VOCAIN STREET DAVID BOOTH

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VACANT MAIN STREET

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

By David Booth

In Partial Fulfillment of the Requirements for the Degree of

Master of Architecture

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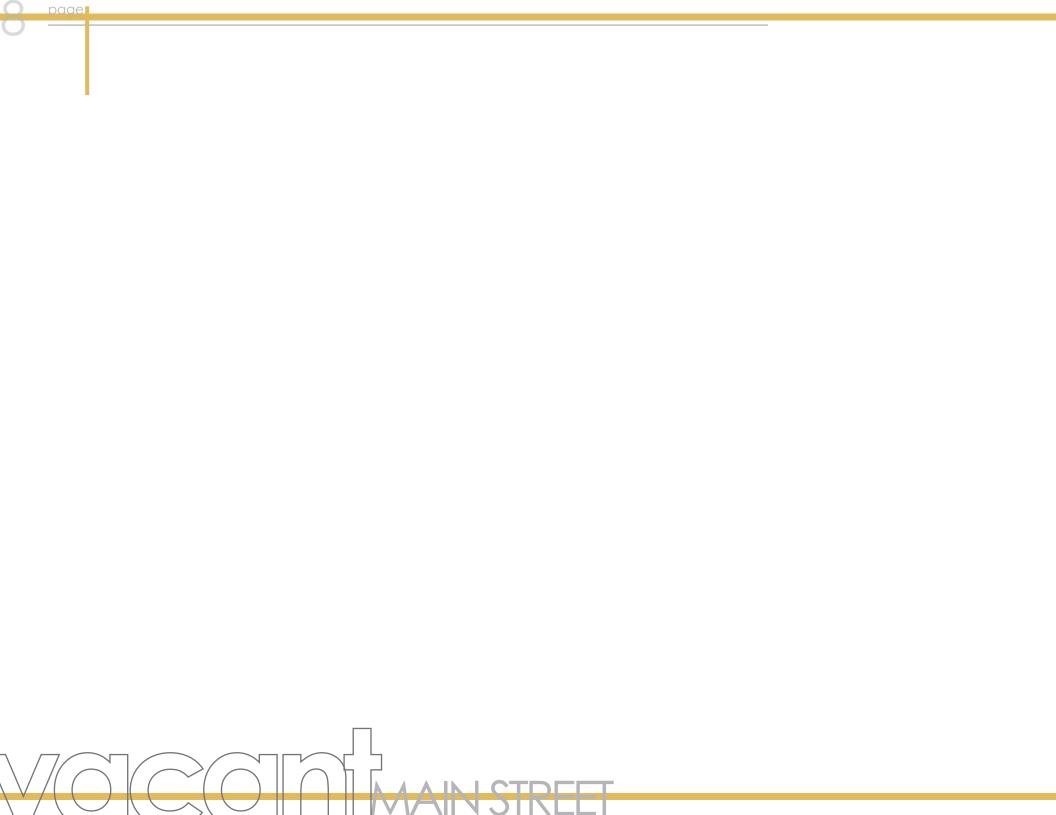
ABSTRACT-

This thesis, Vacant Main Street, will focus on a building's ability to affect its surrounding community. Can a building be the spark that revitalizes a dying Main Street? The Main Street of St. Croix Falls, WI is continually becoming more "vacant". The goal of this thesis is to provide that spark to the community and revive the area. In order to do so, the typology of the thesis - a theatre/local art museum - lends itself towards something that attracts people and pays respect to the history and uniqueness of the area. The unifying idea that guides this project is that one particular building can bring life to a struggling area. The Justification for this project is that if we do not do something to revitalize these dying main streets, like St. Croix Falls, then a portion of our past will be lost.

Keywords-Main Street, Theatre, Historical Relevance

-PROBLEM STATEMENT

Main streets in many small towns used to be vibrant places of both business and recreation. Sprawl to outlying areas has caused the traditional main street to become a lifeless entity of a city, with little function, and both social and economic disorder.



STATEMENT OF INTENT

TYPOLOGY-

Theatre/local art museum

CLAIM-

Revitalizing the downtown main street area of St. Croix Falls will make for a stronger, more cohesive community.

ACTORS-

The citizens and business owners of the St. Croix Falls area

ACTION-

The renovation/addition of a theatre

OBJECT-

Main street/downtown area of St. Croix Falls, WI

PREMISES-

ACTORS RELATION TO CLAIM-

The citizens and business owners of St. Croix Falls and the surrounding area will be attracted to a revitalized theatre in the downtown area.

ACTIONS RELATION TO THE CLAIM-

Through the renovation and addition to the St. Croix Falls theatre, the downtown area will become a stronger, more cohesive community.

OBJECTS RELATION TO THE CLAIM-

People will come from the surrounding areas to bring life back to the downtown area.

-THEORETICAL PREMISE/UNIFYING IDEA

One particular building can bring life to a struggling area, and attract the people that make it necessary to be a viable community. According to Ben Hillyer (2012), "one small building can make a positive difference on a street" (pg.1). The downtown area of St. Croix Falls, WI will be revitalized through renovation and addition of a downtown theatre. A theatre has the ability to attract people to a downtown area and reinforces the sense of community.

-PROJECT JUSTIFICATION

If we do not do something to revitalize these dying main streets, like St. Croix Falls, then a portion of our past will be lost. We will become a population of big box shoppers with no sense of historical context. We will lose what makes cities unique from one another and become a homogenous culture.

NARRATIVE-

The death of the American Main Street is cause for concern. With the loss of the vibrant Main Street, comes the loss of uniqueness amongst cultures. A homogenous culture is one without context. Context can be thought of in terms of architecture. According to Maria Lorena Lehman (2009, pg.1), "Within architectural space it is important to establish a sense of place. This is true not only for the architecture to be good but also for your experience within that space to be memorable". A sense of place is what this thesis will be enhancing for the city of St. Croix Falls, Wisconsin.

Architecture can provide context. It is important that Main Street has architecture that resonates with the sense of place. This sense of place along with the innate ability that architecture has to attract people, will work together to revitalize the struggling urban setting.

I find personal interest with both the particular site as well as the typology. A Theatre acts to bring people into the city, for a particular event. The attendance of an event at a theatre will encourage further exploration of the context in which the theatre is placed (the city). This relationship will be carefully examined and inform this thesis.

-USER CLIENT RELATION

-OWNER

The owner of the building is the Festival Theatre of St. Croix Falls, Wisconsin. The owner will oversee all operations including the scheduling and logistics of performances. There will be a museum curator that is responsible for overseeing the operations of the museum. The restaurant will be leased by a client and overseen by the leaser.

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USER GROUPS-

THEATREplaywright
director
cast
set designer
lighting designer
costume designer
sound designer
stage manager
production manager
composer
video designer

MUSEUMcurator collections management public educator exhibition designer

RESTAURANTowner manager chef support

-MAJOR PROJECT ELEMENTS

-THEATRE

The existing building will be repurposed as it has been multiple times in the past. A new theatre will be designed adjacent to the repurposed building.

-MUSEUM SPACE

The museum consists of galleries that enhance the progression through multiple spaces.

-RESTAURANT

The restaurant will serve the attendants of the theatre and the museum. The food will be of either local origin or have a significance with the particular theatrical performance.

-PUBLIC GATHERING

The public gathering space is an important part of the program. Plaza space will be utilized for street fairs and markets held in St. Croix Falls.

SITE INFORMATION-

REGION-

The site is located in centeral-western Wisconsin. The St. Croix River cuts through the region to form the St. Croix River Valley. The river is the most evident natural influence on the particular site as well as the region as a whole. The St. Croix River Valley is home to six state parks, and over 50 public and privately owned parks and preserves. (St. Croix Valley Regional Tourism Alliance, 2012)

CITY-

The city of St. Croix Falls is on the St. Croix River on the boarder of Minnesota and Wisconsin. The city lies within the river valley and is home to approximately 2,200 people. The surrounding parks have over 350,000 visitors each year (City of St. Croix Falls, Wisconsin, 2011).

SITE-

The site is located on the corner of N Washington Street and E Louisiana Street. The site is currently in a state of change. It was previously the location of both the historic festival theatre as well as the town movie theatre. On September 28, 2012 the movie theatre was torn down. This was to make room for an expansion to the Festival Theatre and room for expansion to the city.



figure 19.1.Map.Retrieved from google maps

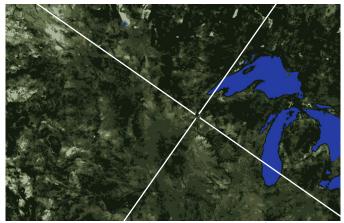


figure 19.2.Map.Retrieved from google maps



figure 19.3.Map.Retrieved from google maps



figure 19.4.Map.Retrieved from google maps







David Booth photo - Taylors Falls Overlook towards St. Croix Falls





MN Overlook East







MN Overlook North up river





Washington Street



Washington Street - North End



Washington Street







David Booth photo - St. Croix Falls Overlook - View from site





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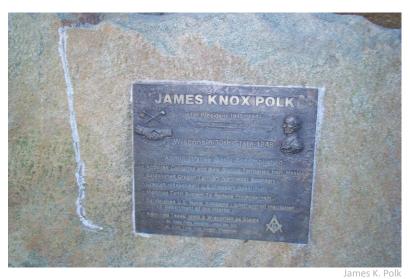
THE OVERLOOK, ST. CROIX FALLS, WI







Nevers Dam - 2





Wheel - Site History

FALLS 5 MOVIE Theatre DEMO





Falls Five Movie Theater Demo - 2



Falls Five Movie Theater Demo - 3



Site Before Movie Theater Demo



Festival Theatre Site



Festival Theatre - South Elevation





Festival Theatre Back Entry



Festival Theatre Int. Level 2



Festival Theatre Int - Stage - 1



figure 33.3. Festival Theatre Int - Theatre



Festival Theatre Int Stage - 2

PROJECT EMPHASIS-

This thesis will explore the idea that through the addition and adaptation of one building, a community's main street can be revitalized.

-A PLAN FOR PROCEEDING

-RESEARCH DIRECTION

The research that will be done for this thesis will be executed through the exploration of my theoretical premise/unifying idea. The development of thorough case studies will guide the design process. The study of the history of theatre will give the thesis context.

-DESIGN METHODOLOGY

The direction of research is the overall point of study. The methodology will be the focusing of that direction to build a substantial context that will facilitate a meaningful design.

Through facts and figures, the development of a quantitative context for the design will be made. Interviews and observations will build an insight that is the qualitative context.

Documentation of both crucial checkpoints and more subtle turning points throughout research and the design process will allow an onlooker to see the progression involved in researching and designing this thesis.

SPRING SEMESTER WORK PLAN/SCHEDULE

project documentation	01.08.13 - 05.10.13	123 days	
context analysis	01.08.13 - 01.15.13	8 days	
conceptual analysis	01.08.13 - 01.20.13	12 days	
ecs passive analysis	01.21.13 - 01.25.13	5 days	
ecs active analysis	01.26.13 - 01.30.13	5 days	
structural development	01.28.13 - 02.08.13	12 days	
context redevelopment	02.09.13 - 02.12.13	4 days	
floor plan development	02.10.13 - 02.17.13	7 days	
envelope development	02.10.13 - 02.20.13	10 days	
materials development	02.17.13 - 02.23.13	6 days	
structural redevelopment	02.24.13 - 03.01.13	6 days	
section development	02.24.13 - 03.01.13	6 days	
midterm reviews	03.04.13 - 03.08.13	4 days	
project revisions	03.09.13 - 03.15.13	6 days	
graphic representation	03.11.13 - 04.15.13	36 days	
preparation for presentations	04.01.13 - 04.22.13	22 days	
presentation layout	04.08.13 - 04.15.13	8 days	
cd of boards to thesis advisor	04.15.13		
plotting and model building	04.08.13 - 04.19.13	12 days	
exhibits installed on 5th floor	04.22.13		
thesis exhibit	04.22.13 - 04.24.13	3 days	
final thesis reviews	04.25.13 - 05.02.13	8 days	
final thesis document due	05.10.13		
commencement	05.11.13		

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PREVIOUS STUDIO EXPERIENCE-

fall 2009 - darryl booker tea house boat house

spring 2010 - stephen wischer development of an artefact twin house fargo airport expansion

fall 2010 - cindy urness food co-op snow symposium wellness center

spring 2011- regin schwaen vurb - vertical urban design

fall 2011 - david crutchfield high rise - san fransisco kke

spring 2012 - paul gleye study abroad program - lille, france river enhancement lille corridor - urban design

fall 2012 - regin schaen nd museum of art expansion





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PROGRAM

Theoretical Premise/Unifying Idea:

One particular building can bring life to a struggling area, and attract the people that make it necessary to be a viable community. According to Ben Hillyer (2012), "one small building can make a positive difference on a street" (pg.1). The downtown area of St. Croix Falls, WI will be revitalized through renovation and addition of a downtown theatre. A theatre has the ability to attract people to a downtown area and reinforces the sense of community.

Introduction:

This research report will investigate the different topics that will assist the design of this thesis project. The first topic that will be reviewed is the typology itself. Then next aspect is of philosophical and phenomenological basis. The last aspect deals with acoustic issues that inform theatre design.

Typology: theatre

The idea of a theatre is grounded in the act of sharing stories. Theatre has the unique ability to teach lessons through the actions of others. Through theatre we are able to place ourselves in another's perspective, and it shapes the way we decide to go through life afterwards. The scale of the audience is the difference between a theatre of two and a theatre of two hundred.

The space for theatre to take place is also largely dependent on the scale of the audience. The formal typology of a theatre consists of a space that facilitates this exchange of experiences.

According to Theatre Projects Consultants;

A theatre is not simply a space for looking at or listening to a performance. A successful theatre for live performance supports the emotional exchange between the performer and the audience, and between members of the audience. (Theatre Project Consultants, 2012, pg. 1)

This "emotional exchange" is an of theatre. essential aspect to the quality of a theatre. The theatre should facilitate this exchange seamlessly. Looking at the idea that theatre takes place when there is an exchange of learned experiences, we see that theatre takes place in every space around us. From the coffee shop to the bus stop, we have a theatrical experience through the simple yet complex act of communicating. While continuing to realize that theatre surrounds us in our day to day lives, I will focus on the typological truth of a specifically designed space for such actions to occur. It is a space that is set apart from the every-day theatre. A space that is pure in nature and clear from the distractions in every-day life that encumber our ability to facilitate a pure "exchange". Looking closer at the exchange, it is apparent that a theatre space must be type specific.

The basics of theatre include two things; a space for the spectators, and a space for the performers. As mentioned earlier, it is the bridge that is created between the two that becomes the key element of theatre. According to Porter Woods in Experiencing Theatre, "The audience needs to see and hear the performers, and the performers need the immediacy of their spectators", (Woods, 1992, pg. 23) All of the logistical spaces are important, but they are not the key elements in the success of the architecture to facilitate the audience as well as the performers.

There are many different types of theatre. From Black Box Theatre to a Proscenium Theatre, each serves the "exchange" in a different manner. Starting with the Arena theatre, we have a central stage with an audience that completely surrounds the performance. According to John Russell Brown in his book What is Theatre;

An upstage, central position, from which an actor on a thrust stage can dominate the whole theatre without moving, does not exist here; even the protagonist at the end of a tragedy must move around to address all parts of the audience. In effect, this theatre tends to cut every performer down to the same potential effectiveness and to make all places

RESEARCH REPORT-

on the stage of equal importance; it requires actors to maintain continuous movement throughout much of their performance, (Brown, 1995, pg. 56).

This leads me to believe that the arena stage, while it offers a level of intimacy, also has its disadvantages in terms of the effectiveness that the actors can portray their message to the whole audience in a particular way.

The Thrust Stage similarly to the Arena Stage, consists of the stage and the audience occupying the same architectural space. Although in this layout the stage protrudes out into the audience providing stage that has viewers on three sides. One advantage that the thrust stage has over the Arena Stage is that it offers a place for background scenery. The ability that the thrust stage has to provide more context to the performance may offer a more clear "exchange" among the theatrical experience.

The End Stage Theatre takes it one step further and provides only one

viewing direction for the audience. This allows the performers to be more particular about what the audience sees and when they see it. One disadvantage to this is that as the audience size grows, the distance that the back row is from the stage can become an issue.

A Black Box Theatre is a space that has little architectural character. It is a space that is to be filled, actors and audience, in the way that the director sees fit. According to John Ahart in A different Direction: 7 Possibilities for Saving the (Barely) Living Theatre,

There may be less conventional scenery required for a black box than we usually demand for proscenium stages, but to use the form well, we need an even better insight into design. (Ahart, 2010, pg. 120)

This speaks more to the responsibility of the theatre than the architect, but it is still important to understand that a Black Box Theatre must be designed in a way that not only

"customization", but **Philosophy**: allows this facilitates it.

The Proscenium Theatre has one major architectural difference than the previous mentioned layouts. There is an architectural separation between the audience and the performers. This separation is the done through what is called a proscenium wall. The Proscenium Theatre usually accommodates much larger audiences and has multiple levels of seating that are often in a radial pattern in relation to the stage.

The existing theatre is an end stage theatre with a temporary thrust stage, but there is only seating directly in front of the thrust. To be a true thrust it would need seating on three sides of the stage. Understanding the differences between the types of theatres, and the characteristics that each type has is crucial to making insightful design decisions.

The idea of theatre is one that is at the center of civilization. To get a better grasp upon what theatre actually is, we need to provide ourselves with a bridge, to look back at theatre at its origins, and to reinterpret that into today's context.

A tragedy, is thee imitation of an action that is serious and also, as having magnitude, complete in itself; in language with pleasurable accessories, each kind brought in separately in the parts of fear, wherewith to accomplish its catharsis of such emotions. (Aristotle -Gerould, 2003, pg. 49)

This quote from Aristotle's Poetics, is talking about the role that theatre plays in a society. Breaking it down, we see that it starts out saying that a tragedy is an imitation of an action. This imitation of an action can be thought of as mimesis, or the creation of anything that represents reality. The next part goes on to talk about the use of language to create this mimetic object, and it narrows the scope to be talking about theatre.

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Next Aristotle talks about bringing in the parts of fear. This fear can be thought of as either pity on the part of the audience or an actual representation of fear with the actors. Finally the last part of this quote talks about all of these fragments coming together to accomplish its catharsis of such emotions. The catharsis or the leveling off of emotions to a virtuous, balanced level is the most important part of the quote.

To find catharsis of pity and fear is to live in a balanced state. I would argue that this is the entire reason for formal theatre. Theatre is about going to an event that allows you to balance yourself. It is about becoming more in tune with who you are, and learning from the actions of others. The idea of a tragedy is central to finding this catharsis in life. Through looking back to the origins of theatre we can find a way to understand what it has meant to society throughout time, and have a grounded idea of what it can mean to society in the future.

In designing a theatre I will be challenged with the task of creating

architecture that embodies theatre. For my architecture to embody theatre I need to ask myself what is at the core of theatre? What can I derive from my investigation of theatre, and how can I transform that into an architectural expression?

The answer is based in the work of Aristotle. Catharsis, mimesis, fear and pity. Can architecture embody Catharsis? I believe it can. I want my architecture to invite the audience to feel theatre just by inhabiting the building. With this strong connection to theatre, my thesis project will enhance the experience of the formal theatre. This experience that I am inviting my audience to partake in is described in the book; Questions of Perceptions, an excerpt written by Stephen Holl-

Architecture, more fully than other art forms, engages the immediacy of our sensory perceptions. The passage of time; light, shadow and transparency; color phenomena, texture, material and detail all participate in the complete experience of architecture, (Holl, 2007, pg. 41).

"complete experience architecture" is how I have to frame You see people lined up out the my thought process through the design of this thesis. Intentionality is was a movie premiere or a Broadway key with every decision made.

"This intentionality sets architecture apart from a pure phenomenology that is manifest for the natural and start your way toward stairs sciences", (Holl, 2007, pg. 42). Architecture possesses a unique communicate opportunity to through silence. To tell a story through materiality and intentionality. To give back to the observer in a profound way that language fails to achieve sometimes. "A powerful piece of architecture has the ability to cause self awareness", (Stephen Wischer personal communication, November 12, 2012). It is about inviting an audience to remember. Remember things that are personal to them, but are shared emotions by every human being.

Architecture is theatre, and theatre is architecture. The two are interchangeable in some ways. Visit the Segrada Familia in Barcelona, Spain for example. You arrive at the

church that is still under construction. door and around the block. As if it show about to open the doors. You get in line and there is a loud multilanguage roar of anticipation in the crowd. You pay your twelve euros and to the door. You pass under the iconic outreaching entry and through the threshold of the carved wooden doors. The multi-language roar ceases to exist. It is replaced by a new language. The language of architecture overtakes you as you walk inside that space. It is silent, and profound. This is the power of the perception of architecture.

As stated earlier, in the quote by Aristotle in Poetics;

A tragedy, is thee imitation of an action that is serious and also, as having magnitude, complete in itself; in language with pleasurable accessories, each kind brought in separately in the parts of fear, wherewith to accomplish its catharsis of such emotions. (Aristotle -Gerould, 2003, pg. 49)

I will use this quote as a map to quide

RESEARCH REPORT-

me through the design process there are multiple variables that play and to help me create a work of a part in the transmission of sound architecture that evokes these waves across a medium and through specific emotions.

Acoustics:

Sound is a fundamental element in In a Theatre there is a direct the design of a theatre. If sound is target audience. The challenge ignored when designing a space is to facilitate the audience with where there is a performer and an appropriate sound levels. After the audience, the results can render the audience hears the sound wave for space useless. Failing to adhere to the first time, the wave continues the physics involved with acoustics moving and can reflect back to the will make the exchange between person causing sometimes unwanted the audience and the actor less effects. "Sound reverberation is the effective.

First I want to start out with a ceased", (Janning, 2012, pg.168). technical According to James D. Janning in effect. It can have positive effects the article Understanding Acoustics as in reflective panels directly above in Architectural Design, "sound is the audience that reflect the sound defined as a vibration in an elastic to particular areas among the medium", (Janning, 2012, pg. 167). audience. It can also have negative An elastic medium is anything that effects as in highly reflective materials can accept sound waves and in the back of the space that allow transfer them over a distance. This sound to slowly reflect back to the seems pretty straight forward, but audience causing a confusing echo.

materials. The idea of architectural acoustics refers to the way sound waves interact in the open space (air) and how they react with materials (impact).

persistence of sound reflection after the source of the sound has been description of sound. This effect is referred to as the echo The confusing echo can also be mitigated with sound absorptive According to Rick Kamlet in

with respect to the main audience IACC is a measurement between negative one and positive one between what the left and right ear are perceiving. According to Ando there are certain steps you can take to manipulate the sound in a space, and to get the desired effect.

The main question becomes; what makes a bad reflection of sound and what makes a good reflection of sound?

materials throughout the audience Acoustics and Sound Systems in that cancel out some of that Architectural Design, "the human reverberation back to the spectator. brain integrates sounds that arrive within 30 milliseconds of each The side walls of a theatre are other to perceive a single sound. a very important aspect of the Reflections that arrive more than sound performance of the space. 30 ms after the original sound According to Yoichi Ando in the are perceived as echoes, which book, Architectural Acoustics, "In interfere with definition of music and order to obtain a small value of the comprehension of speech", (Kamlet, IACC for most listeners, the ceilings 2012, pg. 26). Kamlet goes on to say consisted of a number of triangular that it takes about one millisecond plates with adjusted angles, and for sound to travel one foot, so if the side walls were given a 10% tilt the sound travels more than 30 feet from the listeners ear, to the floor", (Ando, 1998, pg. 181). The reflective surface, and back to the listeners ear, then it will hinder the comprehension of the audio. This is that demonstrates the difference where sound absorptive materials come into play and can reduce the long range reflections that are negative influences on the acoustic performance of a space.

RESEARCH REPORT SUMMARY-

Theoretical Premise/Unifying Idea:

One particular building can bring life to a struggling area, and attract the people that make it necessary to be a viable community. According to Ben Hillyer (2012), "one small building can make a positive difference on a street" (pg.1). The downtown area of St. Croix Falls, WI will be revitalized through renovation and addition of a downtown theatre. A theatre has the ability to attract people to a downtown area and reinforces the sence of community.

Introduction:

This research report investigated the different topics that will assist the design of this thesis project. The first topic that was reviewed was the typology itself. Then next aspect was of philosophical and phenomenological basis. The last aspect dealt with acoustic issues that inform theatre design.

Typology: theatre

There were many typological aspects of a theatre that I focused on. To recap some of the most important, I will start with the idea that a theatre is about sharing stories and learning from one another. It is about listening and performing.

It is important to understand the link that is formed between audience and actor/actress. This link exists in a theatre no matter the scale. Theatre can be thought of as a part of our every day lives. Even in a conversation with another person there is a reversal of roles between performer and audience to form the connection or bridge where knowledge/experiences are passed.

In the formal sense of a theatre, architecture can facilitate this connection in a meaningful way. That is one of the focuses of this thesis.

Philosophy:

There were a few major elements that I covered about the philosophy of theatre. It started with research of Aristotle's Poetics, written in the fourth century B.C. There was one quote that I found to be most applicable to theatre. It states that tragedy portrayal of reality that uses language to facilitate the experience of both When I researched acoustics it fear and pity, in order to accomplish catharsis of that fear and pity. This further expands upon the previously developed bridge or connection between the audience and the performers.

The catharsis of that fear and pity, I would argue, is the reason people go to theatre in the formal sense. I then did some more research into what it means for someone to find catharsis. To find catharsis is to find peace. It means that you get rid of excess emotion and find yourself in a virtuous happy mean. Through this connection between performers and audience, catharsis is found. I believe architecture can facilitate, and enhance that connection.

The manner in which architecture can enhance the bridge between audience and performer and portray catharsis is through experience. The experience someone has in the space can be a theatrical experience in itself.

Acoustics:

became clear that it was an aspect of theatre design that must not be overlooked. The acoustic design can either make your theatre space come alive, or it can completely render your theatre space useless.

From understanding the technical definition of sound, to the way sound moves through air compared to specific materials, is imperative to the justification of my acoustic design.

CASE STUDIES

SIGNATURE THEATRE-

This New York Theatre is a great example of a theatre within a dense urban setting. The Theatre is located on 42nd street, close to Time Square. The theatre has ample space to accommodate many different types of theatrical activities. The total square footage of the building is 70,000 square feet. It has three different main spaces.

There is a 294 seat formal auditorium space called "the diamond". It is unique in the way you enter the space through a bold set of doors that close as the show is about to begin.

than the diamond. The Linney vast lobby that can be used for is a flexible courtyard theatre that accommodates a variety of experiences. The Griffin is a 191 seat jewel box theatre with a radial arrangement of seating in front of the formal stage.

THEATRE AGORA-

The building is located in Lelystad, Netherlands. I chose this theatre because of the bold design as well as the information I found regarding the justification for the theatre. It is a centerpiece of the master plan for the city. The goal of the theatre is to bring some culture and activity back to the city. This is important because it aligns with the goals for my thesis project in St. Croix Falls, Wisconsin.

The theatre consists of a multi-level auditorium with straight seating on the main level, and a horse-shoe shaped arrangement of seating above.

The other two spaces are smaller The secondary spaces include a gatherings in itself. There are also offices and backstage spaces around the theatre.

THEATRE OF CONSTITUCION-

This is a minimalistic theatre in Maule, Chile. The project is a good example of a current theatre that has not been built yet. The construction is scheduled for 2013. The Theatre space is surrounded in section by the different auxiliary spaces that make the theatre work properly. This is important because the theatre in St. Croix Falls is currently on the second floor with other uses stacked underneath it.

On the main floor the theatre is surrounded by a lobby/entry space on two sides of the theatre. This is a unique space because it treats entry in a different way than the other theatre case studies. The other examples have a large lobby sequences that facilitate a function that is more than just entry to the theatre space. The minimalist nature of this theatre matches the minimalist entry to the theatre space.



figure 53.1



figure 53.2

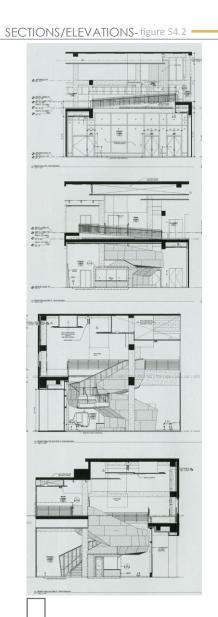


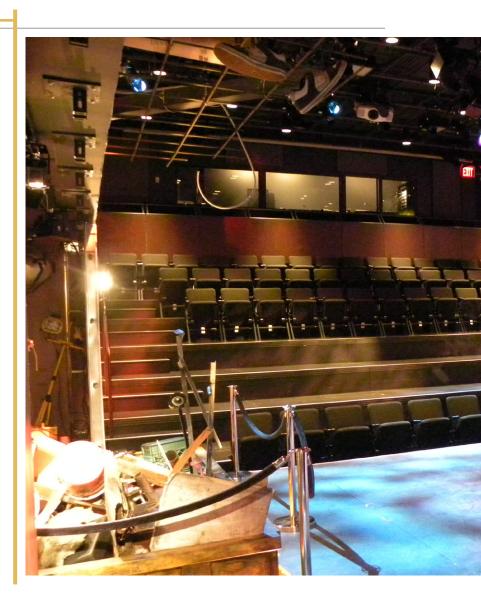
ngure 53.5

page

CASE STUDY- SIGNATURE THEATRE







DETAILS-

ARCHITECT-Frank Ghery New York LOCATION-2009 YEAR-

This project is an example of a renovation theatre project. The entry sequence is unique. There are multiple types of there spaces in the building.

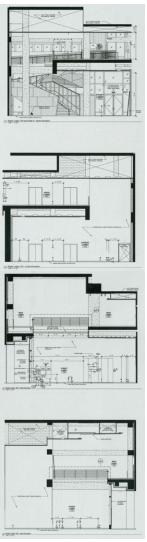
CIRCULATION-





figure 54.4-55.4

SECTIONS/ELEVATIONS- figure 55.1





CASE STUDY- SIGNATURE THEATRE

HIERARCHY- figure 56.1



The Signature Theatre has a clear hierarchy in the entrance sequence. They have a unique spiral staircase that demands your attention as you walk in the door.

PLAN TO SECTION-figure 56.2



The plan to section on the left shows how you are compressed as you enter the theatre and how the space opens up afterwards.

MASSING- figure 56.3



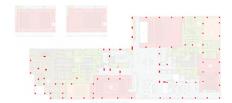


The massing is apparent through the floor plan on the left. The shades corollate with specific uses.



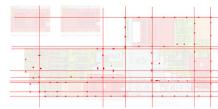
STRUCTURE- figure 57.1

The structure of the theatre is a series of columns shown on the right.



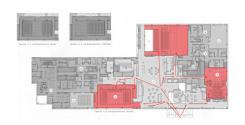
GEOMETRY- figure 57.2

The graphic to the right breaks down the geometry within the structure of the theatre.



CIRCULATION TO USE- figure 57.3

The red highlighted areas are theatre spaces and the arrows show how circulation exists between the spaces.



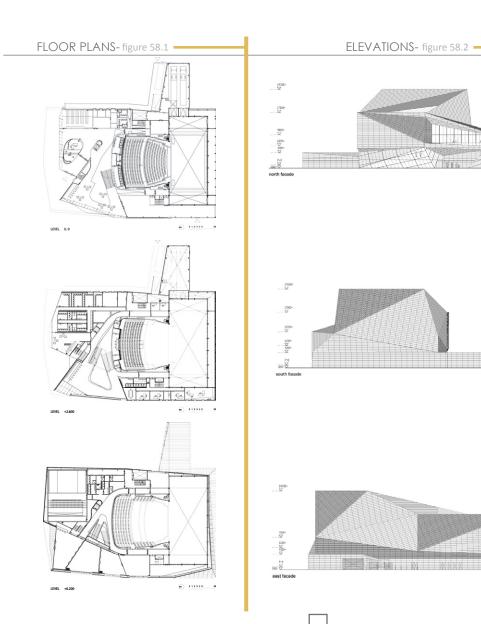
NATURAL LIGHT- figure 57.4

The atrium is the space in the theatre that has natural light.



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CASE STUDY- THEATRE AGORA





VOCOTAAN STREET



DETAILS-

ARCHITECT-LOCATION-

YEAR-

UN studio Lelystad, Netherlands

2005-2007

This project is a good example of how color and geometric shapes can influence a design. The building is a part of the master plan that aims to revitalize the sober town center.

- CIRCULATION-



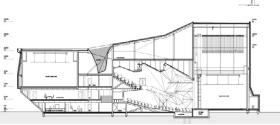
figure 59.2



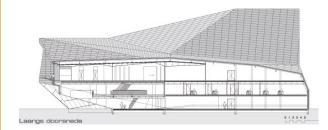
figure 58.3-59.4



SECTIONS- figure 59.1







page

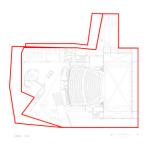
CASE STUDY- THEATRE AGORA

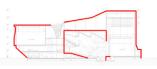
HIERARCHY-figure 60.1



The hierarchy is shown through an elevation on the left. The composition of shapes makes particular shapes have more hierarchy than others.

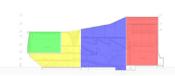
PLAN TO SECTION- figure 60.2





The plan to section shows the relationship between the space and the height of the space. The Agora Theatre has a unique ceiling in the theatre space that has a relationship the geometries of the building.

MASSING- figure 60.3 =

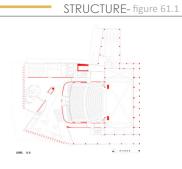


The exterior massing is apparent through the elevations and perspectives. The diagram to the left shows how the interior massing (spaces) relate to one another.



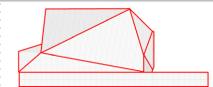


The structure of the Agora Theatre is shown to the right. It is a series of columns with an exterior skin on the lobby.



GEOMETRY- figure 61.2

The exterior geometry is a bold configuration of overlapping shapes. These geometries carry through to the inside spaces as well



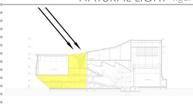
CIRCULATION TO USE-figure 61.3

The diagram on the right shows the various routes that lead to the theatre space.



NATURAL LIGHT- figure 61.4

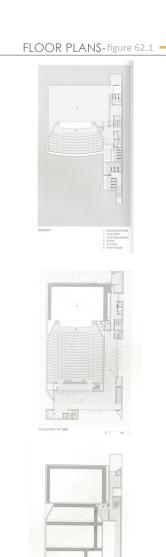
The atrium is the space in the theatre that has natural light.

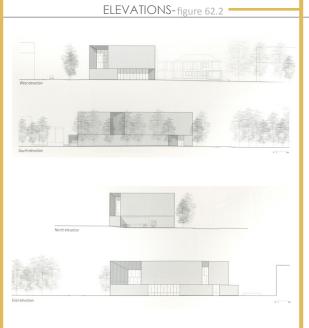




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CASE STUDY- THEATRE OF CONSTITUCION











DETAILS-

ARCHITECT-LOCATION-YEAR-

Alejandro Aravena Maule, Chile

2013

This project is a great example of layering a theatre in section. The theatre space can have other spaces below it, and this project illustrates that. It is a good example of a project that is being designed right now. Construction is set to begin in 2013.

CIRCULATION-





figure 62.3-63.5

SECTIONS-



figure 63.1

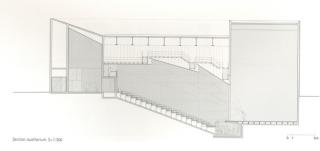


figure 63.2

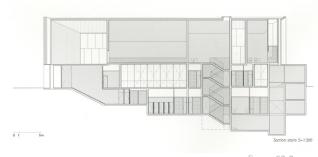


figure 63.2

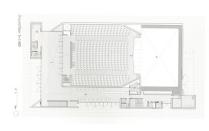
CASE STUDY- THEATRE OF CONSTITUCION

HIERARCHY-figure 64.1

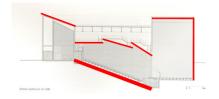


Hierarchy is shown with the dark reds reading as more important even if they are negative spaces.

PLAN TO SECTION-figure 64.2



This plan to section shows the proportions of the theatre space.



MASSING-figure 64.3



This massing diagram shows the makeup of the different exterior features.

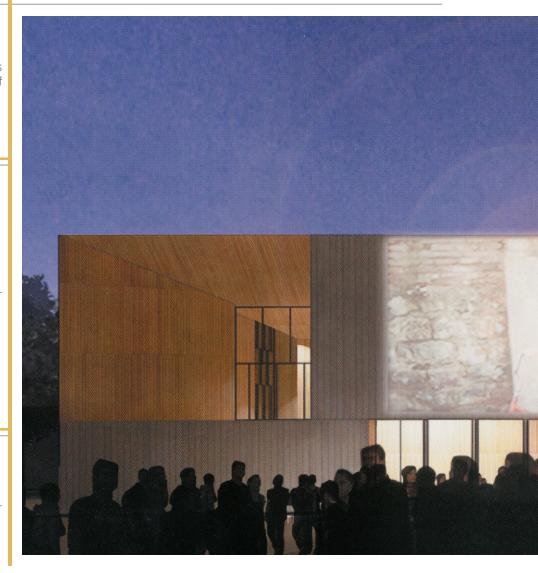
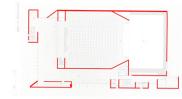




figure 64.4-65.5

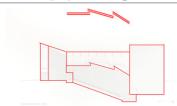
The structure of the constitucion theatre is comprised of walls, which makes it different from the other two examples that utilized a column system.



STRUCTURE- figure 65.1

GEOMETRY-figure 65.2

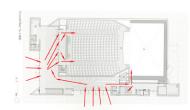
The particular geometry that I focused on with this theatre was the ceiling of the theatre space.



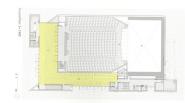
CIRCULATION TO USE-figure 65.3

The diagram to the right shows that there are two main entries into a simple lobby space that surrounds the theatre on two sides.

The lobby is the space in the building that receives natural light.



NATURAL LIGHT- figure 65.4



page

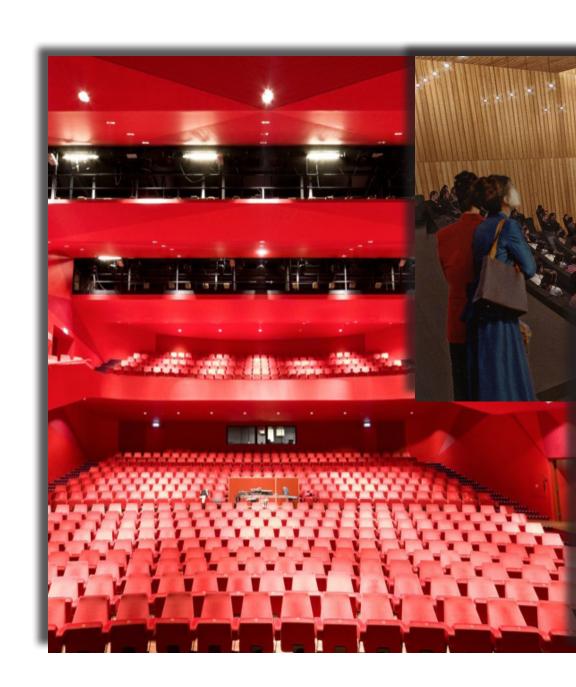
CASE STUDY- SUMMARY

I chose three very different examples of theatres for my case studies. I tried to fill a spectrum in terms of design, program, and completeness.

In terms of design the three examples are very different. The Signature theatre is woven into the dense urban fabric of a large city. Being in New York this theatre is in the most urban setting of the three. The design of the Signature theatre is somewhat limited by the fact that it is placed within a dense city.

The Agora Theatre in the Netherlands is part of a master plan that intends to spark social vitality in a sober city center. This makes it similar to the idea of my thesis. The design of the Agora theatre is of a very geometric colorful nature. The boundary of color is being pushed throughout the design of the Agora Theatre.

Lastly the design of the Constitucion theatre is of a much more of a minimalist basis. The theatre uses simple materials and has a much more simple geometric status than the previous two theatre designs.



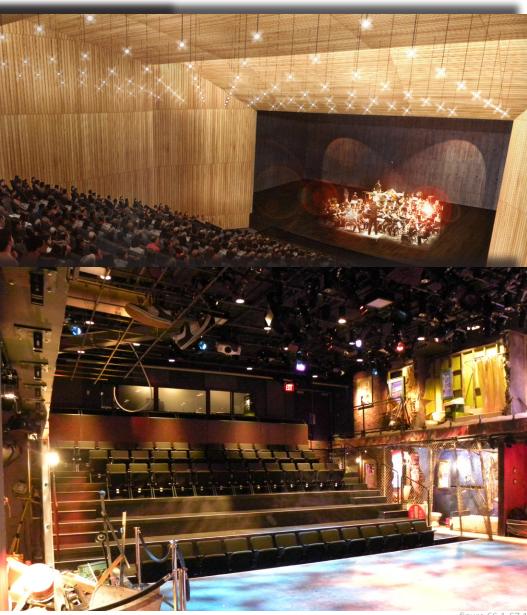


figure 66.1-67.1

The program also varies among the three case studies. The Signature Theatre in New York contains office space, a cafe, a dynamic lobby, a bookstore, and three different theatre spaces of different sizes.

The Agora Theatre consists of a main theatre space as well as a supplemental, smaller, theatre space. It also has offices and a large lobby.

The Constitucion Theatre is an example of a building with one theatre space and the circulatory spaces and logistical spaces surrounding the theatre. The lobby of the theatre is a thin hallway on two sides of the theatre. The entry to the theatre is handled in a different way than the other two theatres. It is a direct simple entry that matches the overall design of the building. The Constitucion Theatre is the only of the three to still be in the design process. The other two are functioning theatres.

Keeping the three case studies in mind when I start design of my thesis will help me determine an appropriate response to my particular site.

HISTORICAL CONTEXT

The historical context of this thesis has many different aspects. The history of theatre itself is where I will start my historical context research. Then I will look at the history of the site with a regional scope. Finally I will cover the history of the existing Festival Theatre and the specific site.

Theatre:

As discussed earlier, theatre can be thought of as a give and take between an audience and a performer. If this is true we can think of theatres origins being aligned with the origins of language. In the most basic understanding, this is the foundation of theatre. It gets more complex as you work your way toward the formal theatre. Porter Woods in Experiencing Theatre writes;

We know for example, that children learn through role play and imitation. In all cultures they demonstrate this tendency to "practice" adult behavior, and adults continue to

rehearse new attitudes or prepare for special tasks through autosuggestion, or "adult" role play, (Woods, 1984, pg. 4).

Any time we dress up for a special occasion we are involving ourselves in a theatrical experience. We test out many roles as we experience different events in life. It becomes about experimenting with the role and attitude that you want to play, and finding out what that role means to a society.

The history of theatre in a more formal sense of a stage, audience and performers, begins with the Greek theatre. Outdoor amphitheaters were a strong characteristic of Greek theatre. They were usually set into the side of a hill with a stage at the center. Radial organization around a stage and sometimes an enclosed "back stage" were common. Some of the largest Greek amphitheaters are said to hold up to twenty thousand spectators. There was heavy significance upon the chorus which

acted as a narrator through the play.

The chorus would keep the audience in sync with the events that were happening on stage that might be missed by an inattentive spectator. According to the Tupelo Community Theatre, History of Theatre, "The players included a chorus and their leader, and the lines were more chanted than spoken. The chorus performed in the orchestra, not on a raised stage", (Tupelo Community Theatre, 2012, pg. 2). The Greek theatre was dominated by tragedy, but comedy acted as a way for the frustrations of the society to be alleviated in some way.

I thought it was necessary to take a look into a Greek tragedy. Antigone is said to be one of the most pure examples of a Greek tragedy. I believe that through the investigation of Antigone, I can derive historical context that can help me with this thesis. The story is about fear, love, loss and wisdom.

Antigone breaks the laws of the state and buries her dead brother's body. Tossing dirt over his body, she sets his body free to the underworld. Getting caught doing so she is sentenced to death by the king, who happens to be her uncle. The story is about Antigone's inability to go against the laws of the heavens, and her uncle's inability to show compassion for his niece. The king's wife, and his son commit suicide after learning of Antigone's suicide, and he is alone. This is the King's tragic flaw.

If I can learn from Antigone, I believe it can provide the context that will help me in the design process.

Roman theatre took reign after the fall of the Greek society. "The bent toward low comedy and its mass appeal -- coupled with its association with the entertainment of the arena -- almost certainly contributed to its disfavor by officials of the early Christian Church", (Tupelo Community Theatre, 2012,

page

pg. 2) The Romans developed perhaps the most violent and real representation of theatre. That being the fight to the death. Large venues such as the Colosseum in Rome are built to facilitate what could be viewed as Aristotle's declaration taken to the next level. The element of Mimesis that Aristotle talks about being a representation of reality, means that the actors in Greek theatre are not in real danger through the performance. There is a representation of real danger, but that is it.

The Colosseum, and others like it, are built to facilitate death. The fear felt by the performers is real. Fear in the most essential sense of the word. It is fear for your life. Pity is also present in a more pure sense, because the audience know that the consequence of a poor performance is ultimate. Along with this violent, "real" theatre, the Romans developed comedy that was accepted by the masses.

As the Roman empire fell the church had outlawed theatre, but an interesting thing happened when the Romans fell. The church acted to keep theatre alive. The underlying stories behind the holidays became material for theatre during the Middle Ages.

"During the 15th and 16th Centuries, European Society was influenced by the Renaissance and by the movement towards nationalism. The impact of these changes on the theatre went beyond mere secularization of an art form that had been dominated for centuries by the Church" (Tupelo Community Theatre, 2012, pg. 5). This means that as society looked back to a rebirth of the classical Greece and Rome, theatre became separated from the Church and theatre was something that was of the state. This was the time of Shakespeare and a movement toward a more genuine and natural character portrayal.

The 18th, 19th, and 20th centuries brought major changes to theatre. Among the most influential things that influences theatre is the development and rapid advancement of technologies.

Increasing commercialization of the art, accompanied by technological innovations, the introduction of serious critical review, expansion of the subject matters portrayed to include ordinary people, and an emphasis on more natural forms of acting. (Tupelo Community Theatre, 2012, pg. 1).

Regional Site:

The identity of the region is the St. Croix River. The area is referred to as the St. Croix River Valley. According to Eileen M. McMahon and Theodore J. Karamanski in their book Time and River: A History of the Saint Croix, "The steady flow of bright water means renewed life for an entire valley. The constant current flowing of its course is a model off restless motion and

ceaseless change", (McMahon and Karamanski, 2002, pg. 1). The St. Croix River, like any other river, is in a state of constant change. "As the ancient Greeks observed in the fifth century B.C. it is not possible to step into the same stream twice, for no sooner has one entered a stream than that water is swept on by the current", (McMahon and Karamanski, 2002, pg. 1).

The river current has been sweeping water past St. Croix Falls, Wisconsin for over 10,000 years. With the receding glaciers different levels of sediment were deposited along the valley. With the depositing of the sediments, the glaciers also cut through the softer sandstone and limestone to form the valley.

In an article published Tuesday, November 27,2012, in the Town News, titled Shaping the Valley by Phillip Bock states, "Glaciers during the last ice age, too, shaped the valley and deposited silt and sand that eventually developed into the rock formations in the St. Croix - Dage

HISTORICAL CONTEXT-Valley", (Bock, 2012, pg. 1).

The river has influenced life in the valley since its formation with the receding ice age about 14,000 years ago. It serves as a obstacle that inhibits migration of around animals in an east - west movement. It has the same effect on human transportation without the use of a bridge. Thus the river creates nodes of high traffic areas for the transgression of the St. Croix River. These nodes whether the bridge came before or after the towns, are a big part of what keeps both towns viable. The connection between St. Croix Falls, WI and Taylors Falls, MN is a vital link for commerce and transportation.

The St. Croix River served as a crucial link between the vast waters of Lake Superior, and the Mississippi River. The river as a whole drains about 7,700 square miles. A portage was formed that connected the headwaters of the St. Croix to Lake Superior and it was used as a fur trading route for many

years. This area served as a vital link between Lake Superior and the Mississippi. The St. Croix River Valley wis the site of many trade related rivalries.

Along with providing transportation for fur trading through the area, the river also provided an important logging function. The logs were floated down the river to the Mississippi.



igure 72.1









Festival Theatre:

The auditorium building that is the home of the Festival Theatre has a rich history. The building has served many purposes, and today it is providing a venue for live theatre to a region that has had a appetite for theatre since the buildings conception in the early 1900's.

The building was designed in 1916 and held its first silent film in 1917. The building functioned as a community center. It had a street level kitchen and gymnasium. The gymnasium accommodated dances movies and other social functions of the town.

More recently the library had occupied most of the first floor. The library got its own new building about two years ago, and a cafe and administration spaces occupied the previous library space.

The Festival Theatre is facing a few key issues along with the general desire for expansion. Accessibility to the theatre space, which is on the second level, is a key issue in their expansion desires.

THESIS GOALS-

To begin the process of thesis with a clear focus.

To maintain that focus with through the early development of a theoretical premise and to maintain it throughout.

To return to my theoretical premise throughout the design process and to let it inform my decisions.

To stay on schedule through the project, and finish each part with precision and attentiveness.

To provide myself a context based in the history of theatre that will allow me to interpret the future of what a theatre is/should be.

To use that context to create an artefact that embodies theatre.

To interpret that artefact for the design of my thesis.

To document my progress throughout the semester.

To finish my project with a clear final presentation that is a comprehensive demonstration of what I learned in architecture school at ndsu.

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SITE ANALYSIS NARRATIVE-

St. Croix Falls, Wisconsin is located about an hour northeast of Minneapolis. To the west St. Cloud, Minnesota is about an hour and a half drive. The city of St. Croix Falls, Wisconsin falls within a reasonable distance from densely populated areas, but provides a natural landscape. This allows a much more direct connection to nature.

As you approach St. Croix Falls from Minneapolis you go through the historic town of Taylors Falls, MN. Taylors Falls is just opposite the river from St. Croix Falls. As the road winds down to the bridge between the two towns you pass large limestone rock cliffs. These cliffs are a signature to the area.

The region provides year round recreation to both the local residents as well as people who travel to visit the area. Camping remains a popular warm weather attraction in both the Minnesota and Wisconsin side of the St. Croix River. About 5 miles up river from the site, there is a ski resort that attracts thousands of visitors each





David Booth photo - St. Croix Falls Site from Taylors Falls Overlook

winter. During the fall the St. Croix/ Taylors falls area draws spectators from the region to take in the amazing views that the changing leaves provide.

The elevation change is dramatic in comparison to the immediate surrounding area. The river valley slices through the land creating the border between Minnesota and Wisconsin.

The site is located on the main street of St. Croix Falls. There used to be actual falls on the St. Croix River, but the placement of the dam rendered the falls unrecognizable. The dam is located straight to the west of the site. Up river of the dam, the river is backed up and much slower moving than on the down-side. This makes for a vast "lake" of water for the vista of the river from the site.

There is a strong directional view towards the river and across the river at the other side of the valley. This view will be an important part of my design.

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SITE ANALYSIS-

St. Croix Falls, Wisconsin

TRAFFIC-

The traffic on the site exists in both vehicular form and pedestrian. There is also a highly used bike path that runs along the river. The vehicular traffic can be heavy at times Washington Street. Washington Street is often referred to as the main street of St. Croix Falls, Wisconsin. It has a speed limit of twenty-five miles per hour keeping the traffic moving slow. The bike path along the river lacks multiple access points from Washington Street. The open area and overlook deck to the west of my site is one of the key connections to the river for pedestrian traffic from Washington Street.

PLANT COVER AND VISUAL FORMS-

The plant cover surrounding the site is a mixture of deciduous and coniferous trees. The river valley has a dense forest. The opposite side of the valley rises upwards from the river, creating an back drop of central Minnesota forest. The site has little plant cover. The overlook deck across Washington Street does have some existing plant cover. This includes grasses, shrubs and a mixture of sizes and types of trees.

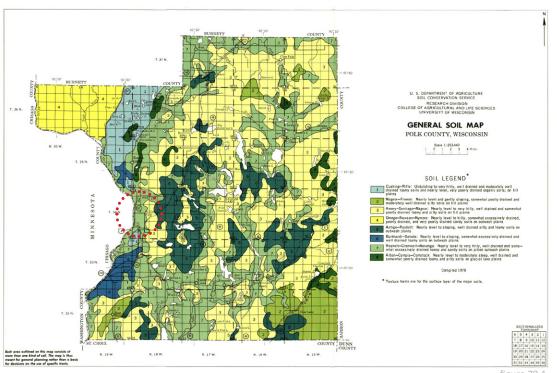
The opportunity for new plant cover exists within the site. New plantings would help bring the nature of the river valley onto the main street of St. Croix Falls. It would start to blend the town and the valley more seamlessly.

WATER TABLE-

The soils on my particular site are well drained down to the river. The area also has access to a clean and generally a contaminate free water table.



page 7



-SOILS

The soils in St. Croix Falls, according to the map on the left, is nearly level to excessively hilly. The soil is well drained and sometimes excessively drained. There are loamy and sandy soils on pitted out wash plains according to the soil legend on the general soil map of Polk County, Wisconsin.

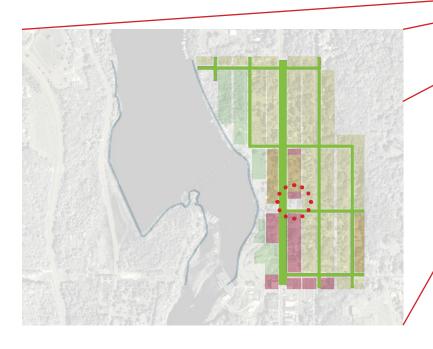
figure 79.1

-SLOPES

Being located half way down the river valley, the slope is evidently focused toward the river. The opposite side of the river is a mirrored slope upwards away from the river.

GRIDS-

The grids arounc the side consist of both medium density downtown development, as well as main roads. Property lines form a grid overlay on the outskirts of town.



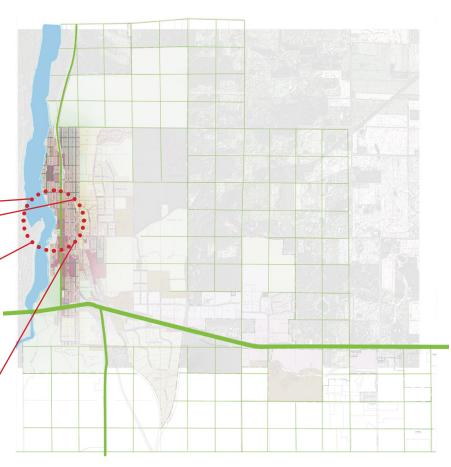


figure 80.1

-TEXTURES



site textures from Taylors Falls overlook



textures on back of existing theatre

The textures on the site are of both nature and manmade. The top picture shows the textures present within the river valley. The bottom picture shows a unique texture on the back side of the existing theatre. The rough yellow brick is the signature of the existing theatre.

GEOMETRIES-

I highlighted both the main streets of St. Croix Falls and Taylors Falls in yellow. Then I highlighted the parks in the region with green. The site is marked with a red circle that the red lines all connect back to. This forms a relationship amongst the important aspects of each town and the theatre site.

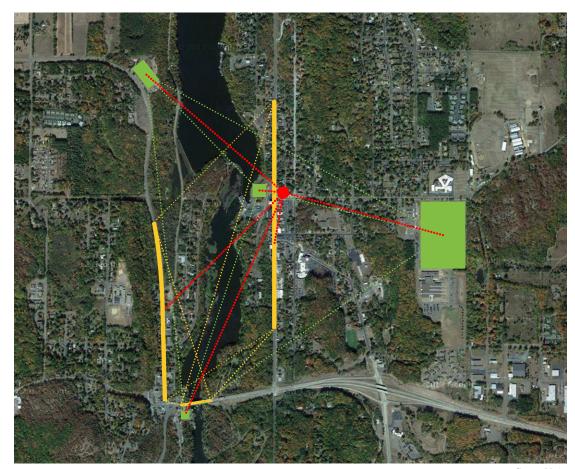


figure 82.1

-SHADE AND SHADOW

The map below shows the different types of sun that the site is exposed to. The darkest areas are cast shadows, the slightly darker areas are shaded parts and the bright areas are in full sunlight a majority of the time.



figure 83.1

page

BUILT FEATURES-

The picture on the right shows the main street building types. They consist of retail on the ground level and usually residential above. The scale of the buildings is two to three floors. The downtown area of St. Croix Falls is centralized along the main street of the town (Washington St.). As you can see in the picture small details like awnings and overhangs help to invite you into the retail on the ground floor.



Washington Street context



-LIGHTING QUALITY

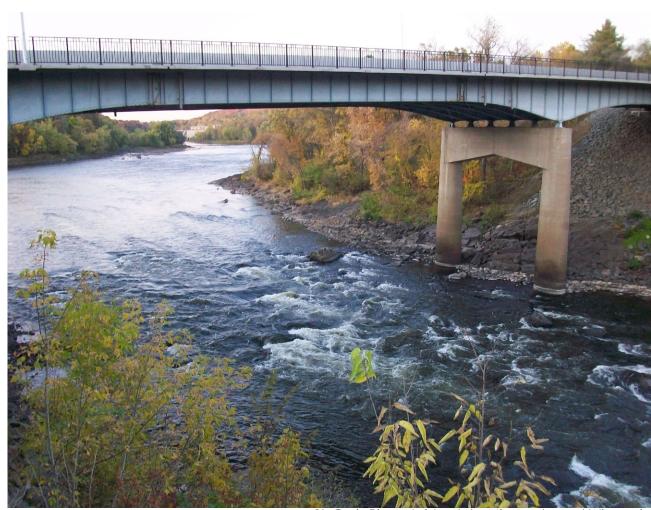


The vegetation as well as open space on the site make for areas of both intense lighting and dark shadows. The sun sets directly across from my site on the opposite side of the river valley.

Opage

WATER-

The St. Croix River cuts through the land and creates the border between Minnesota and Wisconsin. The site is heavily influenced by the river, and offers some of the most picturesque views in the region. Site drainage is towards the river. It is important to understand that the site is sensitive to direct drainage and filtration efforts need to be taken into account.



St. Croix River - bridge b/w Minnesota and Wisconsin

-WIND



river valley view from site

The wind comes either from the southeast or the northwest a majority of the time. The summer winds are predominantly from the southeast. The winter winds are predominantly from the northwest. Site specific winds up and down the river valley are also present. page

BASE MAP-



figure 90.1

Washington St. looking north



Washington St. looking south



Е

Festival Theatre - looking east from overlook



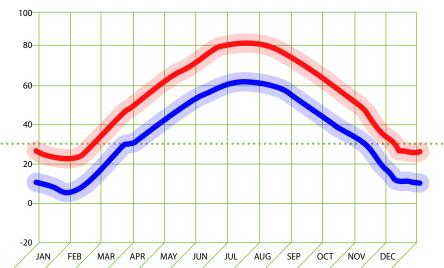
river valley looking west from site

 N

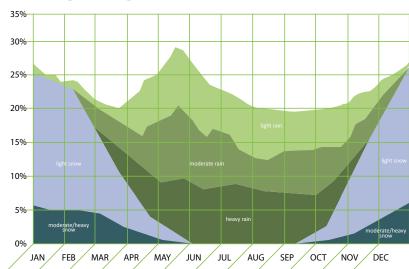
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CLIMATE DATA-

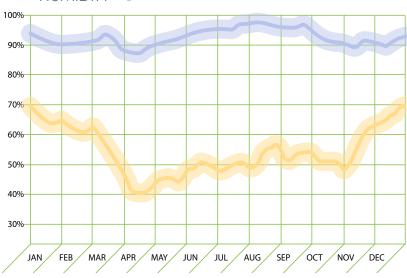
AVERAGE ANNUAL TEMPERATURES- figure 92.1



PRECIPITATION- figure 92.3



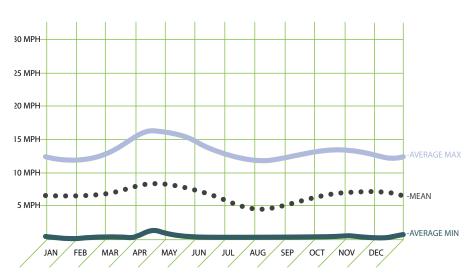
HUMIDITY- figure 92.2



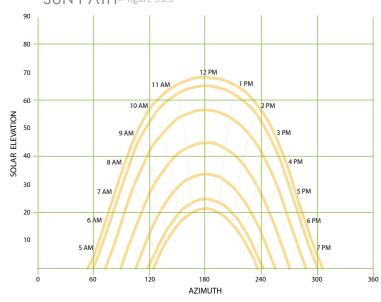
CLOUDINESS- figure 92.4



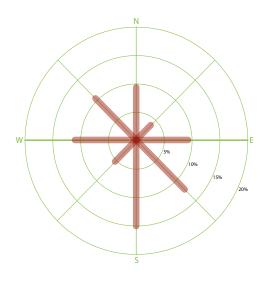
WIND SPEED- figure 93.1



SUN PATH- figure 93.3

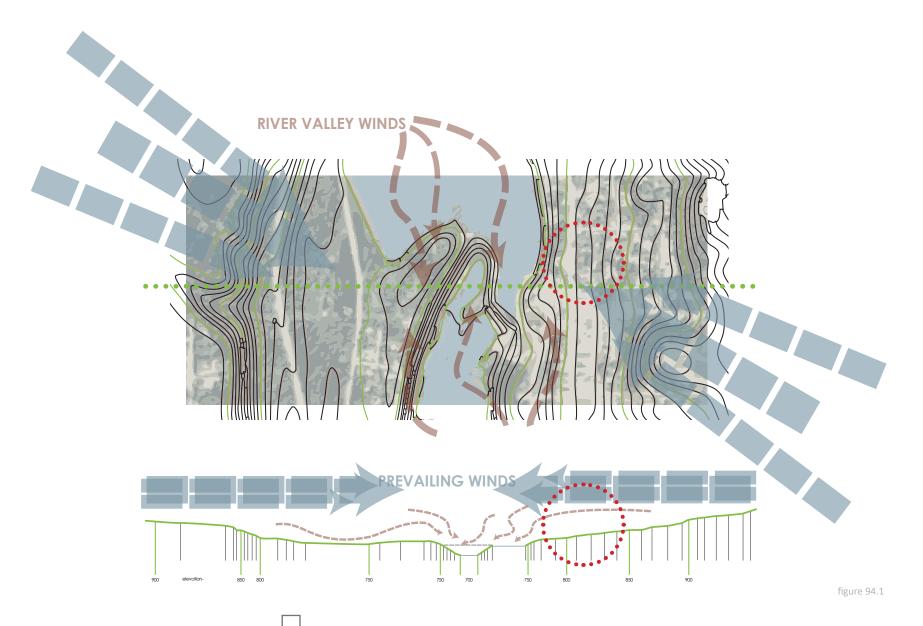


WIND DIRECTION- figure 93.2



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TOPOGRAPHY AND AIR MOVEMENT-



site -

roads -

noise -

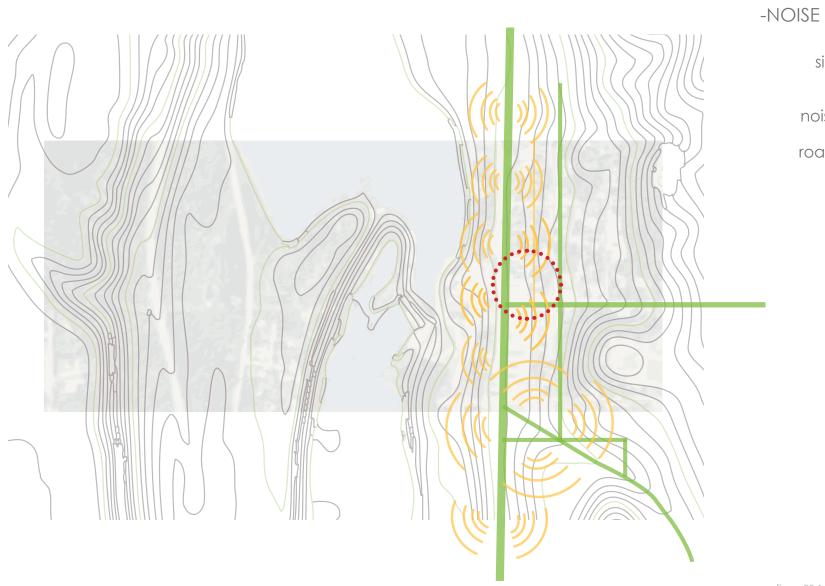
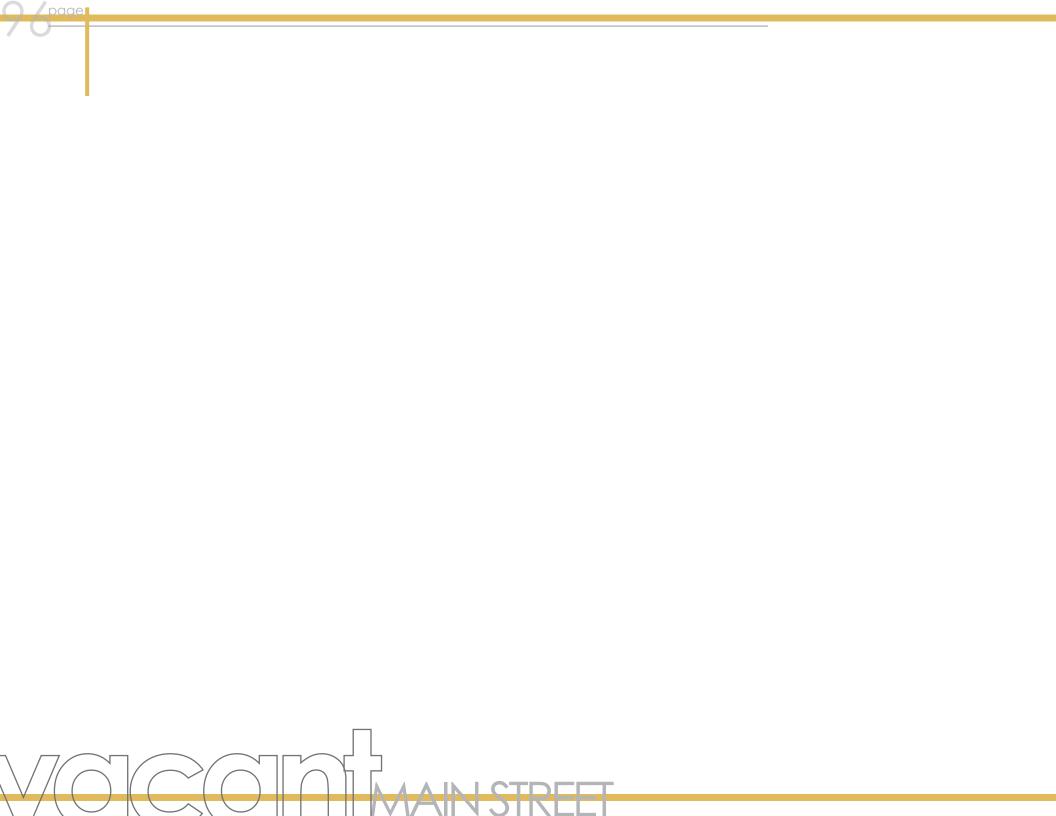
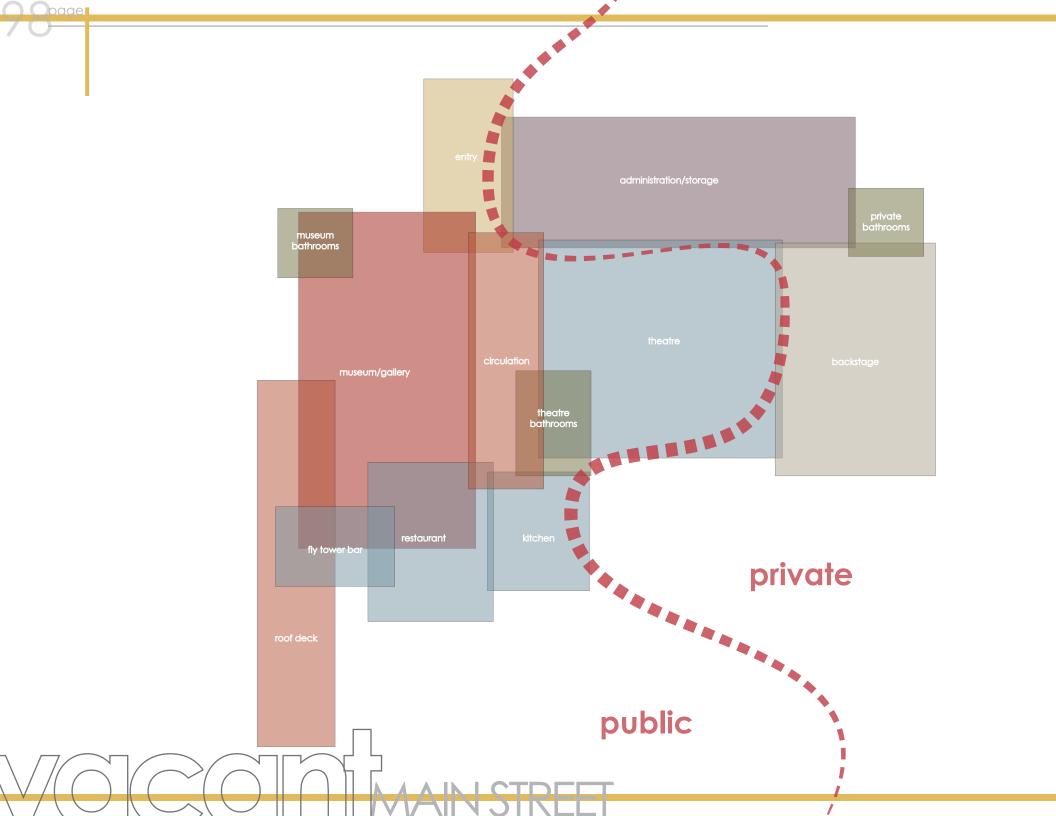


figure 95.1



PROGRAM ELEMENTS



	existing							added											
not neededdesirednecessary	entry	administration	public bathroom	theatre	backstage	storage		addition entry	circulation	theatre addition	recital	museum/gallery	backstage	storage	administration	storage	restaurant	private bath	
entry																			
administration	_																		
public bathroom	-																		
theatre	_																		
backstage		0	Ō	•			i												
storage	\bigcirc		\bigcirc																
addition entry	_				\bigcirc	\bigcirc	$\frac{\bigcirc}{\bigcirc}$												
circulation							$\frac{\bigcirc}{\bigcirc}$												
theatre addition						님	$\frac{\circ}{\circ}$											_	
recital	_			$\frac{1}{2}$		님	$\frac{\circ}{\circ}$			$\frac{1}{2}$									
museum/gallery	_			\subseteq		H	$\frac{\circ}{\sim}$				\subseteq								
backstage	_						$\frac{\circ}{\circ}$												
storage administration			\mathbb{R}			\mathbb{R}	$\frac{\circ}{\circ}$										_	-	
						\mathbb{H}	$\frac{9}{6}$												
storage restaurant							$\frac{1}{2}$								\geq		_	-	
	_					\mathbb{H}	$\frac{\circ}{\sim}$)		\supset	$\overline{\bigcirc}$	-	
private bath	\bigcirc		$ \bigcirc$			$ \bigcirc $	\bigcirc	$ \bigcirc$	$ \bigcirc$		$ \bigcirc $	\bigcirc		\bigcirc		\bigcirc	\bigcirc		



page DESIGN

PROCESS - INSPIRATION

imitation of an action - Mimesis - or any created thing that reflects and represents reality.

brought in through the parts of fear - self fear (actors) and pity (audience) - link

to accomplish its catharsis of such emotions - human soul is purged of excessive passions and brought to a virtuous state. Tragedy is a corrective through watching tragedy; an audience learns how to feel emotions at proper levels.

transllate this quote architecturally:

fear - sense of scale/self awareness

- compression vs. openness

- changing points of view

catharsis - provided throught the progression through these changing spaces



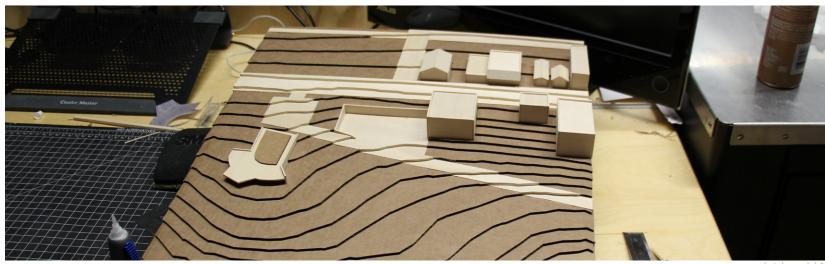


Artefact Presentation - December 2012

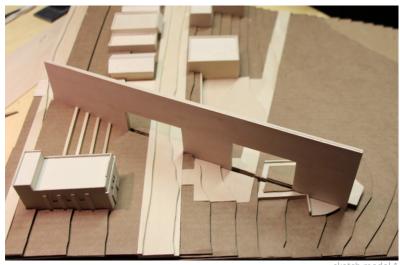
ARTEFACT

Aristotle in Poetics (350 B.C.)-

A tragedy, is the imitation of an action that is serious and also, as having magnitude, complete in itself; in language with pleasurable accessories, each kind brought in separately in the parts of the fear, wherewith to accomplish its catharsis of such emotions. (pg. 49)



sketch model 1







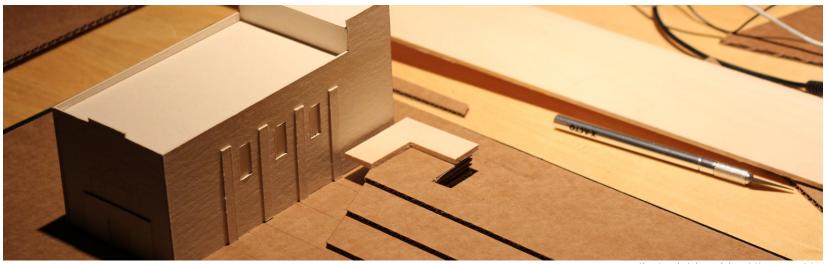


sketch model 1

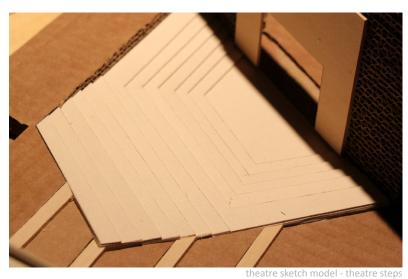
INITIAL PROCESS sketch model 1

KEY ISSUES

Developing upon existing buildings geometry
Maintain views of existing Festival Theatre
Create a landmark for St. Croix Falls
Developing outdoor spaces for public gathering



theatre sketch model - existing geometries





theatre sketch model - street view



theatre sketch model - roof structure with existing building and wall

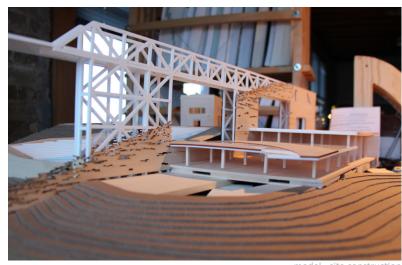
INITIAL PROCESS theatre sketch model

KEY ISSUES

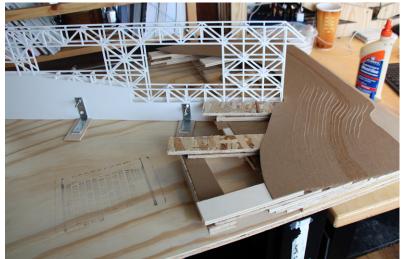
Focus on the experience of the user Develope the theatre space Creating dramatic movement through the spaces Structure



model



model - site construction



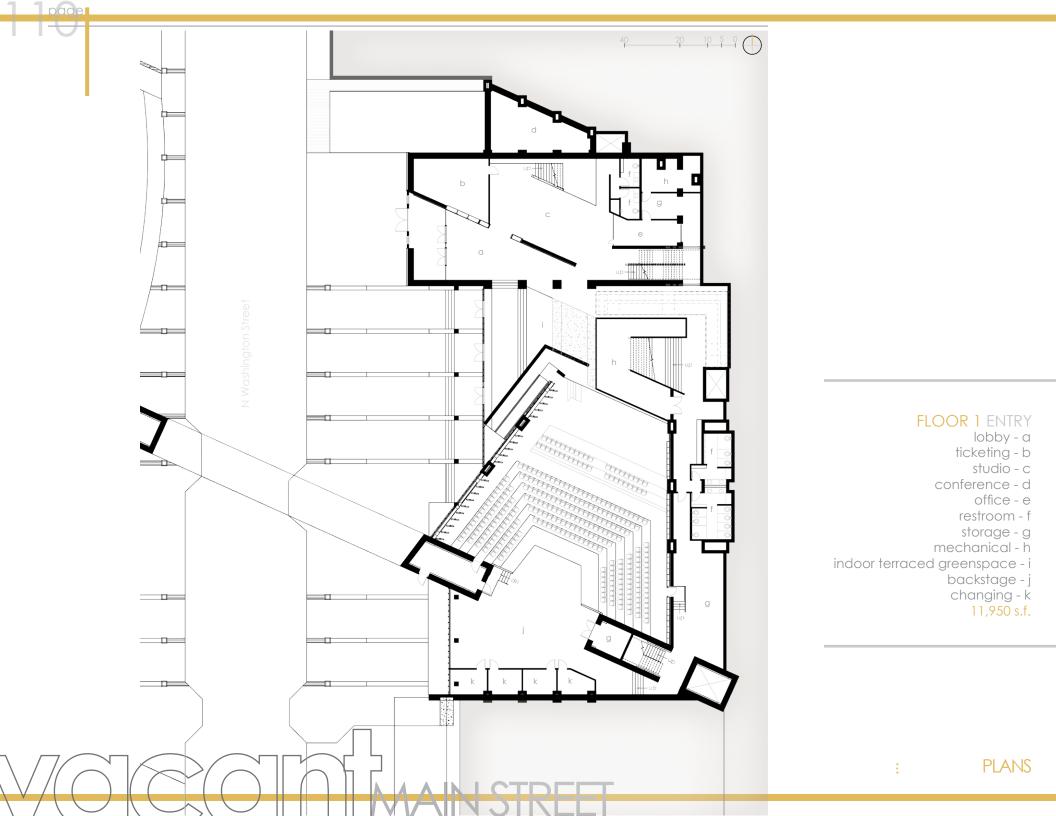
model - site construction



INITIAL PROCESS model

KEY ISSUES

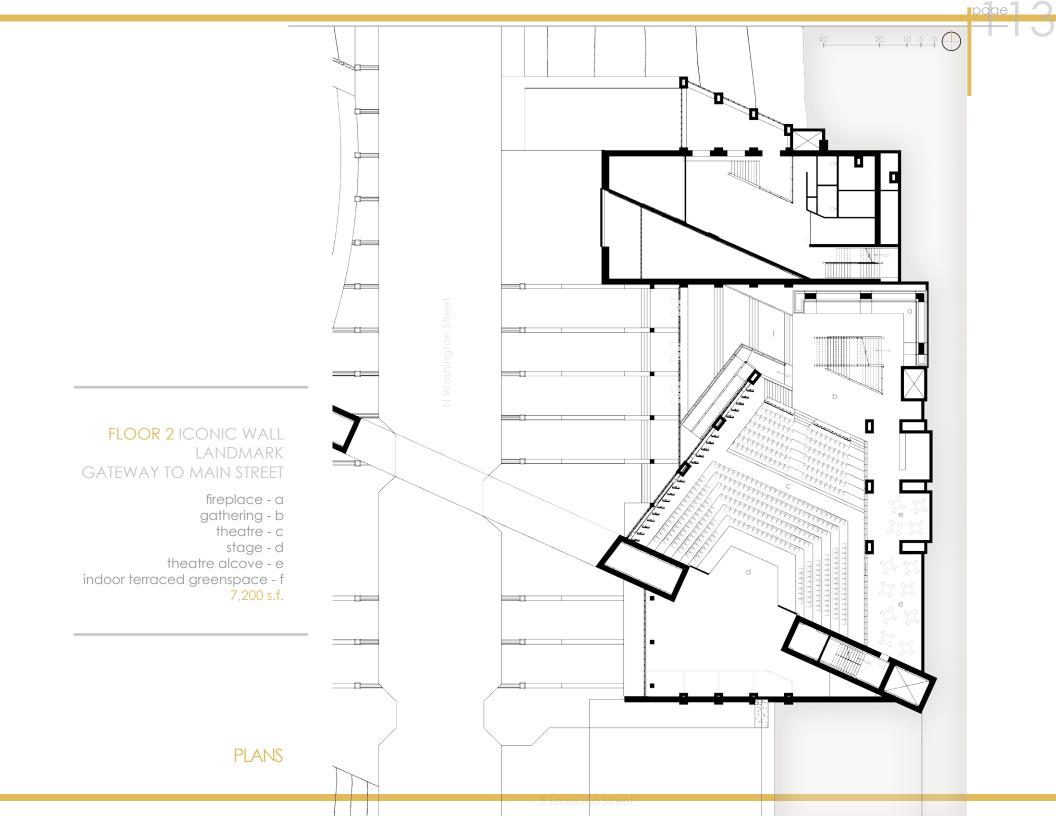
Focus on the experience of the user Develope the theatre space Creating dramatic movement through the spaces Structure





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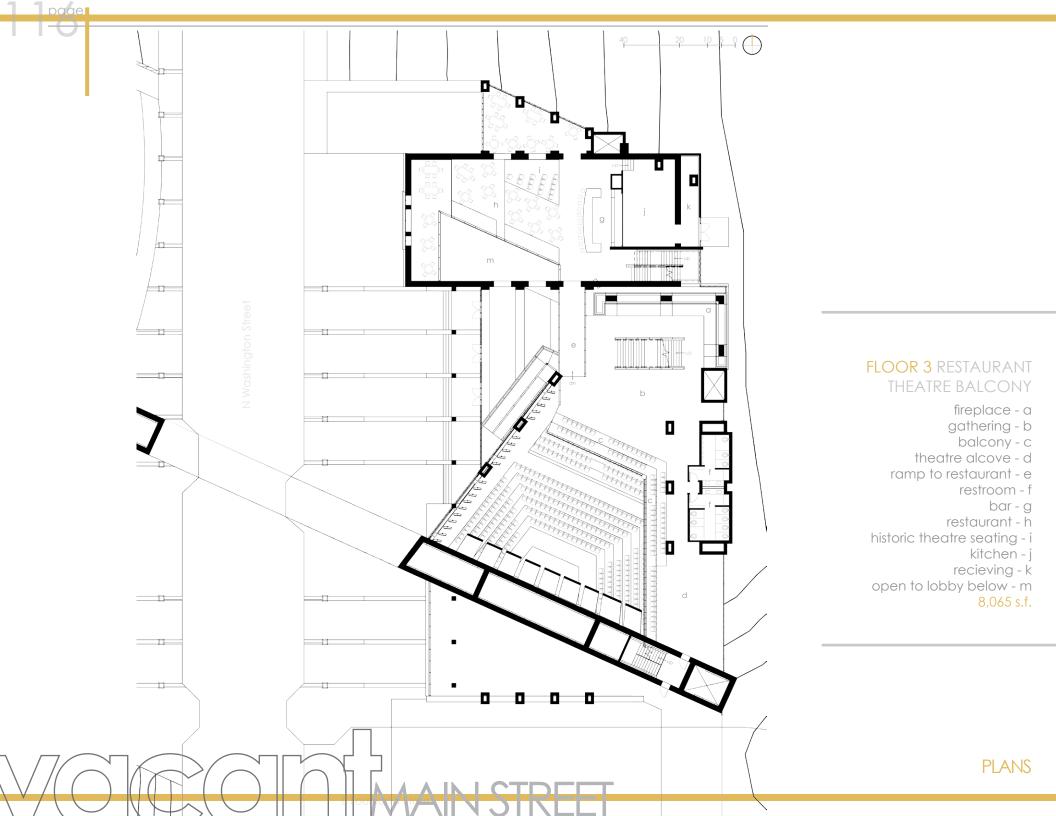




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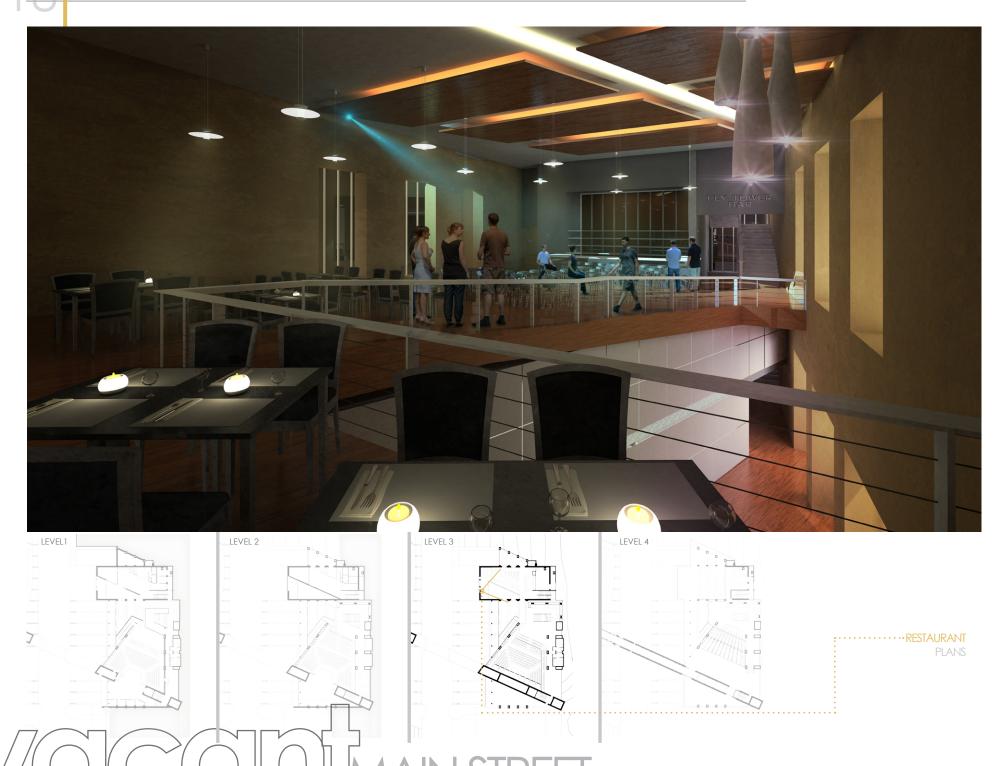


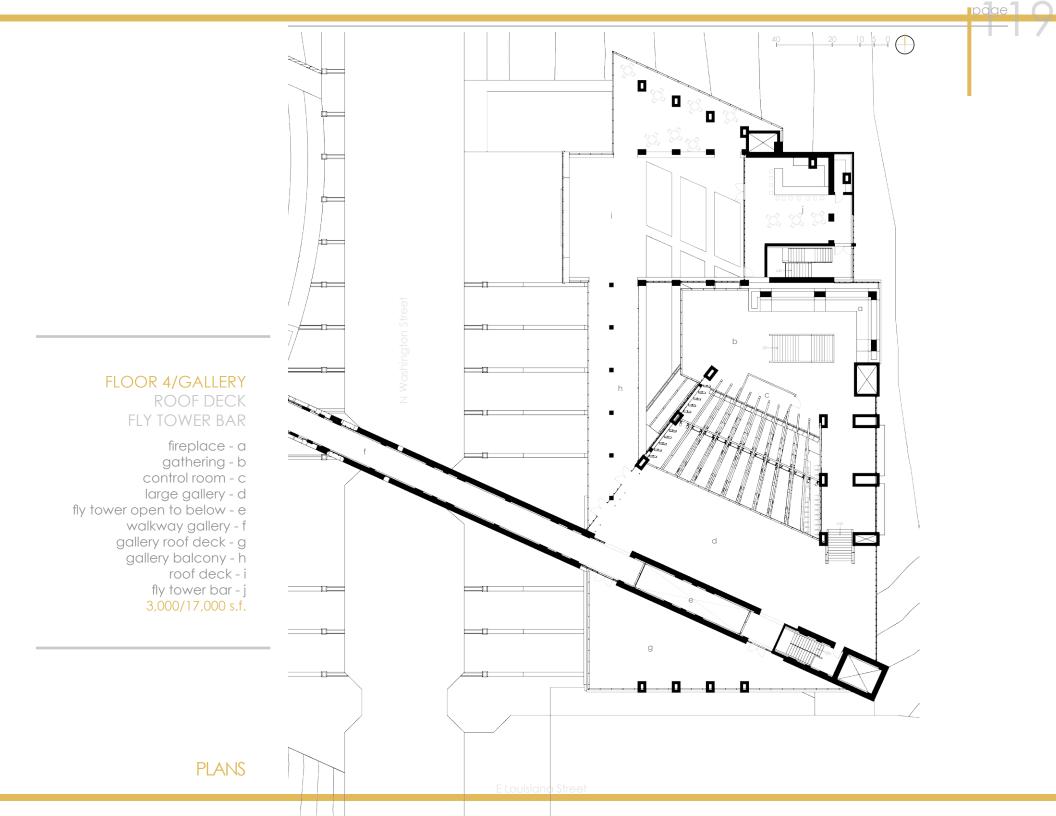




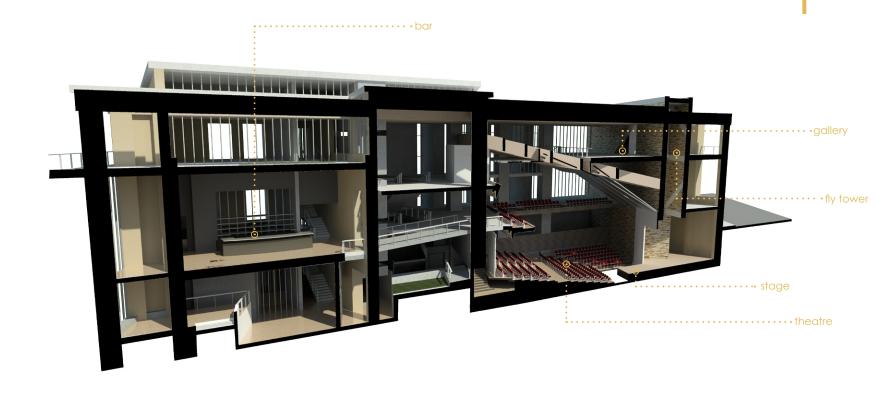
······THEATRE BALCONY

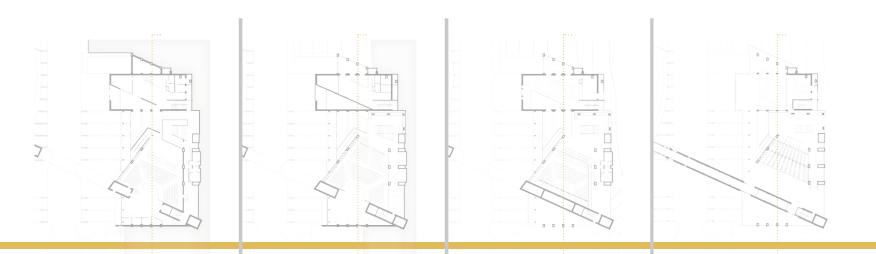
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SECTION PLANS







FINAL DISPLAY

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