, the structure will reach five stories underground into a basement with connecting ramps leading to the parking and below-grade facilities.



The World Trade Center Transit Hub sits within a much larger site context. It's one part of the entire 9/11 Memorial site and makes undergroud connections that unite the memorial as a whole.

W.T.C.T.H. Site Plan

The main transit hall is 365 feet long. Over 11,000 tons of structural steel will be used to construct the transportation hub (WTC).

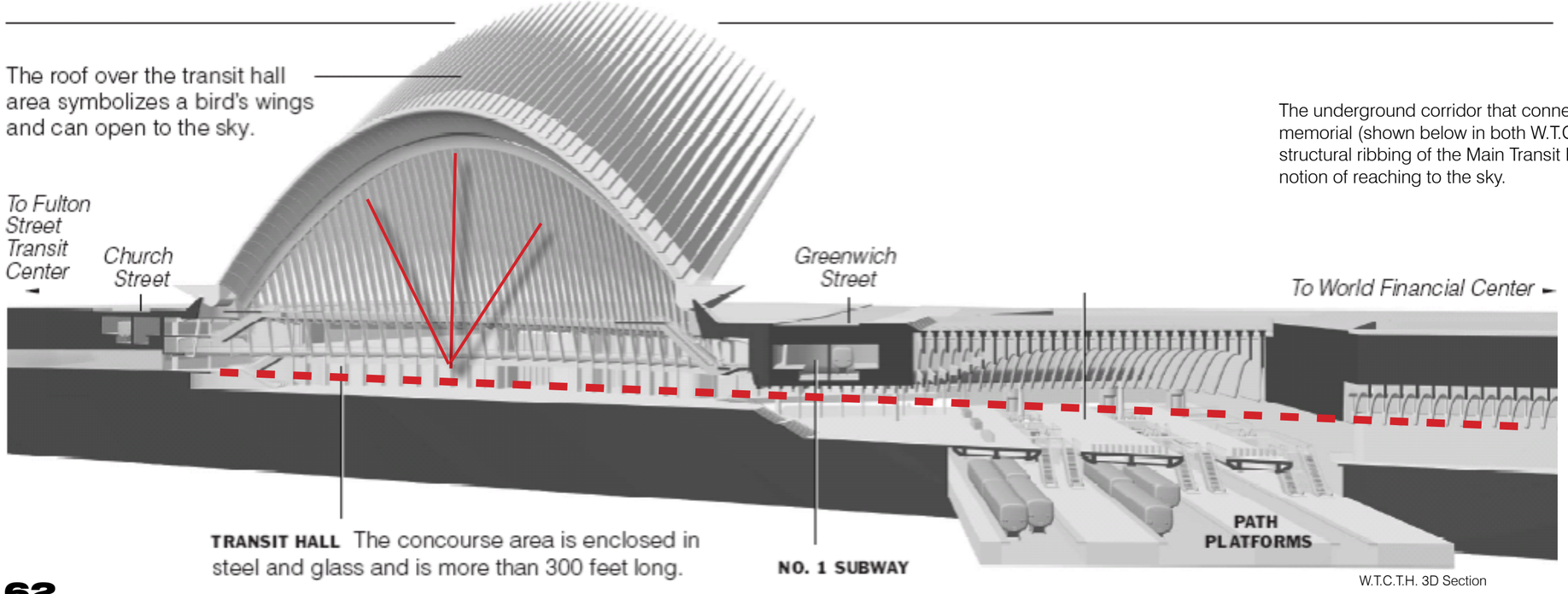
The structural steel trusses display an elegant and spiritual design solution to commemorate the 9/11 attack. The structure itself is art.

The inspiration of releasing a dove (see W.T.C.T.H. Inspiration) into the sky to form the truss system symbolizes peace, purity and renewal.

When viewing the image to the bottom left, (W.T.C.T.H. 3D Section) we can see that the gapping of the trusses on the Transit Hall allows for natural daylight to be entered into the hall and carries through to some of the lower levels.

The location of the Transit hall in comparison to the platforms (see W.T.C.T.H. 3D Section) is actually juxtaposed on two separate city blocks, the hall being above grade and the platforms below.

The transit hall itself expresses hierarchal organization. It contains a central area of public space and reaches to the sky. However, the connection it makes with the rest of the memorial is very linear.

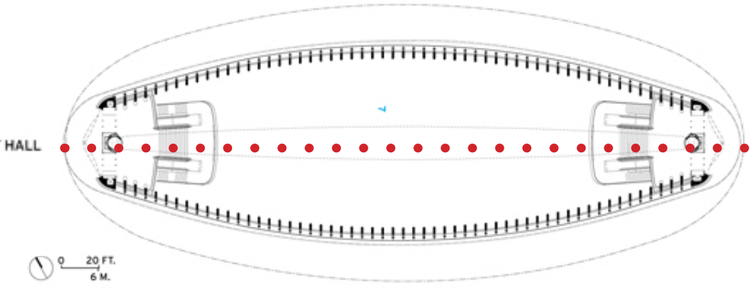


W.T.C.T.H. 3D Section

The underground corridor that connects the Transit Hall with the Path Platforms and the remainder of the memorial (shown below in both W.T.C.T.H. 3D Section & W.T.C.T.H. Underground Corridor) continues the structural ribbing of the Main Transit Hall while also employing natural and artificial lighting to contiue the notion of reaching to the sky.

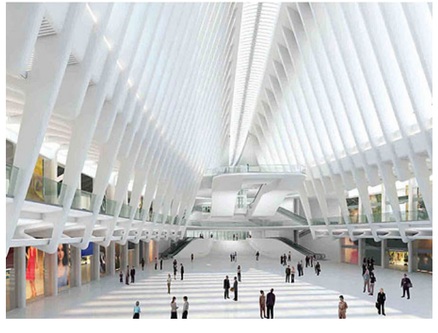
W.T.C.T.H. Underground Corridor

1 OCULUS
2 SUBWAY
3 PATH HALL
4 PATH TRACK LEVEL
5 CONNECTION BETWEEN PATH HALL AND TRANSIT HALL
6 TRANSIT HALL
7 MAIN HALL
8 WING RAFTERS
9 STEEL ARCH
10 GLAZED RIBS



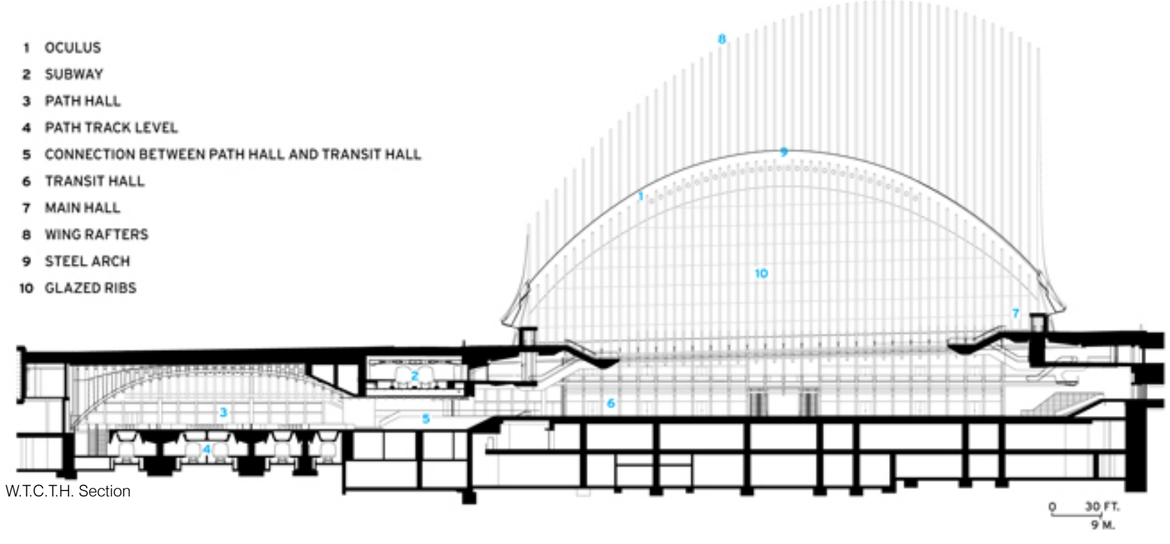
W.T.C.T.H. Plan of Main Hall

In section view (see left W.T.C.T.H. Section) we see that the structural ribbing runs parallel with each other and is carried through the length of the design. In this view, we a much better understanding of how the sequence of space works and are able to see connections and perceive how circulation or traffic will work in this building.



W.T.C.T.H. Main Hall

1 OCULUS
2 SUBWAY
3 PATH HALL
4 PATH TRACK LEVEL
5 CONNECTION BETWEEN PATH HALL AND TRANSIT HALL
6 TRANSIT HALL
7 MAIN HALL
8 WING RAFTERS
9 STEEL ARCH
10 GLAZED RIBS



W.T.C.T.H. Section

TYPOLOGICAL SUMMARY

The three case studies that I have researched, King's Cross Station Western Addition in London, England, Transbay Transit Center in San Francisco, California, and the World Trade Center Transit Hub in New York, New York are each significant in their own way yet the three share many similarities.

The first and most noticeable comparison that can be made between the three is their use of structural material. All three transportation hubs use an excessive amount of white architectural steel. Perhaps this characteristic is shared among the three because all of their designs were inspired and created within the last decade or two. Exposed structural steel has become a large part of modern building design.

The exposed architectural steel in al three buildings is expressive, dynamic, and intended as a focal point for inhabitants within and without the building. Is it possible that the color white in expressive forms reinforces our human notion of travel and community?

Another major comparison to note between the case studies is that all three have hierarchal organization with multilevel design solutions. The multilevel organization supports circulation and directs traffic to individual platforms, all in all an elegant solution of mass circulation.

A third comparison all three case studies share is their attention to passive systems. All three buildings incorporate natural lighting through their structural elements and also contain natural ventilation as well. Natural light promotes well-being and harmony while minimizing the overall cost of energy use.

Each case study recognizes their site as a place of importance. On all three sites, plazas, green space, and outdoor public space are critical elements for public use. Not one of the three building structures covers the entire area of the site. In fact, the outdoor urban spaces promote activities to take place.

The last major comparison the data from the case studies show is that in each transportation station there is a large open hall or atrium as the head point of circulation and activity. The atrium or hall allows for mass circulation but also encourages public interaction and experience with other inhabitants.

Intentions for audience of strangers include more speculation into the comparisons of all three case studies. The transportation station will hit each major similarity in a new approach and express the character of the city of Seattle. The downtown will gain a new sense of place and invite cultural growth.

MAJOR PROJECT ELEMENTS

parking area-
The parking area built into the station will serve as an employee only basis. The public parking lots and ramps in the area are sufficient enough in its urban setting.

plaza/outdoor gardens-
A public space designed on the site for people to congregate and promote well-being.

children play area-
The children play area will give parents an opportunity to relax and involve educational learning for the kids.

ticketing hall-
The ticketing hall will provide a space for people to purchase tickets for the monorail.

bike storage-
Bike storage will be for bike traffic of the community. A storage space will allow people to get into the heart of downtown without the worry of bike theft or space on bike racks.

pedestrian and cycling paths-
Paths outside and inside the building for efficient circulation.

retail shops-
Retail and boutique shops will be incorporated into the station to produce revenue and promote activity inside the space.

music venue-
This space will be a lounge for hosting live music, comedians, poets, artists, etc. This will be a major program element and pull people together to share in their experiences.

cultural art center-
A space dedicated to local artists and events that are held within the station.

offices-
For staff use only.

staff area-
This will comprise of break rooms, locker rooms, and a kitchen.

restaurant/cafe-
A selection of eateries will be provided for riders and visitors or the rail.

bus platform-
A loading and unloading zone for the local city bus.

taxi platform-
A drop-off zone for taxis, cabs, or other automobiles.

monorail platform-
The major transportation platform for the monorail.

CLIENT *and* USER DESCRIPTION

CLIENT

The major client and owner of Audience of Strangers will be the City of Seattle.

The various commercial spaces within the building; boutiques, retail, restaurants, cafes, etc., will be available to rent by private owners.

USER

Primary uses of Audience of Strangers will be your standard day-to-day commuters who work within the heart of downtown Seattle as well as tourists who visit the city.

The transportation station will be home to small business owners and employees that will frequent the station and use its facilities.

Consumers of retail goods will come to the station simply for the shopping opportunities and amenities available to them.

Restaurant and lounge patrons or employees will come to the station for dining or quick meals.

Local bands and artists will come to the station to perform while also bringing in large crowds and visitors
.

the **SITE**

seattle

WASHINGTON

United States Map

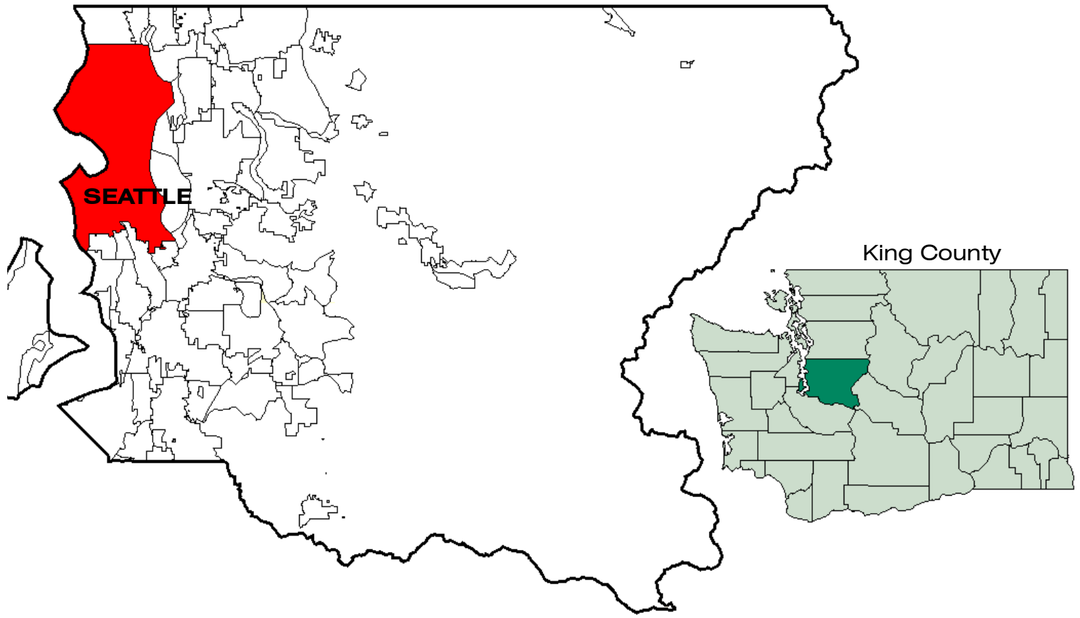
World Map

The site is located in the North West region of the United States. The Northwest region is comprised of Alaska, Washington, Oregon, Montana Idaho and Wyoming

In the North West region, the site is located the state of Washington. Washington is the only state to be named after a president. It has been called the “rainy state” and its northern most border touches the country of Canada.

Washington currently has five major volcanos, Mount Baker, Glacier Peak, Mount Ranier, Mount Adams and Mount St. Helens. Mount Ranier is located just outside Seattle’s city limits and dominates the city skyline.

WASHINGTON, King County



Washington County Map

King County in Washington is home to many towns and cities in Washington, the most notable being Seattle, Tacoma and Bellevue. Including the suburbs surrounding the three major cities, over two-thirds of the counties popullation resides within this area (National Association of Counties.)

King County was originally named for William Rufus King, but it's namesake was later changed to honor Martin Luther King Junior. (Motion Redesignating King County's Name.) Seattle is the largest city within King County and sits on a narrow isthmus between Punget Sound, which is salt water and connects to the Pacific Ocean, and also Lake Washington which is freshwater.

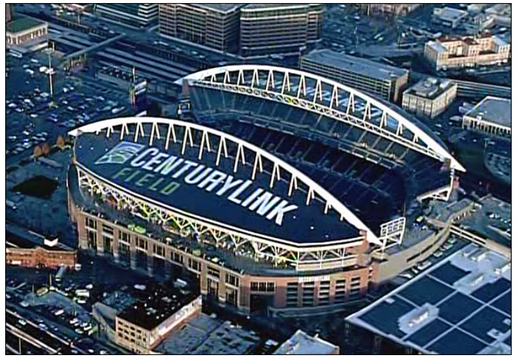
Seattle serves as the nations 8th largest port and is a major gateway for trade with Asia. Seattle was once inhabited by Native Americans dating back at least 4,000 years before it received it's first European settlers. Logging was the cities first major industry but growth truely took off after the Klondike Gold Rush in Alaska. Seattle became an epicenter for trade and commerce.

Seattle with Mount Ranier

Seattle City Port

303 S. Jackson Street
SEATTLE, WA 98104

Site Map



Century Link Field

Safeco Field

Located in Seattle, WA, my site is a perfect location to study how the public can be brought together to form more dramatic bonds. The city of Seattle is very liberal and already has a heavy emphasis on finding the answer to public travel within the city.

The site I have chosen specifically is located alongside Seattle's two major sports stadiums. The stadium just south west of my site is Qwest Stadium, also known as Century Link Field. This is where the professional football team the Seattle Seahawks play and just south of Qwest Field is Safeco Field. This is where the major league baseball team the Seattle Mariners play.

This makes the site a perfect place for strangers to come together because a portion of the clientel will be coming to and from sporting events. Bringing people together for the same event in the same place encourages interaction between people because it opens a dialouge for conversation.

Also, only a few blocks west of the site, is Elliot Bay. This is where you will find Seattle's major port. The large shipping container cranes can be seen from miles away. To the south, Mount Rainier's peak is just visible above the city skyline.

King Street Station


King Street Station


Ceiling View


Waiting Room


Baggage


2nd Level Entry


Floor Details

King Street Station is the current and local train station that already exists on my site. The station first opened to the public in 1906 (King Street Restoration). The station had a grand appearance, with its large clocktower that raises above the city and the ornamental corinthian columns that filled the interior. The floors were laid with mosaic tiles and the station was an inspiration to the city.

However, a series a renovations were undertook in the 1940s, 50s and 60s which sought to remove the grand appearance and ornamentation of the past. Instead, the station's ornante ceileing hung plaster tiles, hiding it's true beauty. The walls were covered with sheets of plaster and the elegant light fixtures were replaced with flourescent lights.

Overall, the renovations undertook in that time, ruined the station's history and removed travelers desire to be within the station.

It wasn't until 2009 that renovations began to restore the station to it's former glory. The tile ceilings were removed exposing the original ceiling, the mosaic tiles were replaced and the corinthian columns were updated.

The building installed a geothermal well field containing energy efficiency for both heating and cooling. Electrical was also brought up to code and the building even received a LEED certification. All this, and King Street Station still remains a place to circulate through rather than participate within.


2nd Level Walkway

King Street Station, though beautiful, lacks many overall ammenities. The station itself, as you can see from the images on page 78, is essentially a large waiting room with a small area for ticketing. A station that supports almost 2,000 people daily, has no gift shop, no restaurant, no cafe, and nowhere for people to go other than the waiting room. This is problamatic for travelers who have hour or longer wait time between trains, or for people who are looking to purchase items for their journey ahead or have a casual meal.

King Street Station serves as both the Amtrak line and the Sounder train lines. As gateway into the city by rail, King Street has no direct connection into downtown Seattle unless by bus, which requires multiple transfers.

It is my goal to enhance King Street Station by giving the people more ammenities, creating a connection to the downtown area, and by focusing on elements of the site to bring forth history and sense of place.


Existing Railroad Tracks

One such element that made this particular site unique is that it sits among two varying elevations. The ground level is split, and connections to the street above are made apparent through an overhead walkway that is above the railroad tracks. It is my intention to expand this connection to blend together spaces and create a much larger space that sits atop of the railroad tracks.

Seattle Monorail

Seattle City Monorail

The city of Seattle incorporates a monorail into it's city transportaion options. However, the Monorail track only runs back and forth on a one mile long line. It is my intention to expand the line twice it's length to make a direct connectiion to King Street Station.

The Seatlle Center Monorail was built in 1962 for the World's Fair. It was built as a temporary installation but it demonstrated so much success as public transport within the city that it's still in use today. In a personal interview with Thomas J. Ditty, general manager of the monorail, the station serves roughly 5,000 passengers on a day-to-day average. The station only has two stops currently, the Seattle City Center, which is where you will find the Space Needle and various tourist attractions, and Westlake Center, a shopping center built within a city block.

While touring the two different stations with Thomas J. Ditty, I took note to a few details. The monorail consists of two parallel tracks, one train on each of the tracks. Both tracks are coordinated by color coding; red line or blue line. Trains leave the station every 10 minutes and can travel up to 45 mph. This is a very efficient option for city transportation because it removes stop lights and vehicular traffic. Plus, because of its elevation above the street, accidents are nearly impossible.

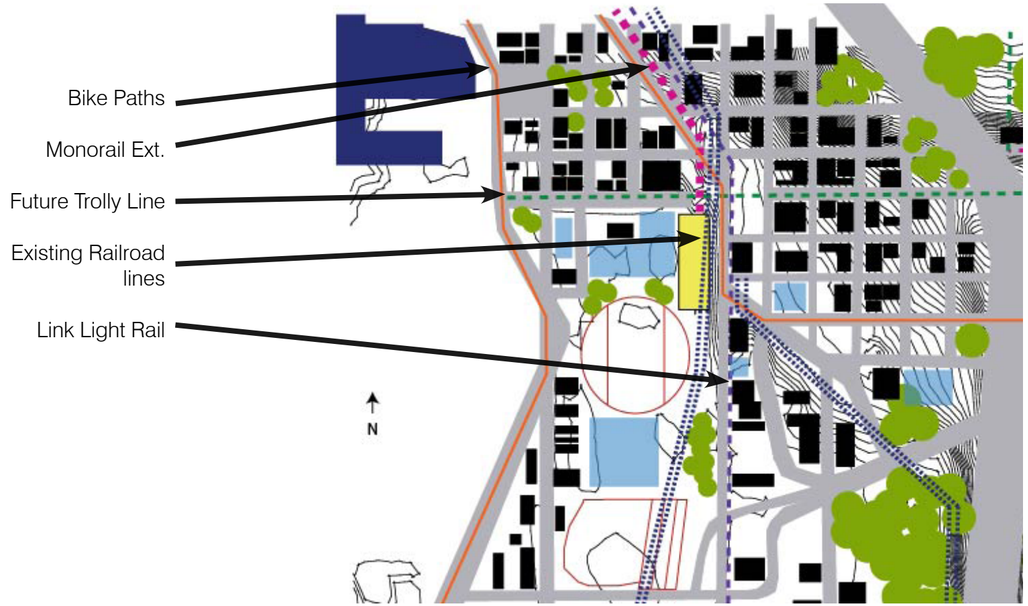
According to Ditty, the cost to ride the monorail is very affordable. From $1.00 on one way trips, to $2.25 on roundtrip, the monorail profits upwards of $750,000 annually that they donate to the city.

By extending the Monorail to King Street Station, I connect the major sports stadiums to Amtrak, to downtown shopping, and to the Seattle City Center. Thomas J. Ditty agrees this would be an ideal solution to the cities transportation issues and would benefit the local area.

1962 Monorail

Circulation

303 S. Jackson Street is the perfect location for a transportation center because not only is it in a mixed-use zone, but it is situated near several different modes of transportation.



Circulation Map

AUTOMOBILE

The first and most obvious form of circulation in the area is automobile traffic. Jackson Street in Seattle is the main road connecting major highways to the sport stadiums. From personal experience I can verify that this drive often becomes cluttered and is at times stand still traffic. This specific site is the perfect option because its just outside the immediate downtown, therefore, its a suitable solution to automobile clutter entering the city center. Now people will have the option to walk and ride into the downtown region while still having the convenience of intercity transportation options.

MONORAIL

The monorail does not currently exist in this part of the city, but with the expansion of King Street Station will also come the expansion of the Monorail.

BUS

The city of Seattle has an extensive bus map. From speaking with locals, the bus is the major form of local transit whereas most other forms in the downtown area are split with tourists.

RAILROAD

Another form of circulation located on site is the railway traffic. As mentioned, both Amtrak and Sounder trains run through the site and to the existing station.

PEDESTRIAN & CYCLIST

The local bike route runs along the adjacent street (4th Ave S.) These routes connect to the water front and bring cyclists past major tourist attractions. Pedestrian traffic is moderate for an urban location, but is amplified during sporting events or concerts.

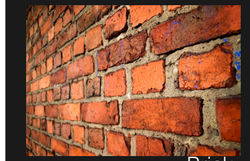
TROLLY

Still in development, the trolly is a future design solution for the city. The trolly with run along Jackson Street past the front doors of King Street Station, making the expansion accesible to larger groups of people.

LINK LIGHT RAIL

The LINK Light Rail is direct transportation from the Seattle-Tacoma Airport into the downtown Seattle. In accordance to the site, the LINK light rail is located just across the street of 4th Ave S. The LINK, like the Trolly, gives people greater access to more modes of transportation. People coming into town by train now have direct access to the airport.

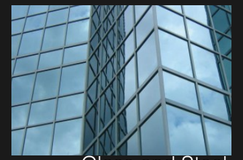
MATERIALS



Brick

Cement Block

Wood and Tin Siding



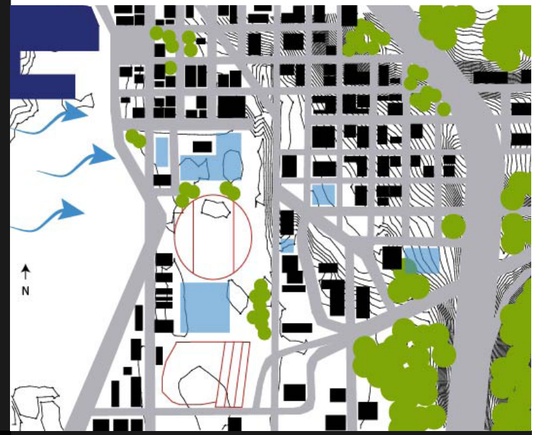
Glass and Steel

Materials found in this portion of the city consist maily of Brick, Cement Block, Glass and Steel. The city had two fires so it's suggested that all buildings be built in fireproofed materials. However, wood and tin siding can still be found throughout the city, especially in residential areas due to the large lumber industries in Washington.

DISTRESS

There are no immediate areas of distress on the current site. However, along the South boundary, is a drainage wall filled with rock. This shows me that erosion has occurred and the area is being treated. This sort of upkeep and maintenance will be taken into consideration with the transportations centers overall design.

Wind Map



WIND

The site's location allows for altering winds based upon the changing seasons. In the summer months, the warmer winds generally come from the East.

The cooler winter winds come from the West. With Punget Sound there, the winds brought in from the Pacific Ocean keep the site relativley average through out the year.

SLOPE ANALYSIS

The site at a glance appears to be flat, however, the majority of the grade is just under a 4% slope. This type of grade is used for all types of activities and is safe and accessible to all people.

SOILS

According to the National Resources Conservations Service (NRCS), the area around my site contains mostly Kitsap. Kitsap is defined as lacustrine deposits with minor amounts of volcanic ash. It contains the properties of:

well drained
can retain water well
prime farm land

With Mount Ranier so close to the city and Seattle's position on the coast, the soil is rich and well nourished.

HYDROLOGY

Because of the site's unique location with the Punget Sound, water runoff must be taken into consideration. The site is able to drain into the Sound because of the slope the city follows to the water, however, the water must first be run through a series of filters in order to avoid polluting the water. Currently the site's topography allows water runoff into the street's catch basins.

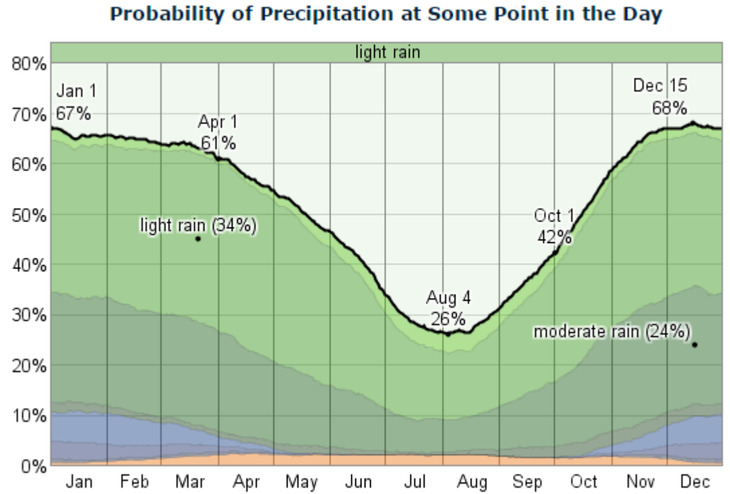
King Street North View

CLIMATIC DATA

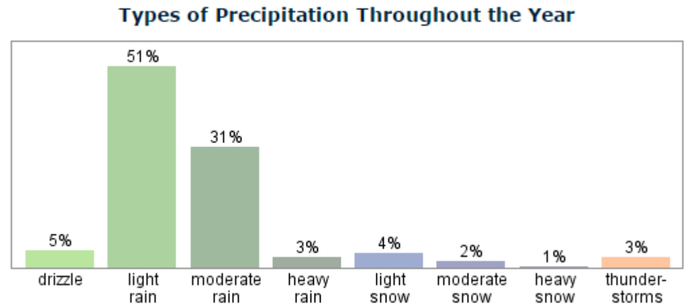
The following weather information was taken from WeatherSpark, a information database that gathers information from local airports. The Seattle-Tacoma International Airport is monitored each year and the diagrams are a representation of the previous year. The database also takes into account the weather information from 1974-2012. The following charts include temperature and precipitation, cloud coverage, wind speeds, and relative humidity.

Seattle has a mediterranean climate with mild winters and dry, warm summers. The terrain of seattle consists of forests, built areas, oceans and seas, and minor crop lands. All of these play a factor in the climate of Seattle.

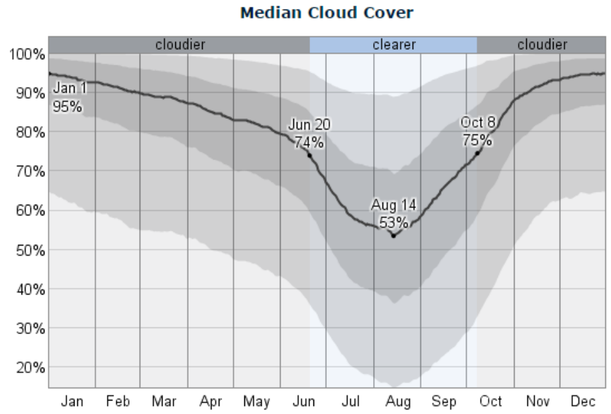
Seattle experiences rain almost daily. The type of rain in one day can vary. For example, there could be light rain in the morning and a thunderstorm in the evening. However, more often then not, Seattle receives light, mist-like rain.



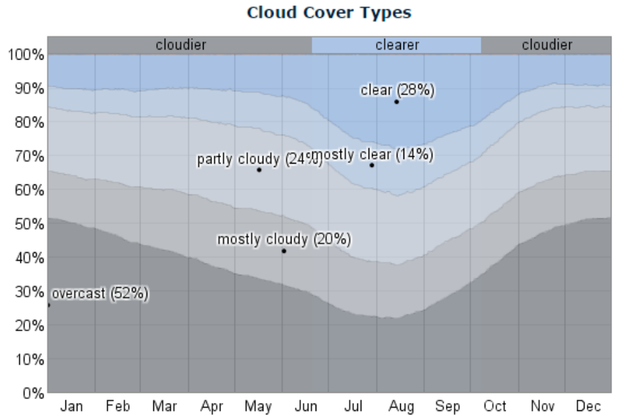
Climate Chart 1



Climate Chart 2

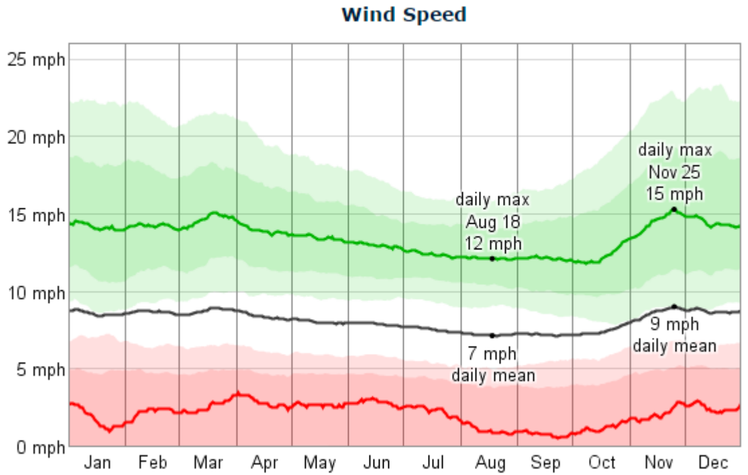


Climate Chart 3

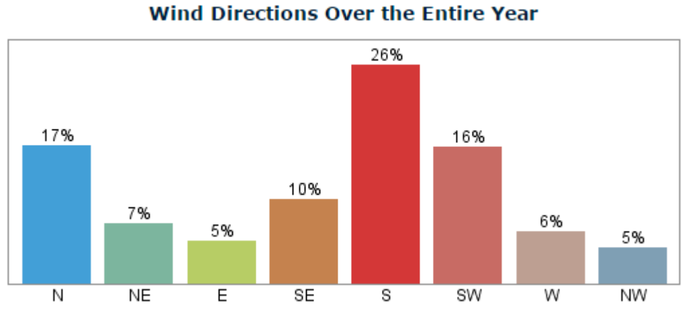


Climate Chart 4

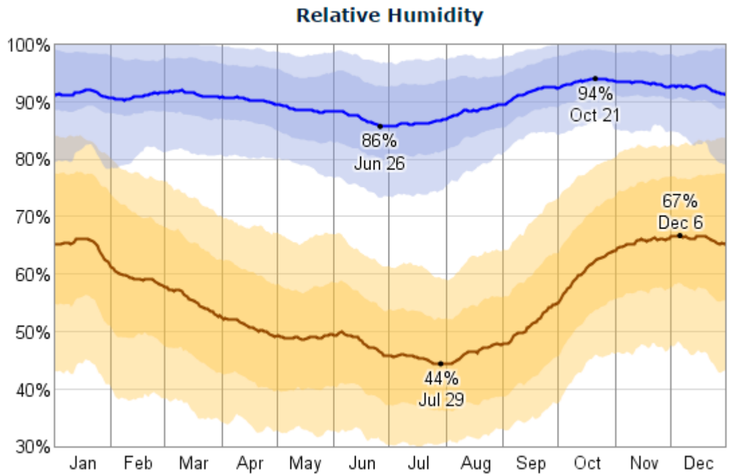
Because the city of Seattle is between the coast and mountains, the city goes through a variation of cloud cover throughout the day and the year. The summer months is when it experiences its clearest days and during the remaining months the amount of cloudiness is roughly the same.



Climate Chart 5



Climate Chart 6



Climate Chart 7

The humidity of Seattle ranges throughout the year from comfortable to very humid. The city experiences days where the humidity gets above 94% and the air becomes hard to breath, generally accompanied by extremely high temperatures.

The city rarely experiences dry air. The humidity, along with temperature, precipitation, and cloud coverage go through dramatic changes annually. This is perhaps one of the most unique characteristics to the North West Region of the United States. The region has the capability of experiencing coastal and mountain-like weater and can adapt to either extreme.

building program

space allocations with square footages

parking structure
120,000

retail shops
15,000

restaurant/cafe
15,000

child's play area
600

music venue/
cultural art center
4,000

plaza/outdoor gardens
2,000

offices
1,000

staff area
1,000

amtrak platform
800

taxi platform
400

ticketing hall
500

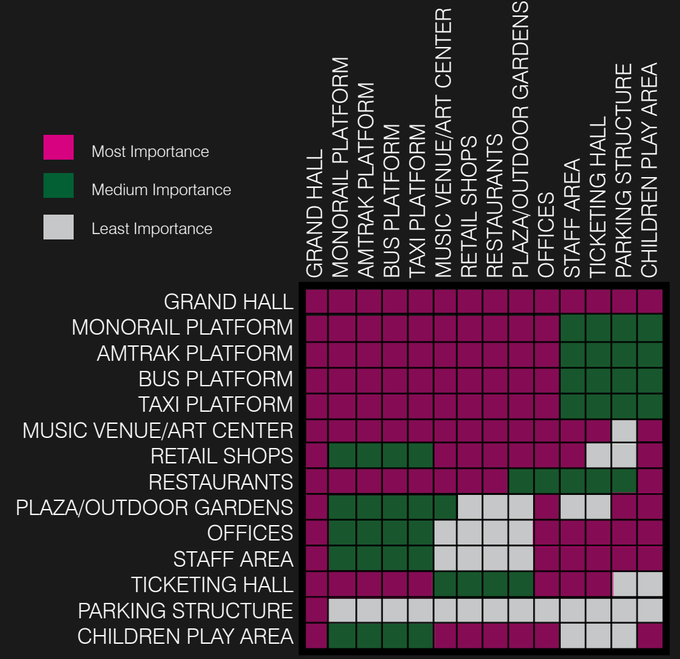
monorail platform
800

bike storage
400

bus platform
500

Grand Hall
3,000

- Recreational Space
- Outdoor Space
- 'Dead' Space
- Private Space
- Circulatory Space



project emphasis

The emphasis of this project is to explore social relationships between individuals in the public realm by focusing on the removal of privatized transportation.

The removal of private transportation and the intergration of multiple modes of public transport creates settings for social behaviors; behaviors neccessary for human interaction because by design, we are social by nature.

GOALS OF THE THESIS PROJECT

ACADEMIC GOALS

My hope from this thesis project, Audience of Strangers, is to expand my academic knowledge into a handful of different ways.

A first objective is to expand my computer based skills. I hope to gain more experience in Revit, Autocad, Illustrator and test out new programs such as Rhino, Lumion or 3D Max rendering software.

A second objective is to expand my skill set at communication and presentation. Articulating my thoughts into imagery and text so that others may comprehend my ideas is a never ending learning process that can only be learned through trial and error.

A third objective, and perhaps the most important at this point in time, is to update and better graphically represent my portfolio.

GOAL

The purpose toward which an endeavor is directed; an objective.

thefreedictionary

PERSONAL GOALS

My personal goals for this thesis project are certain objectives that I can improve upon.

I would like to become more confident in my work. I would like to learn to accept criticism from others better and also to communicate with better with outside critiques.

PROFESSIONAL GOALS

Professionally speaking, there are many goals I will strive to reach and also many new skills I hope to acquire.

One of the main focuses this year for me is to learn how to research site information. I currently know the basics, but I would enjoy finding out more about city codes, zoning and planning for each site.

I would also like to learn more about electrical placements within design such as lighting, outlets, and circuit breakers so that I may be prepared in a firm setting.

I hope to gain some experience in speaking with real-life people about my project so that I gain better communication on a architect/client basis.

I also hope to become better graphically so I can carry my designs into a firm and show confidence in my presentations.

A PLAN FOR PROCEEDING

DIRECTION OF RESEARCH AND FINDINGS

UNIFYING IDEA

I intend to research and unveil what components create successful public space and explore the relationship between fiction and travel.

Is it possible that drama and fiction can influence our activities within a space and resonate in our memories an ever lasting experience?

HISTORICAL CONTEXT

Seattle has a rich history as does the evolution of travel.

I aim to find cultural significance relevant to my design concept in both histories through research and discussion.

PROJECT TYPOLOGY

To better understand my project typology, I'll continue explore transportation stations and learn more about fiction.

I intend to investigate mixed-use buildings with dramatic influence.

SITE ANALYSIS

I intend to research traffic patterns, climatic changes, wind, light, soil conditions, views, the neighborhood and surrounding communities, and demographics of the site.

PROGRAMMATIC REQUIREMENTS

Structural research will be a major learning objective along with MEP research, passive and active system research and lastly, electrical research.

QUANTITATIVE AND QUALITATIVE ANALYSIS

I mean to gather data through online archives, library resources, local sources, and through personal experience. After obtaining adequate information, I plan to evaluate the data by direct observation, surveys, interviews, and scientific searches.

GRAPHIC ANALYSIS

I intend to search for visual graphics that are simplistic and aesthetically pleasing. I hope to obtain a graphic style that is simple yet informative, clean yet visually expressive, and lastly my style must demonstrate credibility and sophistication.

Articulating thoughts, ideas, and data into graphic representation is a major component in the design process.

DIGITAL ANALYSIS

After creating a 3D digital model, I can analyze the design in various ways. I will be able to study light and shadow during different times of the year, I can study wind patterns and even judge topographical data.

INTERVIEWS

A handful of interviews will be collected from community members and local business owners to gather perspective from potential clients and users.

Along with personal interviews, I plan to conduct an anonymous survey to a random test group in the Seattle community to evaluate whether or not Audience of Strangers would be a success or a failure and to determine the amount of interest in the project by the locals.

A PLAN FOR DOCUMENTING THE DESIGN PROCESS

As far as documentation is concerned, I will use a series of digital storage options. I plan to organize a file on my computer and inside the file will be sub folders for major project components and within each component folder will have further folders for more sensitive information. I will back the files up online to ensure nothing is lost and to be prepared incase of a computer failure.

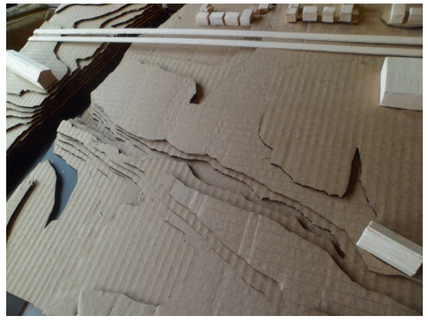
Books, drawings, articles and other physical research information and data collected will be stored in a fileing system. Any hard copy information will be scanned into the computer and saved into a designated folder incase damage should befall the original copy.

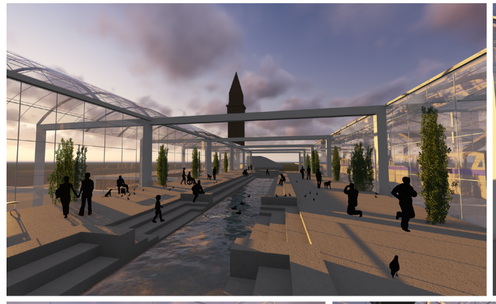
A SCHEDULE FOR PROCEEDING

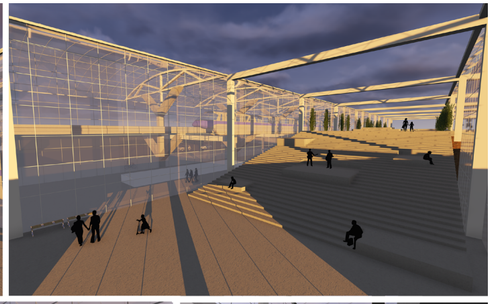
	JANUARY	FEBRUARY	MARCH	APRIL	MAY
Project Documentation	◇◇◇◇◇◇	◇◇◇◇◇◇	◇◇◇◇◇◇	◇◇◇◇◇◇	
Contextual Analysis	◇◇◇◇◇◇				
Conceptual Analysis	◇◇◇◇◇◇				
Spatial Analysis	◇◇◇◇◇◇				
Passive System Analysis	◇◇◇	◇◇◇			
Active System Analysis	◇◇◇	◇◇◇			
Structural Development		◇◇◇◇◇◇			
Contextual Development		◇◇◇◇◇◇			
Floor Plan		◇◇◇◇	◇◇		
Material Development		◇◇	◇◇◇◇		
Technical Drawings			◇◇◇◇◇◇◇◇		
Midterm			◇◇◇		
Project Revision			◇◇	◇◇◇	
Rendering				◇◇◇◇◇	
Preparation				◇◇◇◇◇◇	
Presentation Layout				◇◇◇◇◇◇	
Model Building				◇◇◇◇◇◇	
Final Reviews					◇

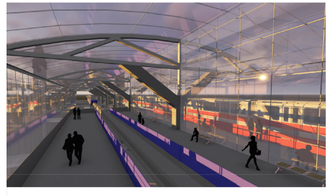
Schedule

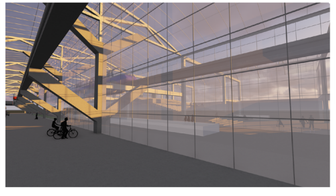
project
process

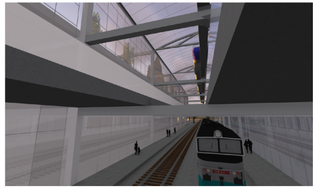


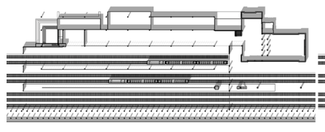


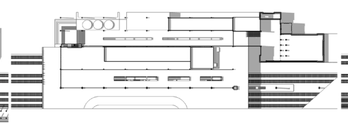


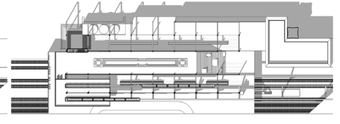












Audience of Strangers

Exploring architecture through theatrical space in the design of a rail station

Through fiction, drama, and classroom this thesis explores architecture's ability to create a more meaningful relationship to the public realm; facilitating interactions between strangers through the design of a rail station in Seattle, Washington. Richard Sennett critiques the changing dimension of the public realm, which has shifted from theatrical involvement in the 17th Century to an anonymous existence with strangers in our modern context. This criticism is supported by urban studies activist Jane Jacobs who argues that the lack of diversity and increase in efficient universal design is a hindrance to the life of the American city.

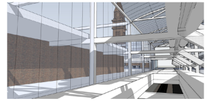
My thesis questions the possibility of re-awakening a dramatic participation that engages the public amid the globalizing and technological trends of current culture. Rather than peruse architecture that allows for individuals to fall behind the curtain, I am examining architecture's ability to trigger memory and imagination through the experience of particular theatrical spaces. Inspired by W.G. Sebald's book Austerlitz, which describes the inspiring nature of travel, I intend to explore dramatic tension between strangers in their brief moments of transitional encounters.

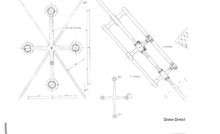
audience of strangers

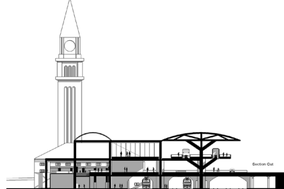
exploring theatrical public space in the design of a rail station

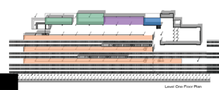
Through fiction, drama, and classroom this thesis explores architecture's ability to create a more meaningful relationship to the public realm; facilitating interactions between strangers through the design of a rail station in Seattle, Washington. Richard Sennett critiques the changing dimension of the public realm, which has shifted from theatrical involvement in the 17th Century to an anonymous existence with strangers in our modern context. This criticism is supported by urban studies activist Jane Jacobs who argues that the lack of diversity and increase in efficient universal design is a hindrance to the life of the American city.

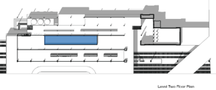
My thesis questions the possibility of re-awakening a dramatic participation that engages the public amid the globalizing and technological trends of current culture. Rather than peruse architecture that allows for individuals to fall behind the curtain, I am examining architecture's ability to trigger memory and imagination through the experience of particular theatrical spaces. Inspired by W.G. Sebald's book Austerlitz, which describes the inspiring nature of travel, I intend to explore dramatic tension between strangers in their brief moments of transitional encounters.

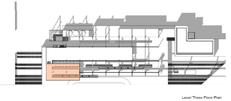












LARCH 772 Design Thesis I
Rhoda Arquelles
Stephen Wetter

final project solution

Through fiction, drama, and decorum this thesis explores architecture's ability to create a more meaningful relationship to the public realm; facilitating interactions between strangers through the design of a rail station in Seattle, Washington. Richard Sennett critiques the changing dimension of the public realm, which has shifted from theatrical involvement in the 17th Century to an anonymous existence with strangers in our modern context. This criticism is supported by urban studies activist Jane Jacobs who argues that the lack of diversity and increase in efficient universal design is a hindrance to the life of the American city.

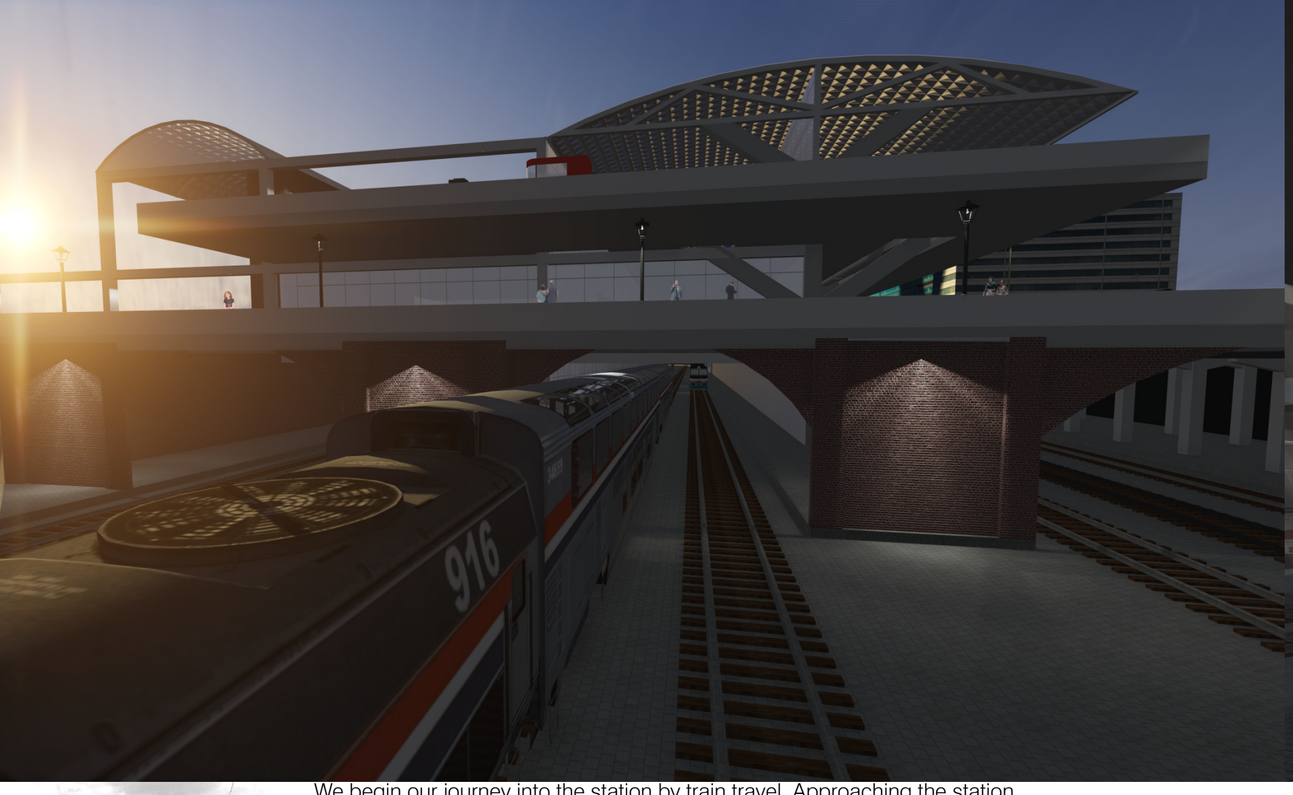
My thesis questions the possibility of re-awakening a dramatic participation that engages the public amid the globalizing and technological trends of current culture. Rather than peruse architecture that allows for individuals to fall behind the curtain, I am examining architecture's ability to trigger memory and imagination through the experience of particular theatrical spaces. Inspired by W.G. Sebald's book Austerlitz, which describes the inspiring nature of travel, I intend to explore dramatic tension between strangers in their brief moments of transitional encounters.

the artefact

The artefact, created before the spatial design of the building, is a tool used to articulate an individual position and is the focal point for inspiring a design. My artefact was created by using a series of videos, sounds, and images to blend together and overlap different spaces and times.

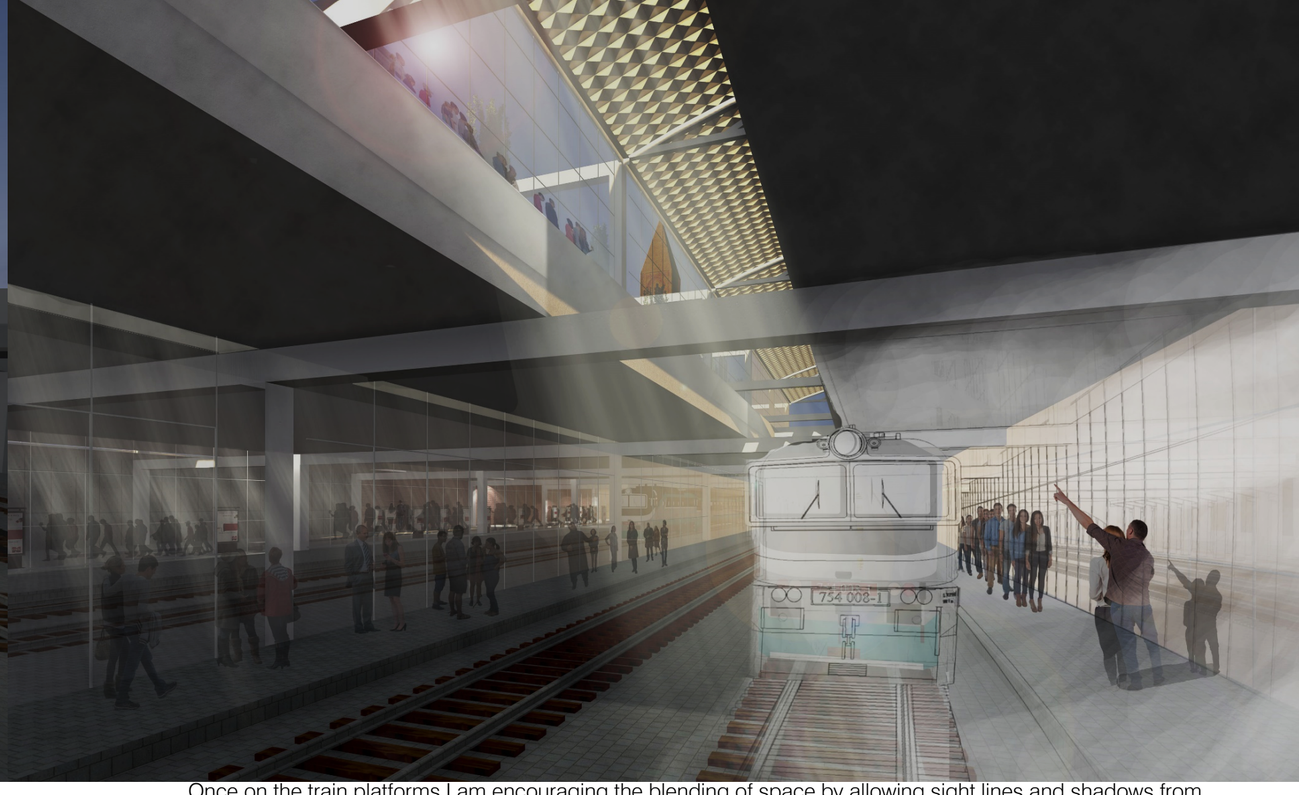
Artefact

My artefact aims to invite and reawaken participation of past and present, time and space, and through fiction capture one's imagination so that more dramatic encounters between strangers might be reached.

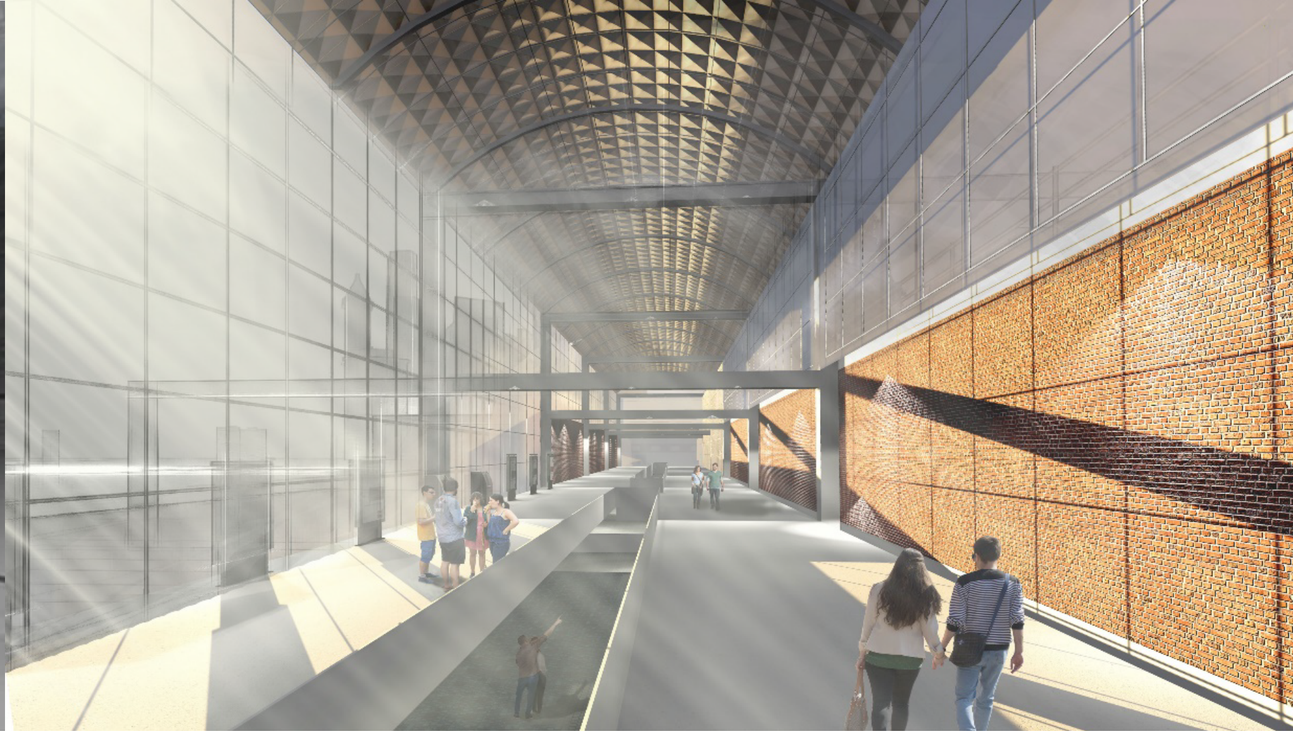


Old Shed

We begin our journey into the station by train travel. Approaching the station you catch a glimpse of the exterior of the building and then are pulled under the building through a tunnel like entrance to the platforms. It was my intention that by entering the station through a tunnel-like structure, you would be transported into a place of its own, separated from the city and the journey through levels of the building will become more revealing.



Once on the train platforms I am encouraging the blending of space by allowing sight lines and shadows from multiple levels to be brought forth in effort to create dramatic encounters. Not only is the vertical sight lines at play here, but the horizontal as well. With the transparency of glass between platforms, the space becomes merged as a whole but remains separate so that you can engage the Stanger from near or afar. When one walks along the platform, they cross paths with the other just opposite of the glass. Whether walking straight towards someone or along side someone through the glass, it was my intention that passengers become more aware of each other and their movements and one might even feel the watchful eyes from other people as if you were put on display, and in return, allow one to watch others movements as well.



King Street Interior

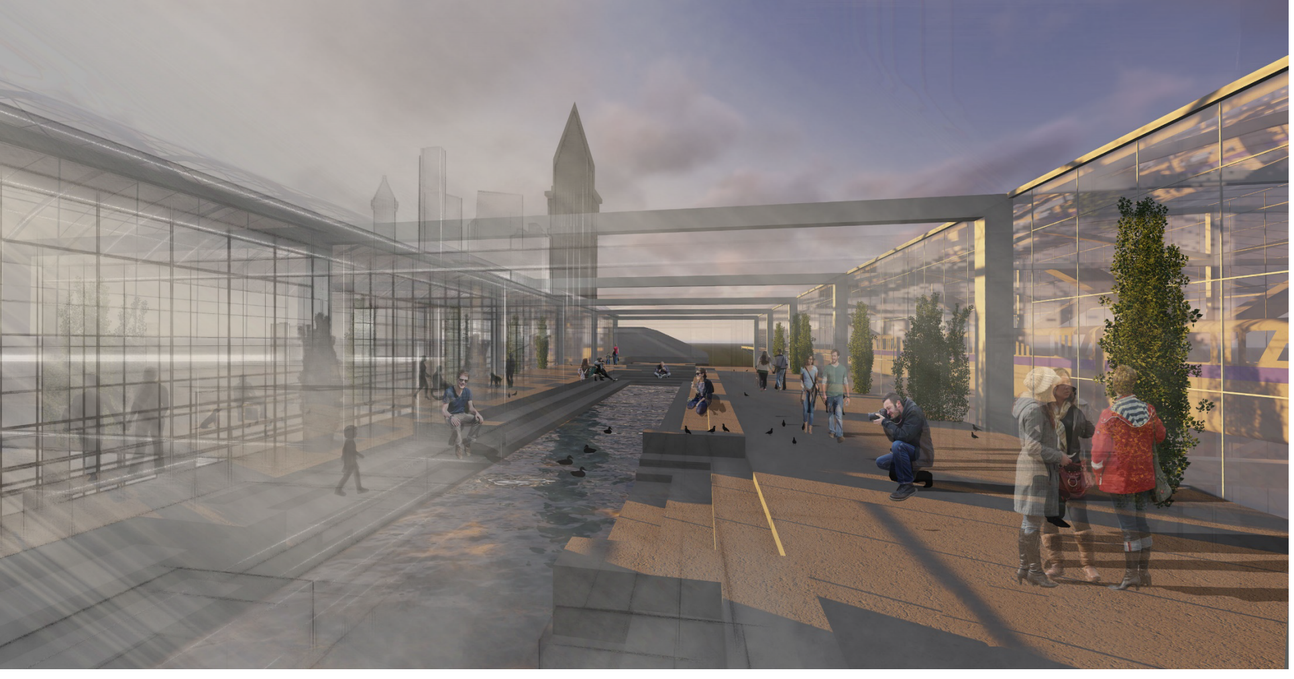
From the train platform we exit into the existing King Street Station. With its highly ornate and decorative interior, I hoped directing passengers through the elegant waiting space would recall the exciting styles of the past. I intended the transition between the old building into the modern, much like the wardrobe changes from the 17th century to today, to have a distinct difference to demonstrate the change in style to much more simplistic design. I intend for the existing Amtrak waiting room to continue serving as a waiting room, but will take advantage of the amenities that the building lacks.

When exiting the waiting room in King Street, you are elevated upwards into the grand hallway. It was intended that the hall be an area of spiritual awareness by imposing an archway overhead and allowing maximum light to filter in and warm the space. I hope that by allowing people to circulate through this light, warm space, travelers might become more relaxed after their long journey and even slow them down to take in their first glimpse of downtown Seattle which would be vaguely visible in the distance.

When turning the corner into the main concourse, opportunities of transparency, light, and shadow between spaces were used to not only make one aware of the other travelers and their movements, but to also engage one's curiosity in the journey to come. With a constant view to the historic clock tower of King Street Station, travelers can make connections between old and new and become receptive of their time and place. This space is particularly interesting because when one walks along the main concourse they encounter not only their own shadow, but shadows cast from the spaces above. I intended this as a vice to merge together space and cause travelers to acknowledge the other in a way they wouldn't normally encounter a stranger. With the monorail directly overhead, and the trains directly below your feet, one might experience the rush of wind when either entering or leaving the station and feel the need to follow the movement to experience the notion of coming and going. That's what the train originally was, the opportunity to travel freely and come and go.

Greek Theater

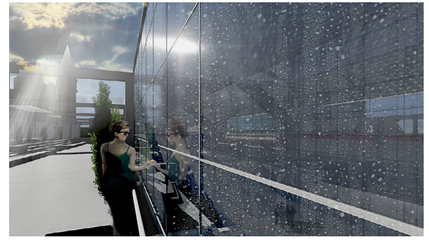
From the main concourse we round the corner to a find the grand stair. The stair, being implemented in design for thousands of years and having more than one functional purpose serves as a public entertaining space. In this design, I play with incorporating platformed space within the stairs to allow for more private activity and comfort within the larger whole. Running through the center of the building and also located outside among the elements, the stair becomes a place to linger and watch others interact as well as a place for overlapping activity to take place.

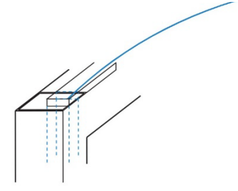


17th Century Town Square

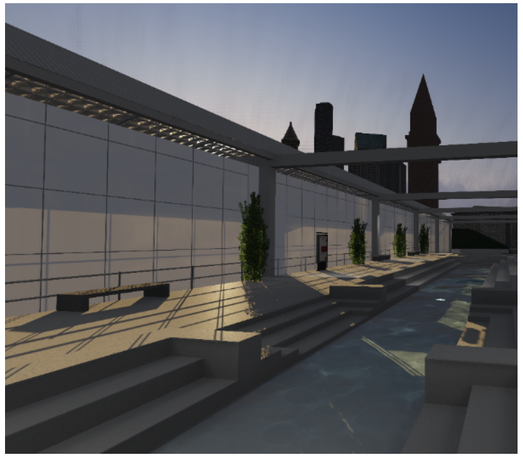
Atop the grand stair, we approach the gateway to the next mode of transportation. An elevated courtyard suspended on the second level was intended to call back to the town squares of the past. This moment in my architecture was meant to invite a congregation of people to discuss their past or future travels and allows one to look back down into the building to awaken their memory of their journeys past. Retracing their steps through a birds eye view invites participation to the lower levels of the building, and thus, cast shadows to the spaces below as we saw earlier. This can allow for travelers in the courtyard space to be aware that they are part of two spaces at once, through the physical body and their shadows cast.

Also among the top elevated courtyard space is our first opportunity at experiencing the train stations exterior façade. As many of you know Seattle has a tendency to experience daily rain. This was not to be looked at as a flaw, but instead should be capitalized on. When the water runs down the glass, reflections are amplified and distance between spaces is lengthened. The water blurs the glass and the stranger become yet again a mystery. This notion of clarity, even through a transparent building, is challenged and the feel of space is altered. Water collection is implemented in my design through a series of gutters that direct water to an underground cistern to be reused throughout the building.

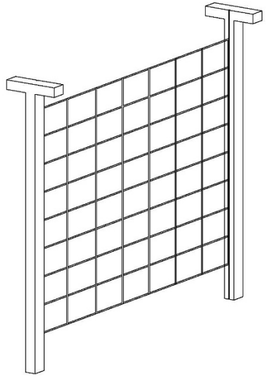


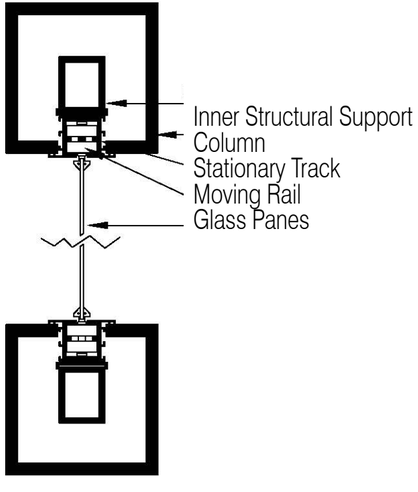


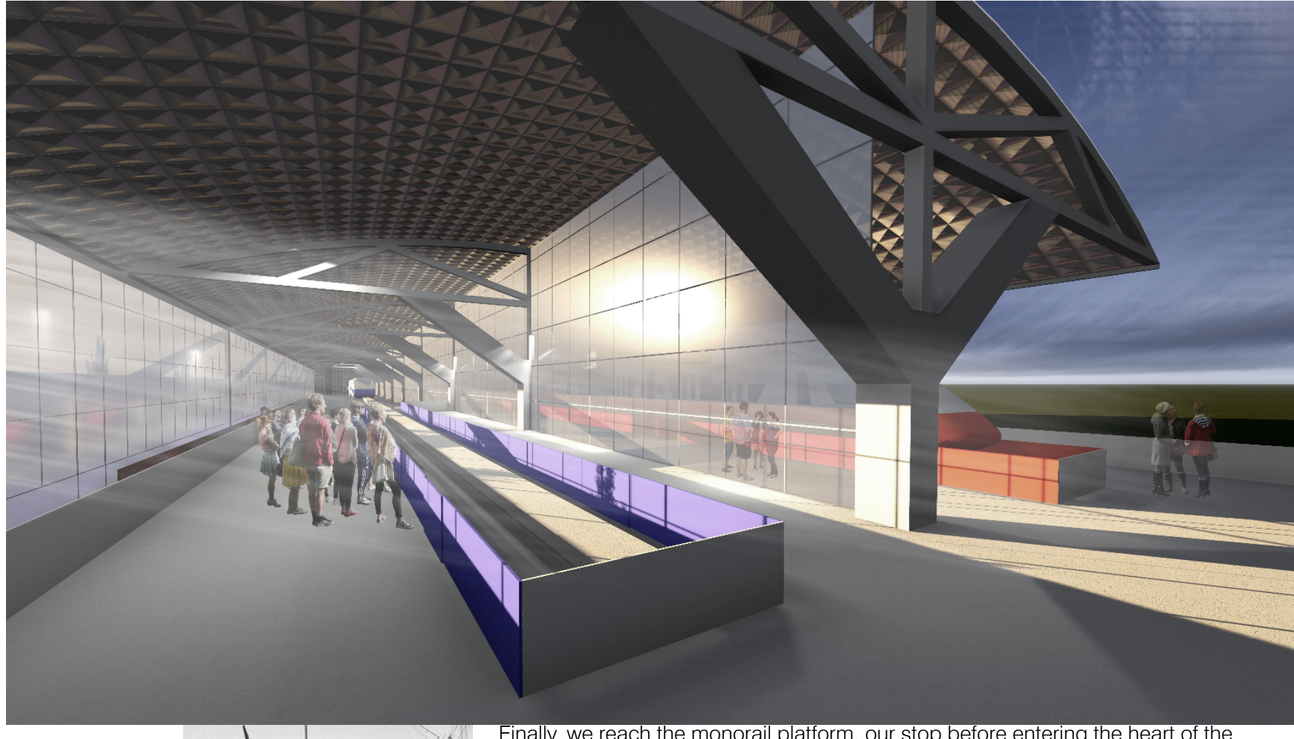
Water collection through steel columns into water cistern



Not only rain on the glass changes the space in the courtyard but so does the literal movement of the glass panes themselves. Able to adjust 2-3 feet, the glass panels allow for natural ventilation to the spaces below and are intended to change the quality of space. Sound will travel more freely when the panels are open pulling the train from the lowest level to the top and making it present. At certain times with the sound of the train, I imagine the courtyard might even feel as if its moving, floating atop the city.

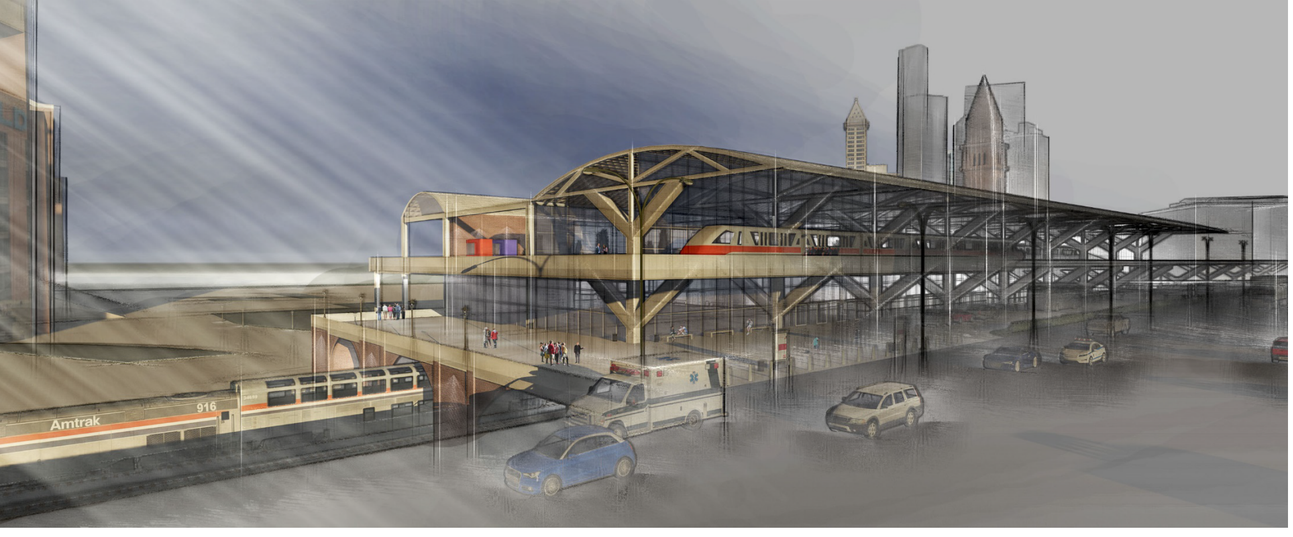


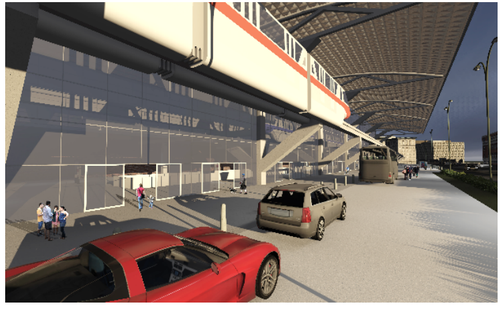




Soldiers Boarding Train

Finally, we reach the monorail platform, our stop before entering the heart of the city, under the largest of archways, this gateway is a final chance to engage the stranger in the public before stepping into an enclosed rail car. Here, while we wait for the next ride, we can turn back, still able to view the clock tower and the past spaces waiting. Looking down we notice the platforms are suspended above the 3 open levels of the station. Apparent through open floor space, as well as the connection to outside. This particular space blurs the line between what is inside and outside. Because of Seattle's maritime climate, the temperature stays fairly average through out the year and building envelopes can remain open to the elements to some extent.





When leaving the building, either by train, monorail or other form of transportation, I hoped one would finally be able to recognize its place within the city. Unlike the tunnel entrance from the train tracks the upper level exits are light and open placing you within the context of Seattle. I also intended this as a vice for people who visit the city but don't have time to explore. Maybe they are only train to train transport. Offering transparency to the surrounding context helps pull the stranger in an can make them feel part of the city rather than being a passerbyer.

Ground Level

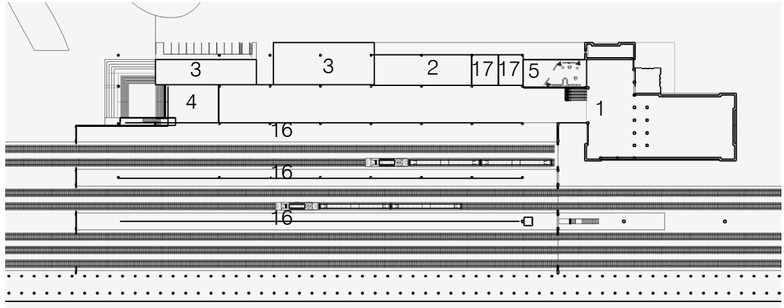
1. Amtrak Waiting Space
2. Luggage Storage/Information
3. Mechanical Spaces
4. Administrative Offices

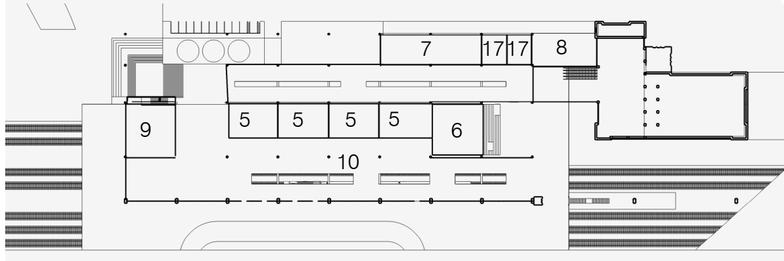
Street Level

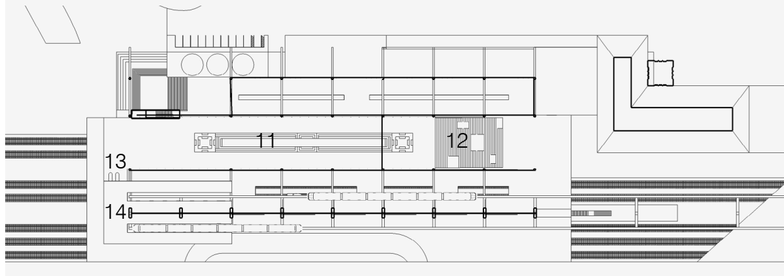
5. Commercial Space
6. Currency Exchange
7. Cyber Hub
8. Vending Area
9. Lounge/Bar
10. Main Concourse

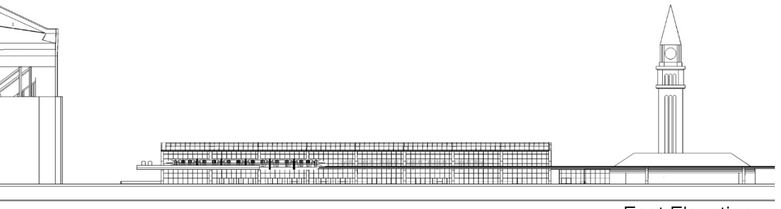
Second Floor

11. Elevated Public Space
12. Grand Stair/Public Seating
13. Monorail Ticketing
14. Monorail Platforms
16. Train Platforms
17. Restrooms

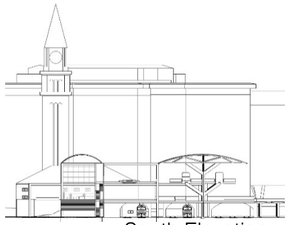




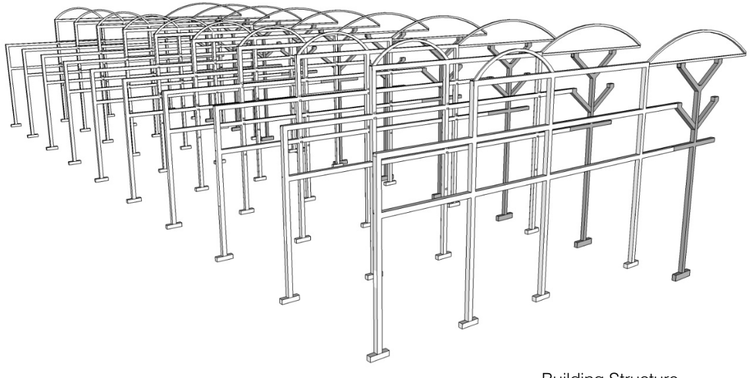




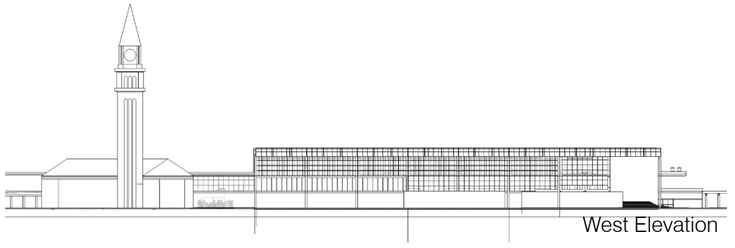
East Elevation



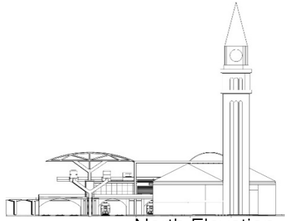
South Elevation



Building Structure



West Elevation



North Elevation

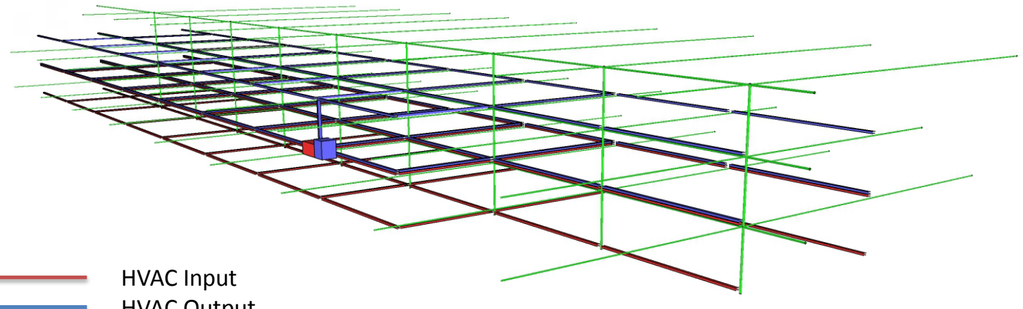
Concrete

Steel

Glass

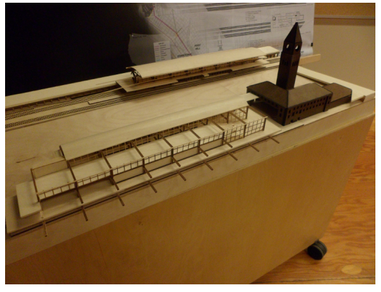
Brick

To the bear bones of the building, the stations main structural elements are its large steel column structure. I have chosen concrete flooring to supplement the steel and glass to give a weightiness contrast in comparison to the light transparency I hope to show with the glass. Pulling brick in extends the materiality of King Street and matches much of Seattle's surroundings. In fact, in this area of Seattle a fire struck the city and by common code buildings in the area are built out of fire proof materials.

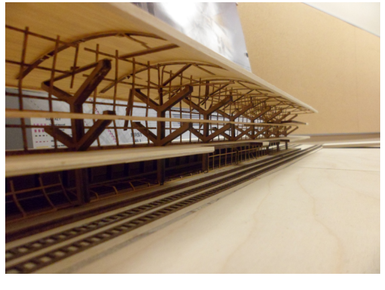


HVAC Input
HVAC Output
Main Electrical Lines

Because of the large tubal columns, most all of my systems are able to travel through the structure. The columns are large enough to support HVAC and electrical with enough space left over for water lines while still remaining structural.



The Final Installation



Final Handmade Model

Final Presentation
Set-Up

AUDIENCE OF STRANGERS

EXPLORING DRAMATIC PUBLIC SPACE IN THE DESIGN OF A RAIL STATION

THROUGH FICTION, DRAMA, AND DECORUM THIS THESIS EXPLORES ARCHITECTURE'S ABILITY TO CREATE A MORE MEANINGFUL RELATIONSHIP TO THE PUBLIC REALM; FACILITATING INTERACTIONS BETWEEN STRANGERS THROUGH THE DESIGN OF A RAIL STATION IN SEATTLE, WASHINGTON. RICHARD SENNETT CRITIQUES THE CHANGING DIMENSION OF THE PUBLIC REALM, WHICH HAS SHIFTED FROM THEATRICAL INVOLVEMENT IN THE 17TH CENTURY TO AN ANONYMOUS EXISTENCE WITH STRANGERS IN OUR MODERN CONTEXT. THIS CRITICISM IS SUPPORTED BY URBAN STUDIES ACTIVIST JANE JACOBS WHO ARGUES THAT THE LACK OF DIVERSITY AND INCREASE IN EFFICIENT UNIVERSAL DESIGN IS A HINDRANCE TO THE LIFE OF THE AMERICAN CITY.

MY THESIS QUESTIONS THE POSSIBILITY OF RE-AWAKENING A DRAMATIC PARTICIPATION THAT ENGAGES THE PUBLIC AMID THE GLOBALIZING AND TECHNOLOGICAL TRENDS OF CURRENT CULTURE. RATHER THAN PERUSE ARCHITECTURE THAT ALLOWS FOR INDIVIDUALS TO FALL BEHIND THE CURTAIN, I AM EXAMINING ARCHITECTURE'S ABILITY TO TRIGGER MEMORY AND IMAGINATION THROUGH THE EXPERIENCE OF PARTICULAR THEATRICAL SPACES. INSPIRED BY W.G. SEBALD'S BOOK AUSTERLITZ, WHICH DESCRIBES THE INSPIRING NATURE OF TRAVEL, I INTEND TO EXPLORE DRAMATIC TENSION BETWEEN STRANGERS IN THEIR BRIEF MOMENTS OF TRANSITIONAL ENCOUNTERS.

"RATHER THAN TO EXPERIENCE CITIES BY CIRCULATING USUALLY IN SOME SORT OF VEHICLE, IT IS RATHER CRUCIAL TO WALK AND LINGER, TO KNOW/LOSE OUR PLACE IN THE LABYRINTH AND TO BE OPEN TO CHANCE."
ALBERTO PEREZ-GOMEZ

"RAILWAY TERMINI AND HOTELS ARE TO THE 19TH CENTURY WHAT MONASTERIES AND CATHEDRALS WERE TO THE 13TH CENTURY. THEY ARE TRULY THE ONLY REAL REPRESENTATIVE BUILDINGS WE POSSESS... OUR METROPOLITAN TERMINI HAVE BEEN LESSONS OF THE VERY SPIRIT OF OUR TIME."
BUILDING NEWS, 1870

"ROMANCE HAD ALWAYS ENDOWED THE RAILROAD WITH A MIXTURE OF HORROR, ASTONISHMENT, AND AWE. ITS BUILDINGS WERE BECOMING THE SYMBOL OF THE AGE."
CAROL J. L'A. MYERS

"GOOD TRANSPORTATION AND CONVERSATIONS ARE—OF ONLY AMONG THE MOST DIFFICULT THINGS TO ACHIEVE. THEY ARE ALSO THE MOST INTERESTING."
JANE JACOBS

AUDIENCE OF STRANGERS
EXPLORING DRAMATIC PUBLIC SPACE IN THE DESIGN OF A RAIL STATION
ARCH 772 DESIGN THESIS
SHELBY ALBURTUS
STEPHEN HARRIS

Digital Board

THESIS APPENDIX

REFERENCE LIST

2013 State Agricultural Overview. (n.d.). Retrieved October 21, 2014, from http://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=MINNESOTA

Black and White World Map Flooring. (n.d.). Retrieved October 19, 2014, from http://www.murafloor.com/black-and-white-world-map-flooring

Cilento, Karen. “Transbay Transit Terminal / Pelli Clarke Pelli Architects” 31 Jan 2010. ArchDaily. Accessed 20 Oct 2014. Retrieved October 20 2014, from http://www.archdaily.com/?p=48181

Cities and Townships in King County. (n.d.). Retrieved October 20, 2014, from http://www.co.king.wa.us/yourgovernment/A/Pages/default.aspx

Dunlap, D. (n.d.). Looking Back to Move Forward With the First New Building at the Trade Center Site. Retrieved October 22, 2014, from http://wirednewyork.com/forumshowthreadphp?t=3687&page=19

Jacobs, J. (1961). *The Death and Life of Great American Cities*. (Vintage Books Edition, December 1992 ed.). New York: Random House.

King’s Cross Station. (n.d.). Retrieved October 22, 2014, from http://www.mcaslan.co.uk/projects/king-s-cross-station

“King’s Cross Station / John McAslan + Partners” 21 Mar 2012. ArchDaily. Accessed 20 Oct 2014. from, http://www.archdaily.com/?p=219082

Meeks, Carroll L.V.. (1956). *The Railroad Station: An Architectural History.* (Yale University Press). The Murray Printing Company. Forge Village, Massachusetts.

Parking. (n.d.). Retrieved October 21, 2014, from http://3.bp.blogspot.com/-d_Bo7OVn2eQ/TvxG6OkWNPI/AAAAAAAAAUc/HwYmfjeq9Hk/s1600/parking_ing_2006.gif

Perez-Gomez, Alberto. *The World of Perception.*

Photographs. (2010, August 1). Retrieved October 23, 2014, from http://www.mtc.ca.gov/news/photos/future_transbay.htm

Ricoeur, Paul. (1979). “The Function of Shaping Fiction in Reality.”

Rochmap. (n.d.). Retrieved October 21, 2014, from http://wikitravel.org/upload/shared//e/e2/Rochmap-Update.png

Rosenfield, Karissa. “First Section of Santiago Calatrava’s PATH Station Opens in NYC” 30 Oct 2013. ArchDaily. Accessed 22 Oct 2014. <http://www.archdaily.com/?p=444076>

Seattle Facts and Stats. (n.d.). Retrieved October 21, 2014, from http://www.seattlefunfacts.com/facts/state-symbols/

Sennett, R. (1977). *The Fall of Public Man.* New York: Knopf.

Schweiterman, Joseph P. (2001). *When the Railroad Leaves Town.* Truman State University Press. Kirksville, Missouri.

The Program. (n.d.). Retrieved October 22, 2014, from http://transbaycenter.org/project/program-overview

Transportation hub. (n.d.). Retrieved October 22, 2014, from http://encyclopedia.thefreedictionry.com/transportation hub

Vinnitskaya, Irina. “Calatrava to Build World’s Most Expensive Transportation Hub” 03 Jun 2013. ArchDaily. Accessed 21 Oct 2014. <http://www.archdaily.com/?p=381166>

Vinnitskaya, Irina. “Ground Zero Master Plan / Studio Daniel Libeskind” 23 Sep 2012. Arch Daily. Accessed 22 Oct 2014. <http://www.archdaily.com/?p=272280>

World Trade Center Transportation Hub. (n.d.). Retrieved October 21, 2014, from http://archrecord.construction.com/news/2011/09/Space-Light-Underground-slideshow.asp?slide=7

Wolrd Trade Center Transportation Hub. (n.d.). Retrieved October 22, 2014, from http://www.panynj.gov/wtcprogress/transportation-hub.html

Zumbro River. (n.d.). Retrieved October 18, 2014, from http://www.dnr.state.mn.us/watertrails/

FIGURES REFERENCE
in order of appearance
(personal images not sourced)

Richard Sennett. [Photograph]. (2012). Retrieved October 2014 from, http://www.theguardian.com/theobserver/2012/feb/12/richard-sennett-sociologist-big-society

17th Century Clothing. [Drawing]. Retrieved December 2014 form, http://commons.wikimedia.org/wiki/File:1793-1778-contrast-wholeplate-lowQ.jpg

Greek Theater. [Drawing]. (2000). Retrieved December 2014 from, http://cridb.com/Culture%20Files/Culture/GRE28.html

Influence of Media. [Photograph]. (2013) Retrieved December 2014 from, http://middlewichdiary.com/2013/09/the-tv-doctor-will-see-you-now.html

Early Streetscape. [Photograph]. (2014.) Retrieved November 2014 from, http://www.cnn.com/2014/01/23/opinion/bershadker-ban-horse-drawn-carriages/

Major Highway. [Photograph]. (2008). Retrieved November 2014 from, http://en.wikipedia.org/wiki/High_Five_Interchange

Alberto Perez-Gomez. [Photograph]. (2012.) Retrieved November 2014 from, http://intranet.dskd.dk/index.php?id=4075

Walk and Linger. [Photograph]. (2012). Retrieved October 2014 from, http://pajunen.deviantart.com/art/Walking-the-Streets-of-Dublin-319182616

W.G. Sebald. [Photograph]. (2012). Retrieved October 2014, from http://www.apieceofmonologue.com/2012/08/wg-sebald-poetry-review-teju-cole.html

Animal Eyes. [Photograph]. (2001). Sebald, W.G. Austerlitz. Random House Inc., New York. p. 4.

Train Station. [Photograph]. (2009). Retrieved November 2014 from, http://wallpaperswide.com/inside_a_train_station-wallpapers.html

Paul Ricoeur. [Photograph]. (2014) Retrieved December 2014 from, http://profiles.arts.monash.edu.au/chris-watkin/paul-ricoeur-and-the-autonomy-of-philosophy-a-reappraisal/

Boston Train Lines. [Photograph]. Retrieved December 10, 2014 from, http://www.shorpy.com/node/7575?size=_original

NYC Station. [Photograph]. (1934). Retrieved December 12, 2014 from, http://s289.photobucket.com/user/psualumnyc/media/Grand-Central-Station-New-York-City.jpg.html

K.C.S. Interior of Plaza, K.C.S. Section A, K.C.S. Interior Perspective, K.C.S. Plan of New Addition, K.C.S. Exterior/Interior 3D Perspective, K.C.S. 3D Perspective with Elements, K.C.S. Section B. [Photographs]. (2012) Retrieved on November 1, 2014 from, http://www.archdaily.com/219082/kings-cross-station-john-mcaslan-partners/

T.T.C. Exterior Perspective, T.T.C. 3D Section, T.T.C. Program Map, T.T.C. Exterior Perspective of Entrance, T.T.C. Plan. [Drawings]. (2010). Retrieved on October 5, 2014 from, http://www.mtc.ca.gov/news/photos/future_transbay.htm

W.T.C.T.H. 3D Exterior Model, W.T.C.T.H. Inspiration, W.T.C.T.H. Site Plan, W.T.C.T.H. 3D Section, W.T.C.T.H. Underground Corridor, W.T.C.T.H. Plan of Main Hall, W.T.C.T.H. Main Hall, W.T.C.T.H. Section. [Photographs]. (2014). Retrieved on November 1, 2014 from, http://archrecord.construction.com/news/2011/09/Space-Light-Underground-slideshow.asp?slide=7

United States Map, World Map. [Drawings]. (2010). Retrieved on November 5, 2014 from, from http://www.murafloor.com/black-and-white-world-map-flooring

Washington County Map. [Drawing]. Retrieved on April 20, 2015 from, http://commons.wikimedia.org/wiki/File:King_County_Washington_Incorporated_and_Unincorporated_areas_Seattle_Highlighted.svg

Seattle with Mount Ranier. [Photograph]. Retrieved on April 20, 2015 from, https://www.reddit.com/r/pics/comments/34se8s/mount_rainier_towering_over_seattle/

Seattle City Port. [Photograph]. Retrieved on April 20, 2015 from, http://www.portseattle.org/cargo/seacargo/Pages/default.aspx

Century Link Field. [Photograph]. Retrieved on April 23, 2015 from, http://seatingchartview.com/centurylink-field/

Safeco Field. [Photograph]. Retrieved on April 23, 2015 from, http://commons.wikimedia.org/wiki/File:Safeco_Field._Against_Tampa_Bay_Rays,_with_Ken_Griffey_Jr._up_to_bat,_Seattle.jpg

Seattle Monorail. [Photohraph]. Retreived on March 10, 2015 from, http://www.abam.com/portfolio/project/124

1962 Monorail. [Photograph]. Retrieved on March 10, 2015 from http://www.seattlemonorail.com/about/history/

Brick. [Photograph]. (2006). Retrieved December 14, 2014 from, http://gbrick.blogspot.com/

Cement Block. [Photograph]. (2014). Retrieved December 14, 2014 from, http://enlightenme.com/concrete-block/

Wood and Tin Siding. [Photograph]. (2014). Retrieved December 14, 2014 from, http://www.sahomeimprovement.us/siding.html

Glass and Steel. [Photograph]. (2011). Retrieved December 14, 2014 from, http://inhabitat.com/doe-develops-flexible-glass-material-that-is-stronger-than-steel/

Soils Map. [Drawing]. (2013). Retrieved December 14, 2014 from, http://websoilsurvey.nrcs.usda.gov/app/

Climate Chart 1, Climate Chart 2, Climate Chart 3, Climate Chart 4, Climate Chart 5, Climate Chart 6,Climate Chart 7. [Charts and Graphs]. Retrieved on December 14, 2014 from, https://weatherspark.com/averages/31512/Rochester-Minnesota-United-States

Old Shed. [Photograph]. Retrieved on March 12, 2015 from, http://blog.traingeek.ca/2012/08/great-old-maritime-railway-slides-and.html

Second Year

Fall 2011
Joan Vorderbruggen
Tea House
Boat House

Spring 2012
Steven Wischer
Twin House

Third Year

Fall 2012
Steve Martens
YMCA Camp Cormorant
Funeral Home

Spring 2013
David Crutchfield
Folk Art Museum
Spaceport Resort

Fourth Year

Fall 2013
Bark Aly Ahmed
High Rise

Spring 2014
Ronald Ramsey
Brussels Urban Renewal

Shelby Augustine

Shelby Augustine

36059 County 45 Blvd.
Lake City, MN 55041

(651) 380-5543
Shelby.augustine@my.ndsu.edu

Goodhue, Minnesota

"North Dakota State University has been a place to learn and grow as an individual, a scholar, and an intellect. It inspires productivity through creativity."