Influencing

Identity

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Litwiller

Influencing

Identity

A Design Thesis Submitted to the Department of Architecture
and Landscape Architecture of North Dakota

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In Partial Fulfillment of the Requirements for the Degree of
Master of Architecture

Primary Thesis Advisor

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Thesis Committee Chair

May 8th, 2013

Fargo, North Dakota

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Tables and Figures

Abstract

Key words:

Identity
Influence
Destination
Development

Influencing Identity attempts to identify the relationship between architecture and the unique identity possessed by each city. The typology used in identifying this relationship is an addition to an art museum. The Theoretical Premise guiding the research is, “Through the design and creation of a single building one can influence, without recreating, the identity of a city and therefore also affect the development of said city.” The Justification is, “By creating a destination in which the public will travel out of their way to visit, the economy of the area surrounding the destination will be influenced positively due to the rise in tourism.” The project site is Duluth, Minnesota.

Problem Statement

What is the relationship between architecture and a city's urban identity

Statement of Intent

Typology:

Claim:

Premises:

Actor:

Action:

Object:

Theoretical Premise/
Unifying Idea:

Justification:

Statement of Intent

Typology:

Museum Addition

Claim:

Through design a building can draw people to a city, create activities for the people within the city and furthermore affect development within said city.

Premises:

Actor: A single building designed in a way to draw in an audience through means of a destination.

Action: Research by Plaza (2006) supports that by creating a destination, through its psychological presence, one can positively enhance a city's identity. (Plaza, 2006)

Object: Urban identity is enhanced through the addition of a single building.

Theoretical Premise/
Unifying Idea:

Through the design and creation of a single building one can influence, without recreating, the identity of a city and therefore also affect the development of said city.

Justification:

By creating a destination in which the public will travel out of their way to visit, the economy of the area surrounding the destination will be influenced positively due to the rise in tourism.

Proposal

Narrative

User/Client Description

Major Project Elements

Site Information

Project Emphasis

Plan for Proceeding

Work Schedule

Narrative

How does one influence the sense of place of a city so deeply rooted in it's history, especially if that history has provided the city with all it's wealth and fame. Duluth while once an immensely successful port and mining town is now a time capsule of the city it used to be, now surviving off of the wealth and fame of the city's past through tourism and college students. Over the past decade or so the city has begun to realize its tourism driven economy by implementing various attractions such as the aquarium, an event center, and the various shops popping up around areas like canal park. When a city survives primarily off of tourism there is an issue of continually attracting new tourists. A city needs to create new reasons for patrons to revisit the city.

Through this museum addition the city can prosper from the additional revenue brought in by the additional tourism.

I believe a city's identity is not formed by the multitude of building's, people, or spaces within but more the uniqueness of each acting as individual pieces which form the city's overall identity. For example the bean sculpture in Chicago, while just a sculpture, is widely known and has become an integrated icon for the city because of it's uniqueness. Each and every major city is filled with these unique pieces. New York has Times square, the statue of liberty, and of course the Empire state building just to name a few. San Francisco has the Golden gate bridge, the Transamerica building, Lumbard street, and Alcatraz. Each city is defined by its contents and the appeal or lack of appeal these things create.

How does one simply design a structure to draw in more tourism for a city? Unique architecture. Various cities around the world have experienced this phenomenon referred to as the "Bilbao effect" and how a single unique looking structure can draw in mass amounts of people. Not only does a unique structure make a city more interesting, it also creates a draw from outside sources giving companies within the city the opportunity to take advantage of the business the additional patrons visiting the city create. With a city such as Duluth though the history of the city is so deeply rooted already that people who visit the town visit it for the novelty the town has to offer. So how does one create a unique structure without possibly overshadowing the town's history?

User/Client Description

Users:

The primary user of this typology will be the general public arriving in the form of tourism exploring the various sites the city has to offer, students from surrounding schools studying the art or out on a field trip, and the residents of Duluth itself.

Another group of primary users will be the museum staff who will manage the building, run tours, and maintain the space.

Client:

The client for this museum addition is the current Union Depot museum located in Downtown Duluth.

Major Project Elements

Gallery / Exhibition space

Commons

Performance area / Lecture hall

Conference rooms

Staff facilities

Composing a majority of the project's area this space will be divided into three sections which will display a permanent collection, temporary collection and the final will be dedicated to work by local artists.

The central space running the length of the structure used for circulation, events, as well as a small area containing a café for food and refreshments.

In place of the building's current, small theater the new performance area will also double as a lecture hall in which the museum will be able to present guest speakers as well as performances.

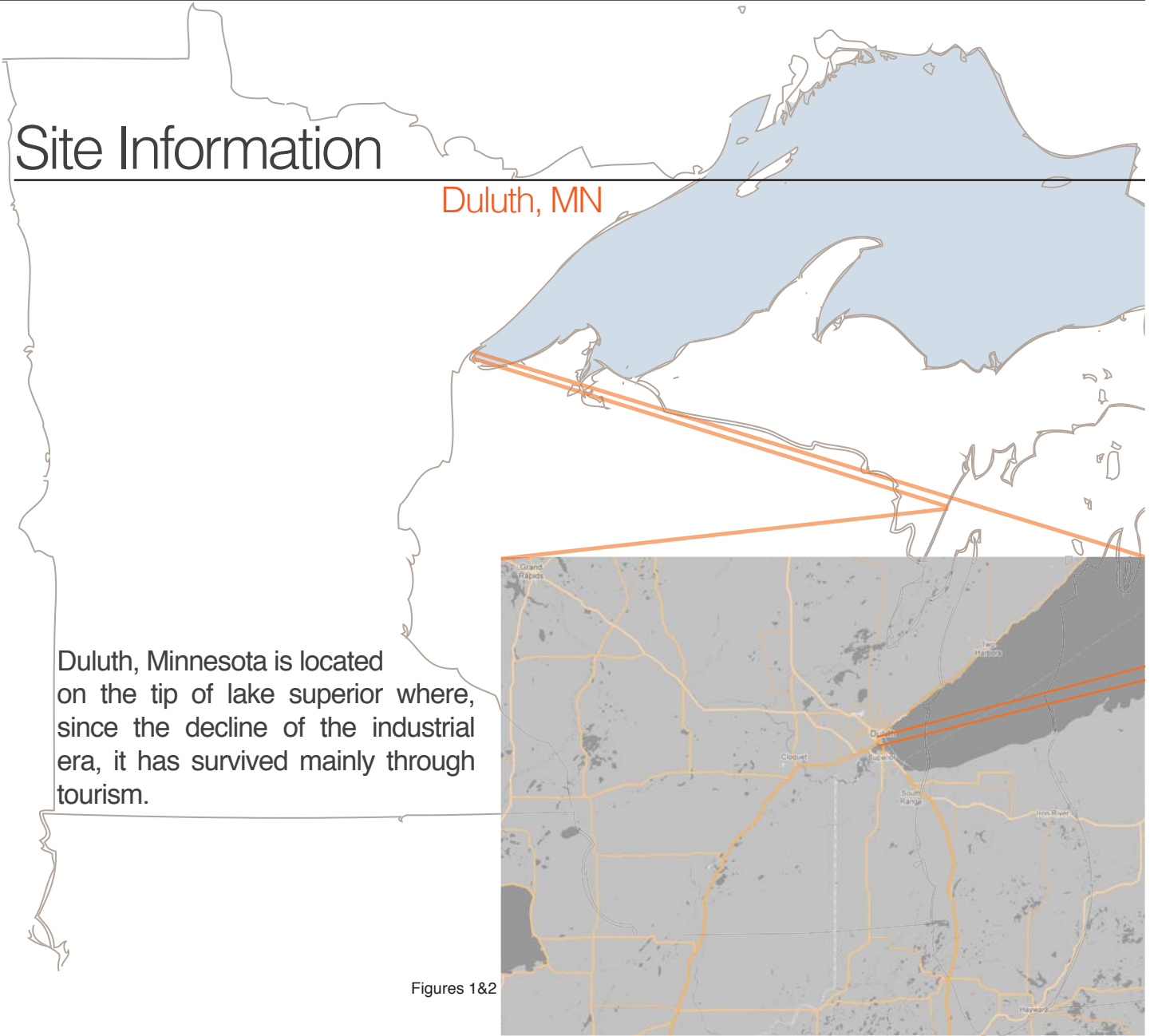
A space reserved for determining all the museum's events and exhibitions.

This area will contain all the staff offices, storage facilities, locker/break rooms, and janitorial space to accommodate the museum's staff.

Site Information

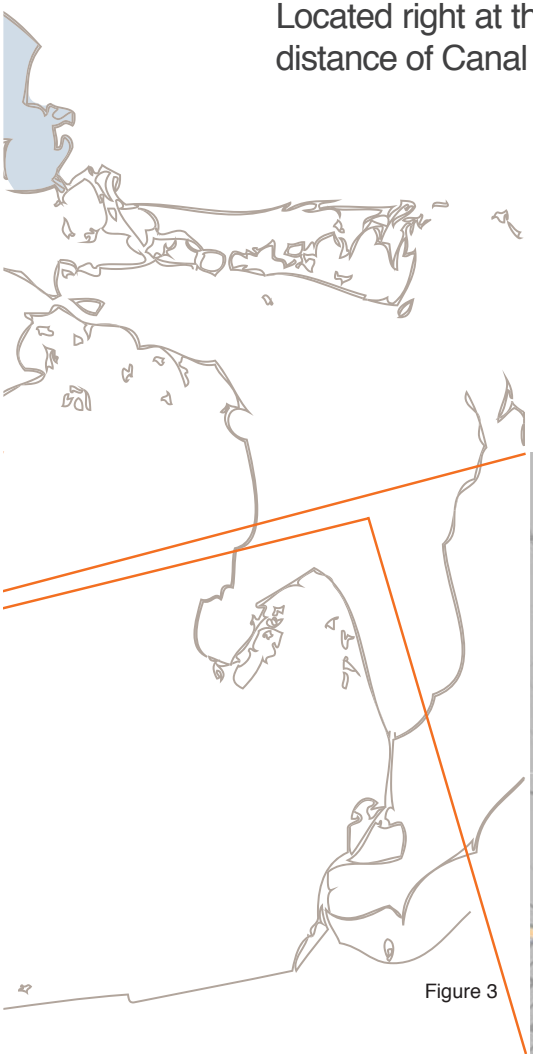
Duluth, MN

Duluth, Minnesota is located on the tip of lake superior where, since the decline of the industrial era, it has survived mainly through tourism.



Figures 1&2

Located right at the heart of the downtown area the site is within walking distance of Canal Park as well as numerous other attractions.



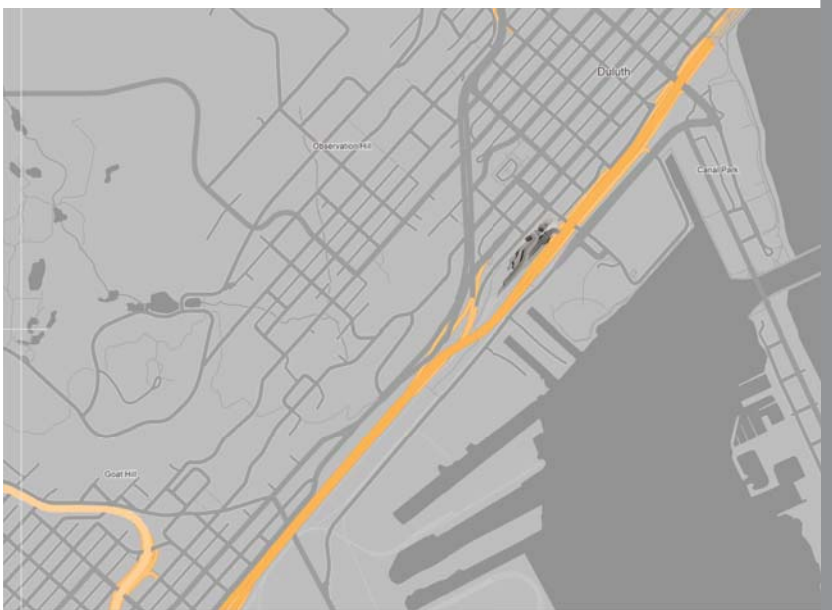


Figure 3

Project Emphasis

Influencing a city by expanding its number of visitors through the integration of a single structure.

Influencing Identity aims to bring an additional aspect of tourism to the city of Duluth aiding in the city's primarily tourism driven economy.

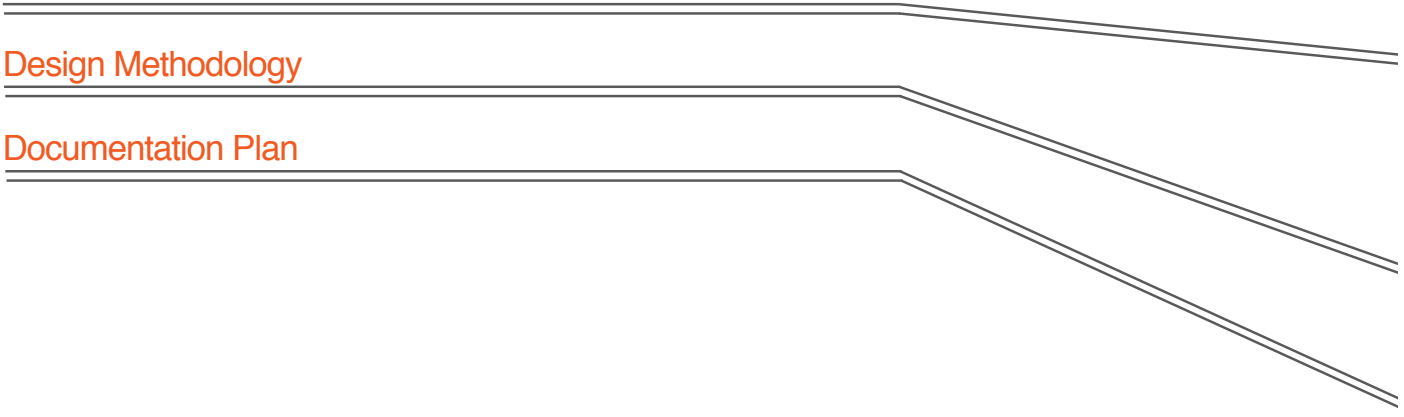
Through the addition of a contemporary art museum to Duluth's list of attractions it will widen the scope of visitors drawn to the city, allowing local businesses within the city to prosper from the increased client base.

Plan For Proceeding

Research Direction

Design Methodology

Documentation Plan

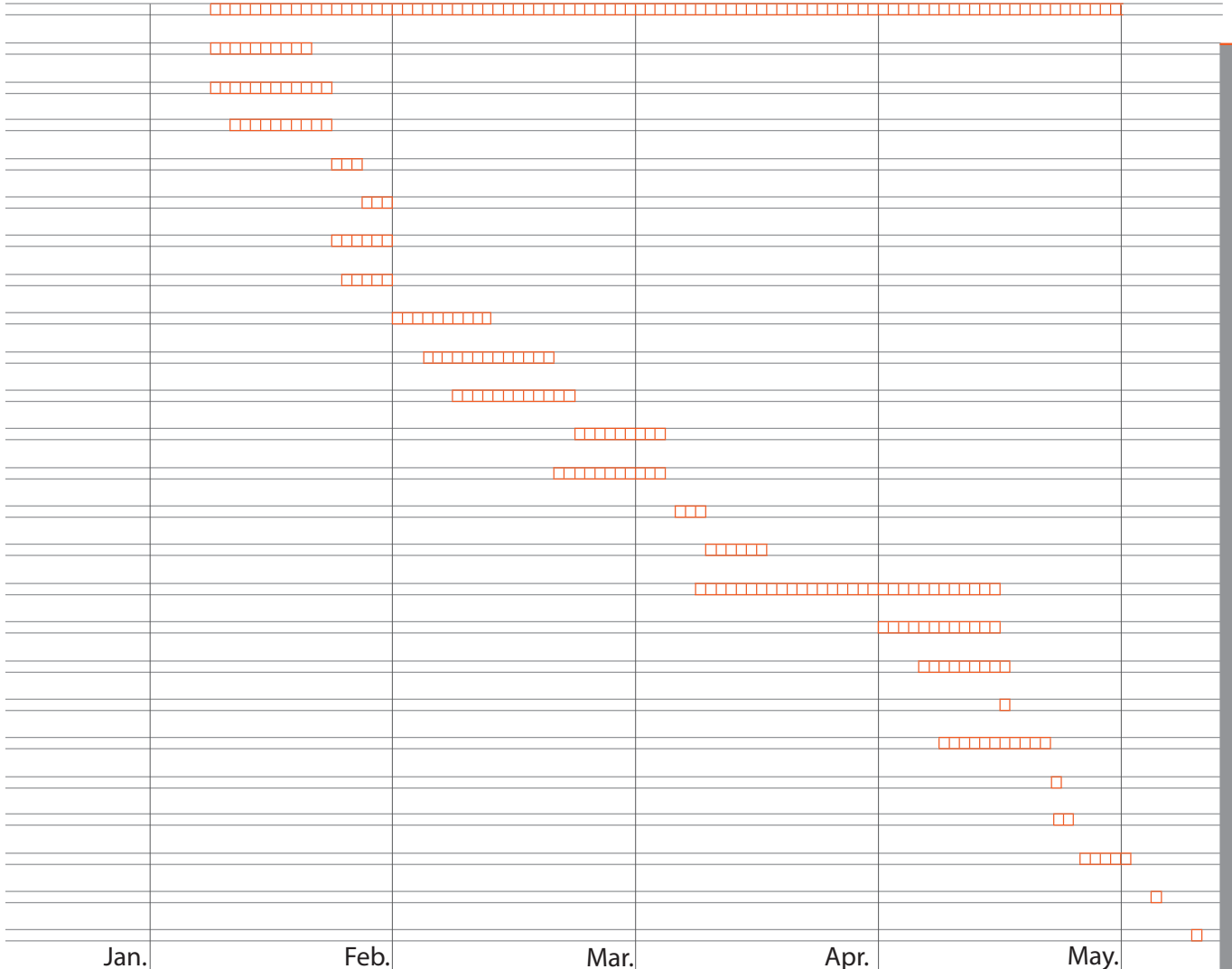


Throughout the project research focuses around theoretical premise and unifying idea, the historical context of Duluth, typology, and site analysis to influence the programmatic requirements of this thesis.

Both quantitative and qualitative data will be gathered through a mixed method approach. Conducted analysis will include graphic, digital, archival study, and site interaction data. Through a Concurrent Transformative Strategy the data implemented will be directed by theoretical premise/unifying idea. Quantitative data will be derived through archival searches while qualitative data will be derived directly and through additional archival searches.

Documentation shall consist a compendium of photographs, sketching, digital media, notes, along with other media deemed useful recorded as it is gathered via digital means, to then be applied to the final thesis as a digital presentation.

Project Documentation	01.09 - 05.01	81
Context analysis	01.09 - 01.18	10
Conceptual Analysis	01.09 - 01.22	14
Spatial Analysis	01.11 - 01.22	12
ECS passive Analysis	01.22 - 01.26	05
ECS active Analysis	01.26 - 01.30	05
Structural Development	01.22 - 01.30	08
Context Redevelopment	01.24 - 01.31	08
Floor plan Development	02.01 - 02.14	14
Envelope Development	02.05 - 02.20	15
Materials Development	02.10 - 02.24	15
Structural Redevelopment	02.24 - 03.03	08
Section Development	02.20 - 03.03	12
Midterm Reviews	03.04 - 03.08	05
Project Revisions	03.08 - 03.16	08
Preparation for Presentations	03.14 - 04.14	30
Rendering/Image finalization	04.01 - 04.14	14
Presentation Layout	04.05 - 04.15	10
CD Due	04.15	- -
Plotting and Model Building	04.10 - 04.21	09
Exhibits Installed on 5th Floor	04.22	- -
Thesis Exhibit	04.22 - 04.24	03
Final Thesis Reviews	04.25 - 05.02	06
Final Thesis Document Due	05.05	- -
Commencement	05.11	- -


Jan.
Feb.
Mar.
Apr.
May.

Previous Studio Experience

2009

Arch. 271 Darryl Booker

Tea House - Moorhead, MN
Boat House - Minneapolis, MN

2010

Arch. 272 Joan Vorderbruggen

Montessori School - Fargo, ND
Bird House Competition
Small Dwelling - Marfa, TX

Arch. 371 Paul Glye

Sport Retail Store - Fargo, ND
Snow Symposium - Winnepeg, MB
Fire House - Fargo, ND

2011

Arch. 372 Regin Schwaen

Indoor Beach - Fargo, ND
Triangle Café - Fargo, ND

Arch. 471 Don Faulkner

San Francisco Tour
High Rise - San Francisco, CA
DLR Group (KKE) Competition

2012

Arch. 472 Paul Glye

Semester Abroad
Foche Park Project - Lille, France

Arch. 771 Ronald Ramsay

Agincourt Chapel - Agincourt, IA
Sustainable Religious Facility
- New York, NY

Program Document

Research Results

Theoretical Premise Research

Typological Research:

Case Studies 1-3

Case Study Summary

Historical Context

Goals For Thesis Project:

Academic

Professional

Personal

Research Results

In attempting to influence the identity of a city one must first observe the main elements unique to the city's current identity. Let us start by defining this idea of urban identity. Architect and urban planner Charles Correa defined urban identity as "the history of people and place recorded in brick, stone and mortar; in songs, dance and arts [these] are what vest the city with an identity." (Meera Iyer, 2012) A city is not created overnight, it has a long, often complex history preceding it containing a multitude of events which have influenced the city's current layout and structure. Past civilization, culture, and events all fostered by the city and its inner workings mold itself into what the city is today. These are the main elements composing a city's image. Things such as these cannot be changed instantly but rather influenced through multiple changes over time. Some of these elements however can be so ingrained into a city's identity that there is little to no chance of influencing what is already there, for example the statue of liberty, in New York, is a fairly solidified landmark defining the city's history. Not much can be done to change this main element of New York. If an attempt at influencing any city is to be made one cannot attempt to significantly alter one of these main elements, such as lady liberty, but must instead alter an existing, lesser element

or introduce an entirely new element into the city. If one of these main elements were to be altered the alteration would have serious repercussions, altering the way the public views a significant or important part of the city, thus changing the city's identity.

A change in a city's demographic can be one way to influence a city's urban identity. By adding to or taking away from a city's demographic there can be adverse or auspicious effects in the urban fabric of a city. For example, taking away or relocating the old industrial part of a city can benefit the surrounding environment with a decrease in pollution, but at the same time force a portion of the working class to also relocate to maintain their jobs or find new ones, thus subtracting from a city's economy. On the same note through the integration of a public "draw" a city can benefit in various ways depending on what that draw may be. (A "draw", for purposes of this thesis, being an object, or group of objects, of interest that attract or "draw" in an additional populous.) There are many ways to attract people to a city from near or far. Whether it's a

world renowned theme park, a unique church or cathedral, an array of shops, or a natural landmark, many different people are lured to a destination by many different things. These draws can create jobs for the people living within the city, bring more customers to surrounding businesses, and/or allow a new company to open because of a new demand due to an increased population.

This is exactly what the Guggenheim did for Bilbao, Spain, it brought an entirely new attraction, and even a new aspect of culture, to the city in the form of an extremely non-conventional art museum. This phenomenon of a city becoming revitalized through the implementation of a great work of “starcitecture” is ergo known as the “Bilbao Effect”. Formally a primarily industrial city driven by the mining and shipping industry, Bilbao has since become a city almost completely reliant on tourism without the industrial demand of earlier years. (Newhouse, 1998) With a tourism driven economy a city maintains itself through creating a constant flow of tourists by means of creating multiple draws to attract tourists. Each of these draws may or may not be related to one another but each attracts it’s own general demographic of tourists creating the overall tourist economy upon which a city thrives. Though

Bilbao has been extremely successful since the construction of the Guggenheim, the museum is not the sole reason for the city's success. The Guggenheim is but a part of the plan that revitalized the city of Bilbao, Spain. The museum along with the revamped metro system, new conference and concert hall, new airport addition, and a new conference and trade fair infrastructure, all contribute to the renewed success of the city. (Vicario, Monje, 2003) One could argue these alterations to Bilbao's infrastructure has completely reshaped the image of the city from a once industrial, working class city to a now heavily vacationed, international tourist city. For a city, such as Duluth, to maintain its identity while attempting to revive its economy the solution, or the success of the solution, can not overshadow the city's current identity but must instead enhance the identity. The grandeur of the Guggenheim overshadowing every other aspect of the Bilbao urban renewal is the reason the museum is so often seen as the sole cause of the "Bilbao Effect" when in reality is was only one component of the city's entire urban renewal initiative. The "Bilbao

Effect" therefore is not a phenomenon caused by the integration of a single building but rather the implementation of multiple urban renewal projects at once, identified by the largest visual addition to the city, in this case the Guggenheim.

A phenomenon involving the integration of a single building for the benefit of a city's economy would be more accurately termed the "Milwaukee effect" after the Milwaukee art museum addition designed by Santiago Calatrava in Wisconsin. While this addition might as well be a glorified entrance to the actual museum it is nonetheless a building having accomplished it's primary goal of attracting a significant increase in visitors to the museum and the city of Milwaukee itself, bringing in more than 300,000 visitors annually, roughly a 43 percent increase from years past. (Naik, 2012) The museum addition has become an icon of the city attracting a generous amount of tourism feeding the city's economy while still maintaining Milwaukee's overall image, only influencing and not completely changing the city's overall identity. Because the museum addition in Milwaukee was not involved with or initiated by an urban renewal project of sorts the city of Milwaukee was not drastically changed overnight. Instead the city was

more subtly influenced by the 44 percent increase in tourism the addition brought in eventually spurring a slow urban renewal of downtown Milwaukee. (Antlfinger, 2007)

What does it matter if the city is renewed with one large urban face-lift as opposed to a renewal accomplished through a series of projects? For some cities it might not matter. Bilbao, before it's revival, was an empty shell of the city it once was, a run down city with not much to offer the world since the passing of its industrial peak. While the city may have had a successful history it was not much appreciated or glorified by those who lived there. The city was ready for change on a grand scale. Many cities on the other hand cling tight to their rich past and attempt to preserve it as much as possible. Duluth, much like Milwaukee, is one of these cities. Since the late 1960's and the creation of the "rust belt" caused by the loss of industrial and blue collar jobs around the great lakes region, many of these cities that were once so successful have been forced to find new ways of stimulating their economies. For Duluth and Milwaukee salvation was

sought through their already established tourism industries. An industry that would not only stabilize the cities' economies, but also aid in preserving each cities' story and the impact each has made to the surrounding country.

When a city's tourism economy is rooted in its historical precedence a large urban renewal project could jeopardize the already established tourism base by completely overshadowing or inadvertently altering past tourist attractions. This course of action would essentially change the way a tourist, or any outsider, views the city. In overshadowing the city's past and altering the way one views a city a new identity is created and the old identity is cast aside to be lost in what once created it, history. Instead of an entire urban renewal project a city can be revitalized with the addition of multiple buildings over time. This slower change allows for public adaptation to what has been altered in the city's fabric while still maintaining a focus on historical significance and the guidance the city's history has had on the current city. This would ultimately influence, yet still perpetuate the city's identity.

Duluth, preserving its history through the tourism it attracts, has many elements that give the city its unique sense of place. For starters the overall feeling of the city is that of a smaller town despite the city's overall size and population. The ruggedness and age of the buildings, the brick pavers running up and down parts of Superior street, the atmosphere of the restaurants and shops down the main drag of the city, and most influential of all, the preservation and display of the city's past throughout the city all signifying that which is know as Duluth. The city is shaped by various elements such as its location directly on the tip of Lake Superior, the shoreline infrastructure from its days as a major port town, the iconic aerial lift bridge defining the city's skyline, and the tiered hillside bringing it all together. These are a few of the main elements that are ingrained into the city essentially defining what Duluth is today. These main elements should be reenforced rather than altered by new construction so as to aid in showcasing the city's identity. Some touristic elements, such as Canal Park and the river walk, do just this for the city. Each offers excellent views of the lake, the

aerial lift bridge, and the populated hillside forming the backdrop to the downtown area of Duluth. With new construction these main elements forming the city's identity are things to be showcased or used to draw inspiration from, helping to reinforce the city's unique, rich history.

The city of Milwaukee, unlike Bilbao, already being graced with an established tourism economy before its strarcitectural addition never had to undergo an entire infrastructure redevelopment to attain it's goal of an additional boost in tourism. This saved the city of Milwaukee billions while maintaining the rich and historical identity of the city. Many parallels can be drawn between Milwaukee and modern day Duluth, MN. Both city's have lived out their days of nationally recognized prosperity and have since settled into the ways of preserved historical cities left to remind and educate the public of our ancestors and their past. Both cities are heavily reliant on their tourism industries and attractions, therefore both cities are continually seeking out new opportunities to draw in more publicity for the sake of maintaining each city's economy. Duluth, already having an established tourism based economy would not require the massive undertaking of an entire urban renewal face-lift as Bilbao underwent. Instead the

addition of a single art museum expansion would be sufficient in attracting an additional aspect of tourism to the city as Duluth's downtown does not currently boast an art museum, save for the single floor that once served as the Depot's attic housing a very limited amount of local artwork. The closest thing the city has to an actual art museum would be the Tweed Museum located on the University of Minnesota, Duluth campus. Even this is located four miles uphill, out of the downtown region of Duluth. Lacking in visual appeal the Tweed Museum does not exactly bring in the crowds to enjoy the art offered.

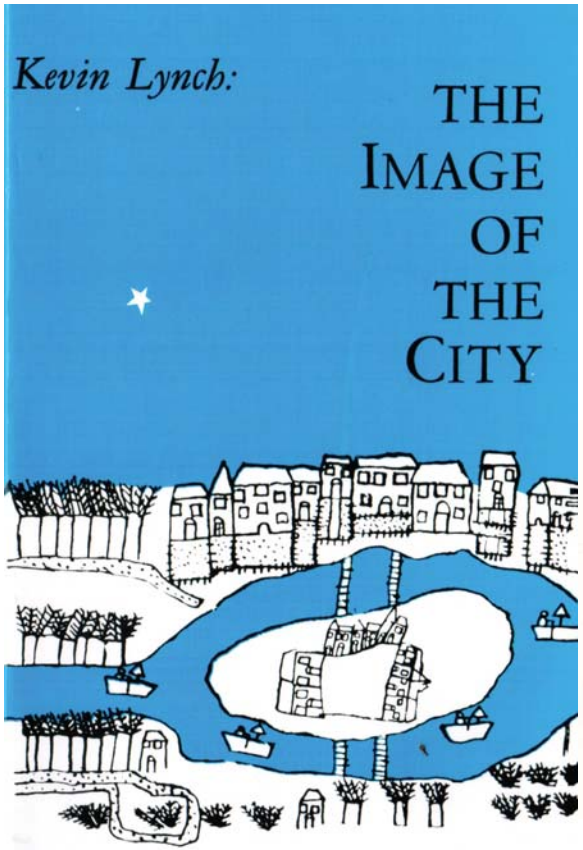
Summary

Every city has its own identity formed through events, civilization, and culture creating an impression on how residents and visitors alike view the city. For a city with a rich historical background these main elements should not be changed overnight, but only influenced through a series of smaller changes over a period of time. To change a significant element within a city would be to ignore part of a city's past, inadvertently changing a city's identity. This is what was done in Bilbao, Spain with the urban renewal project. The city underwent multiple significant alterations in infrastructure at once, including the Guggenheim, in an attempt to change the city from a run down industrial town to a successful world famous tourist attraction. The urban renewal project was successful but also effectively changed Bilbao's identity completely. This has been since been known as the "Bilbao effect" even though the Guggenheim is the only building commonly credited for the city's success. If done on a smaller scale this idea can still be

applied to boost a city's economy bringing in tourists and creating jobs without altering a city's identity.

If the "Bilbao effect" is not actually the implementation of a single structure but instead the implementation of an entire urban renewal project then the "Milwaukee effect" would be a more accurate term for the implementation of a single building in the hopes of reviving a city's economy. The addition for the Milwaukee Art museum is a prime example of reviving a city's economy without changing its identity. The single structure allowed for the public to adapt to the change in the city without taking too much attention away from the historical importance of the city still attracting tourists as before, but now with a 44% increase thanks to the museum addition. With the many similarities between Duluth and Milwaukee in history, location, and the tourist economies the success of the Milwaukee Art museum poses an excellent argument for the proposal of adding an art museum to downtown Duluth.

Lynch Principles



[A workable image requires first the identification of an object, which implies its distinction from other things, its recognition as a separable entity. This is called identity, not int he sense of equality with something else, but with the meaning of individuality or oneness.]

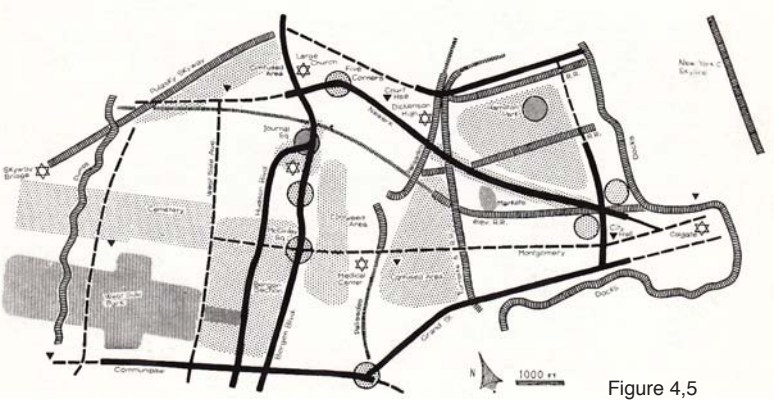


Figure 4,5

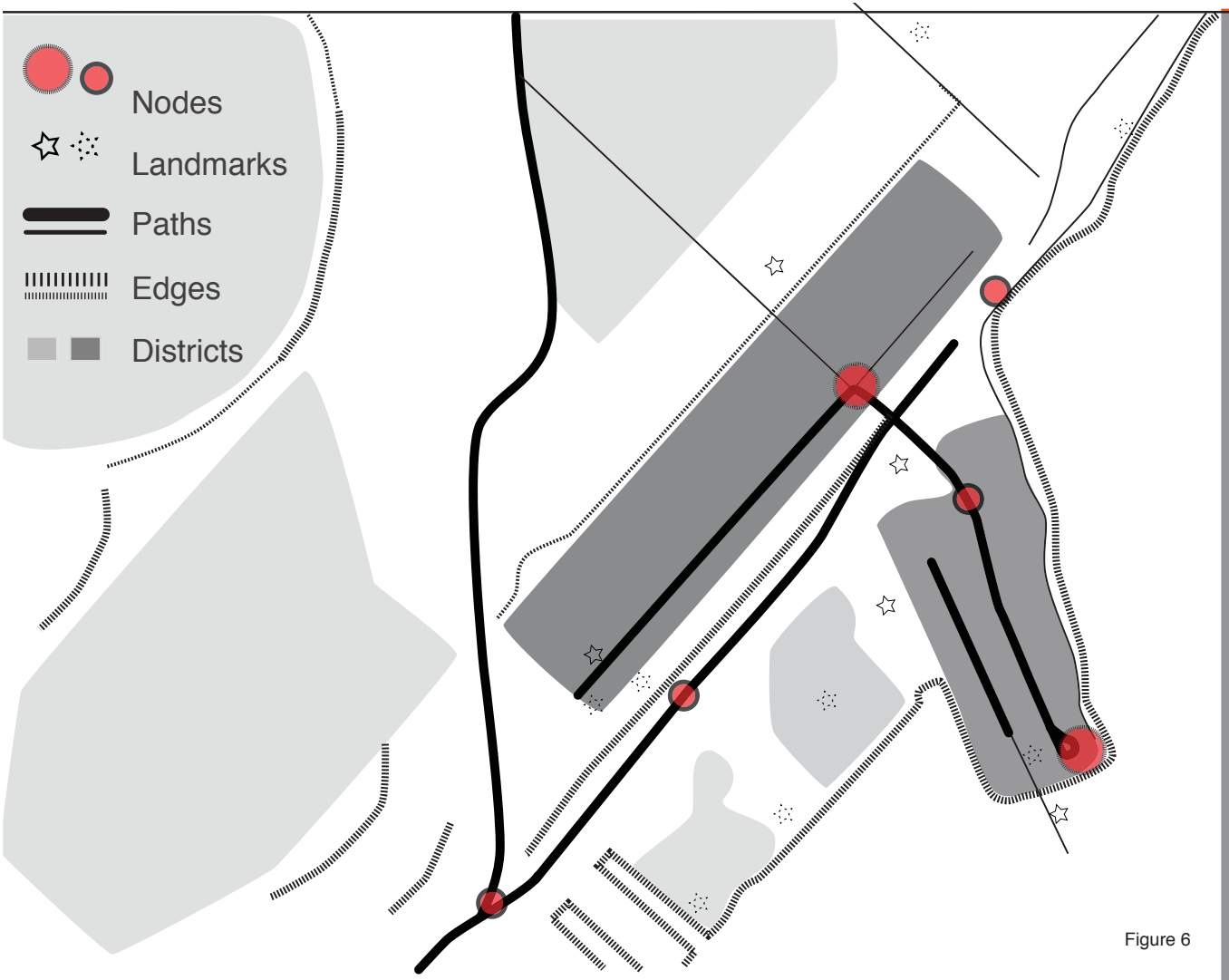


Figure 6

Typological Research

Case Studies:

The Guggenheim, Bilbao

Milwaukee Art Museum, WI

Frederic C. Hamilton Building, Co

Guggenheim, Bilbao

Figure 7

Architect

Frank O. Gehry

Opened Oct. 1997

256,000 Sq. feet

3 Stories

Interesting features

Curvilinear forms and shapes

Unique and varying gallery spaces

Titanium cladding

Program Elements

Exhibition space

Gallery spaces

Visitor orientation room

Store/bookstore

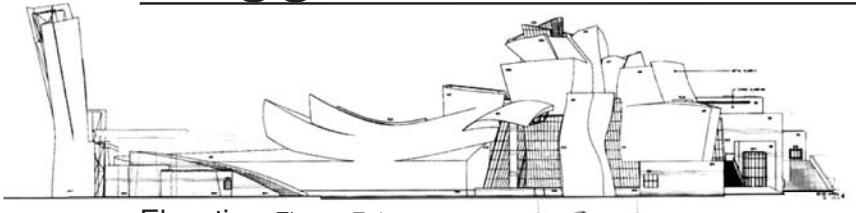
Auditorium

Cafeteria

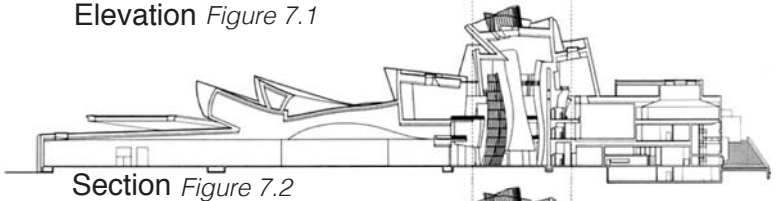
Restaurant

Offices

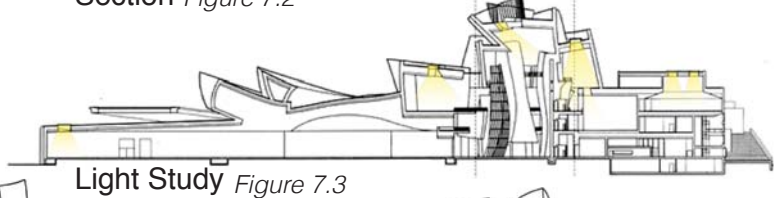
Guggenheim, Bilbao



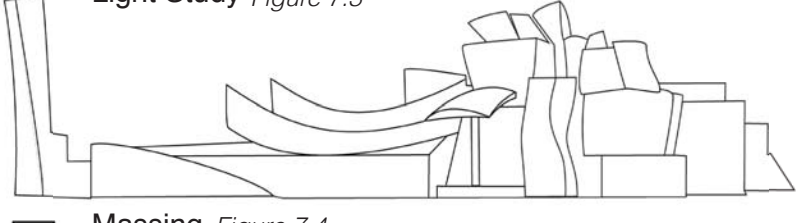
Elevation *Figure 7.1*



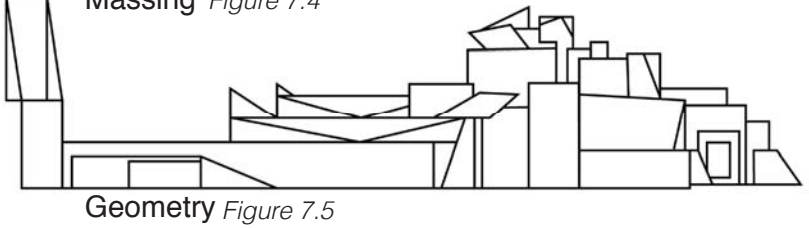
Section *Figure 7.2*



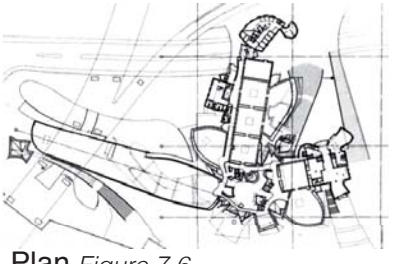
Light Study *Figure 7.3*



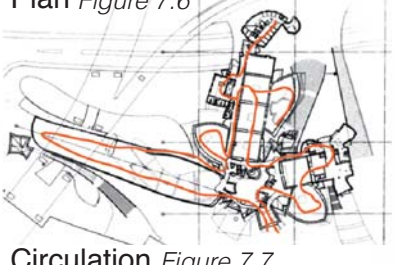
Massing *Figure 7.4*



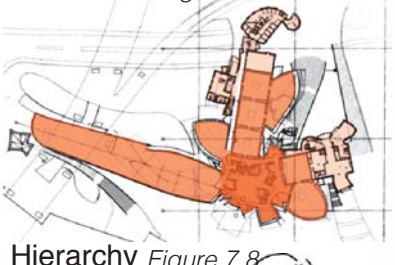
Geometry *Figure 7.5*



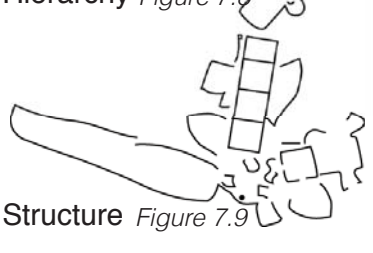
Plan *Figure 7.6*



Circulation *Figure 7.7*



Hierarchy *Figure 7.8*



Structure *Figure 7.9*

Designed as one of the key components of Bilbao's urban renewal initiative the Guggenheim is a playful display of curvilinear forms designed to attract the attention of anyone who happens to be within sight of the flowing metallic structure, just as any piece of starchitecture is designed to do. This building unlike others has become infamous for its unconventional design and its ability to have seemingly jump started an entire city single-handedly (though we know this was not actually the case).

The Guggenheim is regarded as one of the world's most unique museums not only because of the building's form but because of the gallery spaces created inside as well. The structure of the Guggenheim provides many uniquely shaped interior spaces which allow artists to express themselves more than ever before now having the opportunity to design for specifically unique gallery spaces.

Despite the fact it did not single-handedly revive an entire city, and to some it's more of an eye sore than an architectural marvel, the Guggenheim in Bilbao launched a trend in extravagant architecture eventually leading to the creation of some very amazing buildings, so at the very least we can thank Mr. Gehry for this.

Quadracci Pavilion

Figure 8

(Milwaukee Art Museum)

Architect

Santiago Calatrava

Opened Oct. 2001

152,050 Sq. feet

2 Stories + parking

Interesting features

Mechanical wings

Artistic and flowing concrete structure

Cable bridge entrance

Program Elements

Temporary Exhibition space

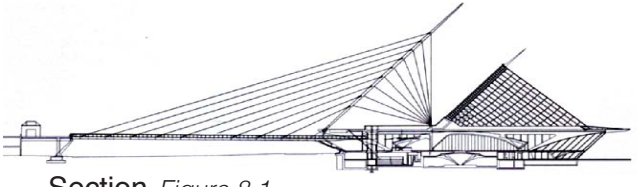
Reception Hall

Auditorium

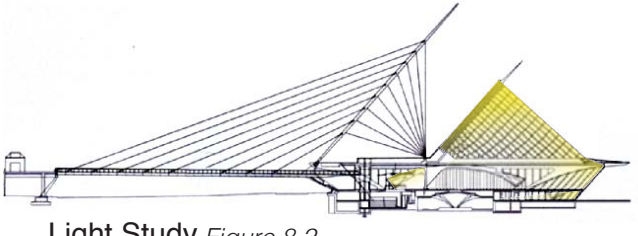
Store

Café

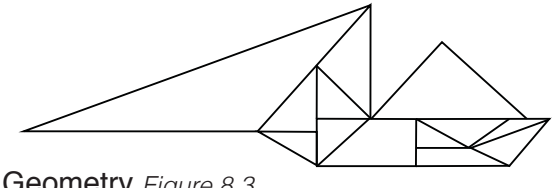
Quadracci Pavilion



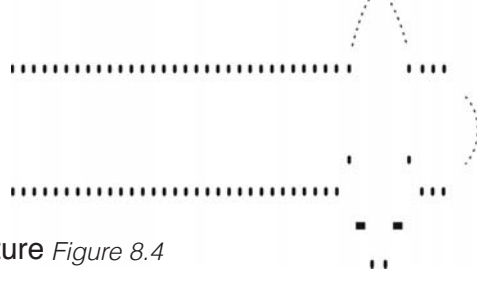
Section *Figure 8.1*



Light Study *Figure 8.2*



Geometry *Figure 8.3*



Structure *Figure 8.4*

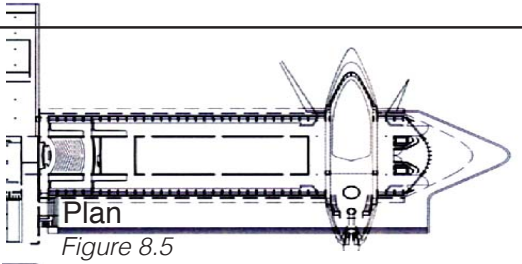


Figure 8.5

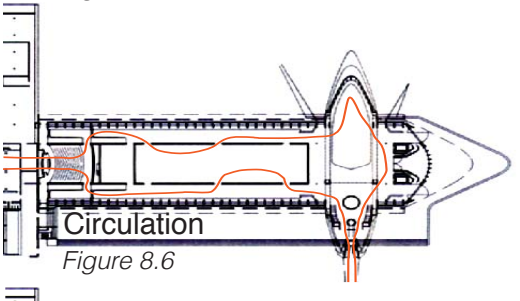


Figure 8.6

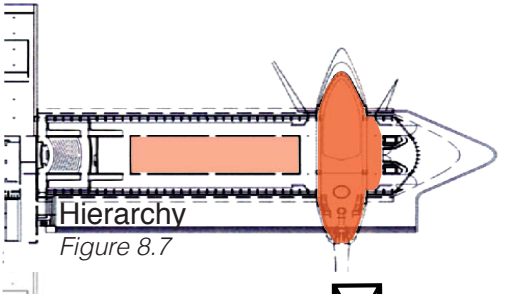


Figure 8.7

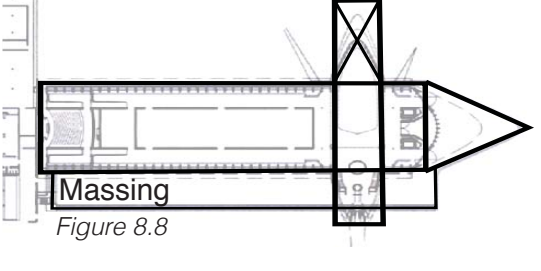


Figure 8.8

(Milwaukee Art Museum)

A prime example of “starchitecture” the Quadracci Pavilion was designed for the sole purpose to attract an increase in tourism for the city of Milwaukee. What makes this building extremely unique is its use of kinetic structure allowing the structure to extend it’s shading device into what resembles a bird’s wing span. This daily event alone draws people to the location of the museum every afternoon just so they can catch a glimpse of this flying building. However a significant amount of these patrons only visit the museum for the opening of the wings not bothering to see the artwork inside the building. In a sense the building has become a more interesting piece of artwork than the museum could ever hold. While these people may not directly benefit the museum the time and money they spend in Milwaukee will inadvertently affect the museum through the city’s economy.

This boosted economy can be seen in some of the figures concerning the city’s tourism increase in the past years. The increase in tourists to the museum has increased from 165,000 annually to 375,000 in the addition’s first year and 350,000 on average since. The museum has brought a 44% increase to the city of Milwaukee which over the next few years began to spur small urban renovations throughout other parts of the city.

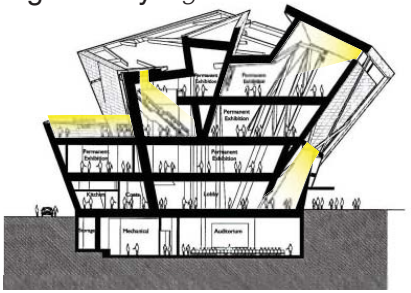
Frederic C. Hamilton Building

Figure 9

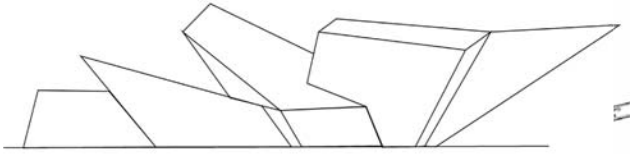
(Denver Art Museum)

Section *Figure 9.1*

Light Study *Figure 9.2*

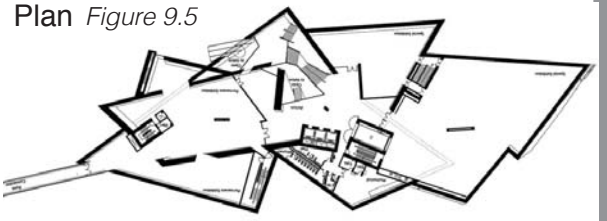


Massing *Figure 9.3*



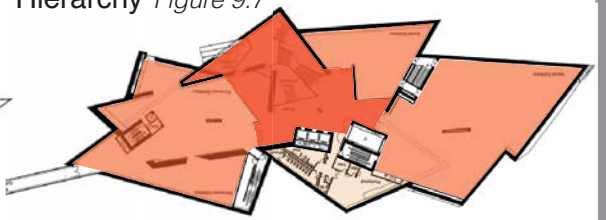
Geometry *Figure 9.4*

Plan *Figure 9.5*

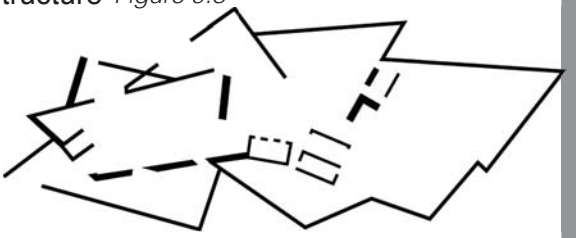


Circulation *Figure 9.6*

Hierarchy *Figure 9.7*



Structure *Figure 9.8*



Frederic C. Hamilton Building

Architect
Daniel Libeskind

Opened Oct. 2006

146,000 Sq. feet

5 Stories

Interesting features
Large cantilevering angles

Unique interior spaces

Titanium cladding

Figure 9.9

Program Elements

Gallery Spaces
(divided by style & era)

Special Exhibitions

Art Storage

Auditorium

Lobby

Shop

(Denver Art Museum)

Similar to the Guggenheim and the Milwaukee art museum the Frederick C. Hamilton Addition to the Denver Art Museum is another piece of “Starcitecture” built to draw in a crowd. Though unlike Bilbao and Milwaukee, Denver was not looking for an economic boost with the project. Instead it was more focused on making a statement for the city.

In designing the Denver Art Museum addition Daniel Libeskind was inspired by the peaks of the Colorado Rockies towering behind the city along with the crystalline stones found throughout the footpaths of the mountains giving the building it’s form. The exterior titanium cladding was chosen because Denver is home to the world’s largest titanium distributor and it’s reflective quality allows the Denver sun play off the various angles upon the structure.

Averaging a substantial 465,000 visitors annually the Denver Art Museum has undoubtedly become a reputable public attraction with its starchitectural expansion. Tourists from around the country come to see Libeskind’s angular design simply because of its uniqueness. However the city of Denver is a country wide tourist attraction to begin with for multiple reasons.

Case Study Summary

Through the analysis of three different art museums including the Guggenheim in Bilbao, the Quadracci Pavilion for the Milwaukee Art museum, and the Frederic C. Hamilton addition to the Denver Art museum I have gained great insight as to how my theoretical premise will be affected by each of these three case studies individually and as a whole. The Guggenheim, essentially being the spring board to the concept of my theoretical premise, did not offer as much insight as to how I should approach my thesis but rather how I should avoid approaching things. I realized the overall scale of the Guggenheim project would be far to overwhelming and unnecessary to the city of Duluth. The other case studies were a more accurate depiction of the amount of influence I am looking to achieve in the city of Duluth. With the Quadracci Pavilion the city's economy improved quite noticeably with out changing the identity of Milwaukee, instead adding another notable element to the city in a positive manner. The Frederick C. Hamilton addition was very similar to the Quadracci Pavilion in regard to how much the building affected the overall fabric of the city. Both were able to create an additional draw of tourism for their respective cities without compromising other facets of tourism or overshadowing each city's unique history and identity.

In the case of the Guggenheim I can see how the city was willing to discard their past identity in lieu of a fresh start considering how hopeless the city seemed at the time. In the case of the other two buildings it seems as though they too did not give any thought to the history or identity of the city in which they were constructing despite the fact that neither city was in detriment of becoming a failed city or in need of a new identity. In the Frederic C. Hamilton addition Libeskind states the form of the building was derived from the jagged stones of the Rockies yet neglects to consider how the Rockies have influenced the city of Denver throughout history. Through this realization I feel a similar project implemented in Duluth with steps taken to incorporate the history of the city and other forms of tourism will create a project that will cohesively become an ingrained part of the city without sacrificing what is great about the city, but instead capitalizes on the city's identity.

Historical Context

Figure 10

Historical Context

Duluth

Originally inhabited by the Sioux and Chippewa the city did not receive its name until 1856 being named after Frenchman Daniel Greysolon, Sieur du Lhut. The immensely successful city of Duluth was not always so as it first endured multiple spans of hardship battling the economic crash in 1857, a scarlet fever epidemic in 1859 along with many other brief hiccups in prosperity yet to come. Despite the troubled times come 1863 the city began construction on its first railroad and by 1869 Duluth was declared the fastest growing city in the United States due to it's immense success in the timber, grain and ore trades. Only four years later the city was to be knocked down yet again due to a stock market crash, but not before a canal was dug allowing ships to cut through the sand barge shortening their routes. This canal was later bridged by what resembled a gondola for automobiles and later remodeled to become the iconic Aerial Lift Bridge of Duluth, at a height of 138 feet it is not only the largest but the quickest lift bridge in the world. (Greater Downtown Council, 2007)

Figure 11

After regaining its footing yet again in 1884 with the addition of another railroad the turn of the century approached and Duluth was "home to more millionaires per capita than any state in the nation." (Duluth Area Chamber of Commerce, 2012) At a time when timber and grain were the preferred commodities a source of iron greater than all the deposits in the area combined was discovered and the city was once again prosperous. This is not to say the lumber industry was not still booming. In 1894 roughly 7,700 employees worked at thirty two different mills throughout Duluth and Superior. Come the turn of the century over 3 billion board feet of lumber was produced within the first decade, all reaching the mills via track or water.

Taking a hit during the second world war with a massive depletion of ore the city was still holding strong achieving a population of 105,000 people and the beginnings of their tourism industry. During this time Duluth's largest port boasted an annual tonnage that was second only to New York in all of America moving approximately 60,000,000 tons within the eight month shipping window. This

Historical Context

coupled with its immense storage capacity for grain made it the chief handler of the northwest. (Baum, 1949) As the industrial era was coming to an end Duluth developed a plan to reuse the abandoned factories around the area now know as Canal Park creating another site for tourists to enjoy still to this day. In addition to this beautification of Canal Park the first section of the lake walk was dedicated so visitors were able to admire the vastness of Lake Superior as well as the town itself. Despite being 2,342 miles from the Atlantic ocean Duluth still holds the title of being the biggest inland harbor in the world. (Duluth Area Chamber of Commerce, 2012)

History of The Depot

As a major exporter of timber, grain, and ore not all of duluth's commodities were shipped out via the great lake Superior. A significant amount of goods were transported across the country by freight trains. The French Norman chateau-like hub of these trains, designed by Peabody and Stearns and completed in 1892 called the Union Depot, quickly became the

Figure 12

Figure 13

epicenter of exchange for both goods and travelers alike with in the booming port town. At the height of it's industrial existence in 1910 there were seven different lines running through the Union Depot dispatching over 50 trains over the course of each day to helping commodities and travelers make their way across the country. 1969 brought the last departure from the original Union Depot station and only four years later work was immediately begun to restore and preserve the valuable piece of Duluth history.

Now a time capsule for trains, the Depot is a museum dedicated to educating the community on the rich history of the city as well as about the historic trains that made countless journeys across the country allowing cities like Duluth to greatly prosper. Also home to the St. Louis County Heritage and Arts Center the Depot contains more than just historical exhibits and trains. In 1970 an addition was built to contain the theater for the Duluth Playhouse, the Minnesota Ballet, and the Matinee Musicale. The original section of the Depot contains the Forest History Gallery, the Veteran's Memorial Hall,

Historical Context

the Duluth Children's Museum, and of course the railway exhibit below all packed into the three and a half story structure.

Art Museums

Since the first art museum, the Amerbach-Cabinet, opened in 1671 to the public of Basel, art has been defining our culture on a public scale as the luxury of art was no longer only to be enjoyed by the aristocratic society. The first modern museum, or museum in the context of how modern day society would perceive it, however was not opened to the general public until 1765 know as the Uffizi. As society progressed so did the artwork, through the Baroque and Rococo eras to the Neoclassicism and Romantic periods, into realism and finally to modernism and contemporary art today. The first museum dedicated solely to modern art opened in 1929 as the Museum of Modern Art (MoMA). Since the MoMA art museums have varied greatly in their architecture and the art they contain. As artwork evolves the spaces in which they are contained must evolve as well. With museums such as the

Guggenheim, Bilbao and the Denver Art Museum the spaces created within provide very interesting atmospheres in which to display different types of artwork. Some of these museums have even commissioned artists to design a piece specifically for a certain space. With this museums today have the ability to influence art as much as the art influences the museum. Used as a vessel for inspiration, or education, artwork will forever be an important part of the human race and should be displayed as often as possible.

Project Goals

A thesis is not simply a task which one must complete before receiving a degree, it is an opportunity to showcase one's personal strengths while improving other skills to present a project that is an adequate representation of one's abilities gained throughout the course of their education. With this thesis project I hope to gain valuable insight concerning the skill sets and knowledge I have acquired and how effectively I am able to apply them in a manner rendering a comprehensive design project.

Academic

As a student working towards my masters degree in architecture I feel my academic goal is fairly straight forward. My ultimate goal is to hold a Masters degree in my hands at the end of the year knowing I deserve it and look forward to what opportunities it will bring forth in my future. Though in working towards this degree I have realized school is no longer about making the grades as it once was, but instead has become more of a personal test to see how I can build and improve my own skill sets with the resources

at my disposal. In realizing the importance of self improvement I have been inspired to set personal goals for each of my projects whether it's to learn a new program or to experiment with a certain design style I have not yet used these personal goals allow me to learn more than an assignment alone could teach. I hope to carry this inspiration for self improvement with me beyond my academic career.

Professional

Professionally I am striving for a project I will be proud to have hold a place in my portfolio as I am looking for a job within the architectural community. Whether it's this summer when I'm finding my first job or years down the road looking for new work I want this thesis to be something that future employers will take interest in. Presentation is everything in a visual based profession such as architecture and I aim to use this project to expand and polish my presentation skills in not only visual graphics but in writing as well. I want this thesis to challenge me in comprehensive design taking into account as many factors as possible so as to teach

and prepare me for what I should focus on when designing in the future.

Personal

My personal goals concerning this thesis are above all to be proud of what I have created in the end. I wouldn't complain about getting high marks but when it's all said and done I want to know that I am capable of designing comprehensively on both an academic and professional level. I don't know exactly where I will end up in the future but I know I want to be designing to make a difference and graduating with my Masters degree is my first step towards making that difference and becoming successful. My idea of success would be designing a building that people not only use on a daily basis but that also provokes inspiration in some way, shape, or form.

Site Analysis

Qualitative Aspects:

Narrative

Charts & Diagrams

Quantitative Aspects:

Charts & Diagrams

Climate Analysis

Qualitative

Narrative

In approaching the site form the freeway via automobile it was instantly prevalent the city was enveloped with a rustic sense of age. As the city gradually revealed itself from behind the brightly festive, fall colored tree line, bits and pieces of the city's past stood out among the entirety of the autumn speckled city. From the industrial factories off in the distance to the countless aged brick buildings, to the iconic Aerial lift bridge one could almost feel the history of the city upon arrival. Despite it being fall the sun beating onto the gently sloped hillside provided enough of a warmth to keep the chill at bay. One could feel the texture of the slightly uneven brick pavers underfoot as they approach the site from the north, the slope of the hill seemingly drawing one in closer for a better look. Brightly colored trees lined the streets at various points along the downhill approach to the site filtering the bright noon sun just enough to get by without sunglasses if need be. The Depot's large pointed spires began to reveal themselves as the library loomed overhead. Passing the public library one could see the

Litwiller, (2012)

circular plaza it offered, coming right up to the sidewalk as if to invite one into sunny seating area for a break, or even further into the recessed shaded area it had below the building's large overhang. Approaching the street corner the Depot's large cylindrical spires began to almost pierce the sky. The entry canopy in accompaniment with the building's own cast shadow renders the Depot's side of the street much darker than the sidewalk opposite. One could feel the chill of the shadows as they neared the entrance. The entrance, tucked back from the street, draws one around the second spire only to be greeted with an awkwardly plaza feeling space that feels less like a museum entrance so much as the entrance to an elementary school.

Qualitative

Plan

Grids

Because the site is located within an urban environment the grid of the city is quite prevalent making the city easily navigable and intuitive when traveling from place to place. The grid is disrupted periodically near the site by major streets such as Mesaba Avenue and natural landforms.

Textures

The textures present are quite variable, once again due to the urban environment. Some of the more notable man made textures include the level, gritty asphalt and concrete roads and sidewalks which contrast beautifully with the brick pavers used in some areas for plazas, sidewalks, even parts of Superior street are still paved in brick. The smooth, slightly reflective metal cladding of the library across the street is readily noticeable as a majority of the views from the northern side of the Depot are comprised of the structure. Small patches of tall grass and trees lined the streets to neatly break up the abundance of hardscapes within the city.

Litwiller, (2012)

Litwiller, (2012)

Geometric Relationships

Due to the grid layout of the city a majority of the geometry is rectilinear. However the depot has a pair of cylindrical spires that have seemingly influenced the cylindrical shape of the hotel a block to the north as well as the tiered cylindrical form capping off the end of the public library across the street. These forms create a sort of tension when viewed in relation to the dominant rectilinear grid structure surrounding.

Shade and shadow

The site of the Depot is located only 1,300 feet from the lake shore with only a park, parking lots and the freeway in between. As the Depot hovers above the freeway there are no cast shadows invading the site other than those cast by the Depot itself, leaving the site open to reap the benefits of natural day lighting.

Qualitative

Height Character of Surroundings

The majority of the surrounding structures stand around two to five stories with a few buildings, such as the Raddison, reaching up to 16 stories. As one walks to the north on Superior street the valleys the streets create between the walls of buildings is not as overwhelming as it might be in a city such as Chicago or New York, but instead seem to create more of a wind barrier from the lake a few blocks away. To the south, after about the site of the Depot, the surroundings open up more allowing the lake breeze to invade the city's perimeter.

Built Features, Density, and Locations

The project site is towards the southern boarder of the downtown area so the density begins to thin out in comparison to the density a block or two north of the site. To the northwest is the Duluth public library across the street, with the mid rise Raddison hotel directly behind the library. The northeast is home to a multi level parking garage offering hard to find parking for the city. The freeway leading into the city is located from southwest to the east of the site behind the Depot's small

Litwiller, (2012)

Litwiller, (2012)

train yard and below the Depot's grade level, behind which is the Bayfront Festival Park. To the west resides an apartment structure approximately fourteen stories tall.

Light Quality

The approach to the site from the north offered an excellent quality of warm, natural daylight as the sun bathed the shallow hillside. From the south the light quality was very similar, though with more shading from the existing Depot structure on the side of the street closest to the structure. Come nigh the approach from the north was very well lit with the warm glow of the street lamps and the plaza lights in front of the public library, however the front of the building itself, as well as the approach from the south, was inadequately illuminated making the site seem much less welcoming.

Qualitative

Water

Being that the site looks over the great Lake Superior water is an important part of this project. The expansive, still water of the lake offers a cooling breeze in the summer months while providing a warmer breeze in the winter months giving the city of Duluth a slightly more temperate climate than surrounding cities. Despite the size, and amount of traffic, the lake water is the cleanest of the great lakes with a visibility depth of 27 feet. (Linder, 2006) The lake also offers a steady ambiance of lapping waves upon the shorelines of the city.

Wind

The lake provides a steady breeze year round offering a more temperate climate, as previously stated, due to the sheer volume of the lake, though the prevailing winds actually come from the northwest which would be from the area of the city higher in elevation. The land mass Duluth is built upon is steadily sloped up from the lake until it quickly ascends to the upper areas of the city. This allows the wind to come off the hilltop to the north of the city and cascade

through the city below. Fortunately the buildings within the downtown area of the city provide an effective wind screen from the harsher winds.

Human Characteristics

Having been populated for several centuries now the city of Duluth is well developed containing roughly 86,000 people (U.S. Census Bureau, 2011). The people who currently visit the Depot are employed by the Depot or are visiting one of the museum's attractions. The people visiting the specific proposed site for the addition currently use the space as a parking lot.

Qualitative

Distress

Within the site itself there are a few areas of distress such as parts of the Depot's exterior. This is not surprising considering, despite its restoration, it is one of Duluth's historical building. The proposed addition site displays minor distress with rusted through railings around the perimeter of the parking lot. Taking into account the age of Duluth the amount of distress throughout the city is well maintained and could even be considered a significant contribution to the identity of Duluth as a historic industrial boom town. The land surrounding the site was patchy with weeds, gravel, sand and grass but no signs of erosion were readily prevalent. A few trees towards the southwestern part of the proposed sight appeared to possibly be dead, but seeing as the site was visited during the fall season it is difficult to tell if they were dead or had simply lost their leaves already. The railroad tracks and pillars holding up the parking structure showed some small signs of distress such as loss of paint, rust patches and excessive strain most likely due to age.

The most prevalent signs of distress however were not within the site itself but directly outside the site in the street. The sidewalks and the portion of Michigan Avenue in front of the site were filled with cracks, chips and markings of age and neglect.

Litwiller, (2012)

Quantitative

Soil Sample

0-3 inches: loam
3-80 inches: stratified loamy coarse sand to silt loam

The majority of the site consists of an Urban land-Udorthents-Aquents complex with 0-8 percent slopes

35%-Udorthent soils
Generally found in rises on spits, rises on shores, flats on spits, and flats on shores

35%-Urban land
Generally found in spits and shores

30%- Aquent soils
Generally found in depressions on spits, depressions on shores, flats on spits and flats on shores

(USDA, 2012)

Water Table

The Duluth water table evaluation for 2010 states all of the following inorganic substances were found in the drinking water provided by lake superior in trace amounts in comparison to the maximum levels allowed by law of each substance (Janson L., 2010)

Measured/Maximum

Fluoride (ppm).....1.18/4.0

Nitrate as Nitrogen (ppm).....0.37/10.4

Chlorine (ppm).....0.92/4.0

Copper (ppm).....<0.06/1.3

Lead (ppb).....<11.0/15.0

Sodium (ppm).....8.39/NA

Sulfate (ppm).....8.48/NA

(ppm)-Parts per million
(ppb)-Parts per billion

Quantitative

Utilities

The site contains several utilities such as power lines, a fire hydrant opposite the street, lamp posts for both the street and the parking lot itself, and the utilities provided by the existing structure as the project is for an addition.

Vehicular Traffic

The most occupied road in duluth is by far the freeway running near the city's shore line. Near the sight and second to the freeway Superior Street and Mesaba Avenue are the main arteries for vehicular traffic in the downtown region. As the map below depicts the Streets are often more traveled than the avenues as they allow one to get from one end of downtown to the other.

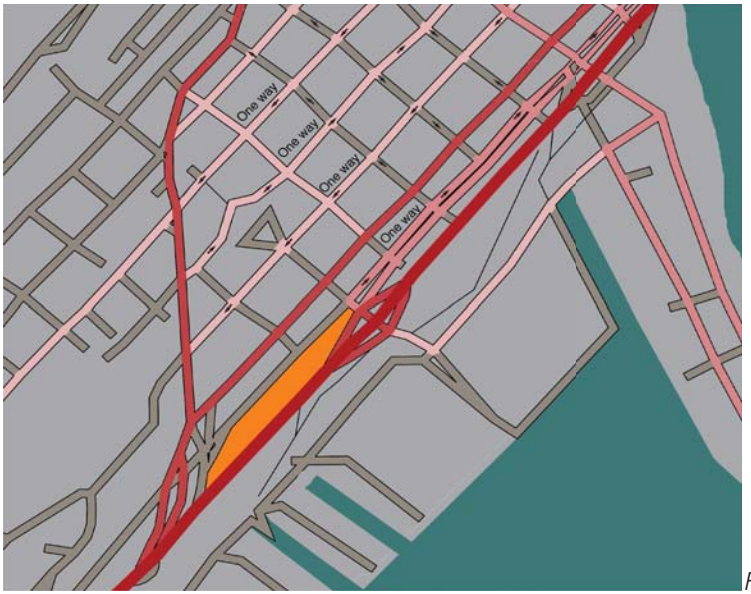


Figure 14

Quantitative

Pedestrian Traffic

Similar to the traffic flow map previously, one of the main pedestrian arteries within downtown duluth is Superior street. This street is filled with businesses, shops, bars, and restaurants offering something for everyone. The height of the buildings along Superior street also offer a barrier to protect one from the cold winter winds providing more desirable conditions when traveling by foot. Another highly traveled pedestrian area would be the Canal Park region offering tourists various shops, eateries, and the Lake Superior lake walk which is also accessible straight from Superior street.

Figure 15

Topographic Survey

One can see in regards to the specific site the topography offers a slight slope from the northwest into the level area composing the rest of the site.

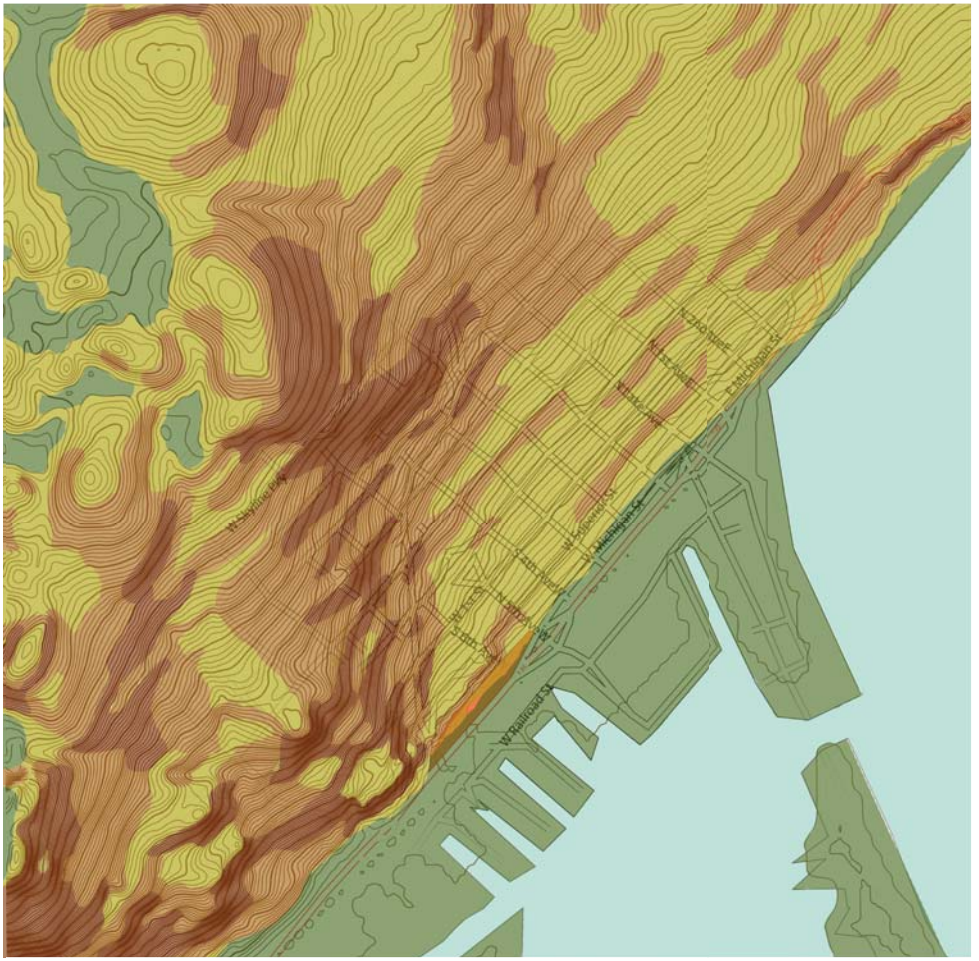


Figure 16

Quantitative

Site Character

The existing site with the current parking lot feels like an unnecessarily large, open expanse sitting next to the bleak addition added to the Depot in 1970. The emptiness only capitalizes on the freeway directly to the south of the site as it offers no barrier whatsoever to muffle the sound of traffic. The most interesting aspect of the site is actually what is below the parking slab. The slab, being elevated, provides shelter to some of the Depot's old train cars resting on the tracks below. It is plain to see this area is not as well maintained as the areas that house the trains indoors.

Maps

Figure 17

Quantitative

Roads, Bridges and
Zoning District Boundary

Figure 18

Buildings

Figure 19

Bodies of Water

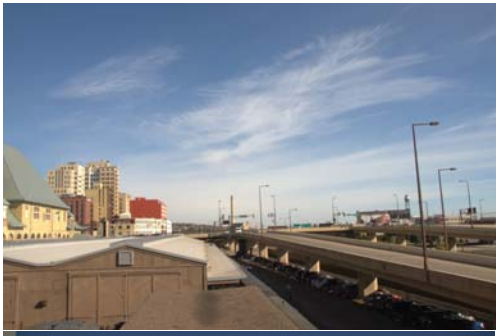
Figure 20

Vegetation

Figure 21

Photo Grid

3



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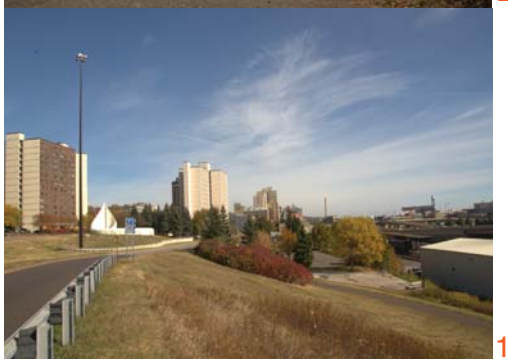

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6

Climate Analysis

Solar

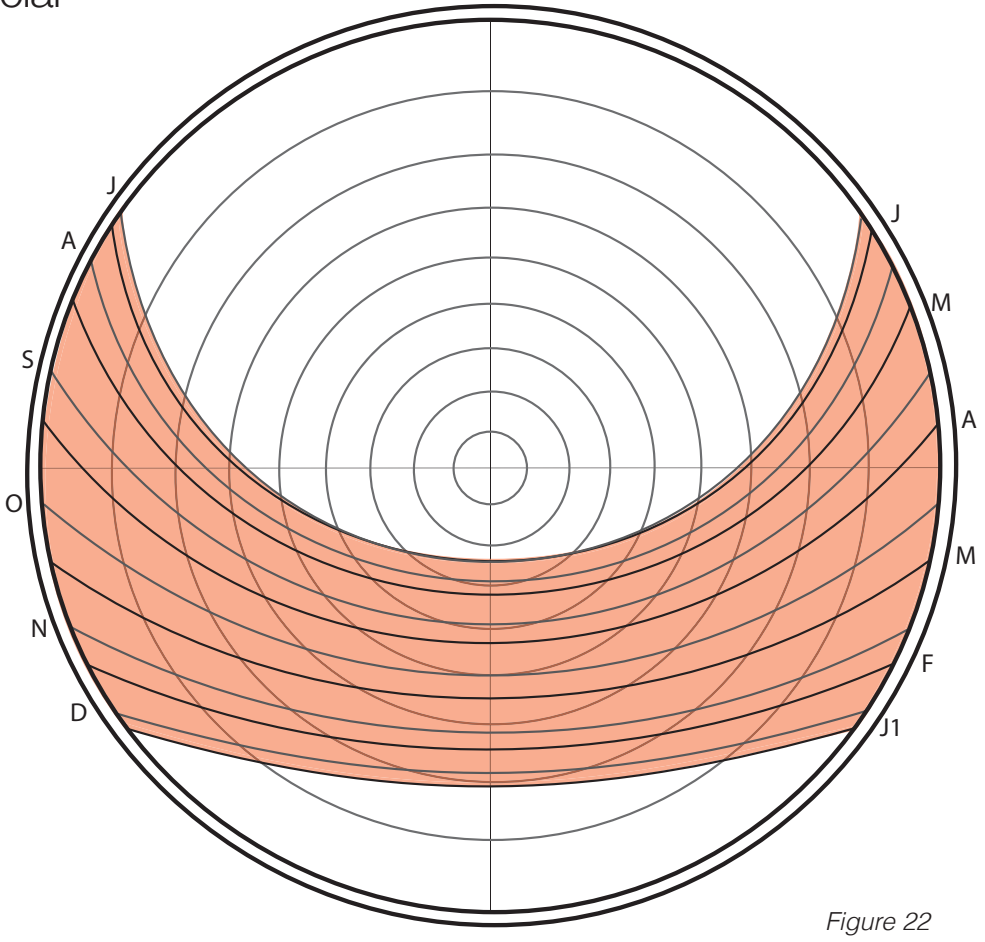
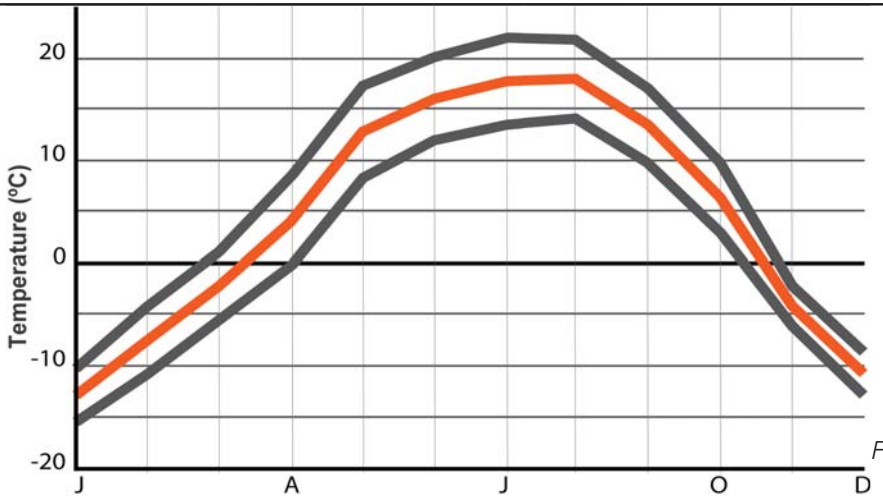


Figure 22



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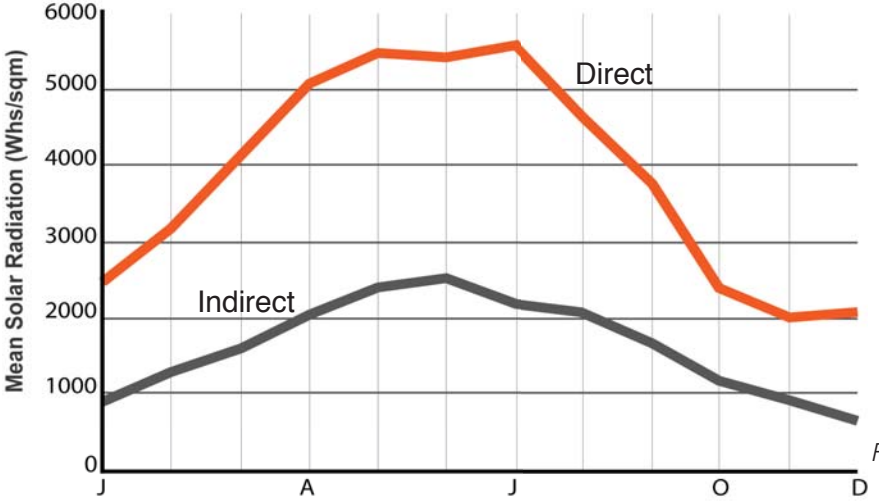


Figure 24

Climate Analysis

Wind

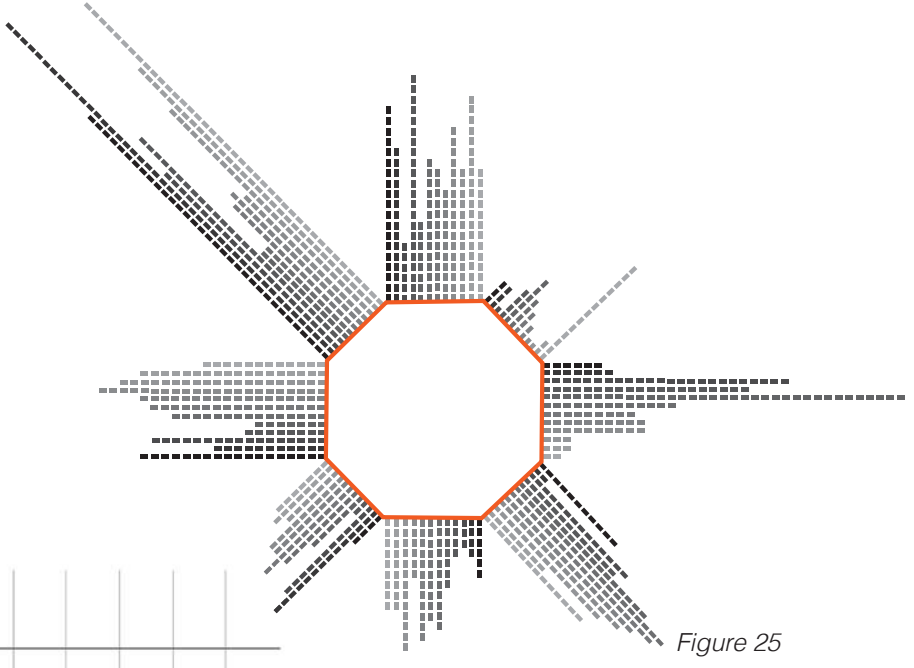


Figure 25

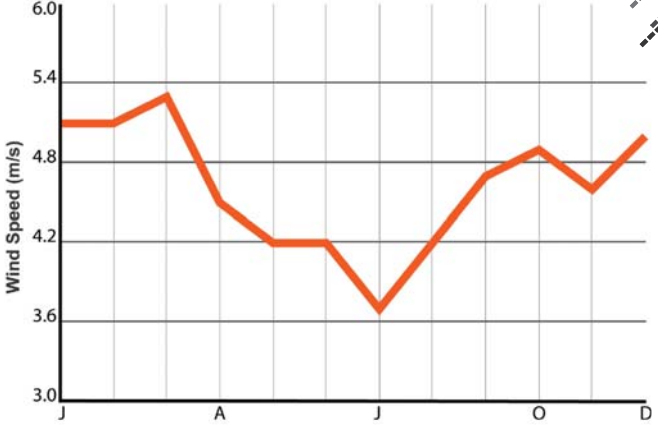


Figure 25

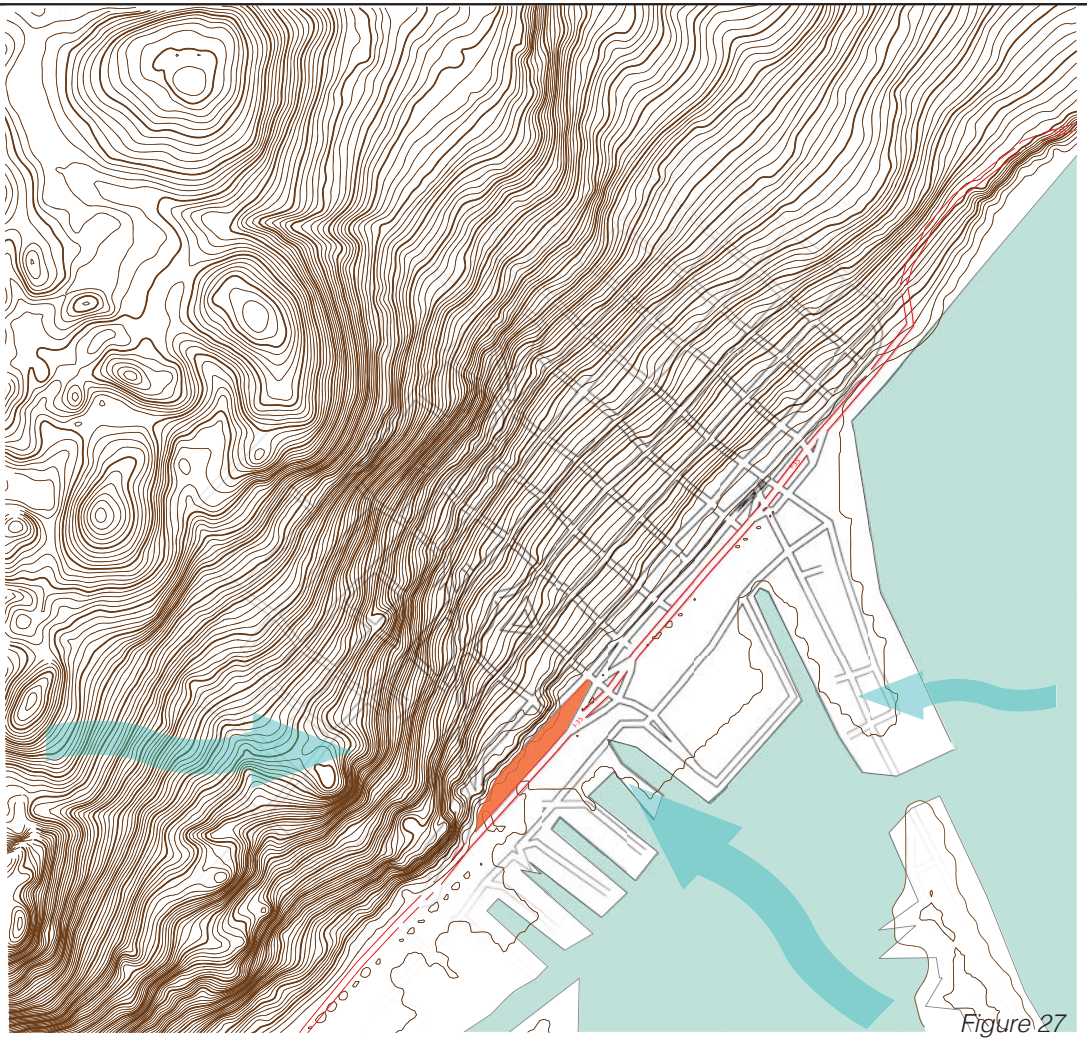


Figure 27

Climate Analysis

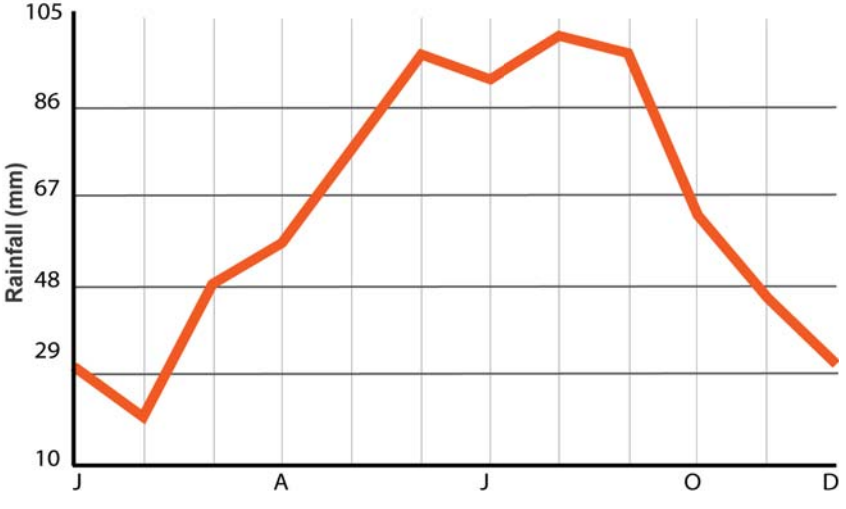


Figure 28

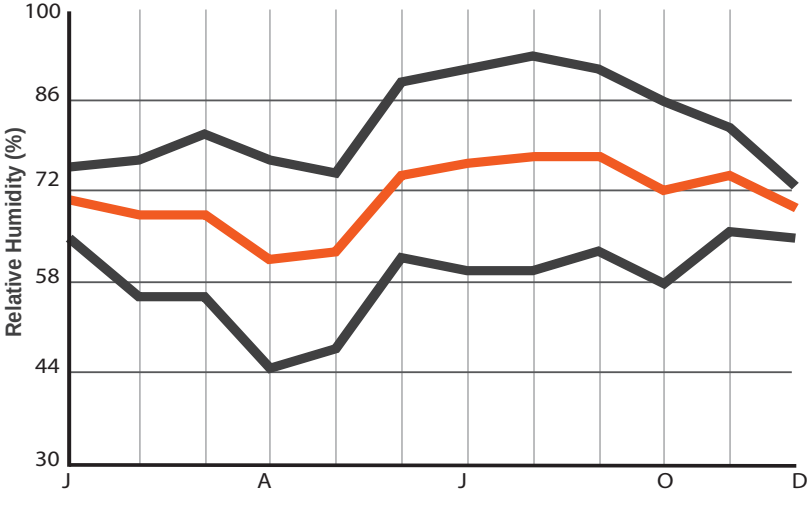


Figure 29

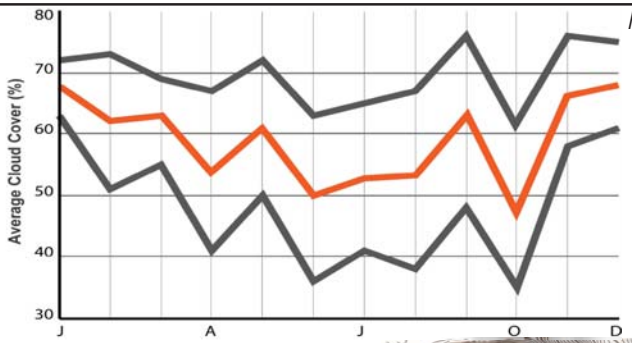
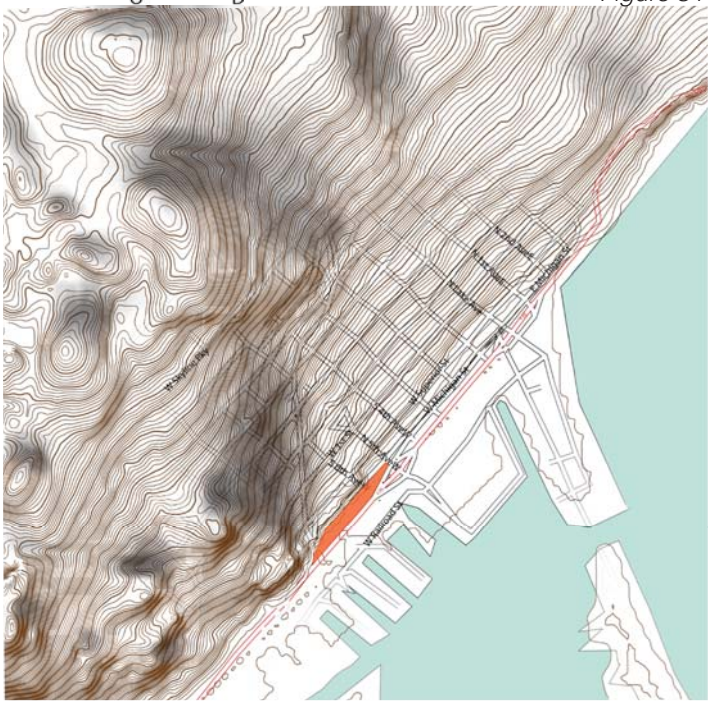


Figure 30

Figure 31



Shading Analysis

Due to the angle of the hill Duluth rests upon the city is bathed in light a majority of the day as there are not many shadows cast by the land mass until towards the evening.

Climate Analysis

Noise

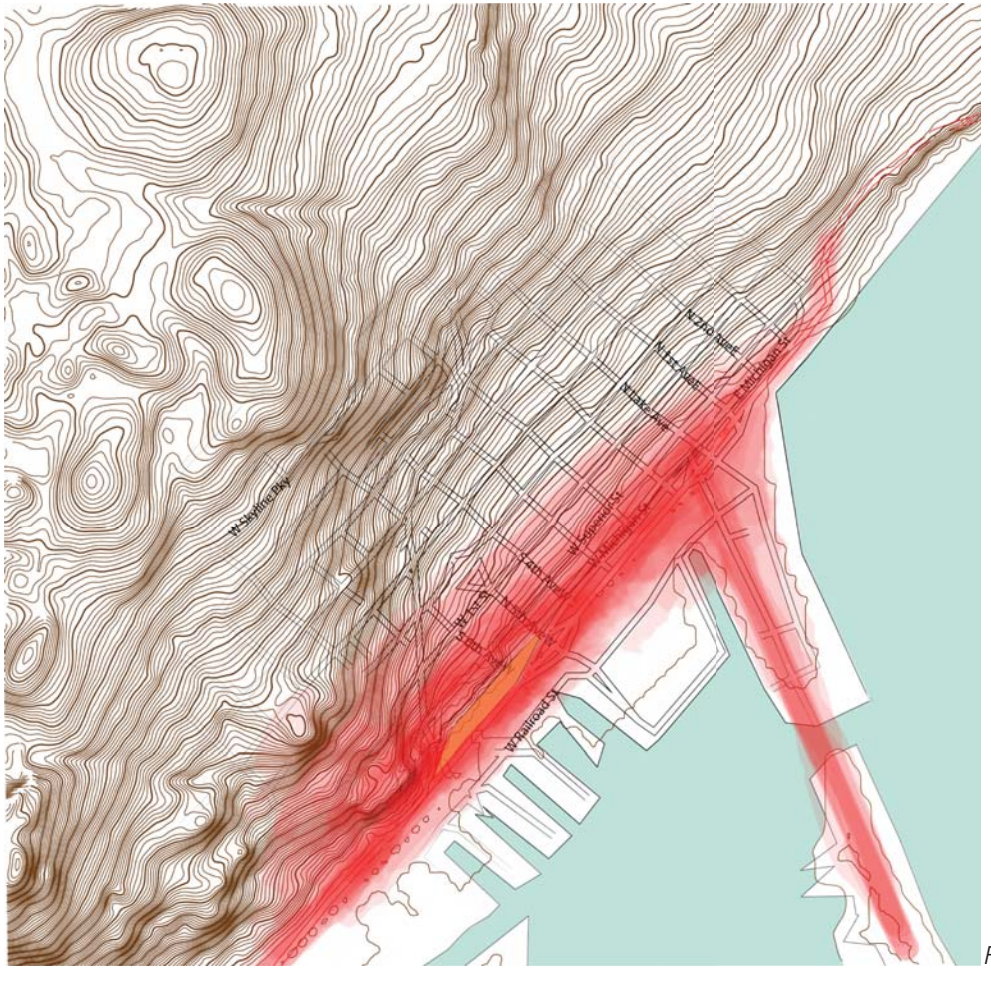


Figure 32

Space Allocation

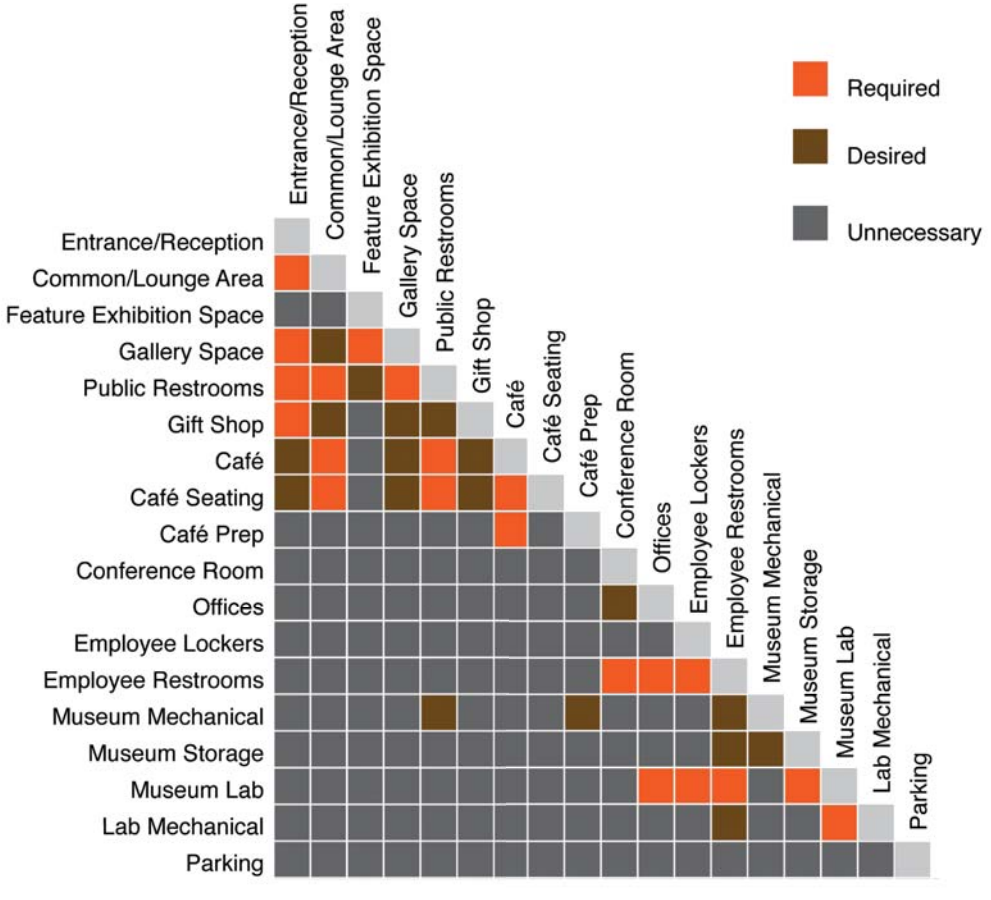


Figure 33

Programmatic Allocations	
Entrance/ Reception	380
Common/ Circulation Area	20,000
Feature Exhibition Space	11,000
Gallery Space	38,000
Auditorium	8,350
Public Restrooms	550 each
Gift Shop	500
Café	250
Café Seating	200
Café Prep	50
Conference Room	450 each
Offices	150 each
Employee Lockers	520
Employee Restrooms	240 each
Museum Mechanical	2,700
Museum Storage	5,450
Museum Lab	2,000
Lab Mechanical	570
Total Sq. Footage	----------

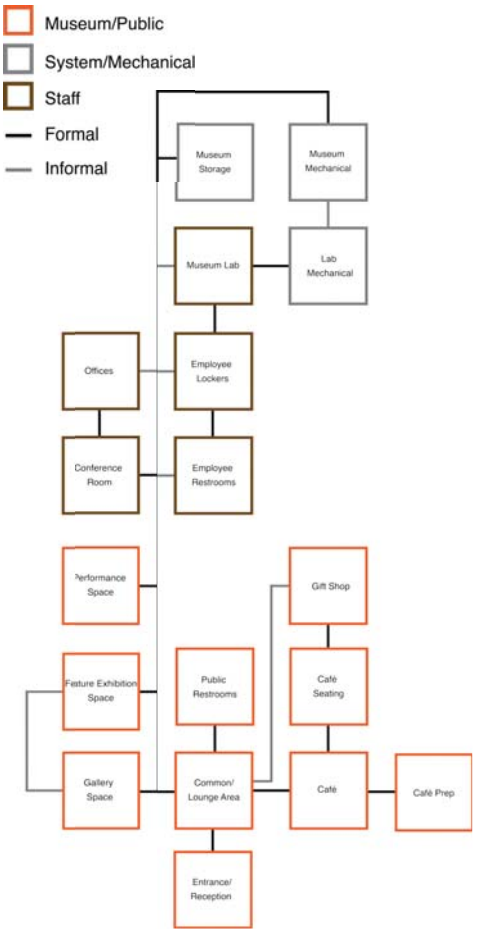
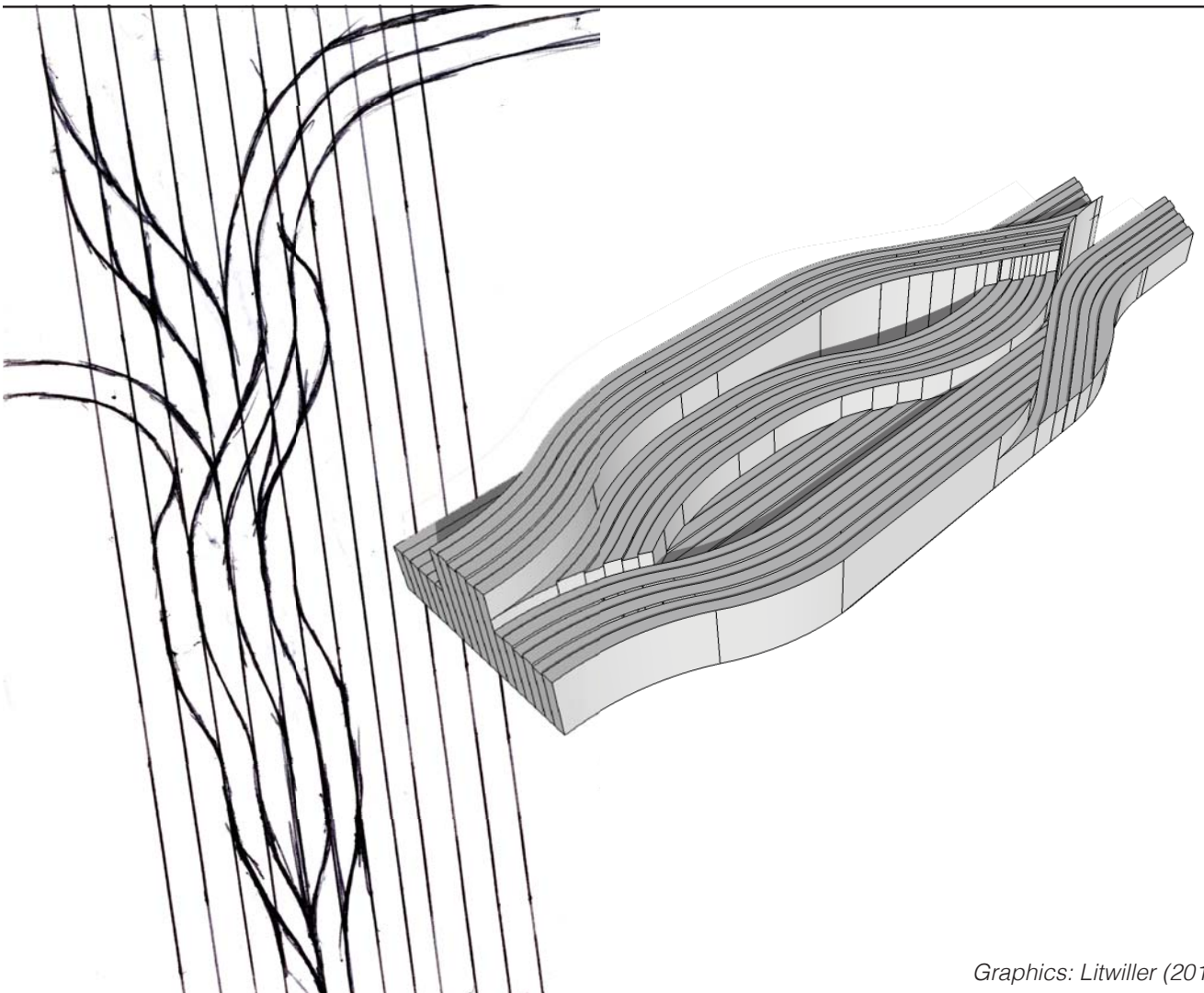


Figure 34

Design Process

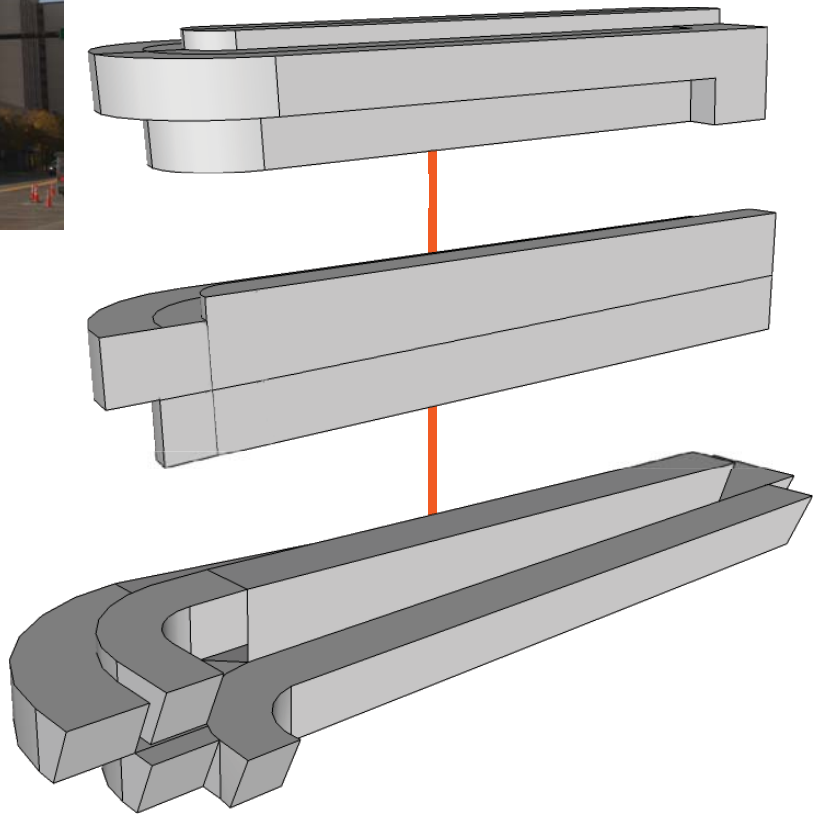
Figure 35



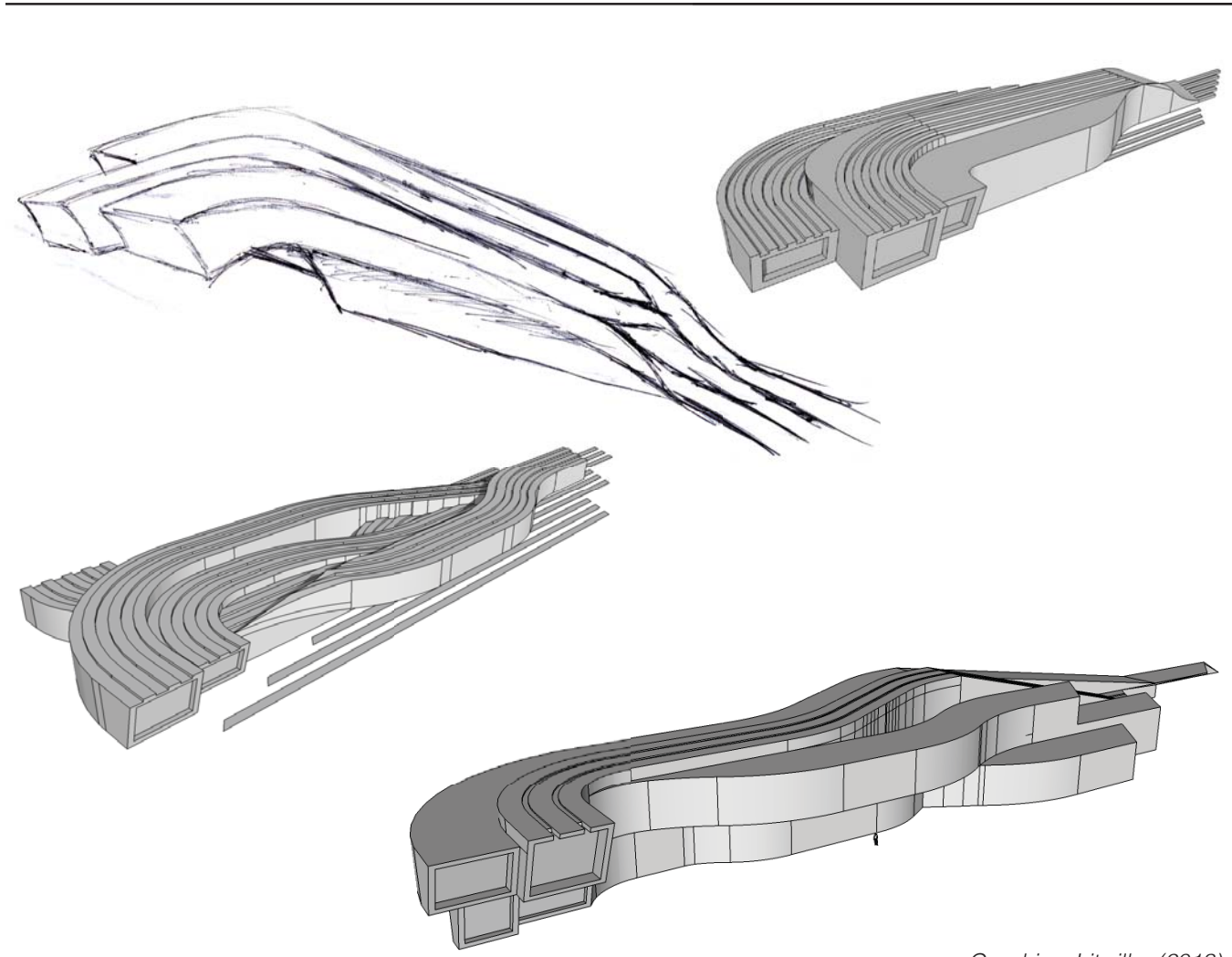
Graphics: Litwiller (2013)

Design Process

Deconstruction
of the Duluth Library

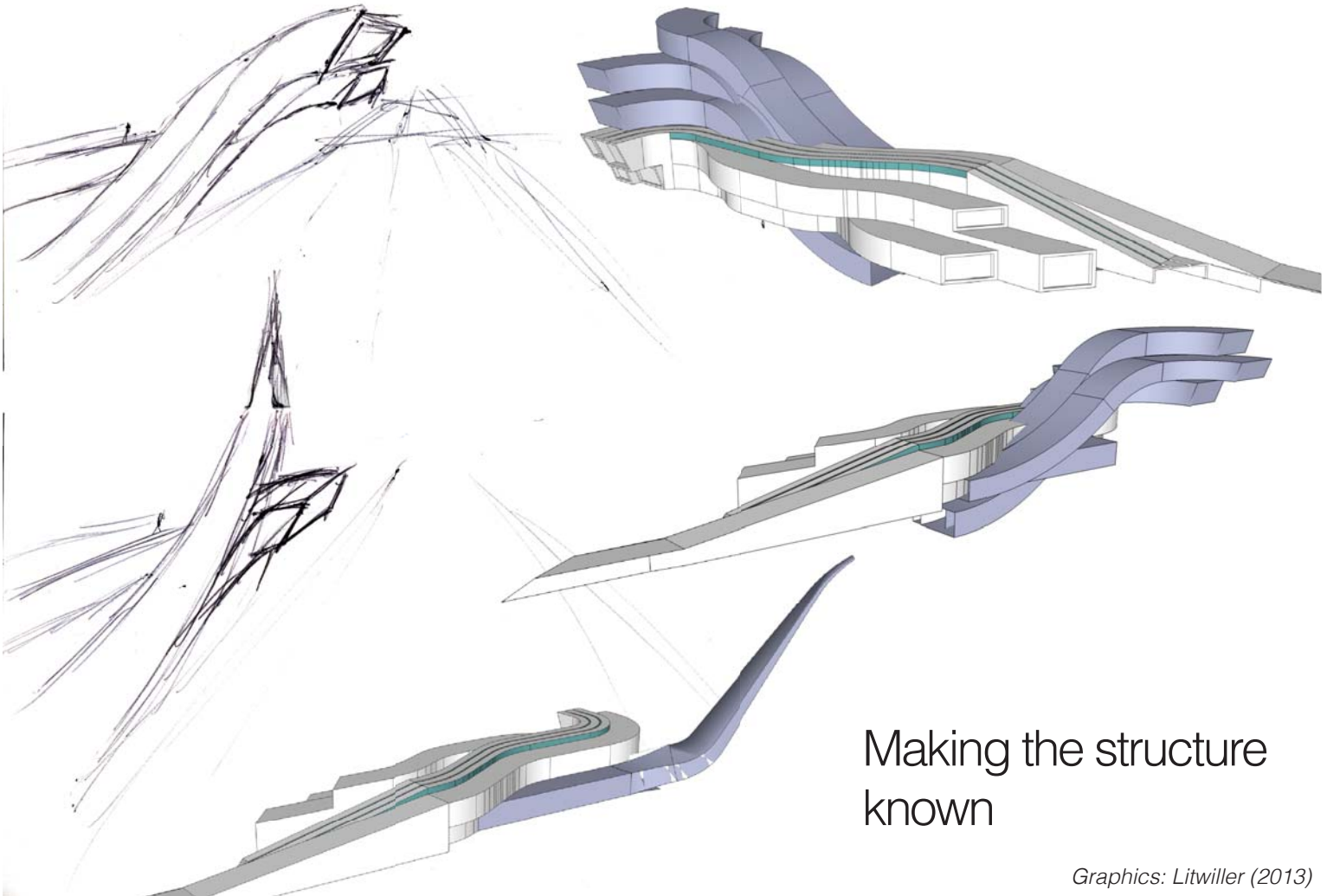


Graphics: Litwiller (2013)



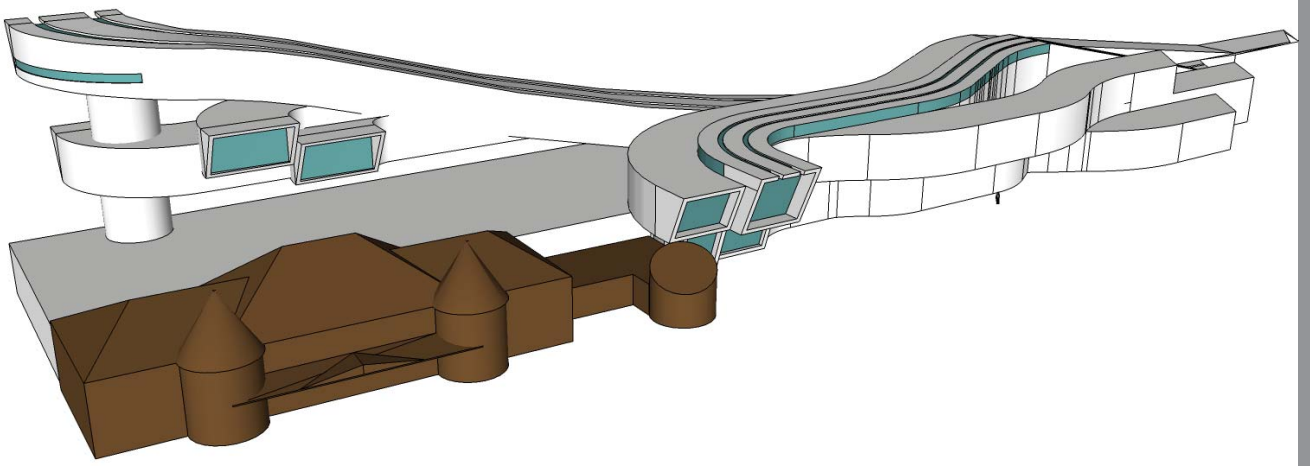
Graphics: Litwiller (2013)

Design Process



Making the structure known

Graphics: Litwiller (2013)



Graphics: Litwiller (2013)

Final Design

Influencing

Identity

Figure 36 (Edited with Photoshop)

The Objectives

Create an entrance to the city of Duluth

Bring more attention and tourism to the Depot

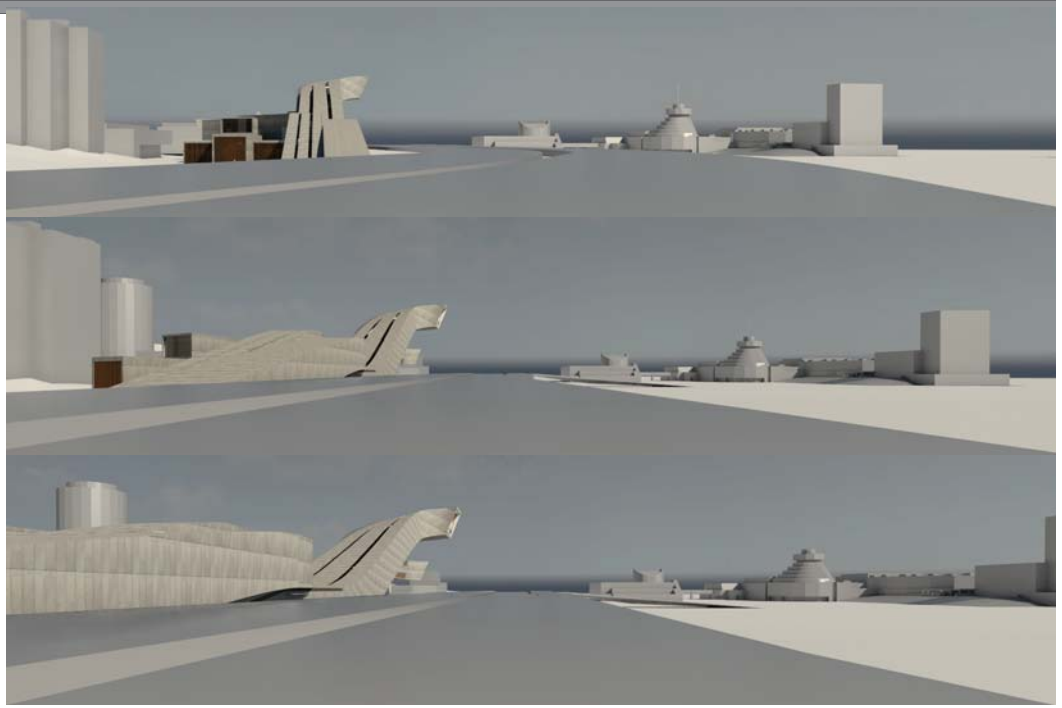
Preserve and acknowledge history of the city and structure

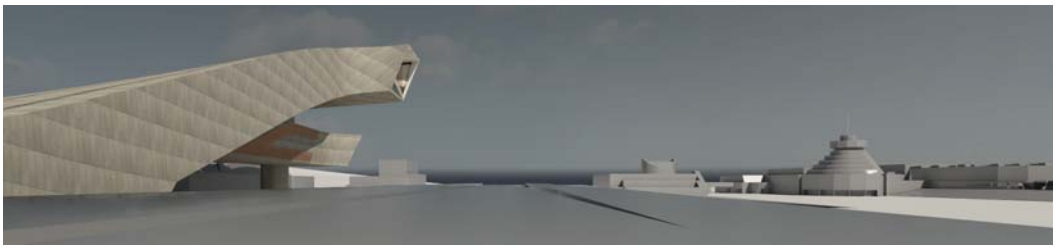
Add an additional aspect of tourism to the city

Arrival Sequence

Create an entrance to the city of Duluth

Bring more attention and tourism to the Depot





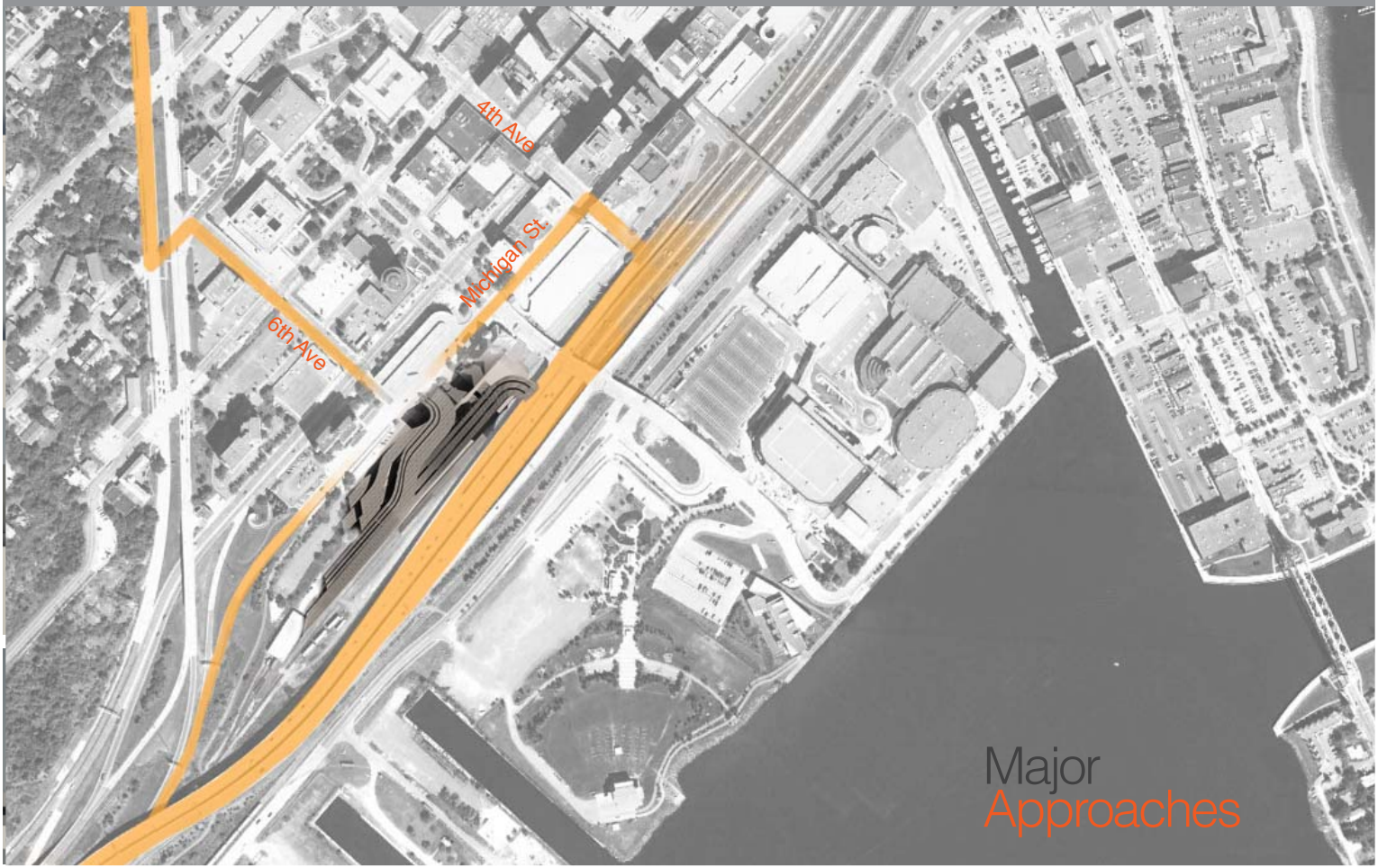


Figure 36 (Edited with Photoshop)

Major Approaches

Exiting I 35

Figure: 36 (Modified with Photoshop)
Graphic: Litwiller (2013)

Major Approaches

Michigan St. by foot

South from 6th Ave

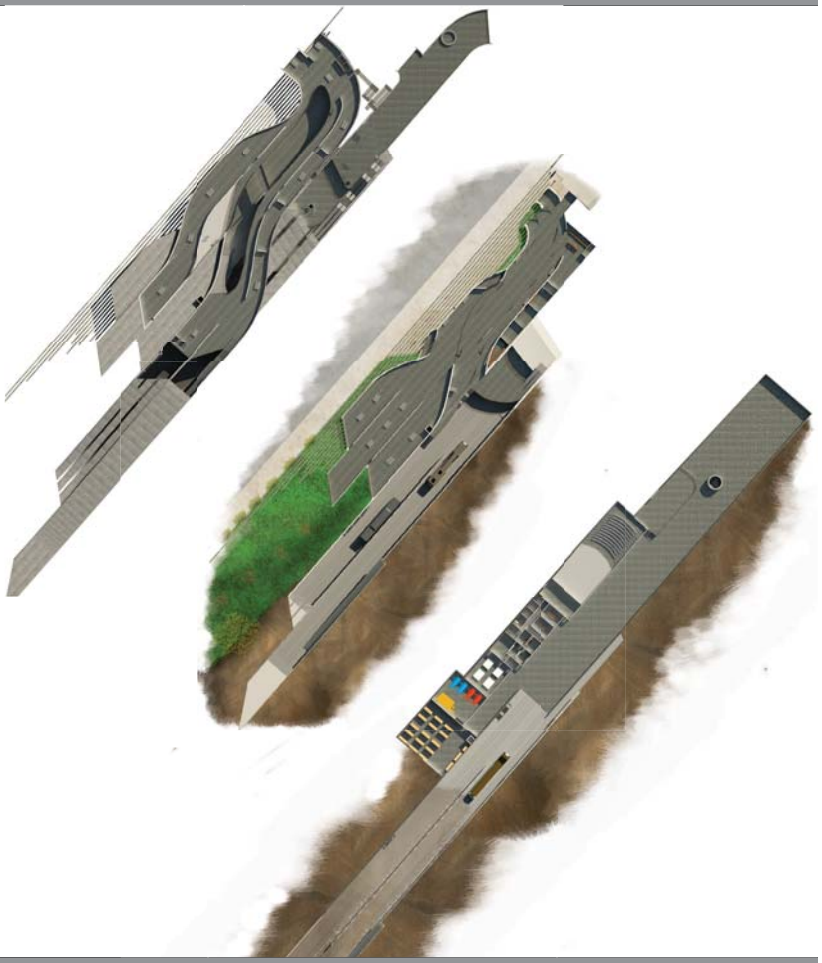
Figure: 36 (Modified with Photoshop)
Graphics: Litwiller (2013)

Figure: 36 (Modified with Photoshop)
Graphic: Litwiller (2013)

Figure: 36 (Modified with Photoshop)
Graphic: Litwiller (2013)

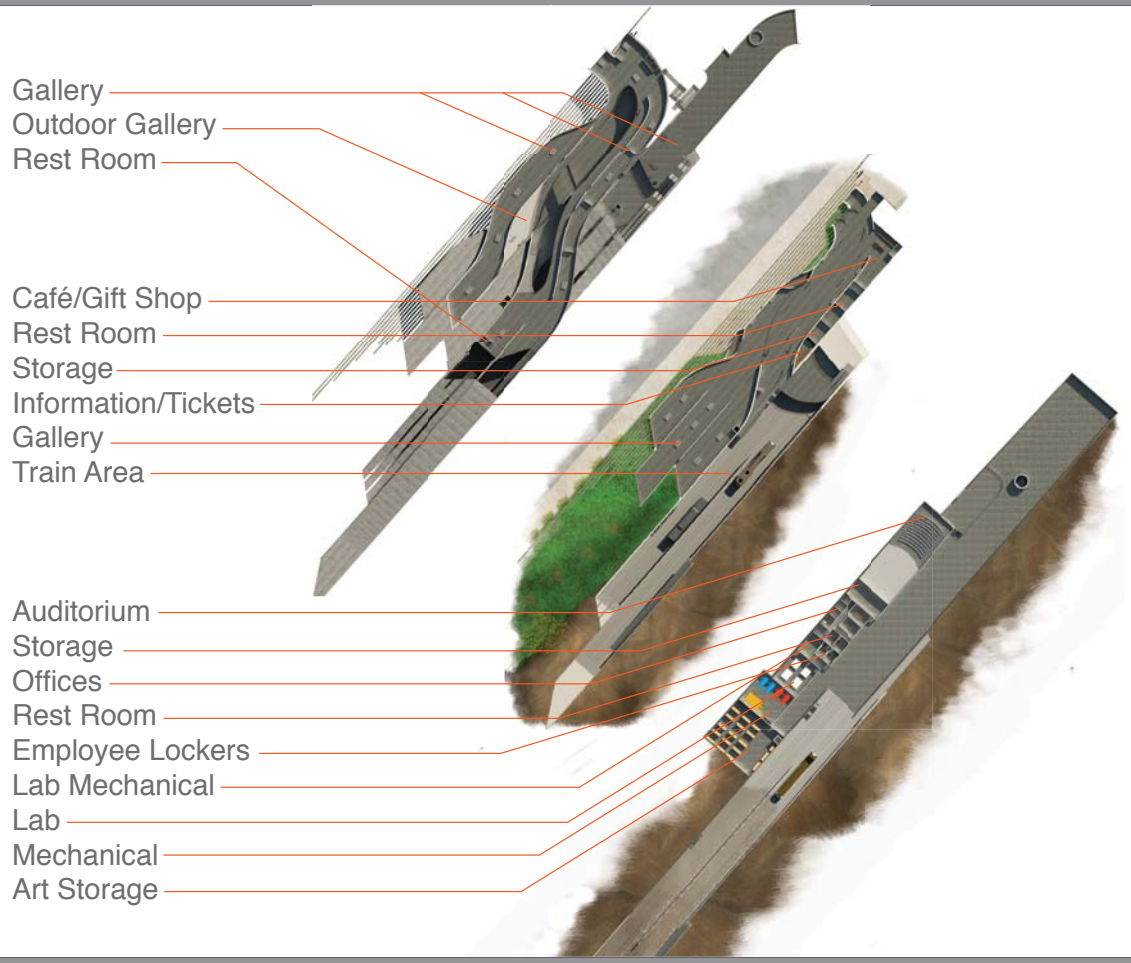
Floor Layout

Add an additional aspect of tourism to the city



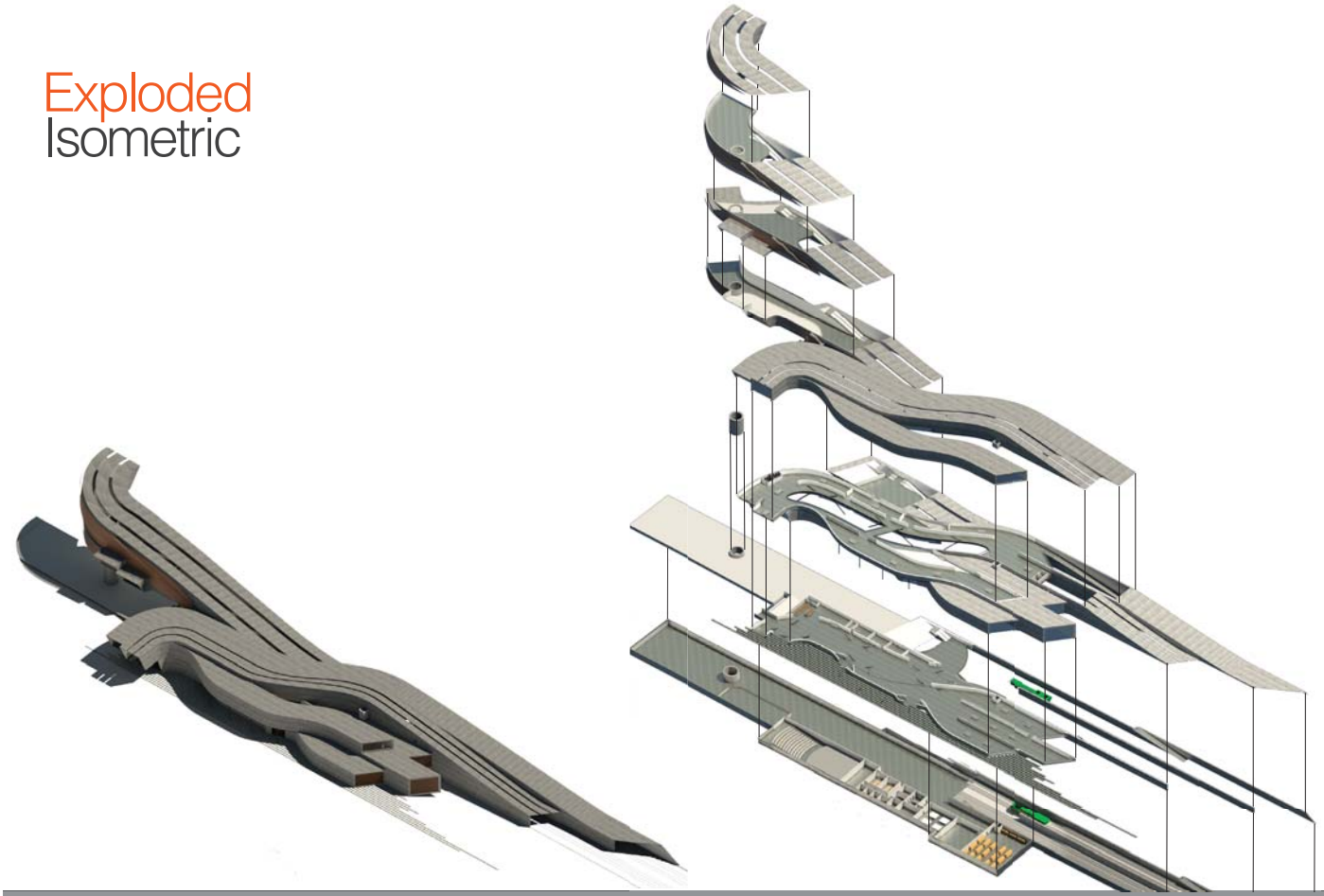
Graphics: Litwiller (2013)

Floor Layout



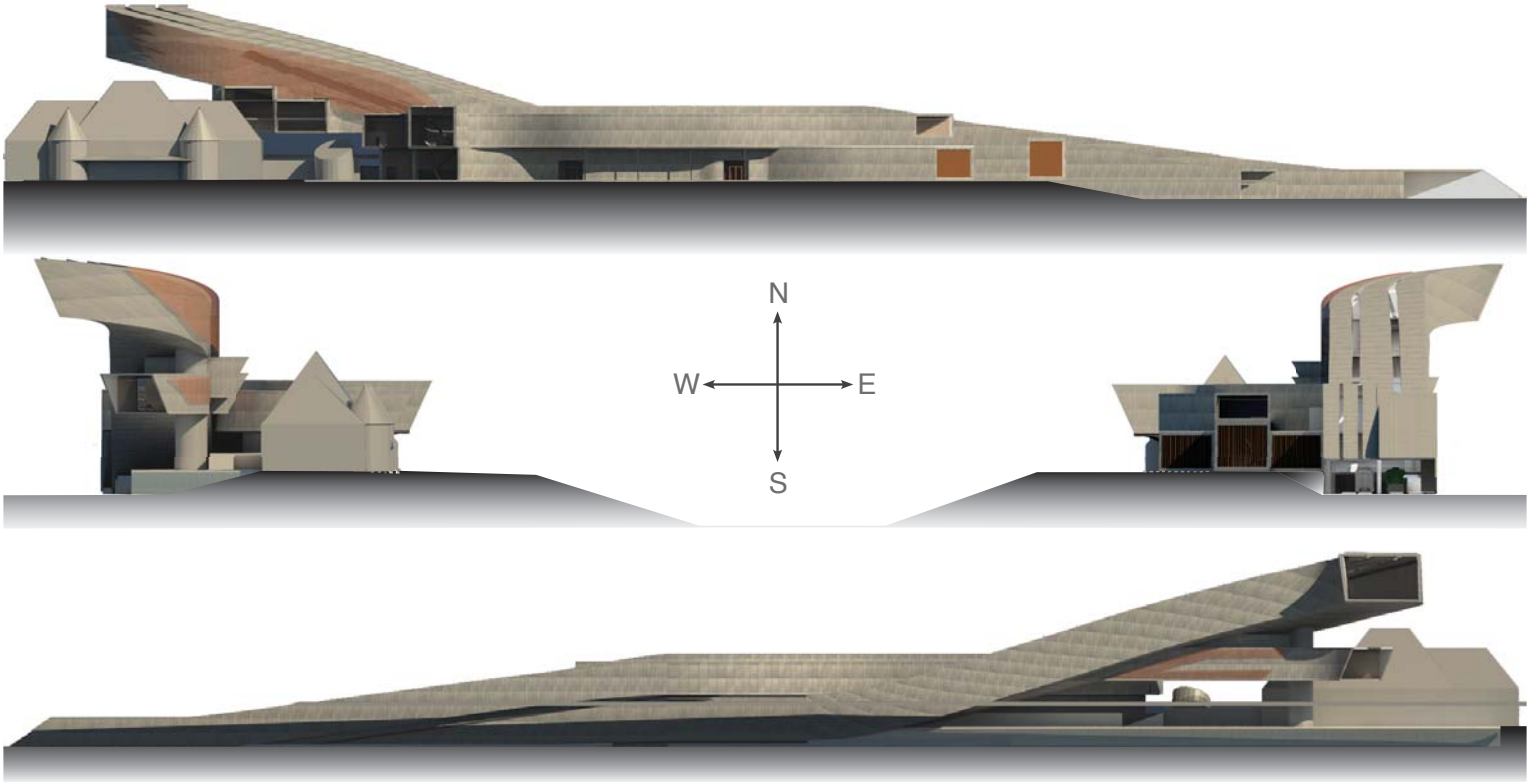
Graphics: Litwiller (2013)

Exploded Isometric



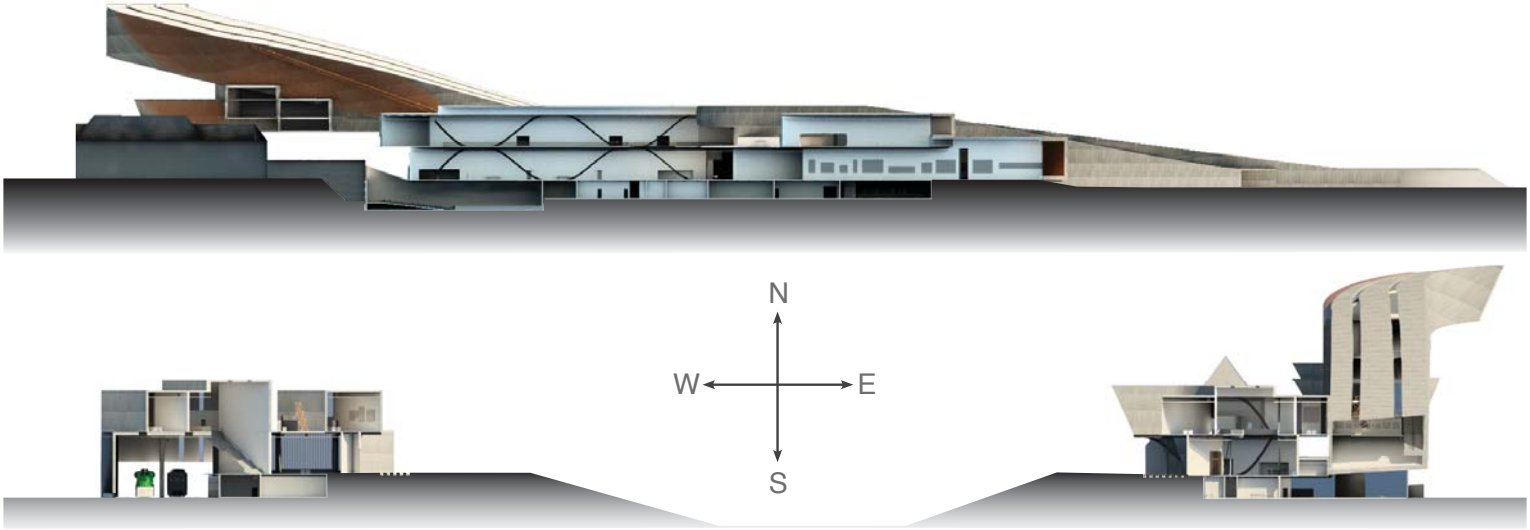
Graphics: Litwiller (2013)

Elevations



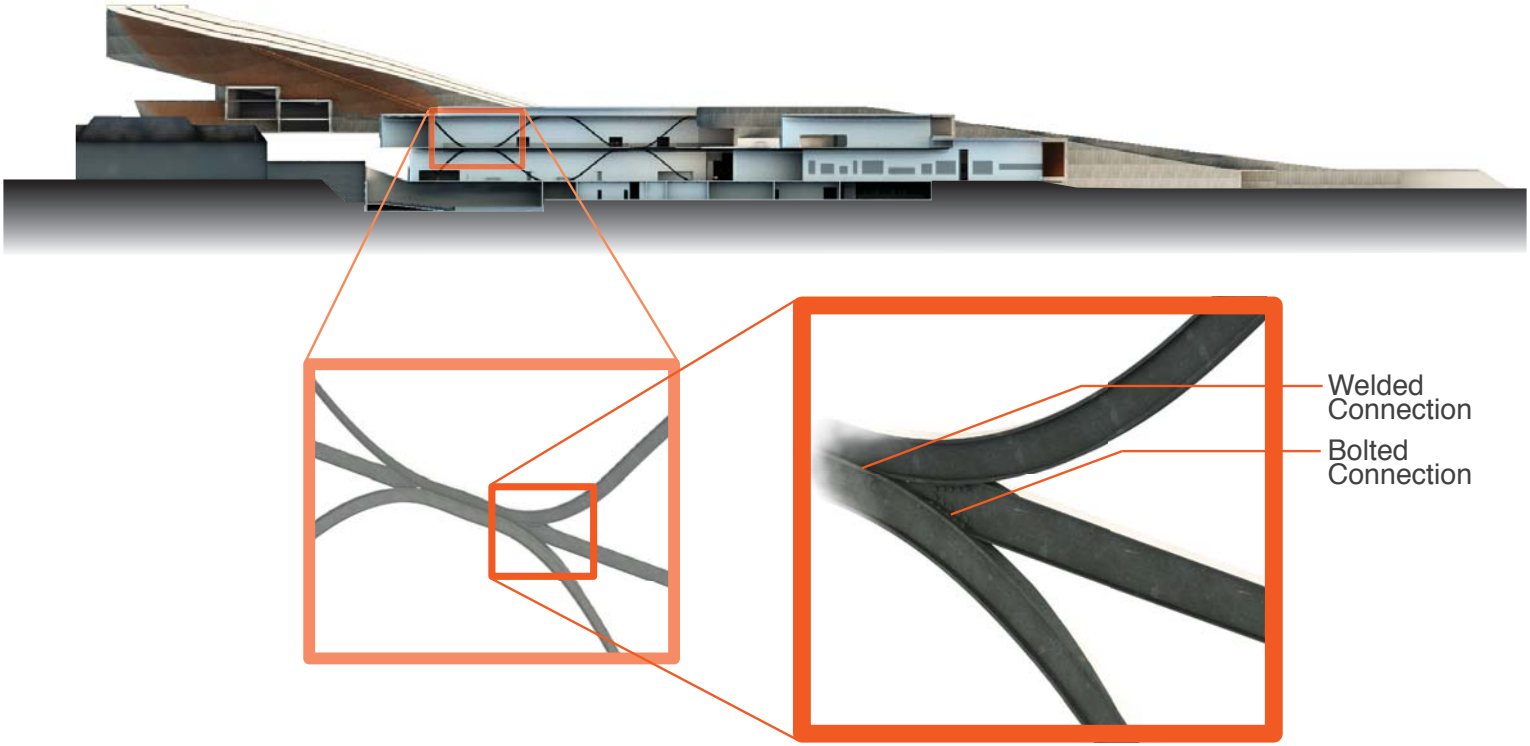
Graphics: Litwiller (2013)

Sections



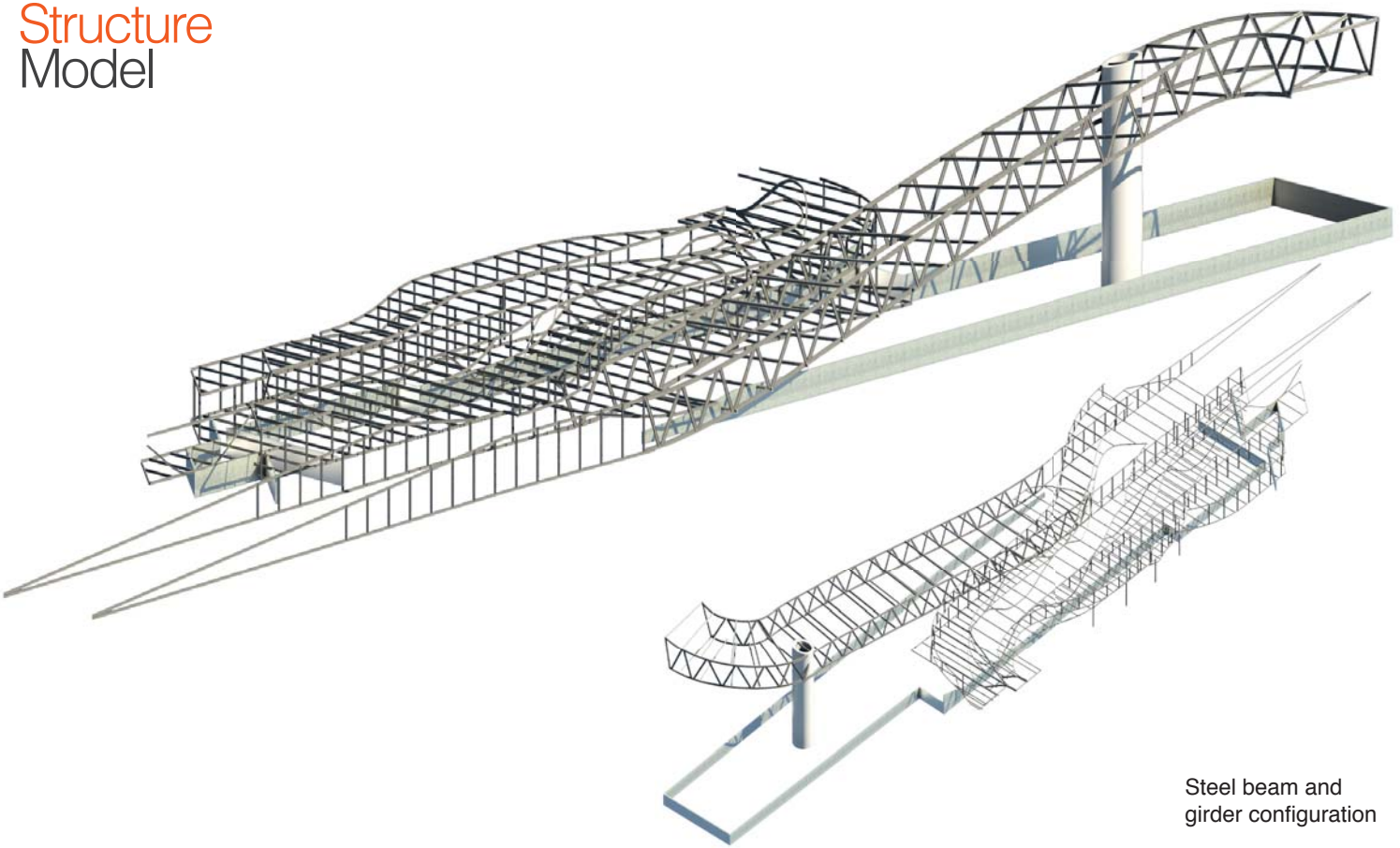
Graphics: Litwiller (2013)

Structure



Graphics: Litwiller (2013)

Structure
Model

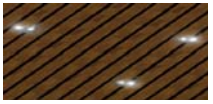


Steel beam and
girder configuration

Graphics: Litwiller (2013)

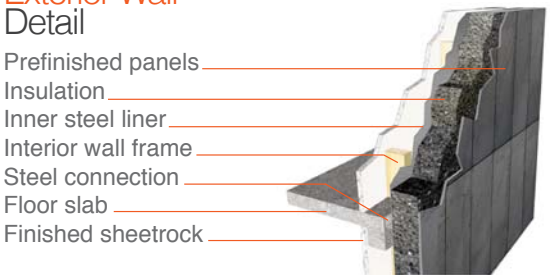
Systems

Lighting Details

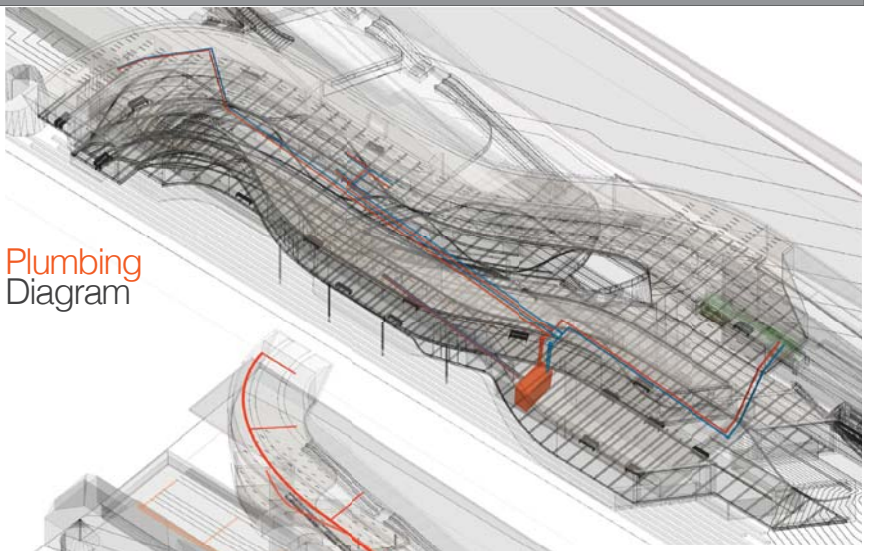


Various lighting arrangements fitting various needs of the museum.

Exterior Wall Detail

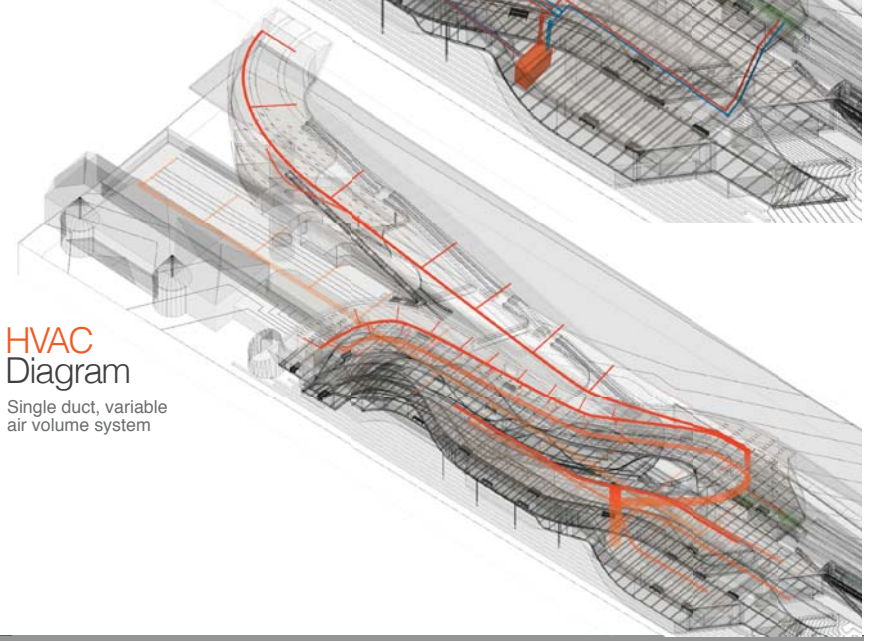


Plumbing Diagram



HVAC Diagram

Single duct, variable air volume system



Graphics: Litwiller (2013)

Material Palette

Curved I Beams

Copper Panelling

Metal Panelling

Cor-ten (Perforated)

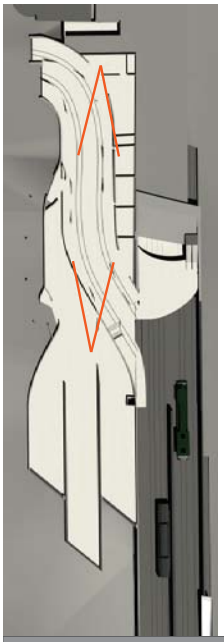
Pollished Concrete

Dark Oak

Photo courtesy of: albinapipebending.com

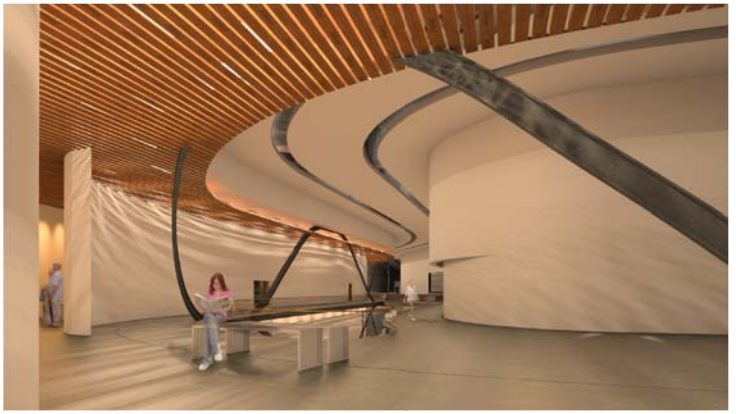
Graphic: Litwiller (2013)

1st Floor
Perspectives



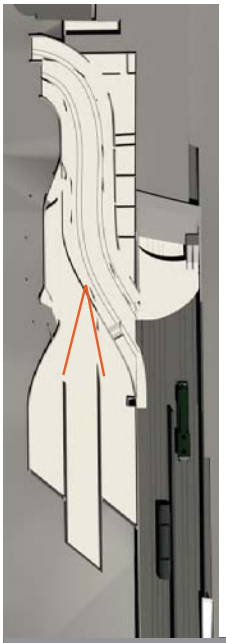
Graphics: Litwiller (2013)

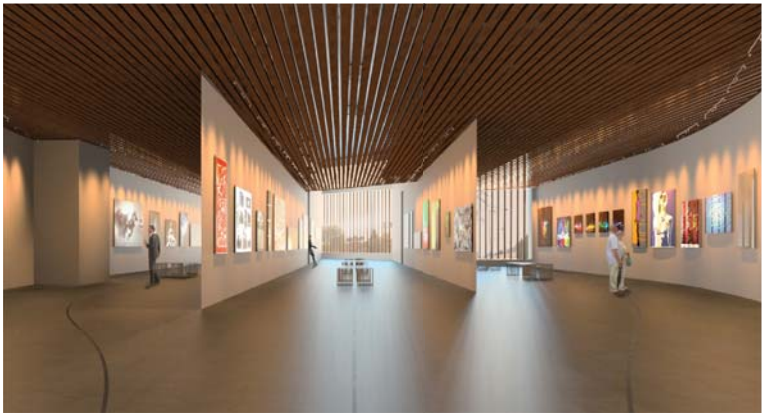
2nd Floor
Perspectives

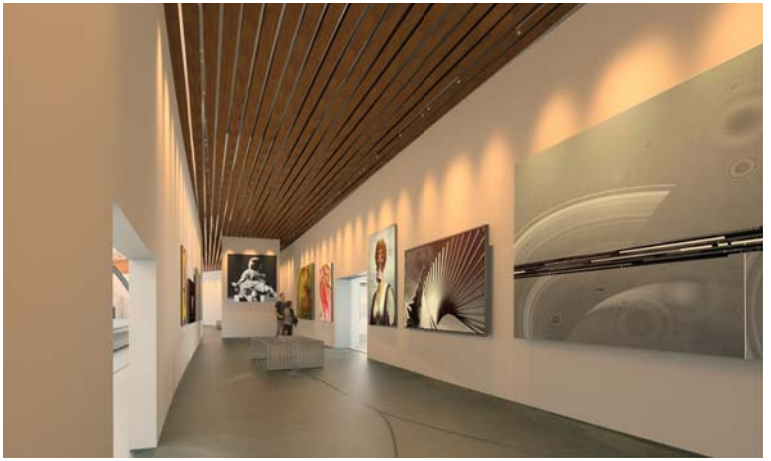


Graphics: Litwiller (2013)

Gallery Spaces

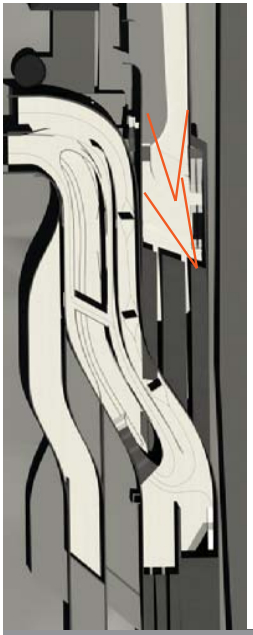






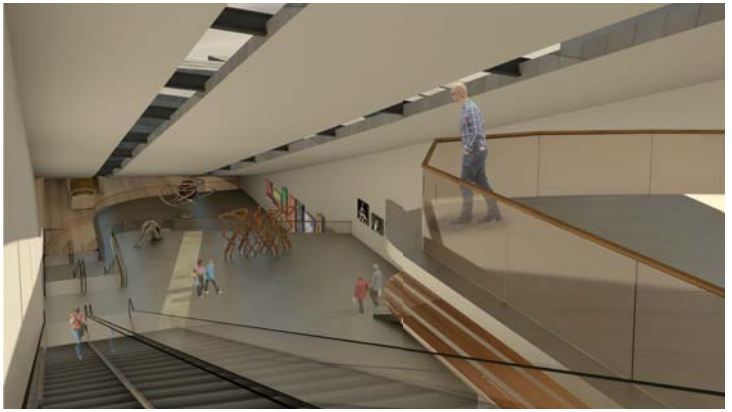
Graphics: Litwiller (2013)

Tower Galleries



Graphics: Litwiller (2013)

Tower Lookout



Graphics: Litwiller (2013)

Current Activity

Centralized around the Canal Park region

Figure 37 (Modified with Photoshop)

Anticipated Activity

Fill into the southern area of the downtown region

Figure 37 (Modified with Photoshop)

Future Activity

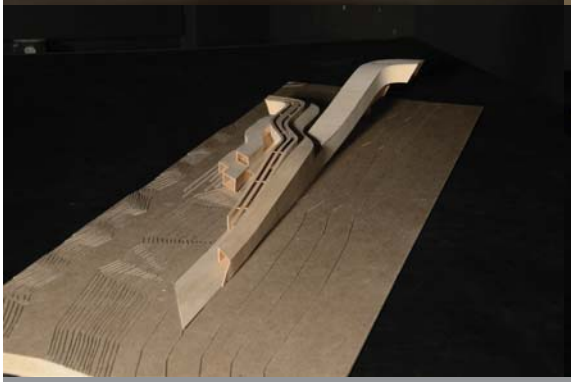
Spur developement throughout the downtown region

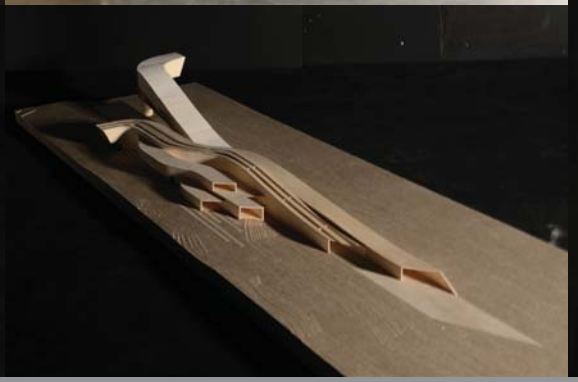
Figure 37 (Modified with Photoshop)

Photograph: Litwiller (2013)
Graphic: Litwiller (2013)

Project Installation

Model





Tables and Figures

Figure 9-9.9.....Libeskind, D. “Bitter Bredt” Photo. *archdaily.* 23 Nov. 2012.
http://www.archdaily.com/80309/denver-art-museum-daniel-libeskind/

Figure 10-13.....Juniper Gallery. “Duluth.” Photo. *Junipergallery.* 4 Dec. 2012.
http://www.junipergallery.com/taxonomy/term/133

Figure 14-16.....USGS Maps. “St. Louis county.” *Topodepot.* 20 Nov. 2012.
http://www.topodepot.com/

Figure 17-21.....Google Maps. “Duluth.” Photo. *Google.* 7 Dec. 2012.
http://maps.google.com

Figure 22.....Provided by Dr. Chitra Kabre

Figure 23-30.....Graphs generated from information recieved from http://www.energyplus.gov

Figure 31 & 32.....USGS Maps. “St. Louis county.” *Topodepot.* 20 Nov. 2012.
http://www.topodepot.com/

Figure 33 & 34.....Litwiller (2012)

Figure 35.....Pfaffenbach, Kai. “Train tracks glisten in teh afternoon.” Photo. *NBC News.* 14 Jan. 2013.
http://photoblog.nbcnews.com/_news/2012/01/31/10281732-train-tracks-glisten

Figure 36.....Google Maps. “Duluth.” Photo. *Google.* 22 Mar. 2013.
http://maps.google.com

Figure 37.....USGS Maps. “St. Louis county.” *Topodepot.* 20 Nov. 2012.
http://www.topodepot.com/

References

Plaza, Beatriz (2006). The Return on Investment of the Guggenheim Museum Bilbao.*International Journal of Urban and Regional Research, 30(2).* Retrieved from http://www.scholars-on-bilbao.info./fichas/BPlaza_ROI_Guggenheim_IJURR_2006.pdf

Naik, Pranav. (June 3, 2012). The Bilbao Effect. Musings on Architecture+Design.Retrieved from http://naikpranav.wordpress.com/2012/06/03/the-bilbao-effect/

Vicario, Lorenzo., Monje, Manuel. M. (2003). Another 'Guggenheim Effect'? The Generation of a Potentially Gentrifiable Neighborhood in Bilbao. Urban Studies, Vol. 40 (No. 12), 2383-2400.

Newhouse, Victoria. (1998). Towards a New Museum. New York: The Monacelli Press.

Meera Iyer (Aug 26, 2012). Questions of Urban Identity. Deccan Herald. Retrieved from http://www.deccanherald.com/content/274169/question-urban-identity.html

Carrie Antlfinger. (2007) Calatrava addition spurs Milwaukee Art Museum revival. USA Today. Retrieved from http://usatoday30.usatoday.com/travel/news/2007-08-21-milwaukee-art- museum_N.htm?csp=34&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+UsatodaycomTravel-TopStories+(Travel+-+Top+Stories)

Duluth Area Chamber of Commerce. (2012). Duluth History. Retrieved from http://www.duluthchamber.com/visit/duluth-history.html

Greater Downtown Council. (2007). History of Duluth. Retrieved from http:// www.downtownduluth.com/history.htm

Baum, Arthur W. (1949, April 16). The Cities of America: Duluth. The Saturday Evening Post. Retrieved from http://web.ebscohost.com/ehost/detail?sid=7cd3a3f0-302d-4465-8a52-0fd036ea8580%40sessionmgr12&vid=6&hid=18&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl#db=keh&AN=19849661

(2012). The Duluth Depot. Go Duluth MN. Retrieved from http://www.goduluthmn.com/duluth-depot.html

Lourenco, Marta C. (2002). A Contribution to the History of University Museums and Collections in Europe. International Council of Museums. Retrieved from http://publicus.culture.hu-berlin.de/umac/2002/lourenco.html

Lynch, Kevin. (1960). The Image of the City. Massachusetts Institute of Technology: MIT Press.

(2012). Museum History. The Museum of Modern Art. Retrieved from http://www.moma.org/about/history

Linder, Douglas O. (2006). Lake Superior Facts. Simply Superior: The World's Greatest Lake. Retrieved from: http://law2.umkc.edu/faculty/projects/ftrials/superior/superior.html

U.S. Census Bureau. (2011). City and Town Totals. Population Estimates. Retrieved from: http://www.census.gov/popest/data/cities/totals/2011/files/SUB-EST2011-IP.csv

Janson, Loren. (2010). 2010 Drinking Water Quality Report. *City of Duluth.* Retrieved from: http://www.epa.gov/safewater

USDA (2012). Web Soil Survey. *Natural Resources Conservation Service.* Retrieved from: http://websoilsurvey.nrcs.usde.gov/app/WebSoilSurvey.aspx

MAM (2012). Quadracci Pavilion. *Milwaukee Art Museum.* Retrieved from: http://mam.org/info/details/quadracci.php

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NDSU, influencing my identity.