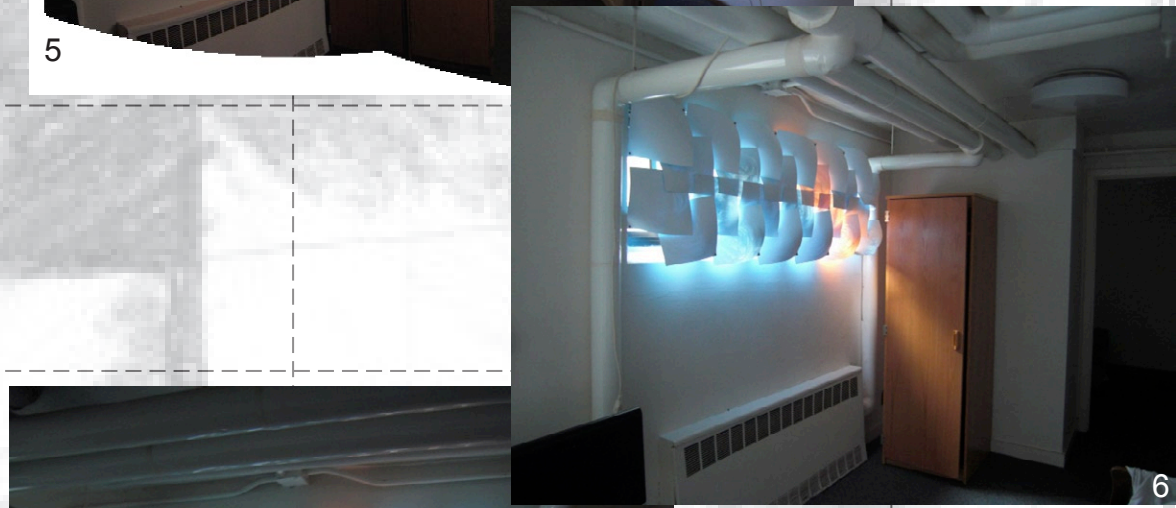
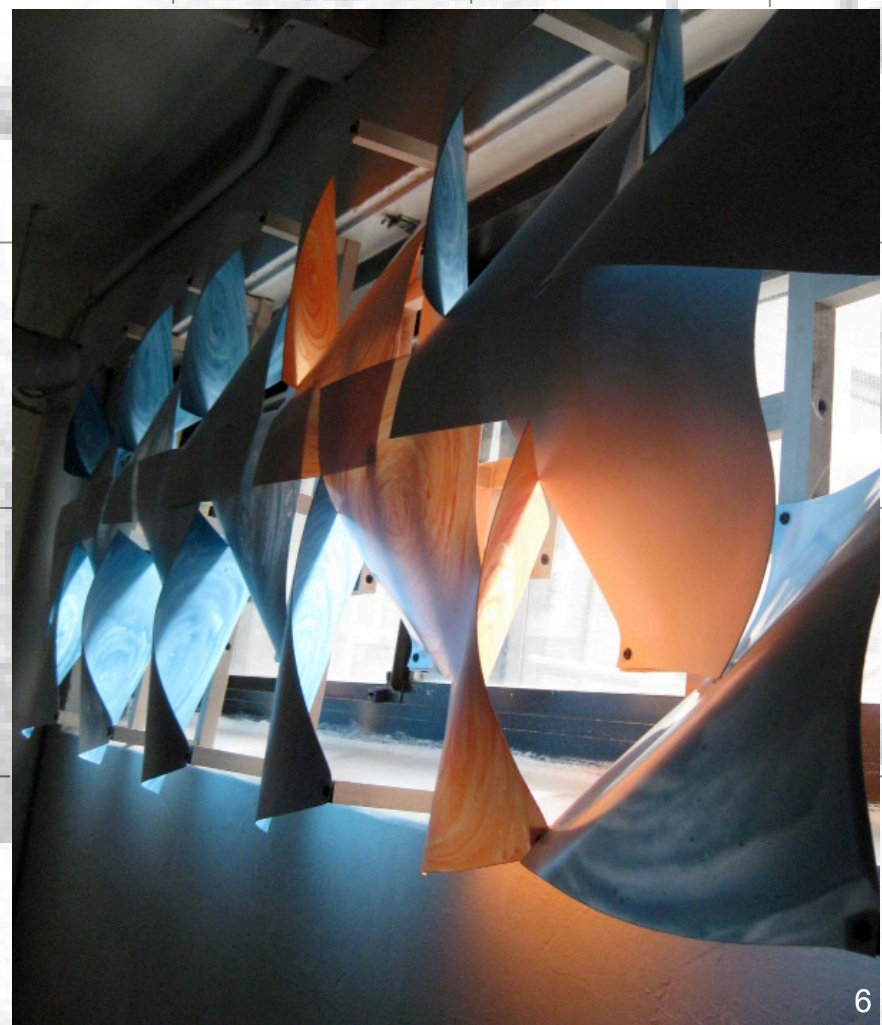
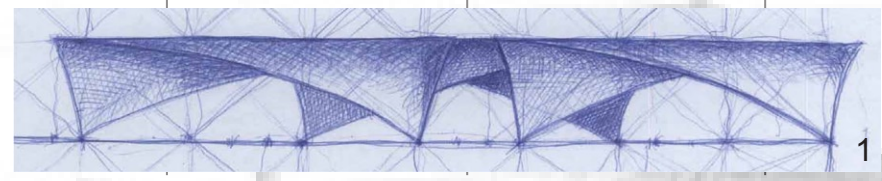
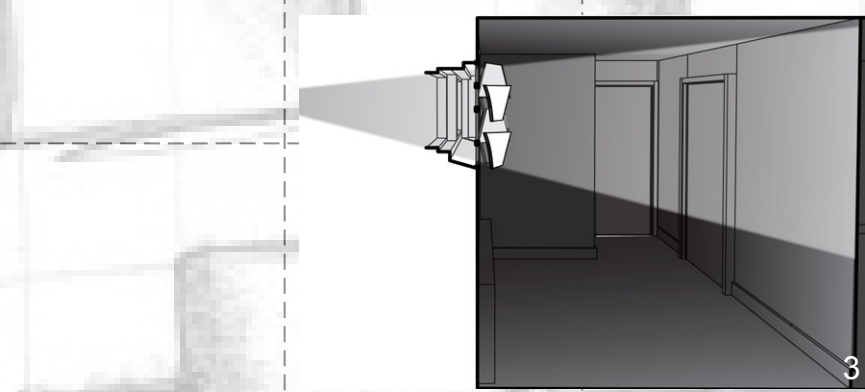
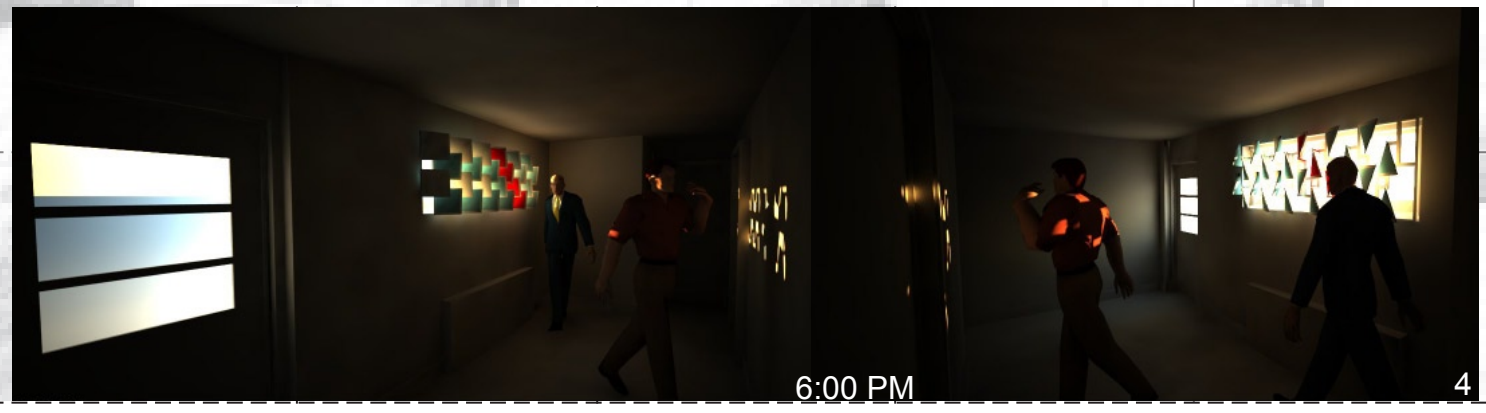


LIGHT TRANSFORMER

BENJAMIN HOWE
48-200 | Fall 2009
Studio Instructor: Kent Suhrbier
School of Architecture
Carnegie Mellon University



- 1: Sketches
- 2: Study Model
- 3: Diagrams
- 4: Renderings
- 5: Site Before
- 6: Site After



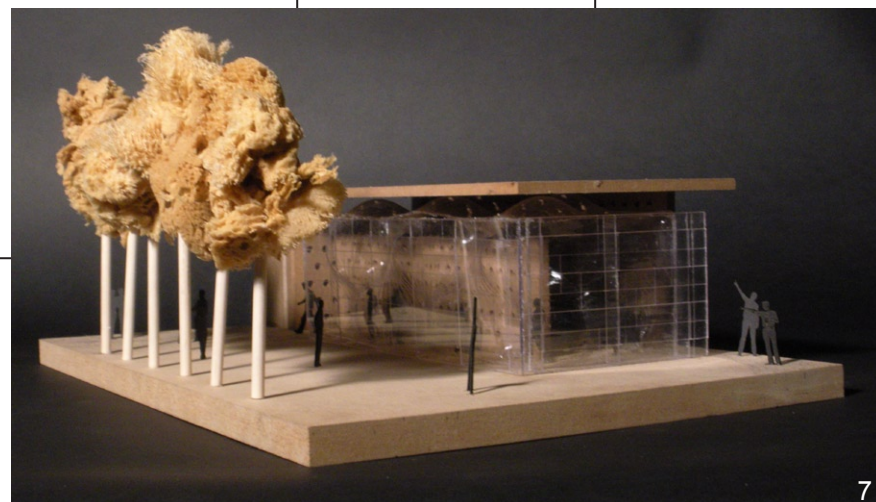
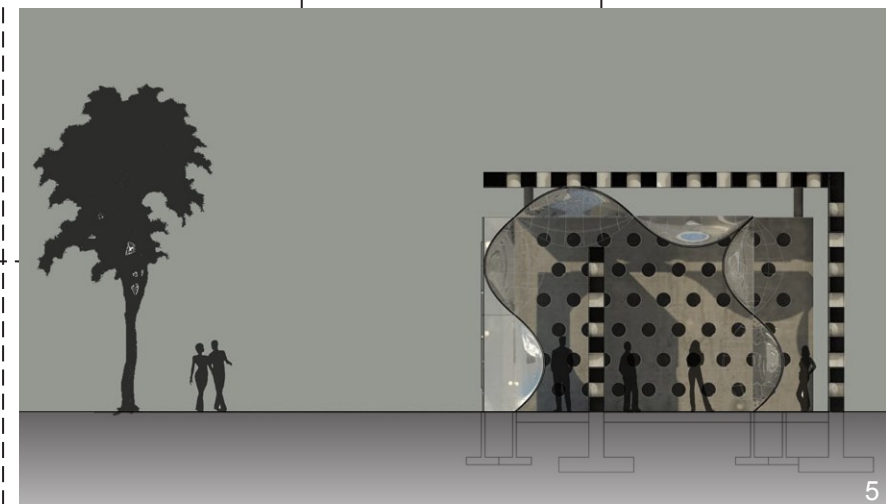
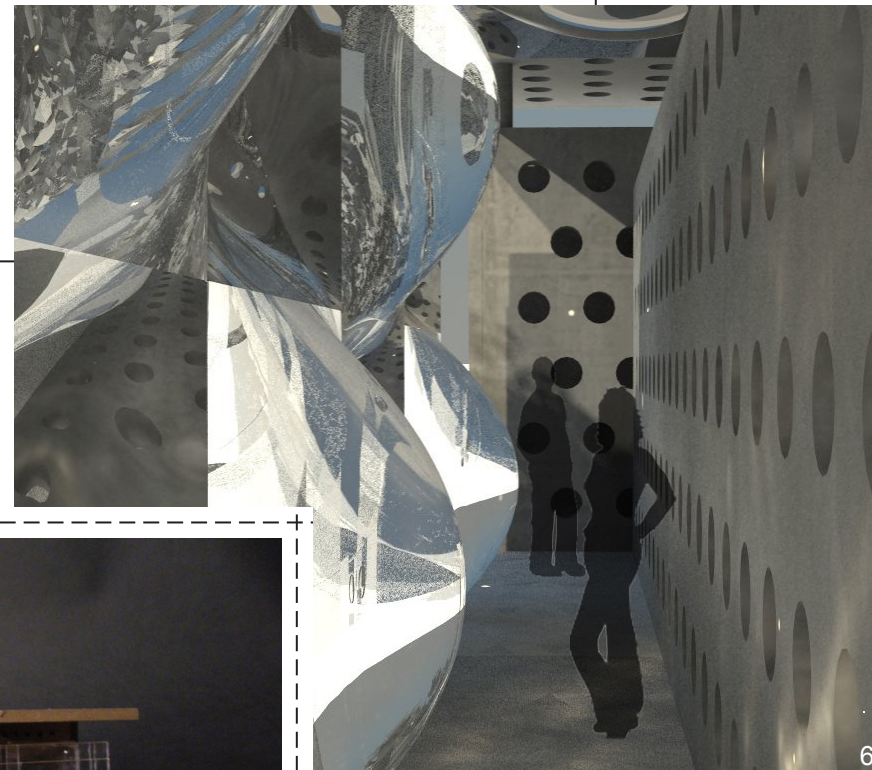
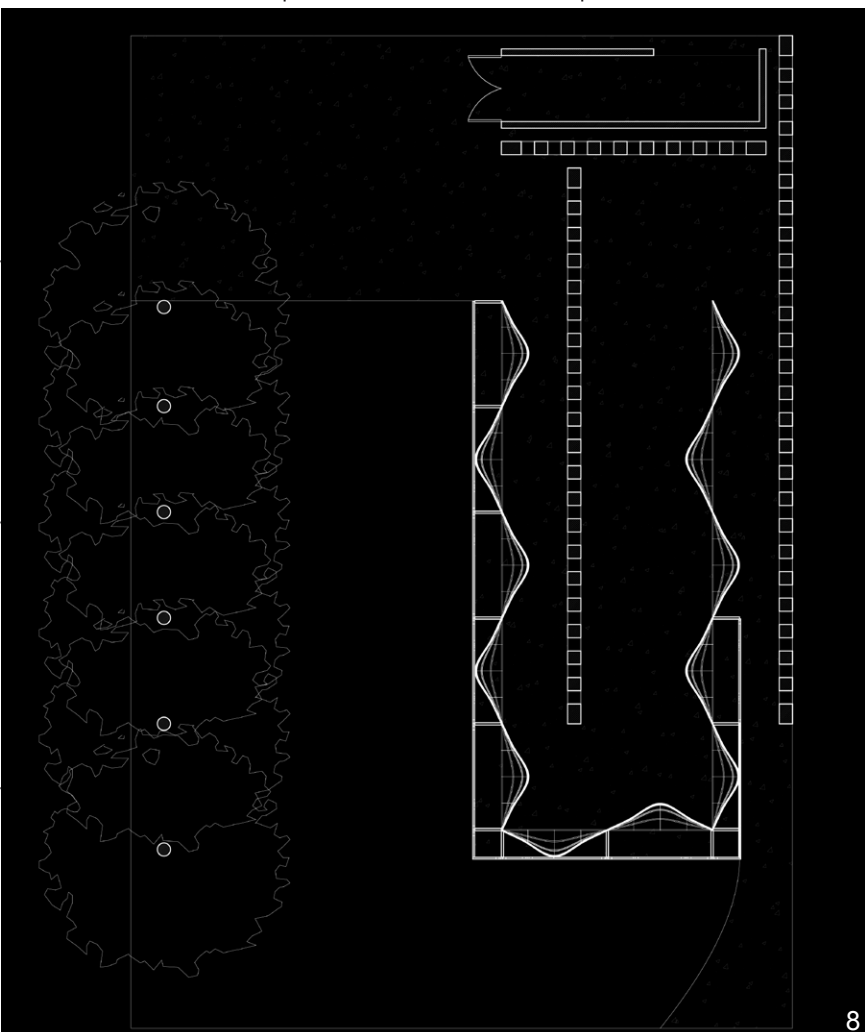
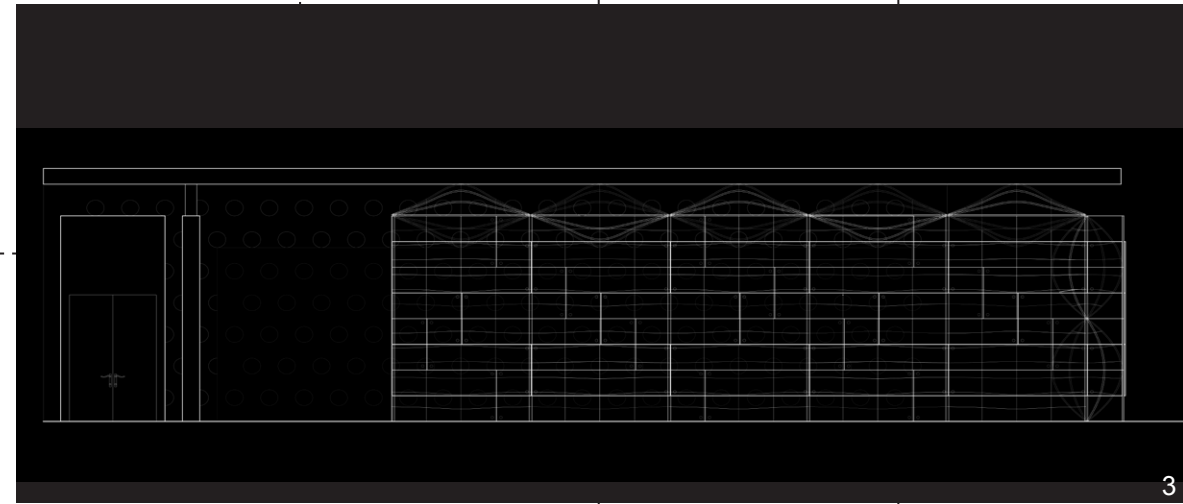
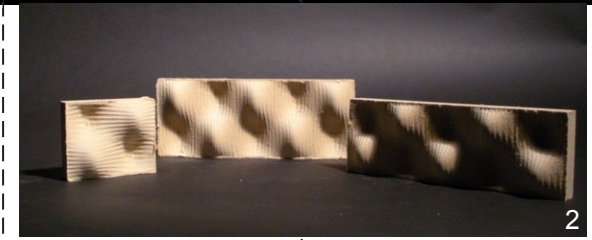
Project Statement

Our first goal was to create changing qualities of sunlight as the viewer moves from a soft/diffuse light in the transitional public spaces of the hallway and living room into the more directed light of the private spaces. Secondly, we added a dynamic element to the installation with our use of colors by inserting a streak of warm color into the cool colored surroundings. This emphasizes the accent, and helps to make the mood of the space more warm and inviting.

GLASS PAVILION

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48-200 | Fall 2009
Studio Instructor: Kent Suhrbier
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Benjamin Howe YEAR 2



- 1) STUDY MODEL
- 2) BENT GLASS SURFACE MOLDS
- 3) ELEVATION
- 4) RENDER (OPEN SPACE)
- 5) SECTION

- 6) RENDER (TIGHT SPACE)
- 7) MODEL
- 8) PLAN

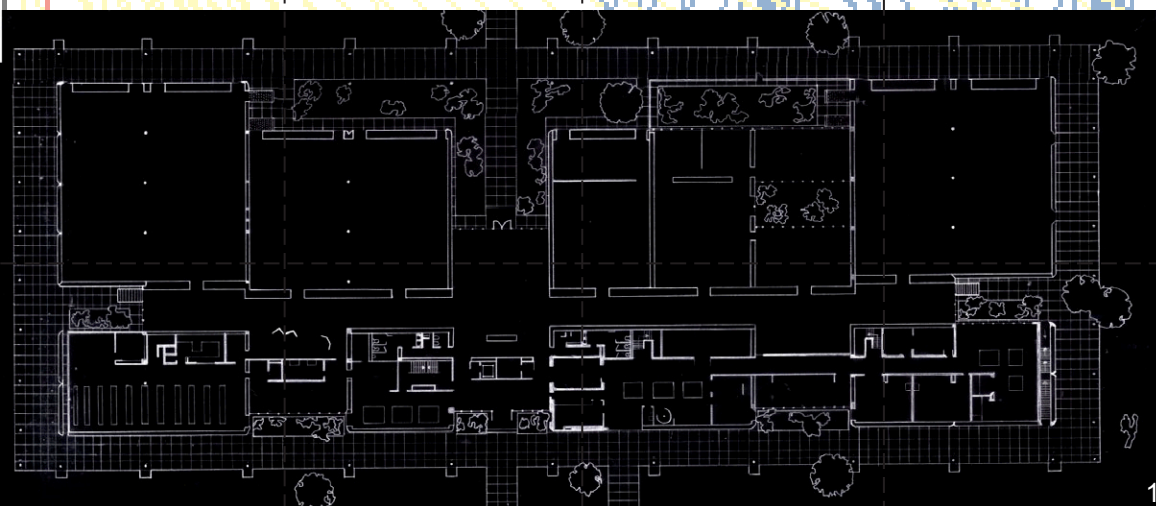
Project Statement

This project is about the exploration and celebration of bent glass and how light hits it. To accomplish this goal I previously studied the interaction of a bent glass plane and a surface (1). From there I used these planes to become manipulated into the walls of the pavilion. I then further emphasized the power of what bent glass can do by having the viewer experience a series of tight and open spaces between the bent glass and the wall planes. Lastly I worked at hiding this bent glass surface a little from the outside by placing a double layer glass veil in front of it. This not only tries to hide an experience the viewer will not expect, but also further helps manipulate and bend the light that will interact with the bent glass surfaces.

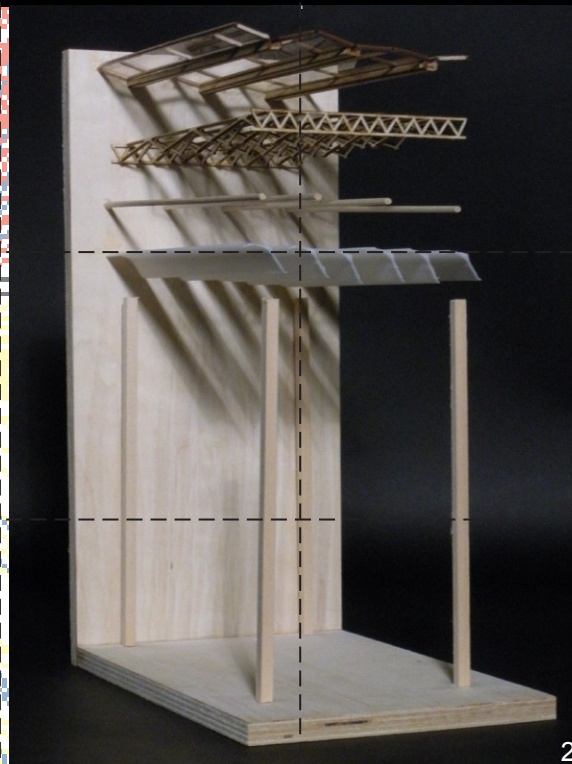
Museum Analysis

BENJAMIN HOWE
48-200 | Fall 2009
Studio Instructor: Kent Suhrbier
School of Architecture
Carnegie Mellon University

- 1) PLAN
- 2) MODEL
- 3) MODEL DETAIL
- 4) SECTION
- 5) INTERIOR VIEW
- 6) EXTERIOR VIEW
- 7) DRAWING



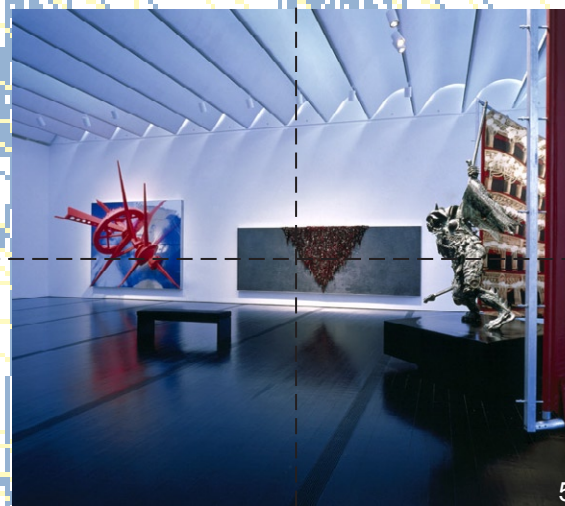
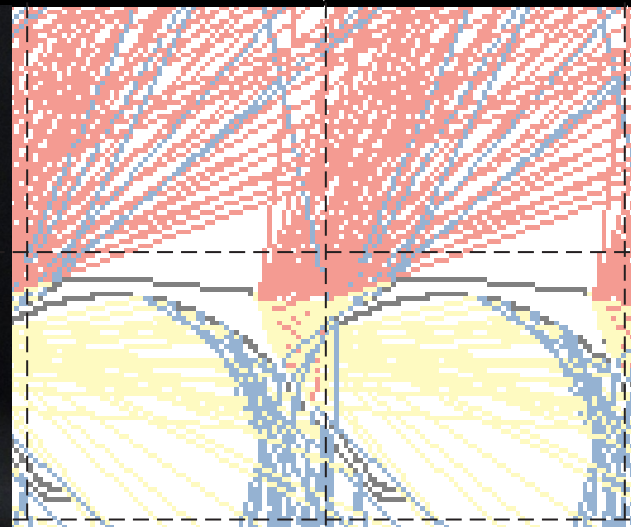
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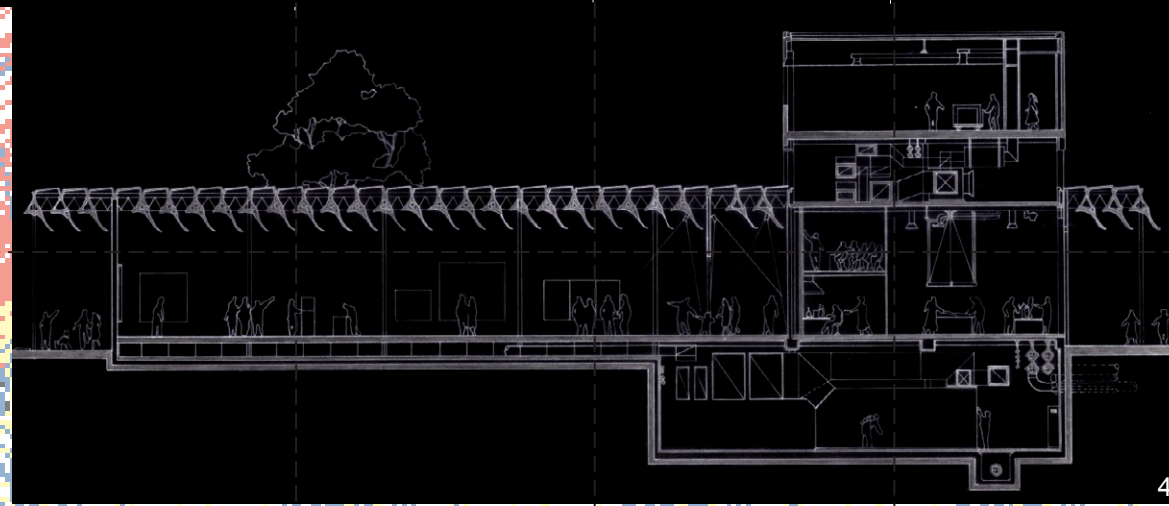
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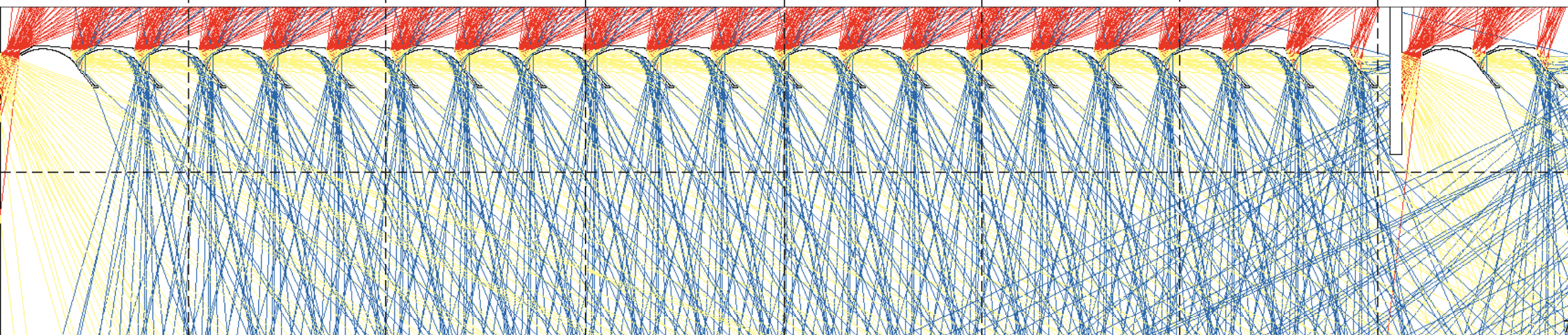
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6



4



Project Statement

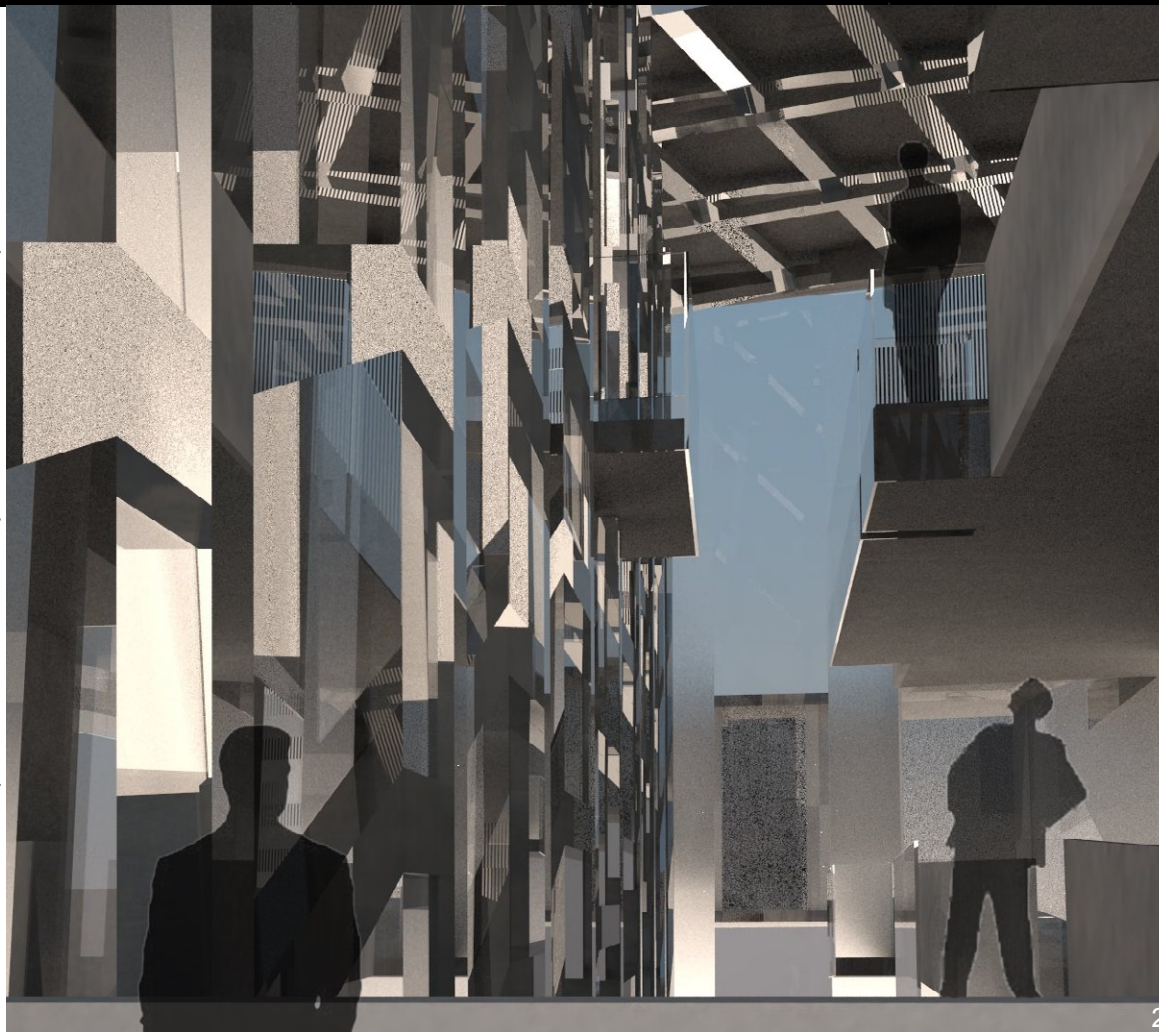
Renzo Piano's Menil Collection

My drawing shows the power of Renzo Piano's louvers to manipulate the harsh sunlight of roughly 10,000 lumens down to 1,000 lumens, an acceptable lighting to not damage the artwork in the building. The sun drops in intensity each time it hits the louver and my drawing shows how the sunlight would interact in the space ranging from the low winter sun of 20 degrees in 5 degree intervals up to the 70 degree high summer sun. The model is an analysis of the components of this light-manipulating roof system by showing it in exploded form. There is a layer of a glass roof to reduce the sun, then the truss to hold the louvers which do the true light manipulation. Within the trusses is the hidden ductwork for heating and cooling, all of which rest on column supports in the museum.

Light Museum

BENJAMIN HOWE
48-200 | Fall 2009
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Carnegie Mellon University

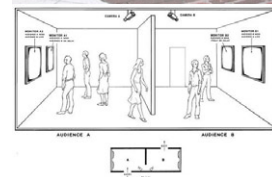
Benjamin Howe YEAR 2



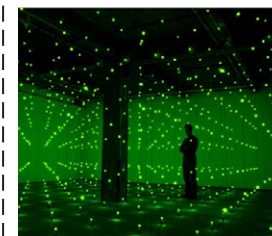
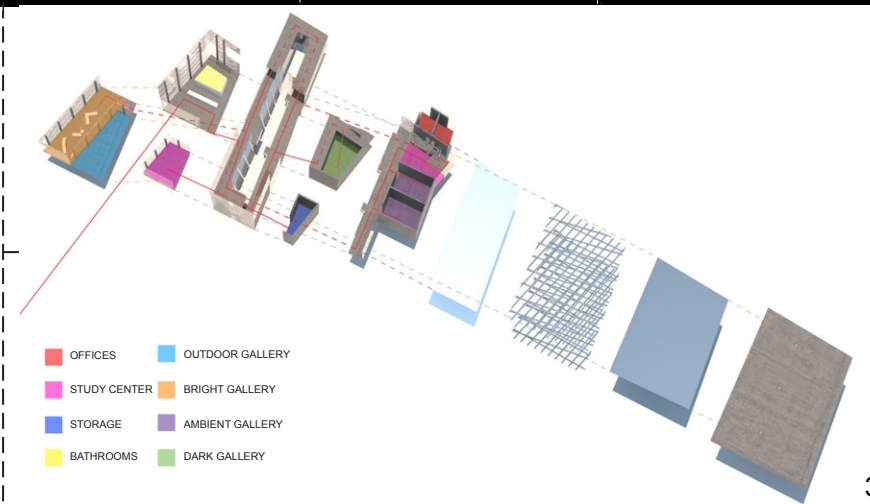
BRIGHT GALLERY
RENDER WITH
ROBERT MORRIS'S
L BEAMS



DAN GRAHM'S
TRIANGULAR SOLID
WITH CIRCULAR
INSERTS



DAN GRAHM'S
TIME DELAY ROOM



ERWIN REDL'S
MATRIX II



1



5



4



6



7

- 1) LIGHT STUDY
MODEL ANALYSIS
- 2) INTERIOR
RENDER VIEW
- 3) DIAGRAMS
- 4) NIGHT VIEW
RENDER

- 5) DAY VIEW
RENDER
- 6) BACK VIEW
RENDER
- 7) SECTION

Project Statement

UNTOUCHABLE LIGHT

To me, light is something you can see but never can touch. I created a museum where the light comes into certain spaces where people could see it but never truly touch the light, which emphasizes this concept of untouchable light. I was also very interested in a certain axis the museum created from its side sidewalk which splits my building in half to create the central atrium and derive the forms of my building. I accented this by having the circulation of the museum walk around this axis with the galleries as points along it to stop and visit. In keeping with my idea of untouchable light I chose artworks to try and help articulate this point. In the dark gallery is Erwin Redl's Matrix II, which creates a series of points of lights that we can see but not actually hold or touch. The next piece we come across is Robert Morris's L Beams. These art pieces have been placed in the bright gallery to allow the light to come in from across the museum to touch down on it. (This gallery was also placed as a challenge earlier by placing the brightest room on the dark side of the building but using the architecture of the building to bring light over to make it a bright gallery.) Adjacent to the L beams pieces is Dan Graham's Triangular Solid With Circular Inserts. This piece uses two-way mirrors to create different ways of revealing and concealing views. My goal is to reveal and conceal light in the same way. Continuing the theme of untouchable light, the piece is also placed in an inaccessible outdoor gallery. The final piece is also by Dan Graham and is called Time Delay Room. It uses a camera that takes a picture and replays it eight seconds later. I have put a twist on it by placing it in a room where people will be reminded of light from the past, by seeing themselves interacting with light from eight seconds ago.