

Painting + Architecture: Understanding Design as an Integrative Process

Introduction

Painting is an activity where creativity and imagination merge through representative color on a painting surface. As a result, the artist escapes routine daily experiences and becomes immersed into a meditative state of mind. And, without a written or spoken word, the paint becomes a language that can begin to define spatial boundaries that allow one to experience the process within the composition. Painting is a medium that has qualities found in architecture such as space, volume, light, form, memory, spirit, texture, material, time, and place. In searching for a deeper meaning within our built environment, it is suggested that the importance of painting be analyzed as a process to generate architecture. So, if conveyed properly, process can have a profound impact on the viewer or building user as they experience the process used to generate a painting or building. The designer has ideas they wish to convey to viewers or building users through the process of their own creativity. Architecture lives somewhere between fine art and engineering, so how can the artistic production of painting make a process oriented architecture? This paper will discuss historic precedent evident in modernist paintings, contemporary architects, built case studies, and painters that share a common artistic process. The contemporary architects that will be discussed follow similar principles as the artists and incorporate it into their work.

Historical Precedent: Modernism and the Bauhaus

In the "Forward" of *Painting Toward Architecture* art historian, Alfred H. Barr, Jr., states that the architect must be many things including; "engineer, sociologist, psychologist, economist, business man, politician and courtier, with an invisible four-leaf clover in his buttonhole." Barr explains, when referring to the architect, "though in this century he has sometimes excused himself from the role, he is

an artist—or should be."¹ This statement is intriguing, as Barr declares the architect as an artist. If the architect is an artist it is easy to conclude that the finished product created is art. The "Forward" of *Painting Toward Architecture* was written in 1948 but is still a valid text.

Barr was not the only one who felt that art was a benefit to architecture. Three decades before Barr wrote the "Forward" of *Painting Toward Architecture* the Bauhaus used artistic production as the foundation for their curriculum. The curriculum taught basic courses, called workshops, where the students would focus on a particular area of study; wood, stone, glass, textiles, metal, clay, or color (Fig. 1). The students, after review, were

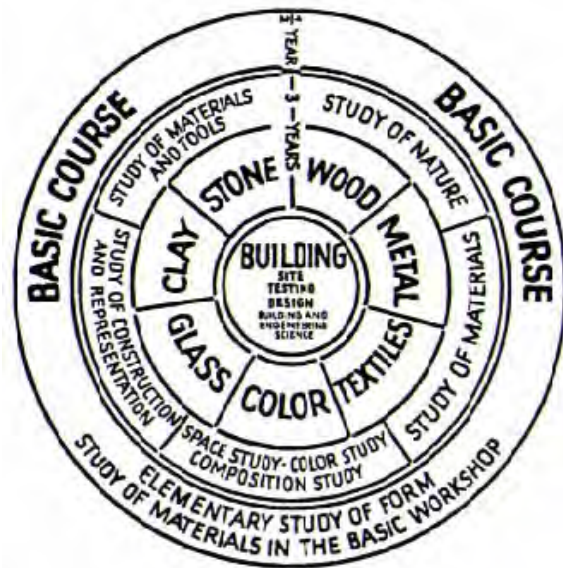


Fig. 1:

English diagram showing the Bauhaus curriculum.

then eligible for entry into the building portion of the curriculum where they could eventually become an architect. The students were trained as artists before they became architects. By combining the Grand Ducal

School of Arts and Crafts and the Weimer Academy of Fine Art in Weimer, Germany, founder Walter Gropius created the world's first design school. The international faculty taught using Avant-garde models to help guide an international student body.²

Gropius's earliest staffing appointments to the Bauhaus included artists Lyonel Feininger, Wassily Kandinsky, and Paul Klee. Feininger's heavy, cubism influenced work, was often represented by color washes over reductive linear patterns with sharp edged surface



Fig. 2: Left: *Near the Palace*, Lyonel Feininger, 1915. Middle: *Animated Stability*, Wassily Kandinsky, 1935. Right: *Structural II*, Paul Klee, 1924.

geometries³ (Fig. 2: Left). Kandinsky's evocative and chaotic paintings, often considered more "musical" than structural, appear to have progressed from architecture to compositional painting (Fig. 2: Middle). And lastly, Klee's work ranged from solid color rectangular abstraction to semi-representational scribbles⁴ (Fig. 2: Right). Feiniger, Kandinsky, and Klee all made their impact with abstraction and non representational art well before the First World War. Gropius introduced them and other artists and architects to the world as Bauhaus Masters. These masters offered a diverse range of art and design theory at the Bauhaus offering the students a range of inspiration.⁵

Methodology of Recent Work: Artists Making Architectonic Paintings

The contemporary artist, Julie Mehretu, has investigated the built and natural world through the expressive nature of her painting. As curator Rafael Doctor Roncero states, in the "Forward" of *Julie Mehretu*, the base of Mehretu's paintings often portray architectural plans, axonometric drawings, and maps. With layers of swirling colors above heavily detailed and complex backgrounds, Mehretu's paintings represent the unfolding world.⁶ The edited monographs in *Julie Mehretu* explain in depth the history, migration, battlefields, and



Fig. 3: *Ariel*, Ink and acrylic on canvas. Julie Mehretu.

landscapes buried within Mehretu's work. Familiar architectural language can be experienced from within Mehretu's paintings. In Mehretu's painting *Ariel* (Fig. 3), twisting, rotating, and quick motion brush strokes emulate the expressive nature of places such as the Coop Himmelb(l)au building, the *BMW Welt*, in Munich (Fig. 4). The building has a similar rotating motion as the mullions between the glass begins to represent Mehretu's detailed brush strokes. The rest of the building behind the twisting glass becomes the complex background found in *Ariel*. Mehretu's paintings are extremely evocative and hint at different artistic movements and graphic styles such as hybrid drawings. As written by M. Saleh Uddin, in his book *Hybrid*



Fig. 4: *BMW Welt*, Munich, Germany, Coop Himmelb(l)au

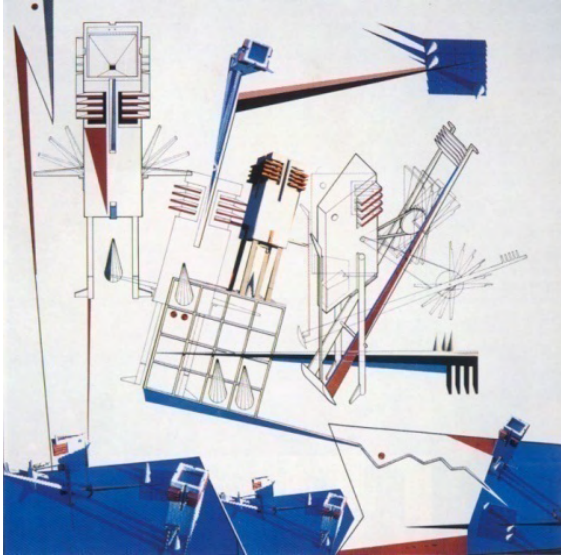


Fig. 5: *Anthropomorphosis*: Robert J. Fakelmann.

Drawing, “hybrids are the fusion and superimposition of diverse drawing types intended to be seen as one drawing.”⁷ Uddin writes that the hybrid drawing is the first new type of architectural drawing since perspective theory and theory of axonometric drawing and names this new style of drawing “comprehensive overview of design.” Hybrids are characterized by overlapping, layering, and squeezing graphic information together in order to relay as much information as possible without compromising overall clarity. It is easy to find similarities between hybrids and the fragmented views in cubism as well as the heavy blocks of color found in Suprematism.⁸ Hybrids usually serve as a bridge between concept drawing and computer aided design. One such case is Robert J. Fakelmann’s, *Anthropomorphosis* (Fig. 5). Mehretu’s *Ariel* is defined by expressive swirling motions, where *Anthropomorphosis* has a similar feeling through the unfolding of rectilinear geometries, axonometric drawings, and renderings. *Anthropomorphosis* is more about simple and clean lines against a stark white background where *Ariel* is a muddier transformation. Both of these works are obviously architectural and all about process which allows me to make a comparison.

Architects: Painting in Process

Today, thoughtful architectural process is sometimes forgotten by architects and building occupants. The question is: How can architecture elevate the mundane to something that is enlightening and thoughtful? Architect

Steven Holl does most of his process in watercolor. His watercolors are quick and are created within a five by seven notebook. Holl writes that, “as a method of catching intuition and first thoughts it is a technique which sets the imagination free.”⁹ To Holl, the initial ideas that spark the drawings are form, space, and light. He writes, “a very rapid concept sketch could simultaneously indicate space and—with the swipe of a brush—the direction of light.”¹⁰ Holl calls his small paintings, “playfully vague,” but these “vague” intuitions have often assisted a project through to completion.¹¹ Holl’s small sketches quickly transport ideas from the mind through the hand intuitively.

One such project is the Chapel of St. Ignatius on the Seattle University Campus (Fig. 6). After being granted the opportunity to do the small chapel, Holl did extensive research on St. Ignatius and the Jesuits through traveling to Montserrat and Rome as well as the writings of St. Ignatius on guiding personal prayer. Holl met with the students of the university and the campus community.¹² In the *Introduction* of Steven Holl’s book, *The Chapel of St. Ignatius*, Father Gerald T. Cobb, S.J. writes, “the Ignatian emphasis upon choosing among constantly shifting interior movements was the primary inspiration for Holl’s design concept ‘a gathering of different lights’.” This image eloquently describes both the client and the program for the chapel,¹³ since the “different lights” also refers to the international student body the chapel serves. The process begins with a still life watercolor of colored glass bottles—an interpretation of “gathering different lights”. Holl envisioned the play of light within the chapel to react similar to the way the light filtered through the bottles with



Fig. 6: *Chapel of Saint Ignatius*: Seattle University, Seattle Washington, Steven Holl.

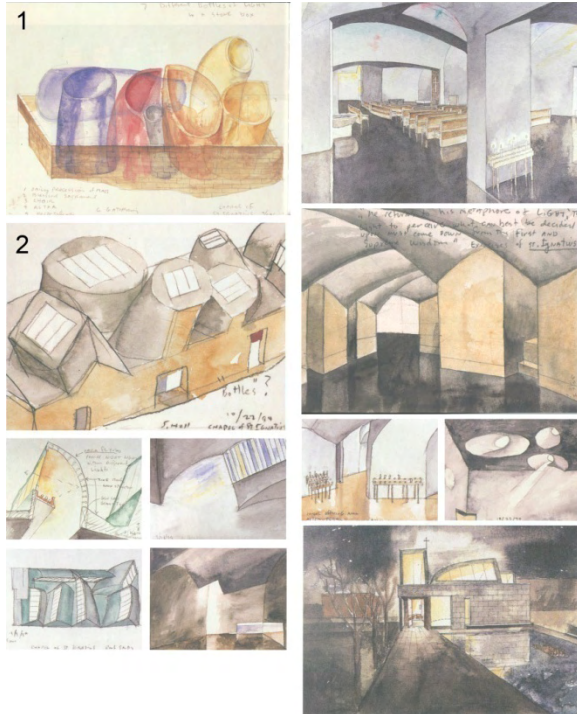


Fig. 7: *The Chapel of St. Ignatius; Process Paintings*, Seattle University, Seattle Washington, Steven Holl Architects.

each window announcing separate interior spaces and also juxtaposing the buildings solid form. It is evident that Holl's intuitive mode of creativity allows him to generate elegant spaces and forms. The process paintings (Fig. 7) clearly show the steps of his investigation toward a chapel of "different lights." From the initial concept of the seven glass bottles (image 1) to where the bottles have become solid forms (image 2) shows Holl's intuitive mode of thinking about space. The other paintings depict the feeling of being inside showing light washing across surfaces,



Fig. 8: *Bloch Building; Nelson Atkins Museum of Art Expansion*, Kansas City, Missouri, Steven Holl Architects.

reflective floors, and how the bottles become an experience inside.

Another of Holl's projects is the addition to the Nelson Atkins Museum of Art. The new addition, or Bloch Building, is a seamless translucent jewel fully integrated into the landscape (Fig. 8). The Bloch building consists

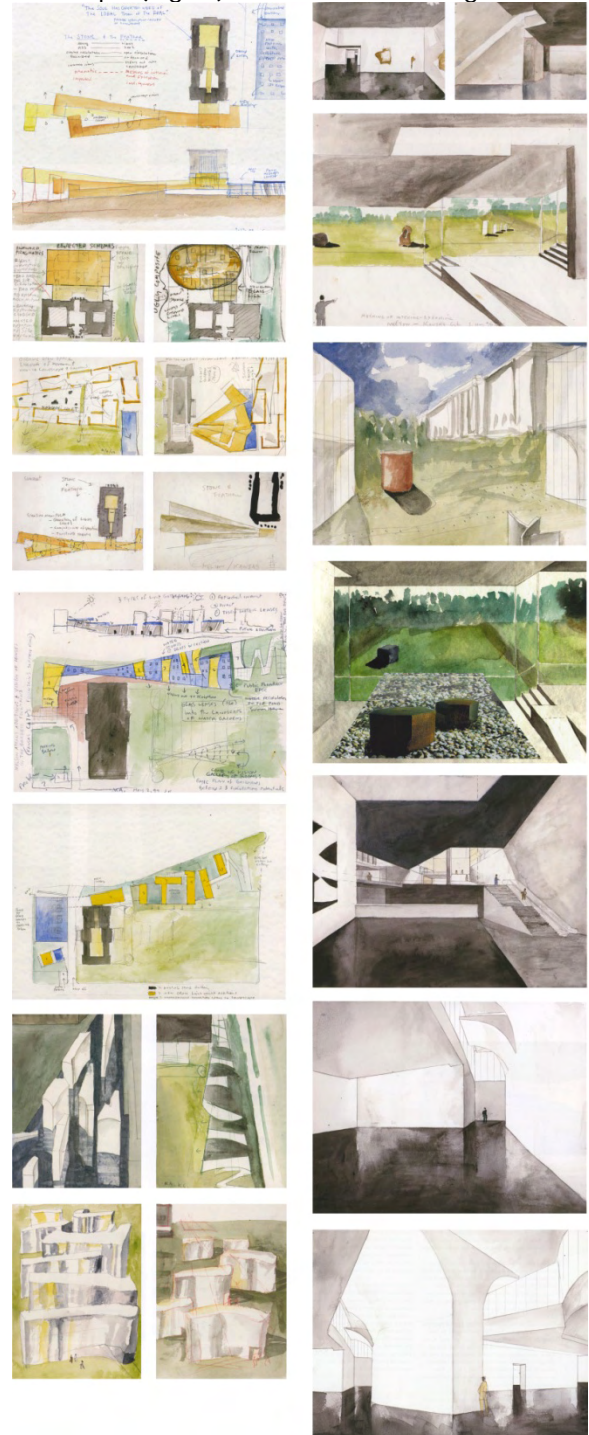


Fig. 9: *Bloch Building Watercolor Process Sketches; Nelson Atkins Museum of Art Expansion*, Kansas City, Steven Holl Architects.

of five “lenses” that are arranged on the east side of the museum campus to form new spaces and extend views out into the sculpture garden. The goal of the Bloch Building is the “flow between light, art, architecture, and landscape which is achieved through views from one level to the next, and from inside to outside.”¹⁴ By configuring the new addition into the landscape it preserved the historic integrity of the original museum. The sleek and slender addition cascades down the hillside along the sculpture garden. Along the street front, the building is more monumental displaying board formed concrete retaining walls that give texture and contrast to the sleek glass façade. Most of the building is contained under the ground with light provided through translucent clearstory windows. After the sun goes down, the Bloch Building becomes a lighted piece of sculpture inside the sculpture park. The building speaks out among the darkened streets stating the importance of art within the urban fabric of Kansas City. The process sketches (Fig. 9) show the full spectrum of how Holl’s intuition captured space, volume, light, form, and texture through watercolor.

Emulating a Historical Art Movement

Zaha Hadid is another architect painting her architectural investigations. Though similar in method to Holl, Hadid’s paintings are usually less transparent and more smooth and geometric. Architect Greg Lynn recognizes the similarities between Hadid’s work and Russian artist and founder of Suprematism, Kazimir Malevich. Lynn says the smooth quality of Malevich’s work is part of the “seduction” that Hadid uses in her own projects¹⁵ and both of them desired to address the world beyond painting even though their investigations are conducted on canvas.¹⁶ The color and forms in Hadid’s work represents energy that represents the process of formation, motion, spatial mapping, and how the building could potentially be used or occupied. The vigor within the planar forms of Hadid’s paintings describes them as future three-dimensional experiences.¹⁷

Malevich altered the way artists saw the world and the way people saw painting. Before Suprematism, capturing light and nature was his main goal as he was inspired by landscape painters in Moscow. He understood that the essence of Impressionism was not to reproduce phenomena—only to convey the



Fig. 10: *The Woodcutter*, 1912, Kazimir Malevich.

qualities that phenomena possessed¹⁸. Malevich’s post Expressionist style is evident in his paintings through heavily shaded and exaggeratedly geometric forms that are similar to the style that many of Hadid’s paintings emulate. The, clothing, ax blade, and log edges in *The Woodcutter* (Fig. 10) demonstrates Malevich’s focus on manufactured form. In pieces such as the *Morning in the Country after Snowstorm* (Fig.



Fig. 11: *Morning in the Country after Snowstorm*, 1912, Kazimir Malevich.

11), Malevich purposefully replaces the ephemeral qualities of snow and smoke with heavy geometric forms. Denying the snow and smoke of mass and depth, foreground and background merge into a flattened image where geometry becomes the organizing principle.¹⁹ Similar to Malevich's beliefs, much of Hadid's prominence is from form and

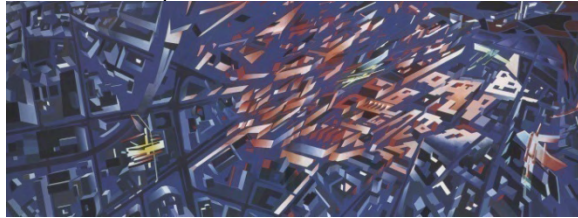


Fig. 12: *Victoria City Areal*, Berlin 1988, Zaha Hadid.

surface. Dominant form is evident in Malevich's paintings, *The Woodcutter* and *Morning in the Country after Snowstorm*, similar to how dominant form is expressed in Hadid's conceptual project, *Victoria City Areal* (Fig. 12). She has rejected any established beliefs about how to address form in architecture through defining feelings that exist in the abstract world, feelings she communicates through her paintings.²⁰ Hadid's paintings represent the process through which architecture is experienced. Her paintings are representational and in no way render exactly what a building will look like. Hadid's paintings represent transition to a future architectural experience.²¹ A perfect example is the Lois and Richard Rosenthal Center for Contemporary Art (CAC), in Cincinnati.

The concept for the CAC is "urban carpet." The concept is expressed as the concrete sidewalk passes through the glass street level façade and up the back wall of the lobby. Heavy concrete forms push and pull carving out gallery spaces inside allowing visitors to engage with the abstract world Hadid

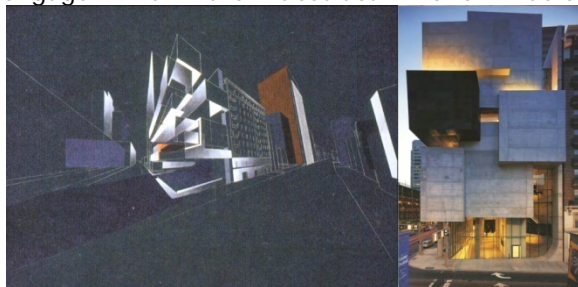


Fig. 13: Left: *Lois and Richard Rosenthal Center for Contemporary Art Painting*, Cincinnati, Zaha Hadid. Right: *Lois and Richard Rosenthal Center for Contemporary Art*, Cincinnati, Zaha Hadid

communicates through her paintings. The movement through the building seems coriographed as one weaves in and out of the different volumes as they glide up the main stair. One of the original drawings for the CAC is an exaggerated two point perspective emphasizing the volumetric forms as they appear to push out toward the street. The image exaggerates the heavy forms as there are more were constructed (Fig. 13).

Recent Similarities and Comparisons

Another project that draws some similarities to Malevich's work is the Akron Art Museum (Fig. 14). This project was not conceived through painting, but it is important because its form appears similar to forms found within Malevich's paintings. The "roof cloud", a theoretical connection between historical and contemporary Akron, reaches out in four directions acknowledging its place in the urban fabric. The aluminum clad "gallery box" and the lobby, or "crystal," as well as the roof cloud



Fig. 14: Left: Akron Art Museum, Coop Himmelb(l)au. Right: *Suprematist Painting*, 1915, Kazimir Malevich.

begin to suggest the connection to Malevich's painting style. The usual forms of the building seem as if they could be taken straight from Malevich's Suprematist painting of 1915-16 (Fig. 14: Right). In this painting, most of the shapes are rectangles or quadrilaterals which can be compared to the roof cloud and gallery box. The yellow triangle in the painting could represent the angled form of the crystal as it gracefully leans back from the street and embraces the historic building. The thin lines in the painting could represent the theoretical connections or movement on site. The painting as a whole could be a representation of the building as seen in plan.

Another painter's work reminiscent of architectural projects is that of Karin Davie. Her painting *Between My Eye and Heart No. 17* (Fig. 15: Right) closely resembles movements and textures that exist in the Wayne Lyman Morse United States Courthouse in Eugene,



Fig. 15: Left: *Wayne Lyman Morse United States Courthouse*, 2006, Morphosis. Right: *Between My Eye and Heart No. 17*, 2005, Karin Davie

Oregon, designed by Morphosis (Fig. 15: Left). Though the project was not conceived from painting investigations, the similarities come from the fluid motion of the paint Davie used on the canvas which can be compared to the motion of the metal skin covering the courthouse as it wraps around fluid corners. Another striking resemblance is the exaggerated presence of the brush strokes. The brush strokes can be compared to the horizontal spaces between the curved metal skin of the courthouse. Davie's painting shines as she has caught highlights on the edges of the forms reinforcing the connection to the courthouse's metal skin.

After discovering the similarities between Davies's painting and the courthouse, I did a six step transformation study based on "Transformation; An Exercise in the Third-Year Design Studio" published in the *Cornell Journal of Architecture*.²² My experiment (Fig. 16) began with a representation of the original painting, as true to the original as possible. Step two was the first move in abstracting the original painting. The background softened so that the primary shapes could be easily seen in the transformation. Some of the shapes have been slightly manipulated toward their final form. In step three, the forms have become a little lighter and shortened as anything that went off the page now ends within the canvas boundaries. The fourth step may be the architectural threshold as openings have become visible and walls are nearly locked together. Step five is the first to really resemble the courthouse. All the forms are in place and the shine of the metal skin is now present. And step six is the final image in the series fully depicting the form of the building, the window placement, and material representation. In the transformation, forms wrap and re-wrap to depict architecture.

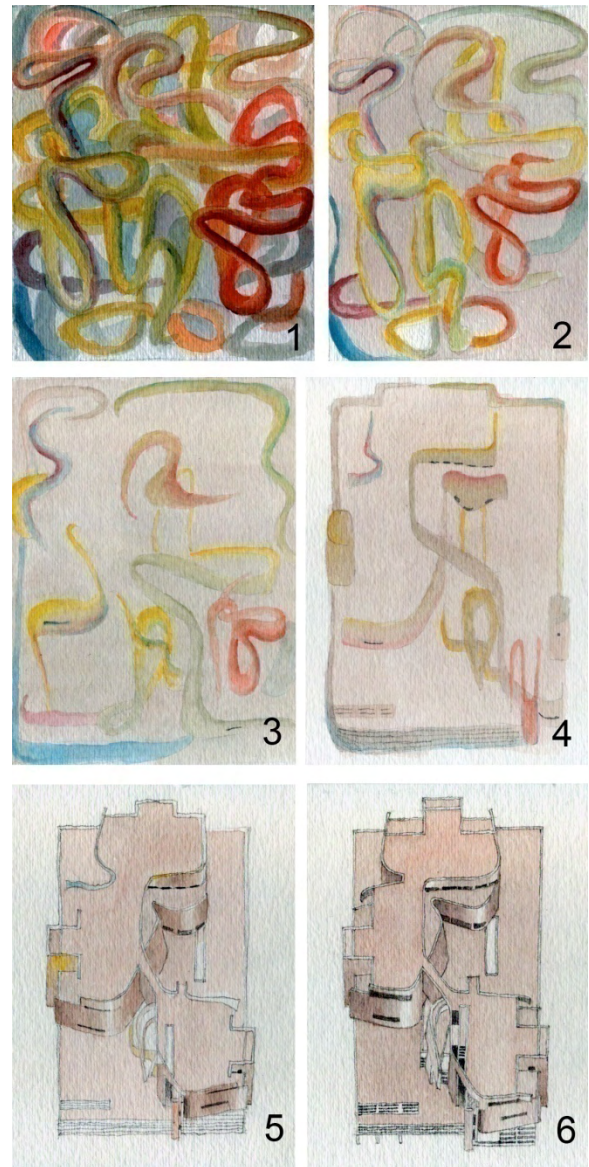


Fig. 16: Six step transformation from *Between My Eye and Heart No. 17* and the *Wayne Lyman Morse United States Courthouse*.

Painting and Architecture of Experience and Place

On canvas, depth and space can be perceived through the color field paintings of Mark Rothko. His color field paintings draw the viewer into a space of internal color. As written by author Jacob Baal-Teshuva, "He was mainly concerned with the viewer's experience, the merging of work and recipient beyond verbal comprehension."²³ Rothko's work was primarily focused on the process of painting rather than its classified style.²⁴ Rothko's work is recognized as rectangles of color over monochromatic backgrounds that pull viewers

into a new color filled environment. The blocks of color allude to space beyond the painting surface—between the background and foreground. In one of his untitled paintings from 1969 (Fig. 17), foreground and background are indecipherable as the eye struggles to decide which shade of gray blue is closer. The interesting thing about his work is that he is able to create space with flat blocks of color; dissimilar to other artists described earlier who build space with wrapping, weaving, and twisting forms. The experience represented on Rothko's canvases is similar to artist Robert Irwin's acrylic dot paintings.



Fig. 17: *Untitled*, 1969, Mark Rothko.

New art innovations take shape through the viewer's perception and interpretation. Art writer and critic Jan Butterfield writes, in *The Art of Light and Space* "...yet it is not simply mathematical perspective, the seeming veracity of the image, or the painterly stroke that appeals to us. It is the search for truth, for a different state of being that causes us to find the given work compelling."²⁵ According to Butterfield, Irwin felt his paintings were being heavily influenced by his environment and education therefore he dismissed his mark making and its historical connection altogether to begin making pieces based on the "phenomenon of perception."²⁶ Irwin began his dot painting movement with a circle

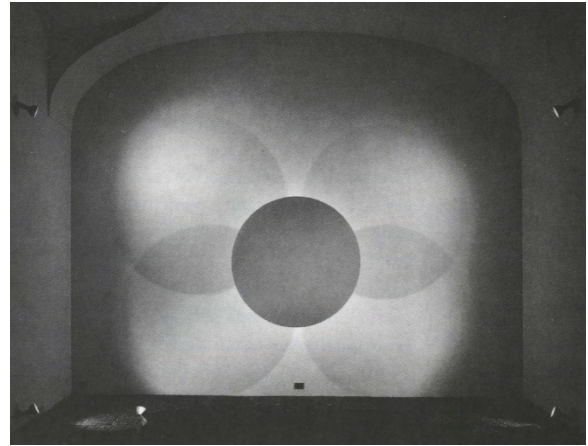


Fig. 18: *Untitled*, 1966-1967. Robert Irwin.

spotted with red and green paint. The affect was only perceivable once the viewer's focus softened at which time the circle began to "throb with energy."²⁷ Irwin began adding light to his dot paintings. His investigation with perceptual art continued with a spun aluminum disc (Fig. 18). The disc is sprayed with translucent paint, and held out away from the wall into the viewer's space. When light hits the disc a symmetrical pattern is created, blurring the boundary between painting and environment. The most visually exciting dot painting of Irwin's is made of acrylic (Fig. 19). The circle is sprayed with a narrow, horizontal band of paint, heavily in the center and then diminishing to the right and left.²⁸ Irwin's dot "paintings" are much like Rothko's color field paintings in that they both aim to alter the perception of the viewer's space.

The Glass Pavilion (Fig. 20), part of the Toledo Museum of Art campus, designed by the Tokyo based office of SANAA, Ltd, does the same

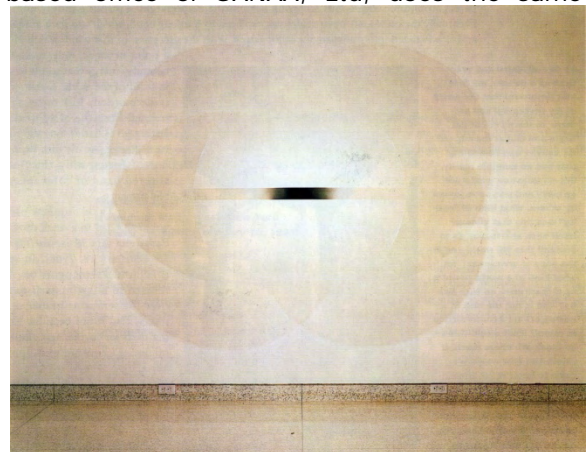


Fig. 19: *Untitled*, 1968. Robert Irwin.



Fig. 20: *Glass Pavilion: Toledo Museum of Art*, SANAA, Ltd. 2006.

thing as Rothko's color fields and Irwin's dots. This is due to the transparency of the building which is accomplished by using large planes of glass to enclose the art glass collection. The building is an expression of glass as art and glass as architecture. The Glass Pavilion is successful in altering the perception of place as the artifacts on display can be seen through multiple panes of glass at once. Rothko is successful with pulling the viewer into his colorful rectangles and Irwin in blurring the edges of his dot paintings into the white gallery walls creating viewer interaction. The Glass Pavilion has the same ability to allow the inhabitant to engage seamlessly between building and art and building and site.

Conclusion

The painterly stroke for an artist is like the delicate and attentively designed details that connect the pieces of the building together—little reveals at the base of drywall that make it appear to float off the floor or the way a steel column is received by the ceiling and floor—the way four wood beams come together by the most delicate piece of steel or the way a door handle or stair railing feels in your hand. Through painting as the means of process and representation, I am suggesting that process becomes apparent to the building users as an experience like Rothko tried to do in his paintings. Visitors to buildings by Holl and Hadid experience the qualities of volume, space, and light found in their paintings. Knowing our surroundings are represented truthfully enhances our awareness and keeps our existence enlightened. Similarly to the artist who escapes the routine daily experience through painting, that is what architecture

should do where natural light shines through thoughtfully placed windows to make an ever changing experience out of a corridor. Being able to experience the process within a completed building could be compared to viewing the memory left within the paint by the brush. A building needs to do more than meet functional needs—it needs to allow the users to participate in a creative manner. A building can be functional and be creative, enlightening, and an enjoyable place to spend time. To understand the architecture one must then understand the processes that go into making it. Painting helps make the creator more aware of what it is that makes a place inviting though heightening their creative process and stimulate their sensitivity. There must be a common bond between the built environment and the user so that the user can become intellectually and emotionally engaged with the process of the built environment.

List of Figures

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¹⁵ Gordana Fontana Giusti, *Zaha Hadid: Texts and References* (London: Thames and Hudson, 2004), 23.

¹⁶ *Ibid.*, 25.

¹⁷ *Ibid.*, 27.

¹⁸ Alison Hilton, *Kazimir Malevich* (New York: Rizzoli, 2002), 2.

¹⁹ *Ibid.*, 3.

²⁰ Giusti, *Zaha Hadid*, 29.

²¹ *Ibid.*, 39.

²² John Miller, "Transformation; An Exercise in the Third-Year Design Studio," *Cornell Journal of Architecture* no. 1 (1981) 86-90. In this study, architecture students became engaged in a two-week exercise of analysis and transformation using *Le Grand Déjeuner* by Fernand Leger, 1921 and *La Tourette* by Le Corbusier, 1957-1960. The students were asked to create the first and last steps of a six step process—a pencil representation of the original painting as true to the original as possible and a plan, plan-section, or plan-elevation of La Tourette.

²³ Jacob Baal-Teshuva, *Mark Rothko 1903-1970: Pictures As Drama* (Hong Kong: Taschen, 2003) 7. Though Rothko insisted that he was not an abstractionist, his paintings are certainly nonobjective. His paintings connect with us through basic human emotions, understandable in terms of real life.

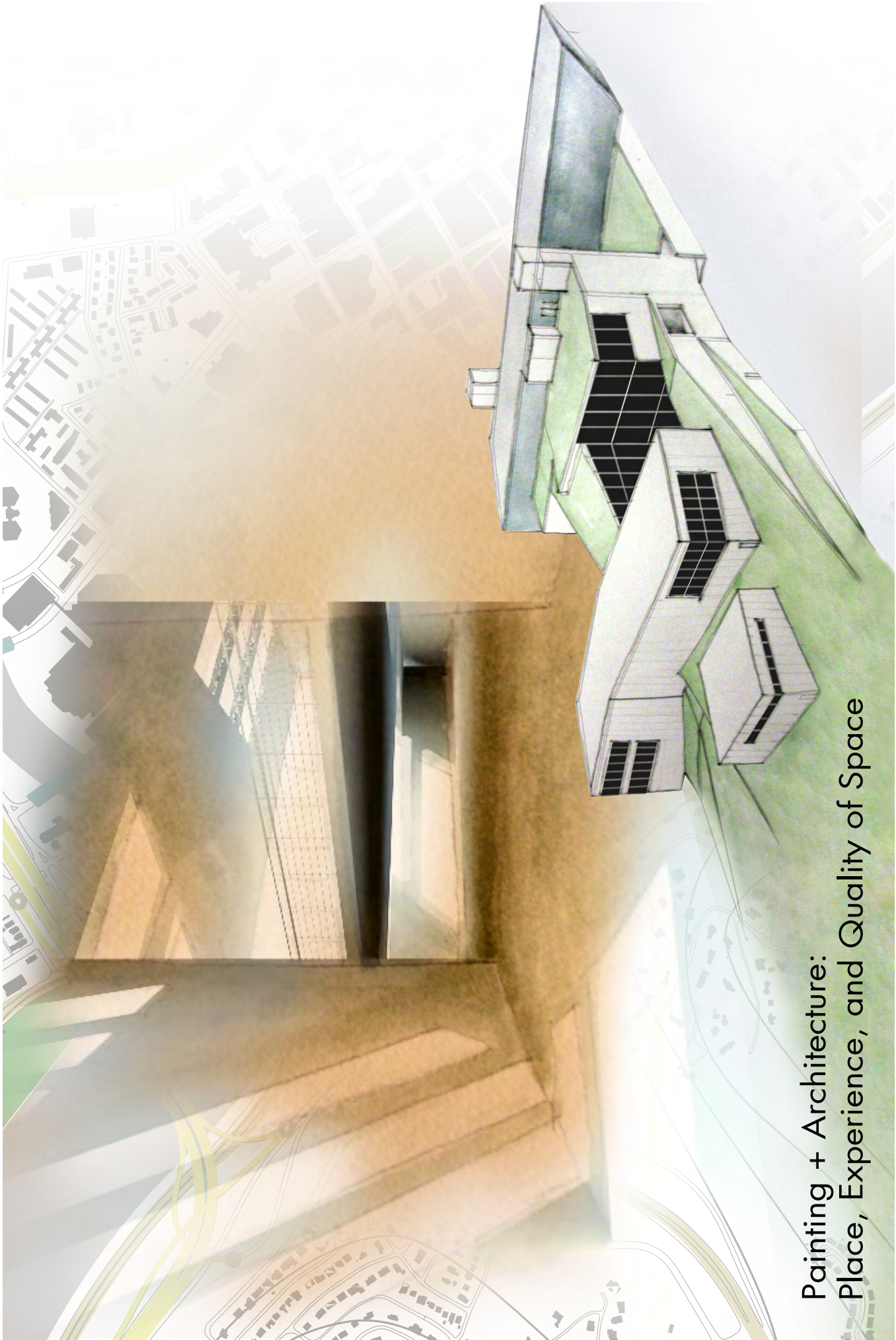
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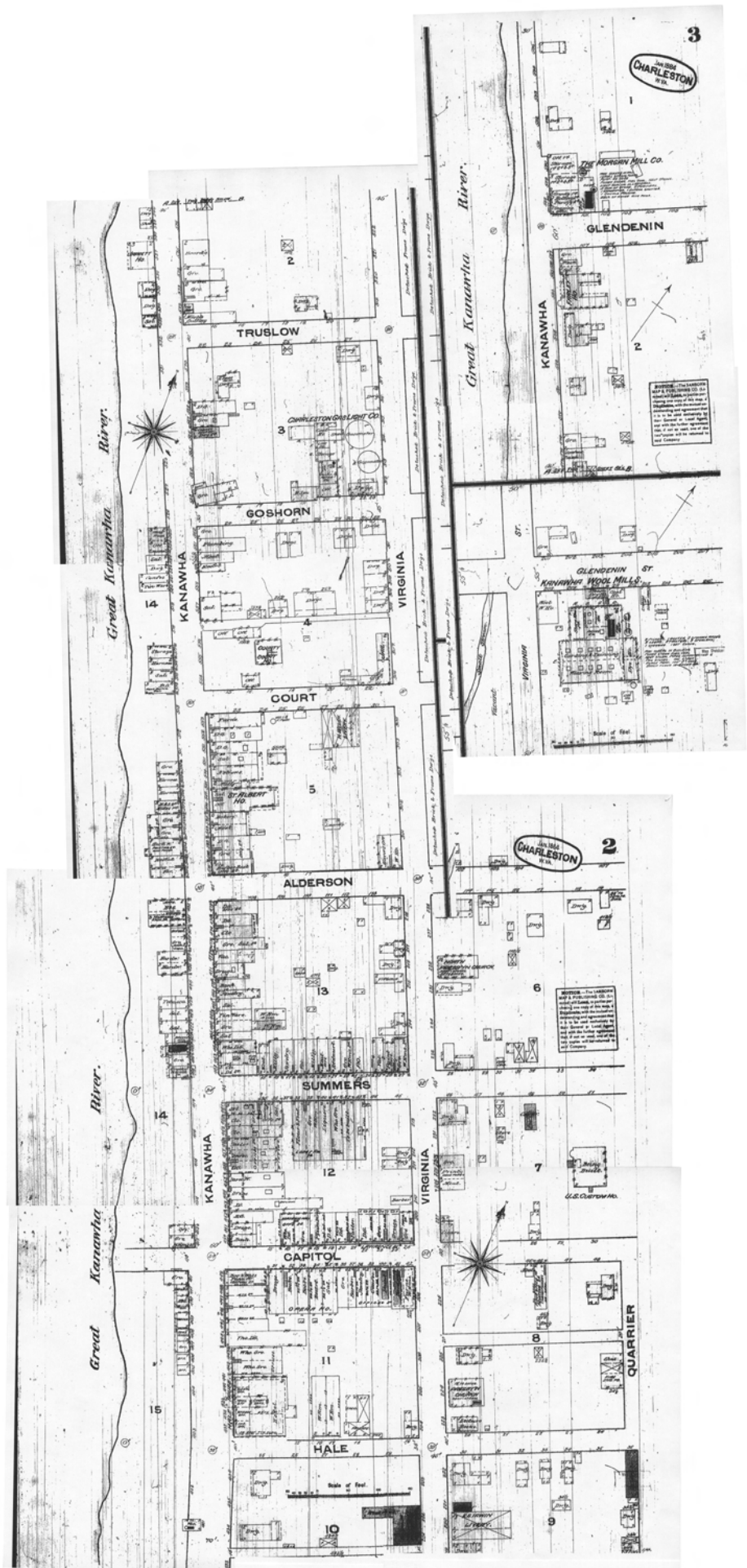
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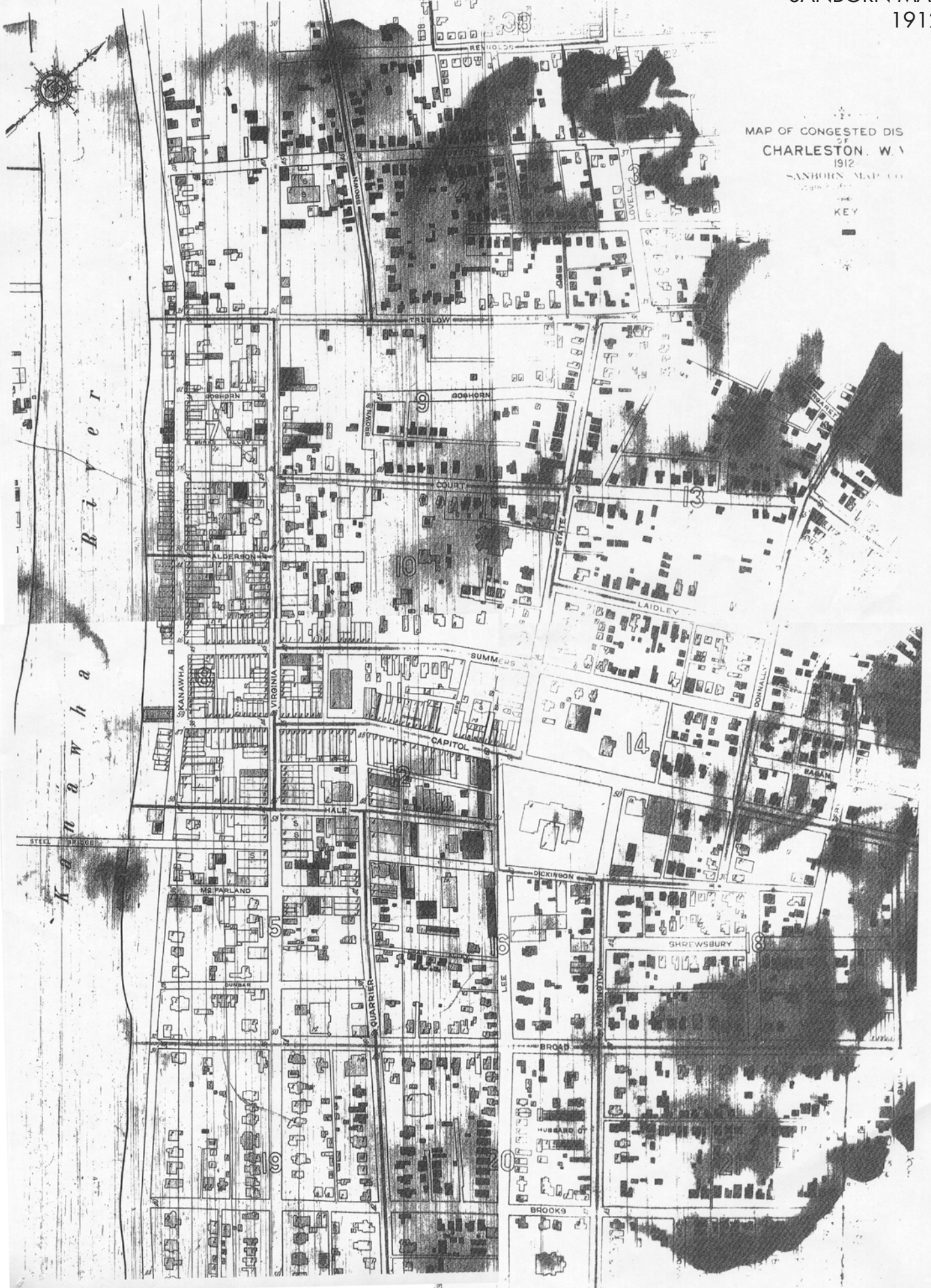


Painting + Architecture:
Place, Experience, and Quality of Space

PROCESS



MAP OF CONGESTED DISTRICT
OF
CHARLESTON, W. V.
1912
SANBORN MAP CO.
KEY



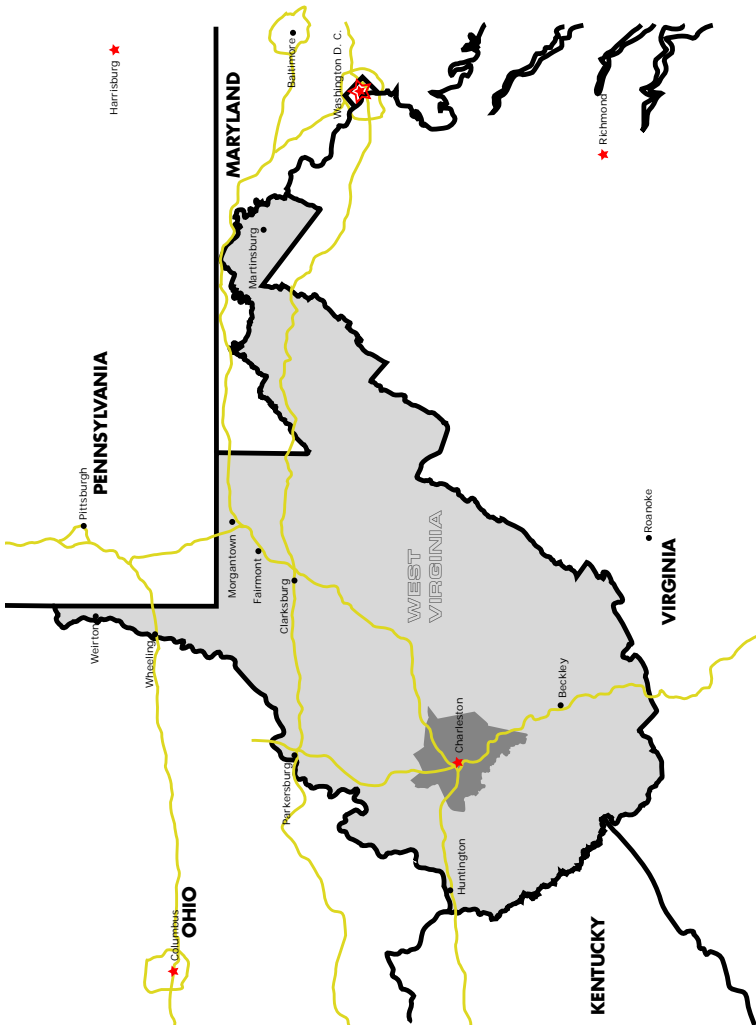
West Virginia

Population: 1,816,856 (36th in the Nation)
 22.3% < 18 years (24.3%)
 15.3% 65+ (12.8%)

Demographics

White 94.5% (79.8%)
 Black 03.6% (12,8%)
 American Indian 0.2% (1.0%)
 Asian 0.7% (4.5%)
 Pacific Islander 0.0% (0.2%)
 Latino 1.1% (15.4%)
 2 or more races 1.0% (1.7%)

Median Income: \$37,057 (National \$50,740)



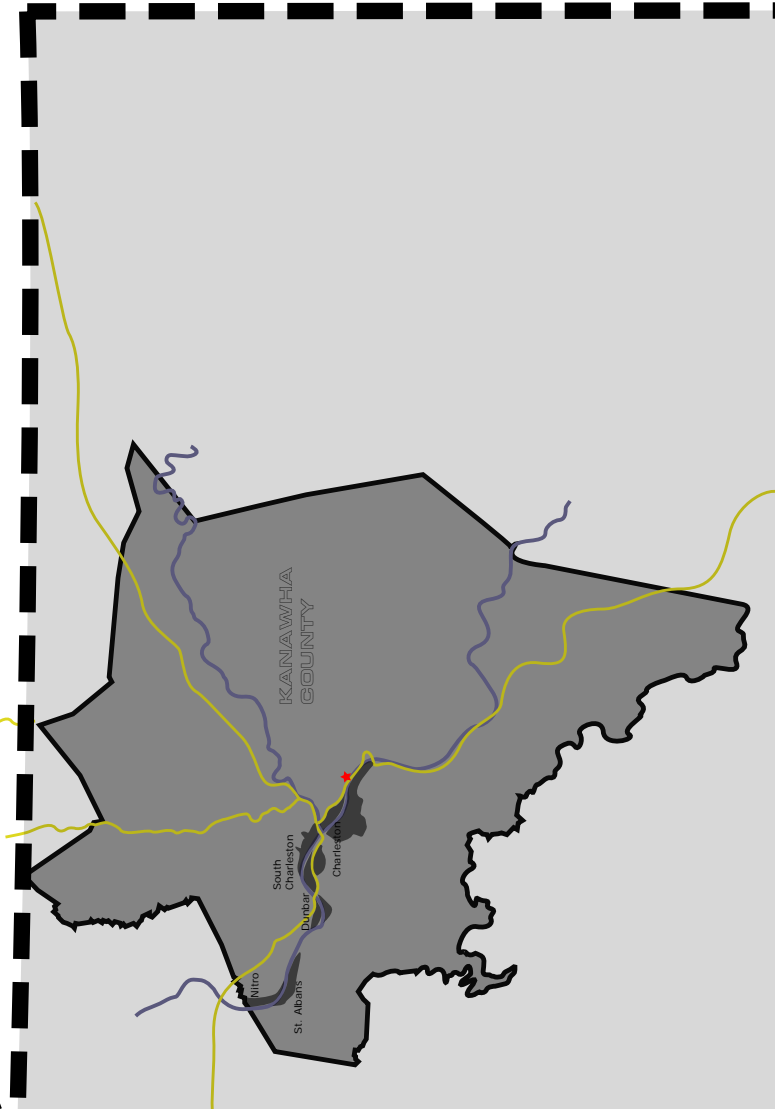
Kanawha County

Population: 191,018
 21.3% < 18 years
 08.4% 18-24 years
 28.1% 25-44 years
 25.6% 45-64 years
 16.5% 65+ years

Demographics

White 89.1%
 Black 7.9%
 American Indian 0.4%
 Asian 1.1%
 Pacific Islander 0.1%
 Latino 1.6%
 2 or more races 1.4%

Median Income: \$33,766



WALKING TOUR

CHARLESTON

WEST VIRGINIA

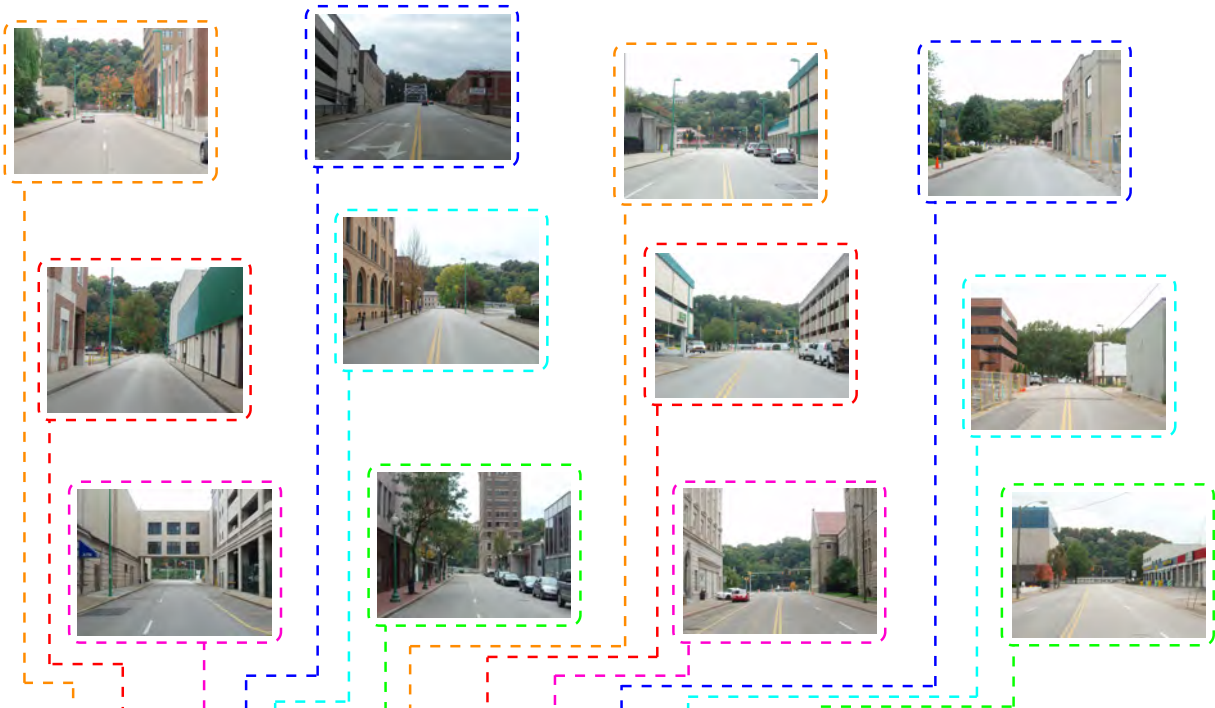


2nd Tallest Building
(after State Capitol)

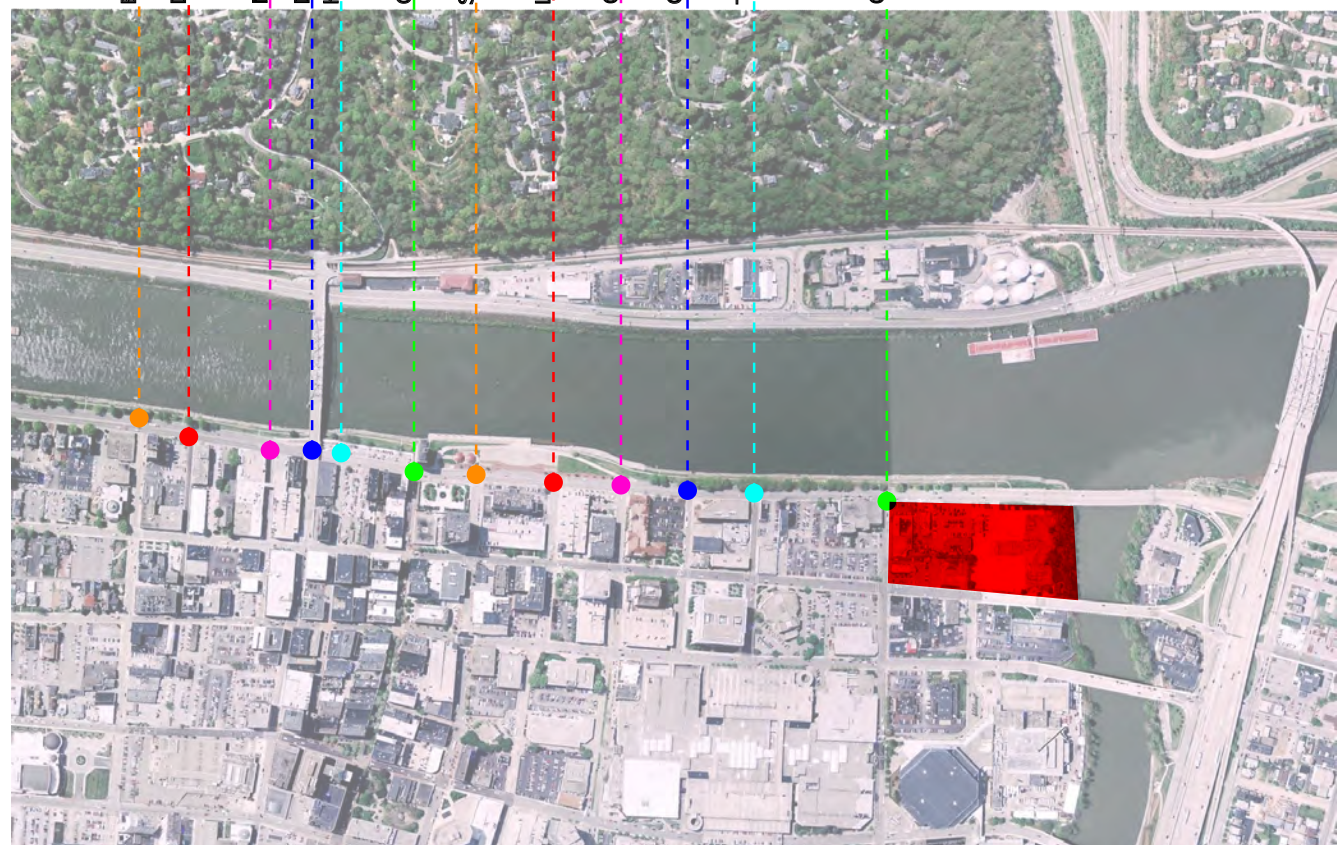
2nd Tallest Building
(after State Capitol)

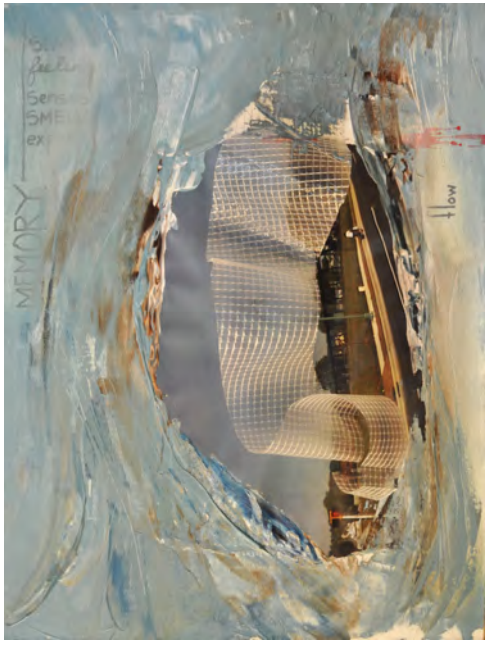
STREET TERMINATIONS

PEDESTRIAN POINT OF VIEW



- BroadSt.
- Dunbar St.
- McFarland St.
- Dickenson St.
- Hale St.
- Capitol St.
- Summers St.
- Laidley St.
- Court St.
- Goshorn St.
- Truslow St.
- Clendenin St.







STATA CENTER

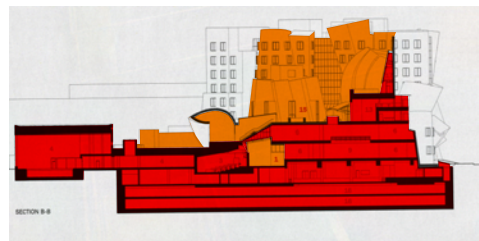
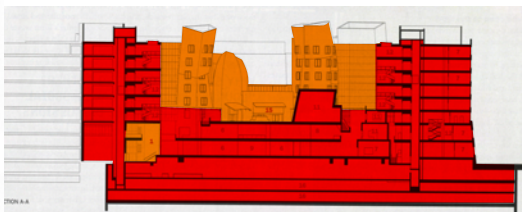
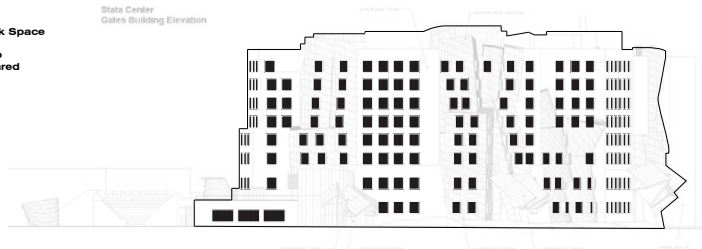
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

PRECEDENT STUDY



- 01 Student Street
- 02 Cafe
- 03 Classroom
- 04 Fitness
- 06 Open Lab / Work Space
- 07 Office
- 08 Segregated Lab
- 09 Warehouse Shared
- 10 Open
- 11 Meeting
- 12 Lounge
- 13 Dining
- 14 Pub
- 15 Terrace
- 16 Parking

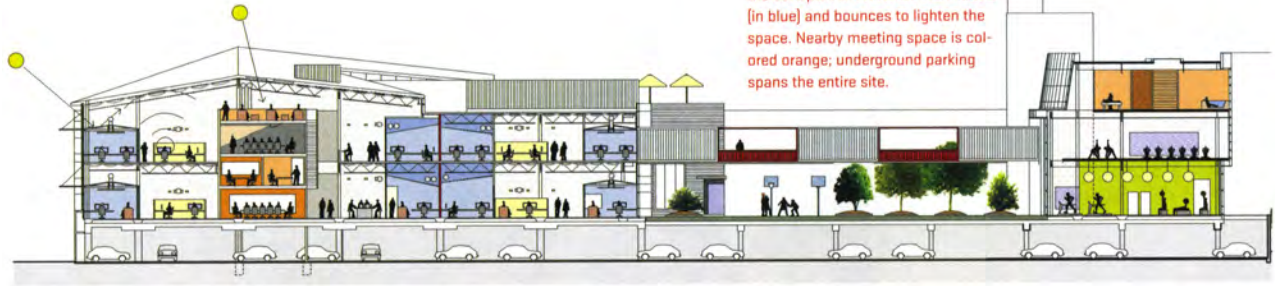
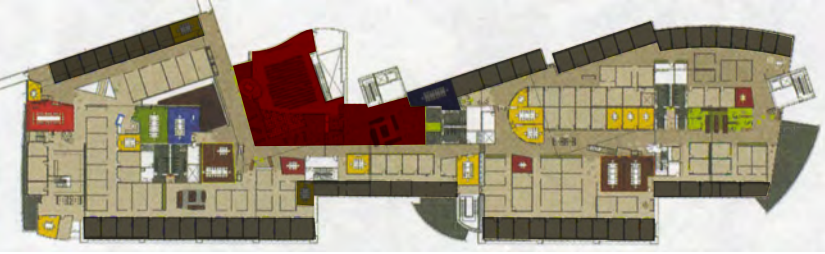
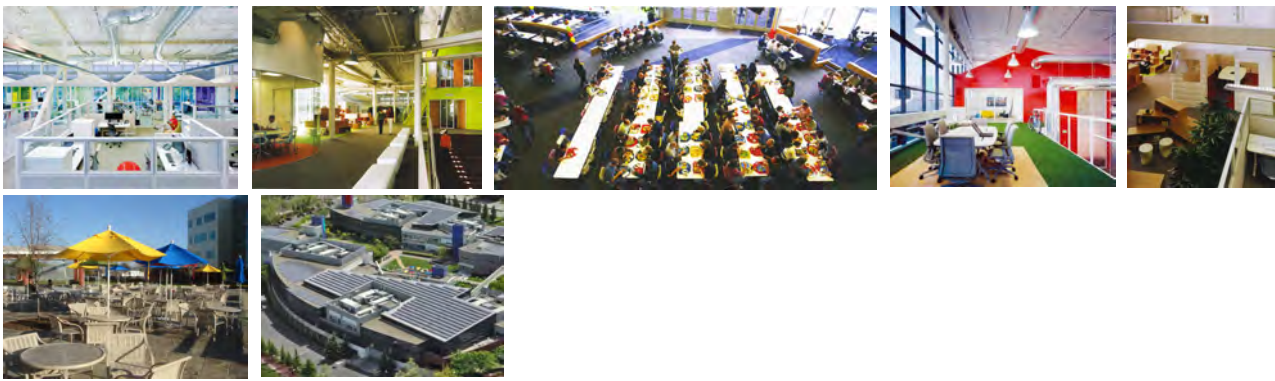
Stata Center
Gates Building Elevation



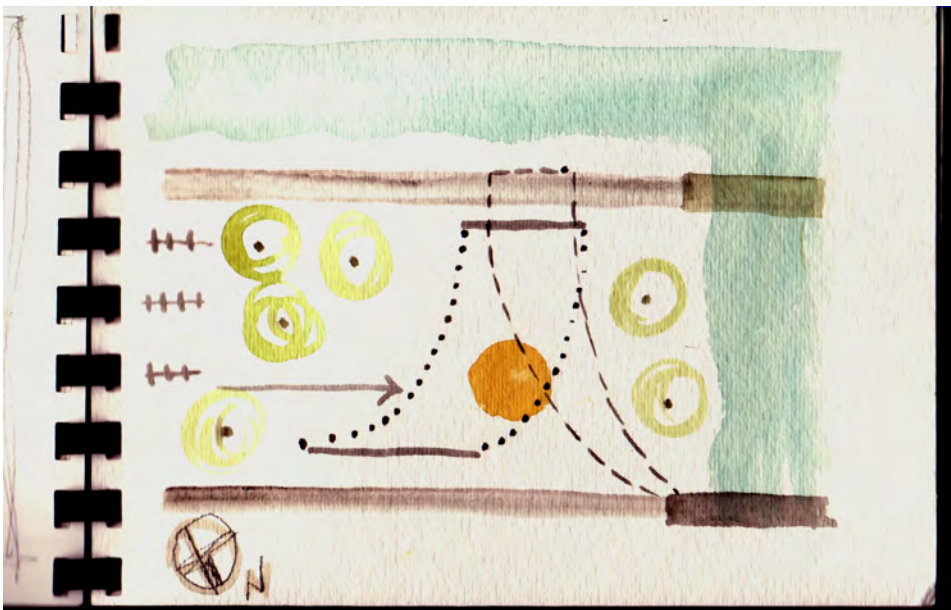
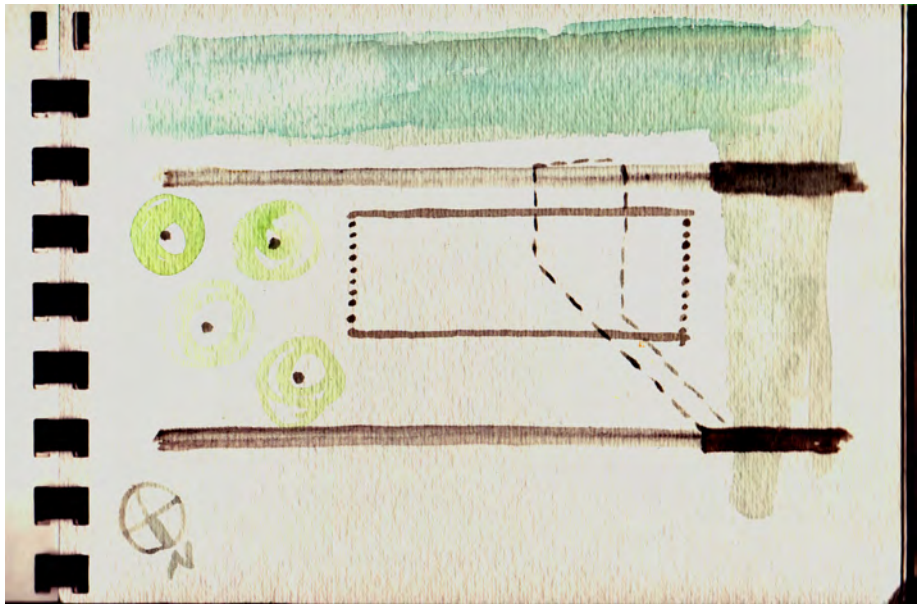
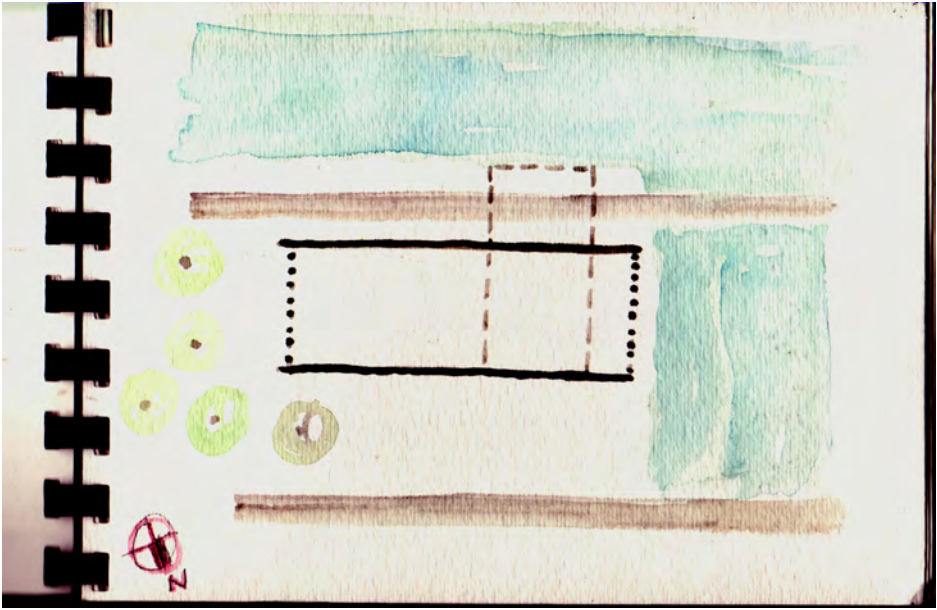
GOOGLEPLEX

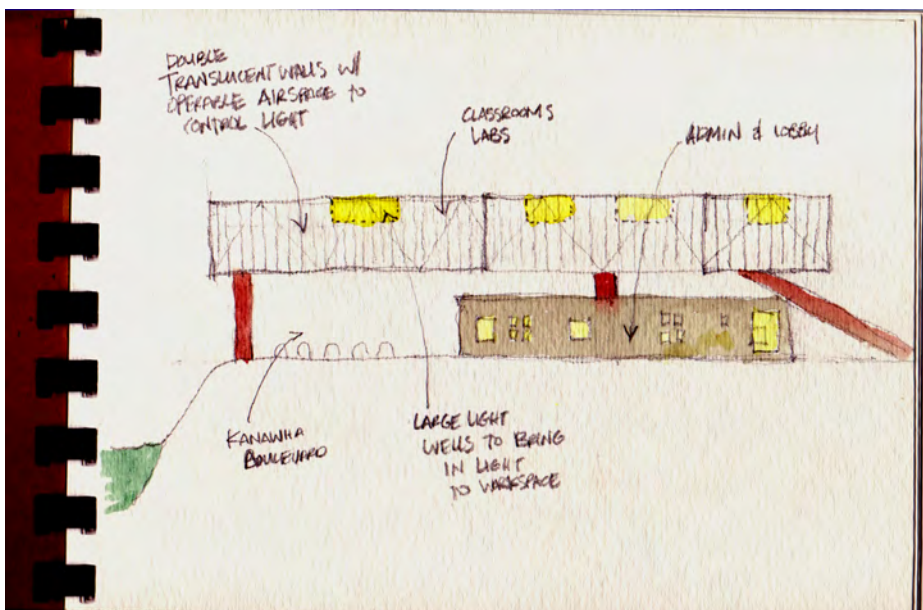
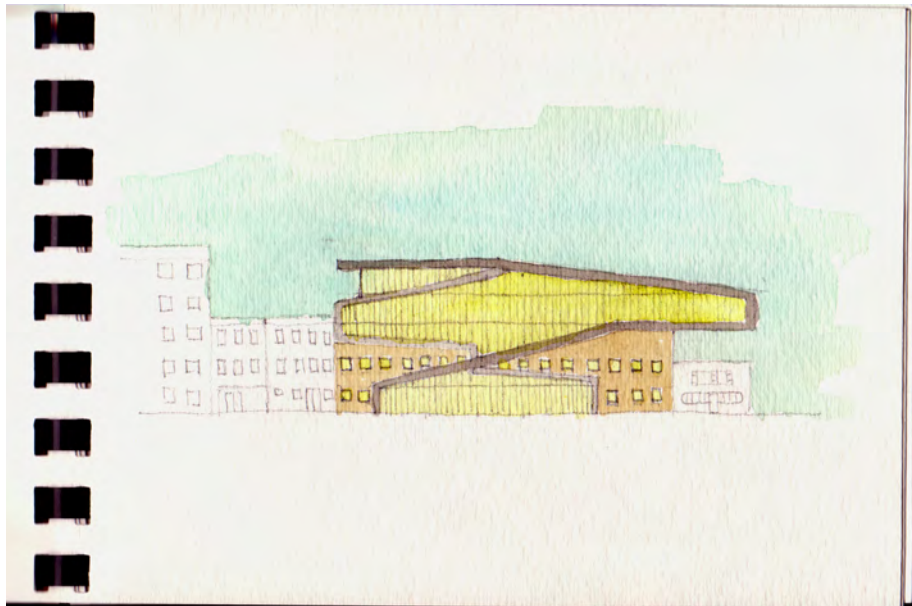
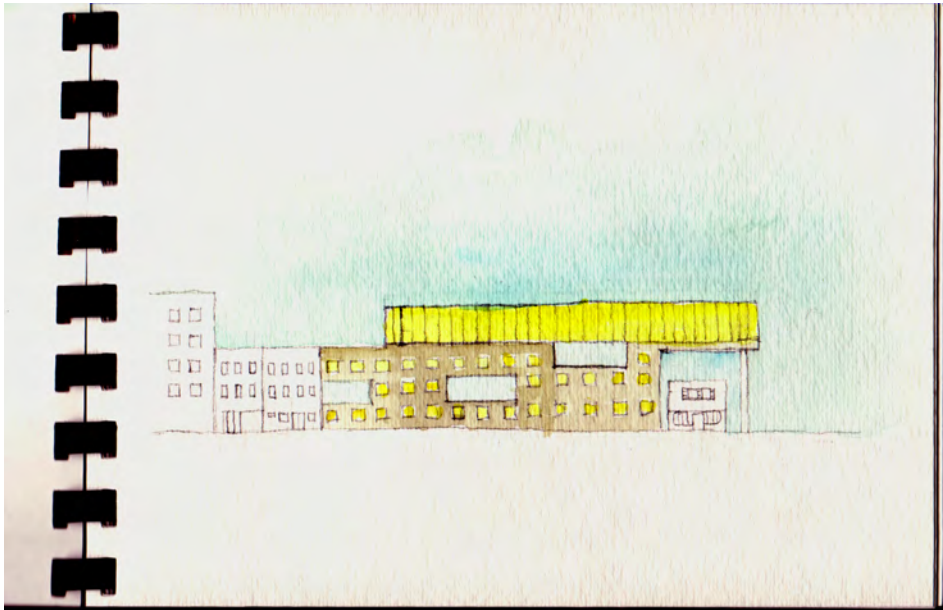
MOUNTAIN VIEW
CALIFORNIA

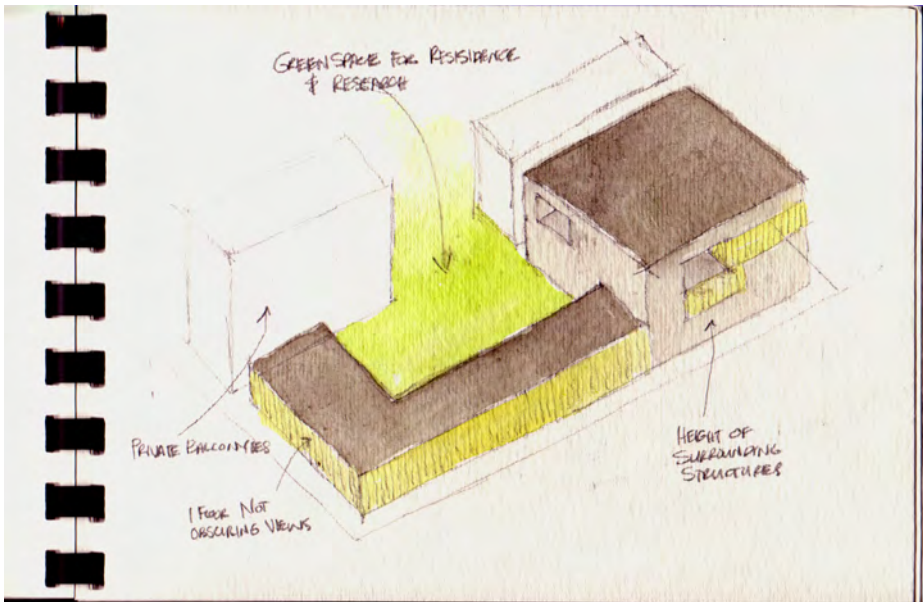
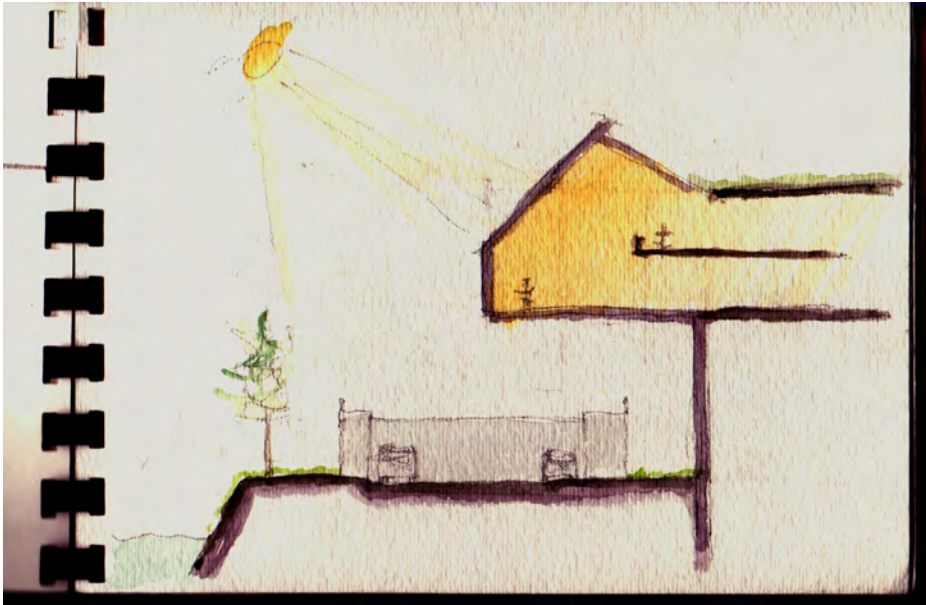
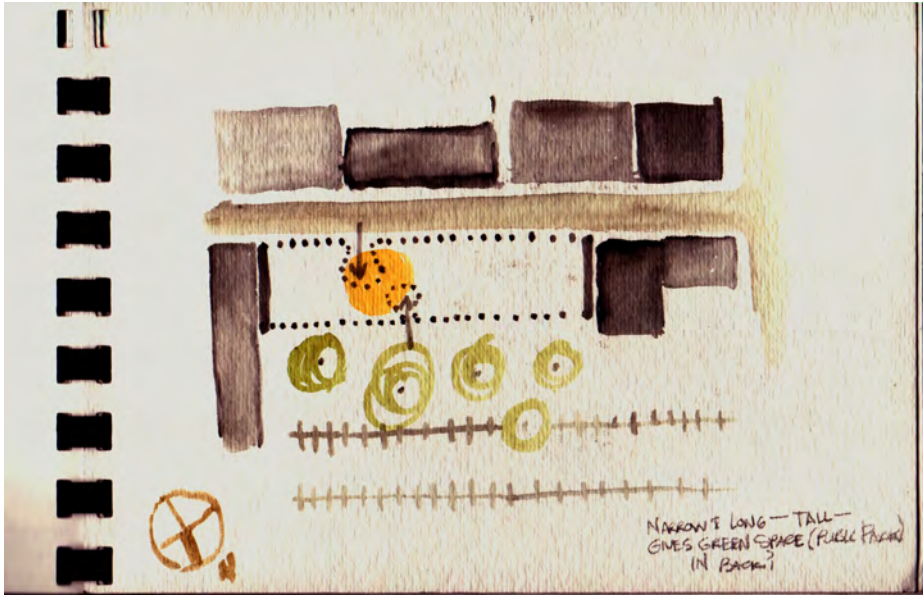
PRECEDENT STUDY

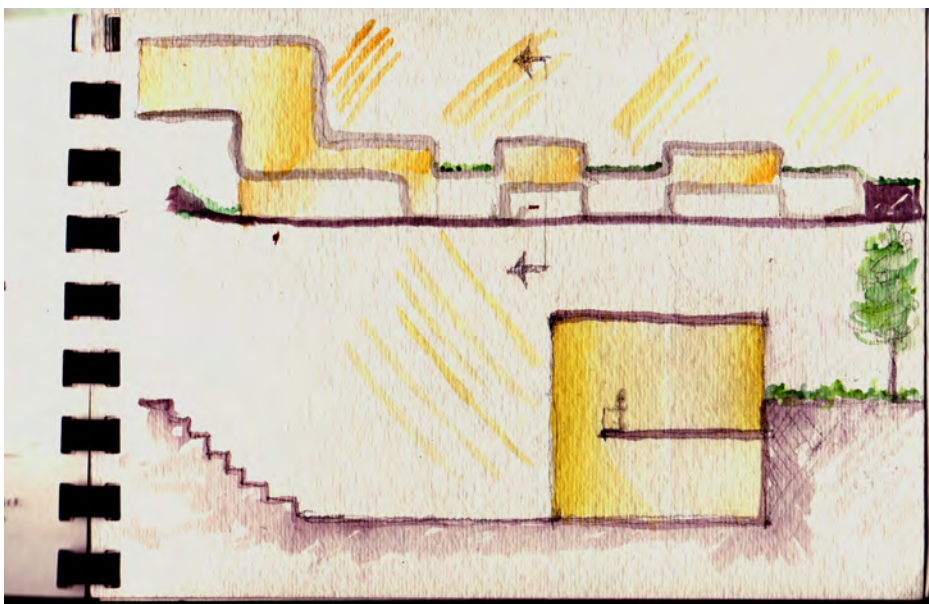
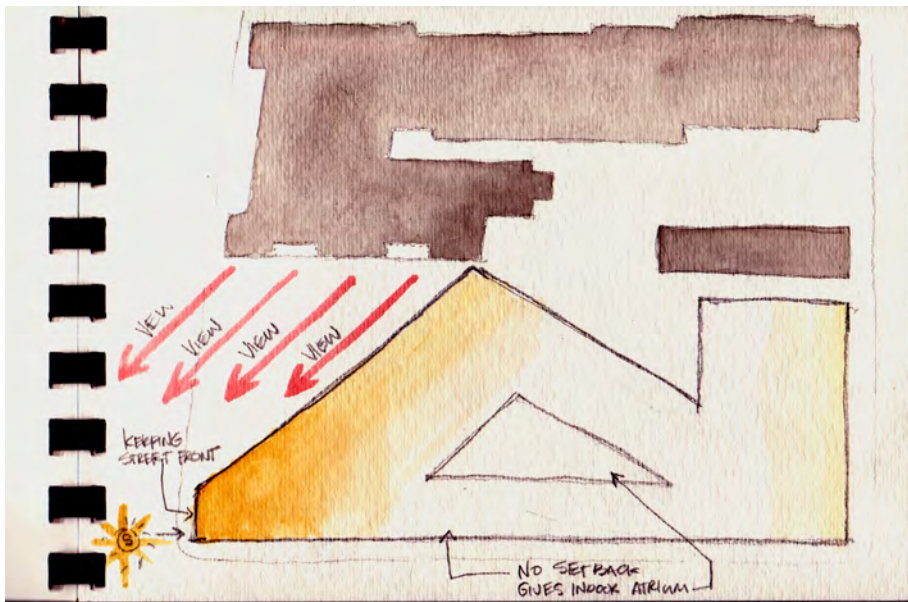
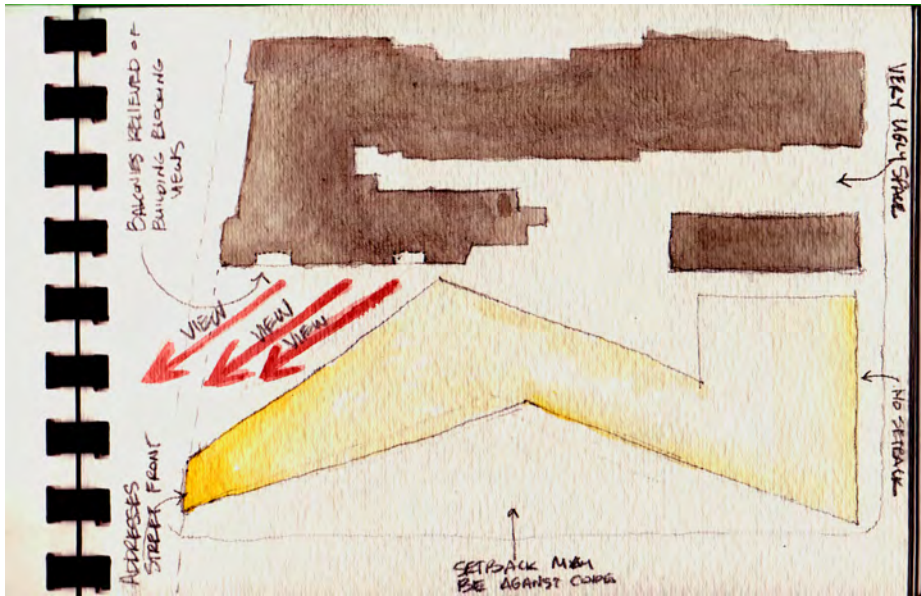


In this section [below] sunlight hits the canopies of enclosed workrooms [in blue] and bounces to lighten the space. Nearby meeting space is colored orange; underground parking spans the entire site.





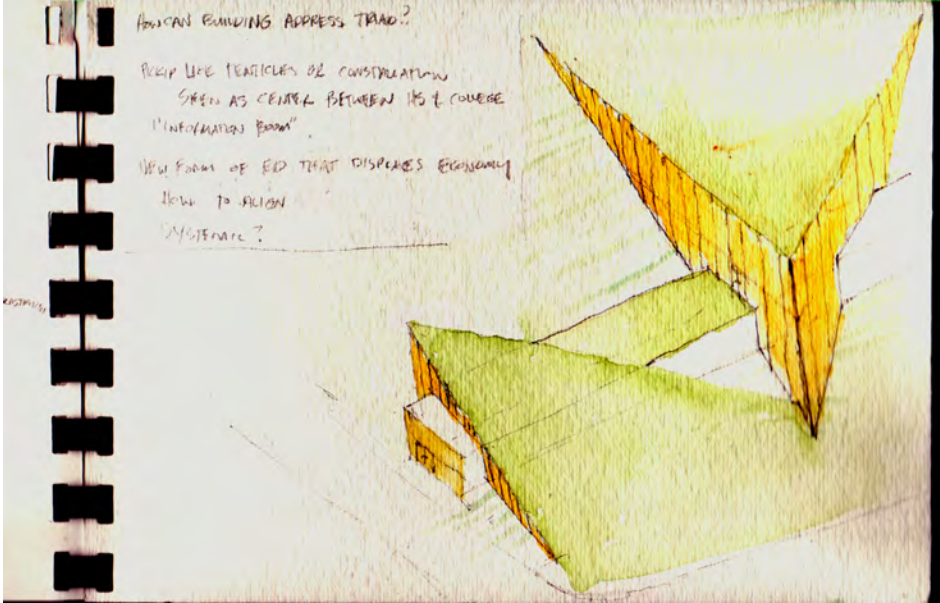




HOW CAN BUILDING ADDRESS TRAD?

KEEP LIFE TEXTILES OF CONSTRUCTION
SEEN AS CENTER BETWEEN ITS & COVERE
"INFORMATION ROOM"

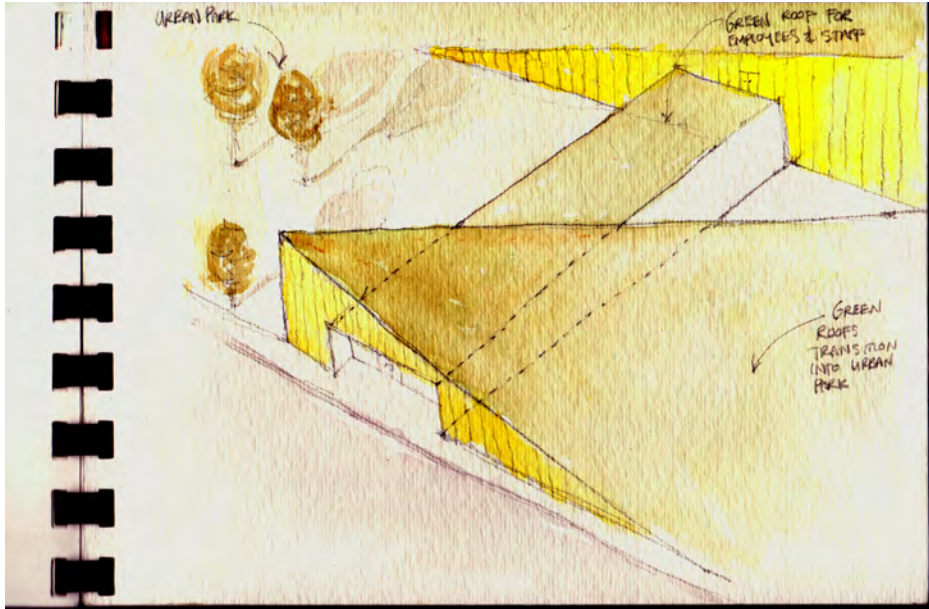
NEW FORM OF BID THAT DISPERSES ECONOMIC
HOW TO ACTION
"MISTAKE?"



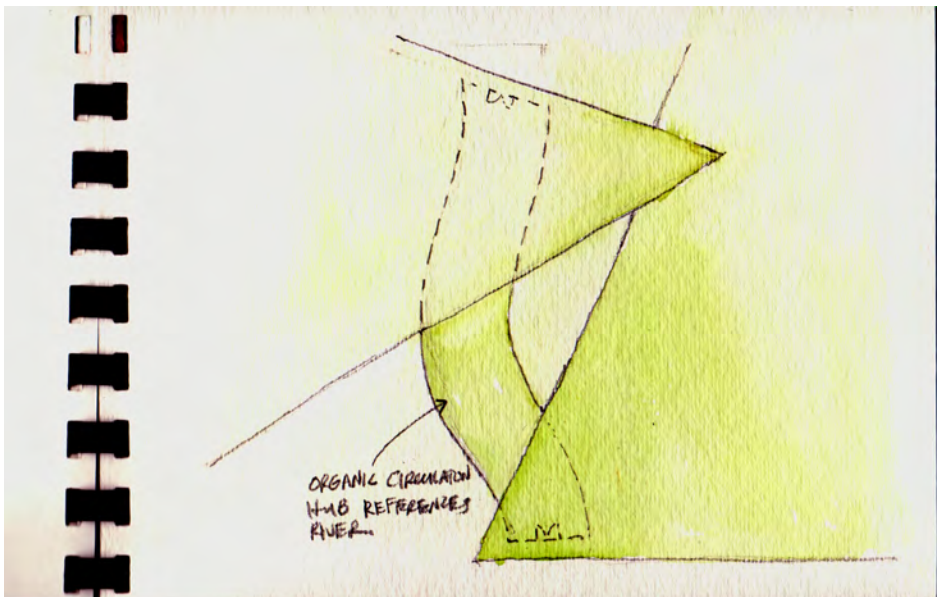
URBAN PARK

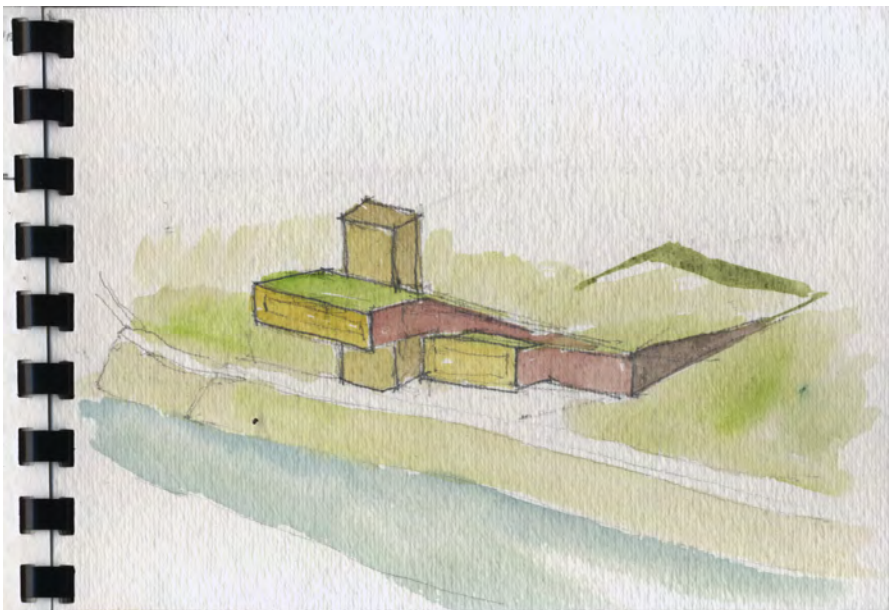
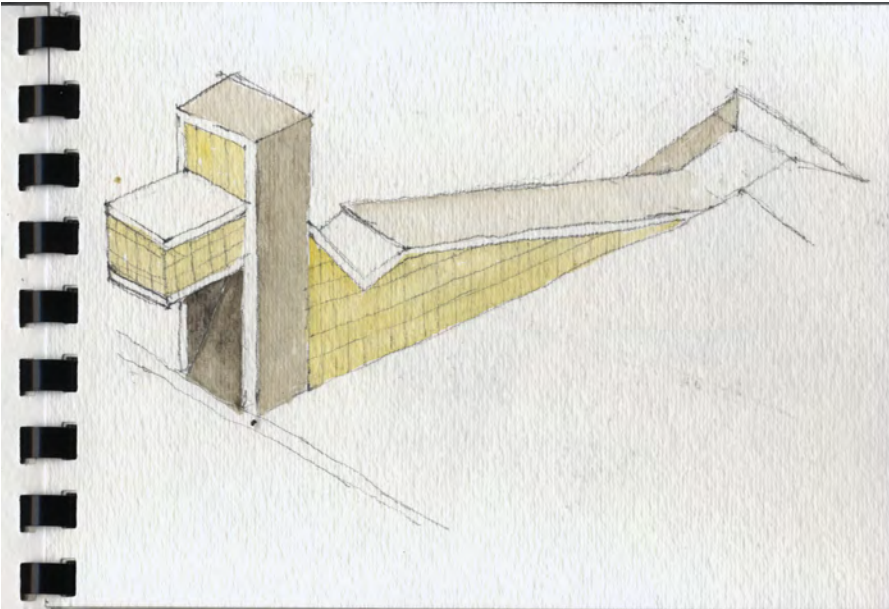
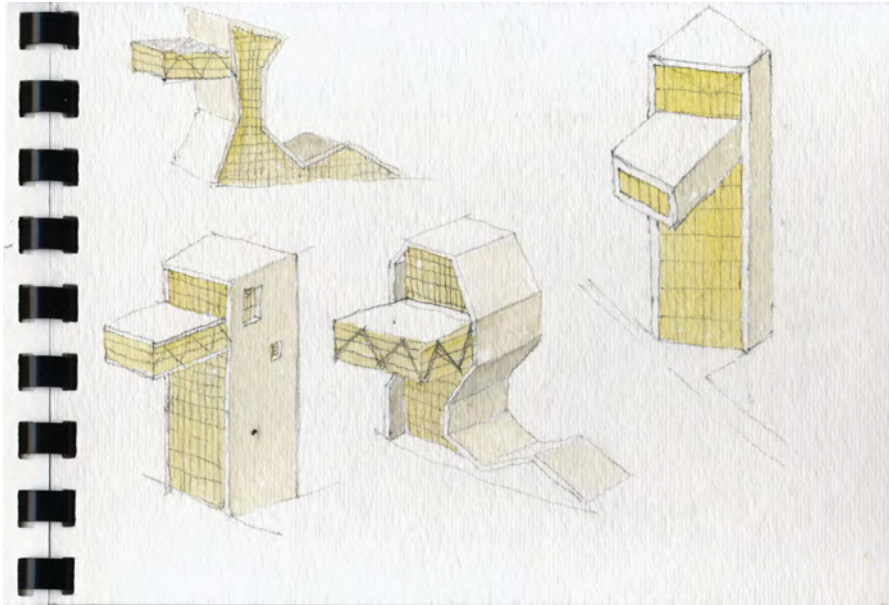
GREEN ROOF FOR
EMPLOYEES & STAFF

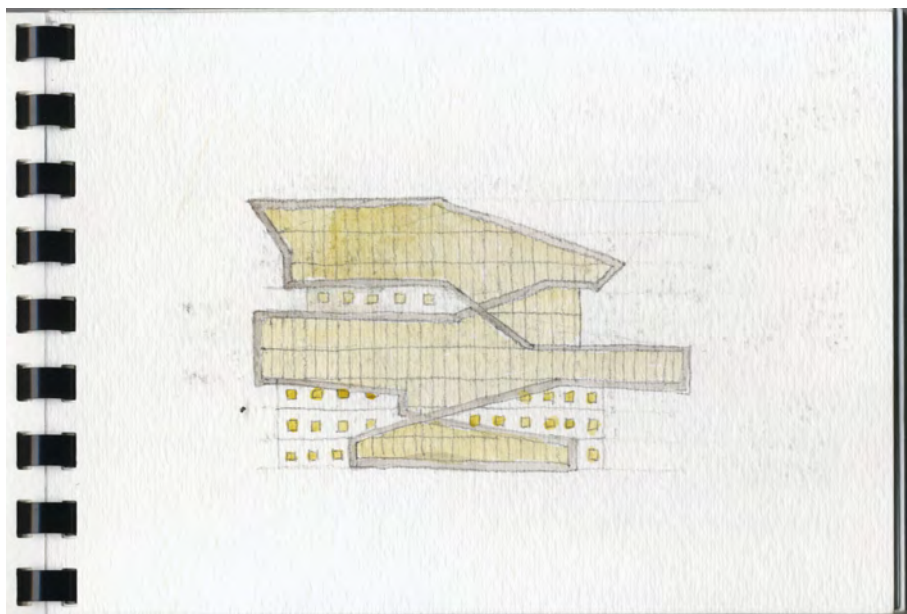
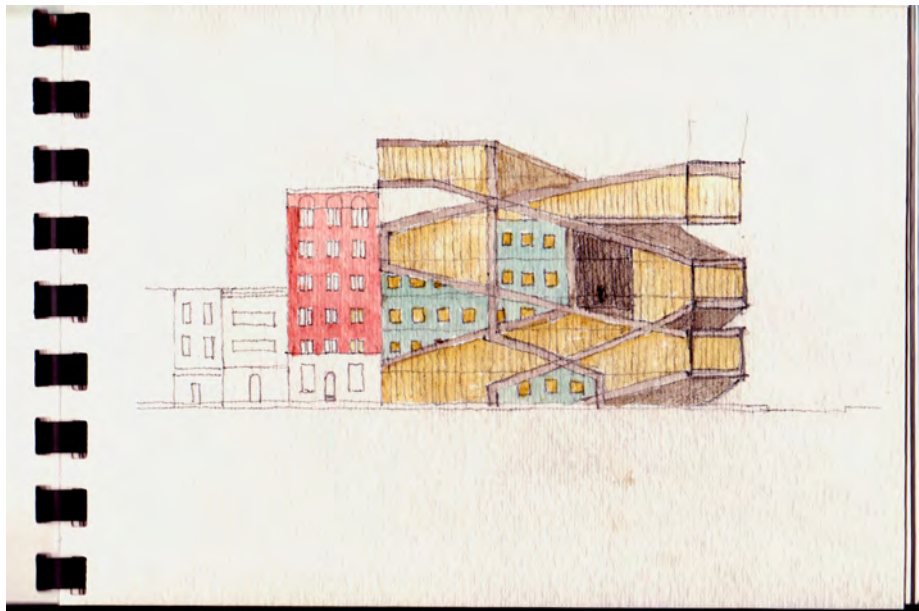
GREEN
ROOFS
TRANSFORM
INTO URBAN
PARK

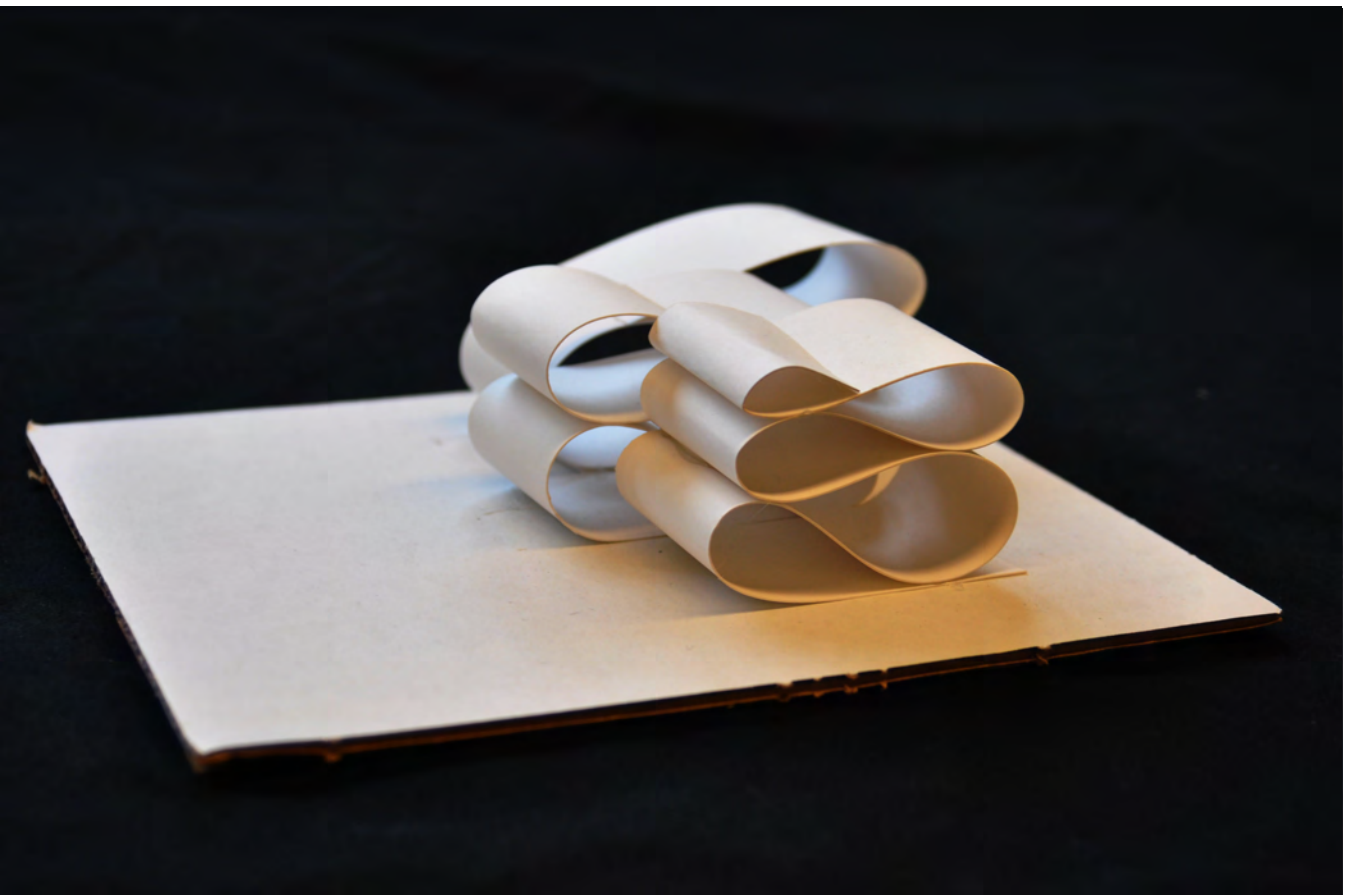


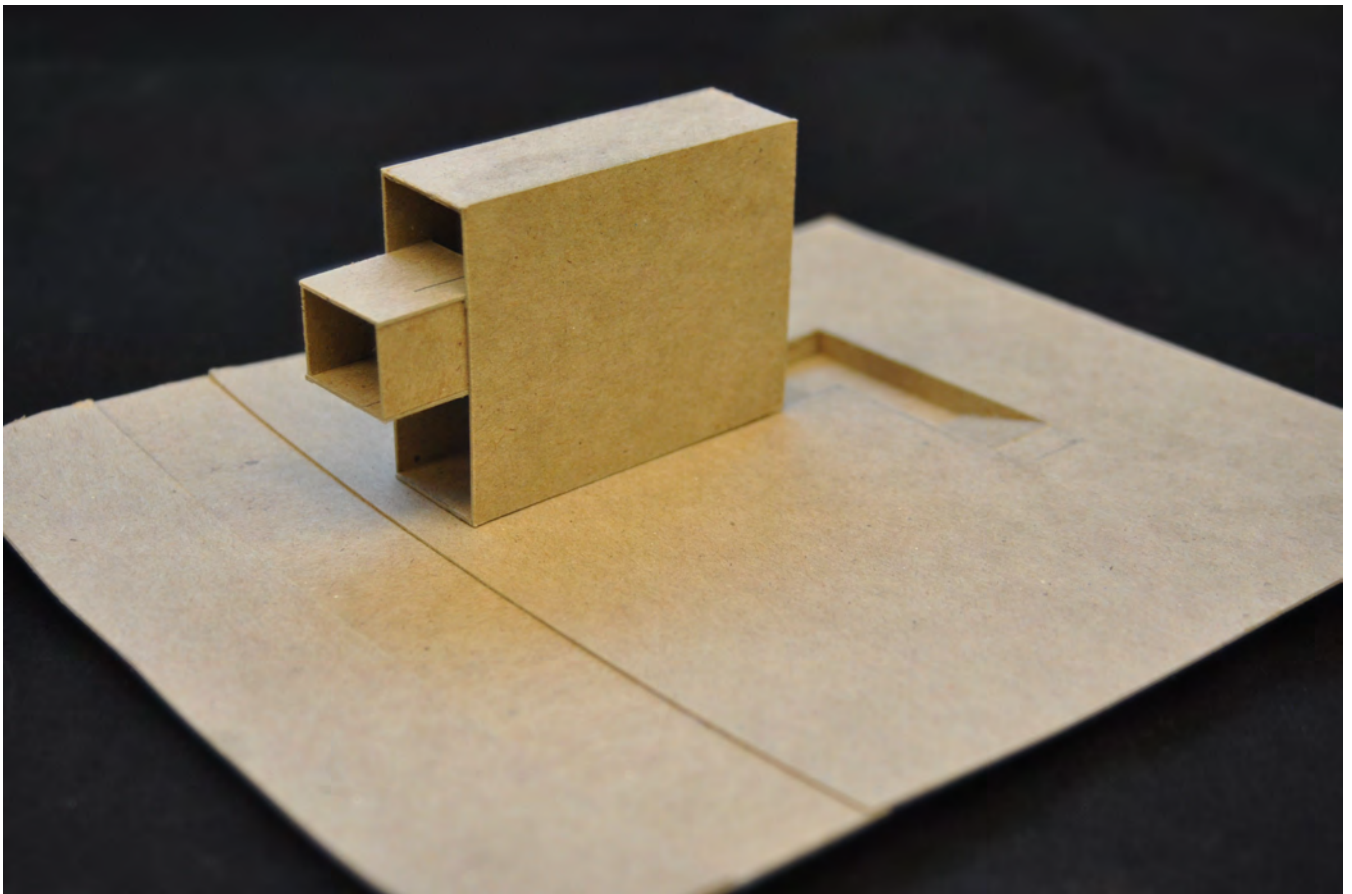
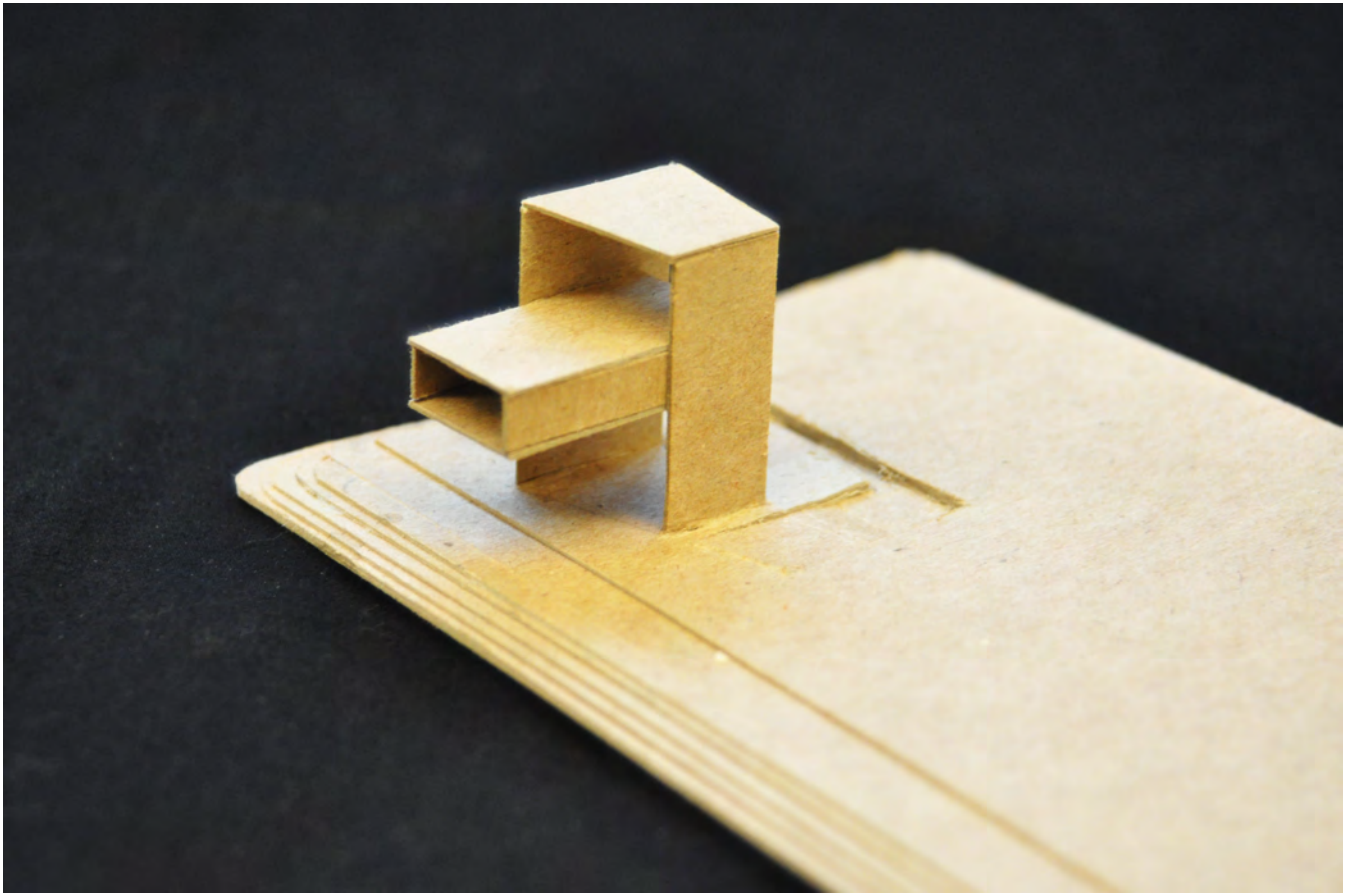
ORGANIC CIRCULATION
HUB REFERENCES
RIVER

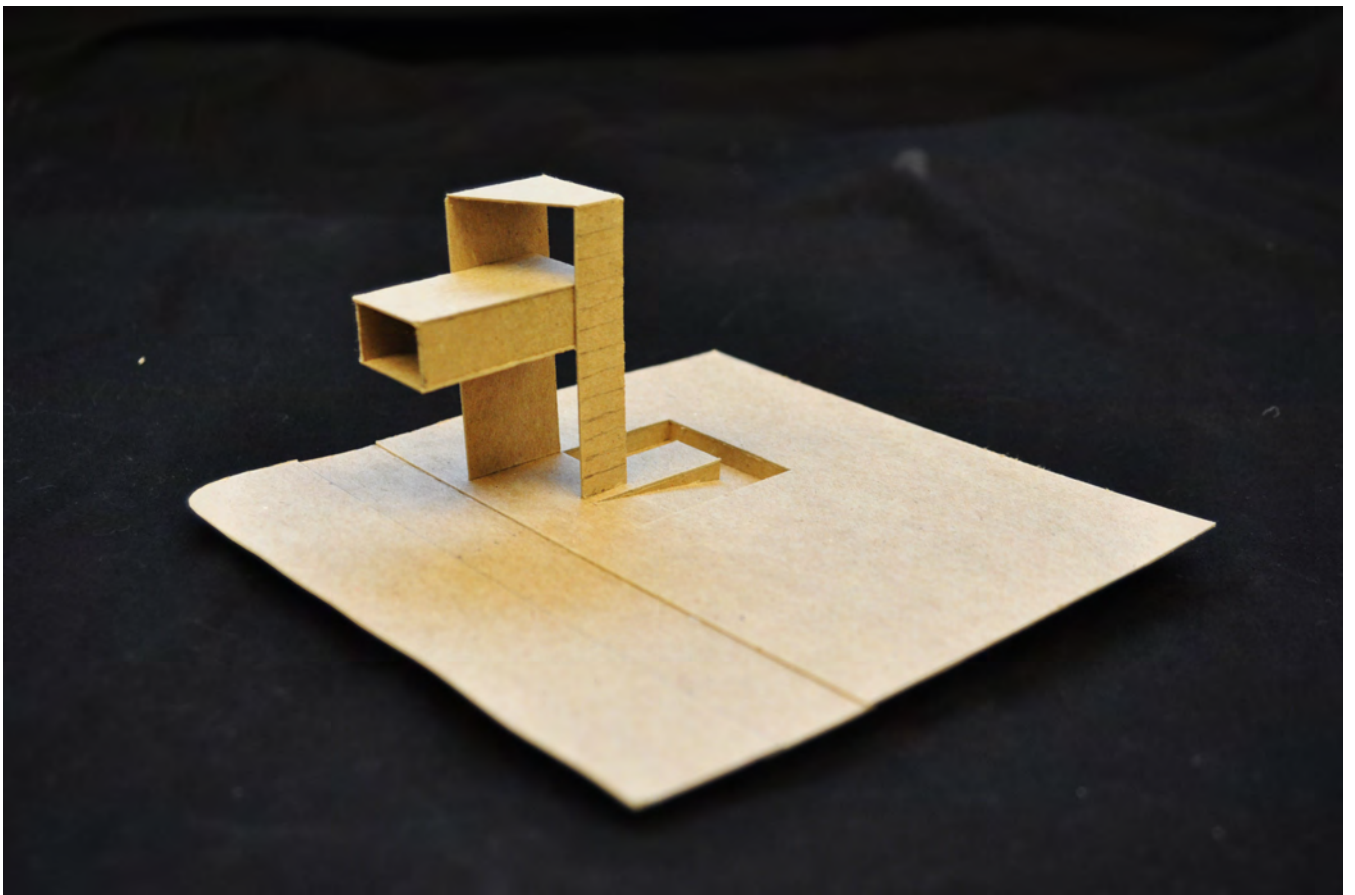
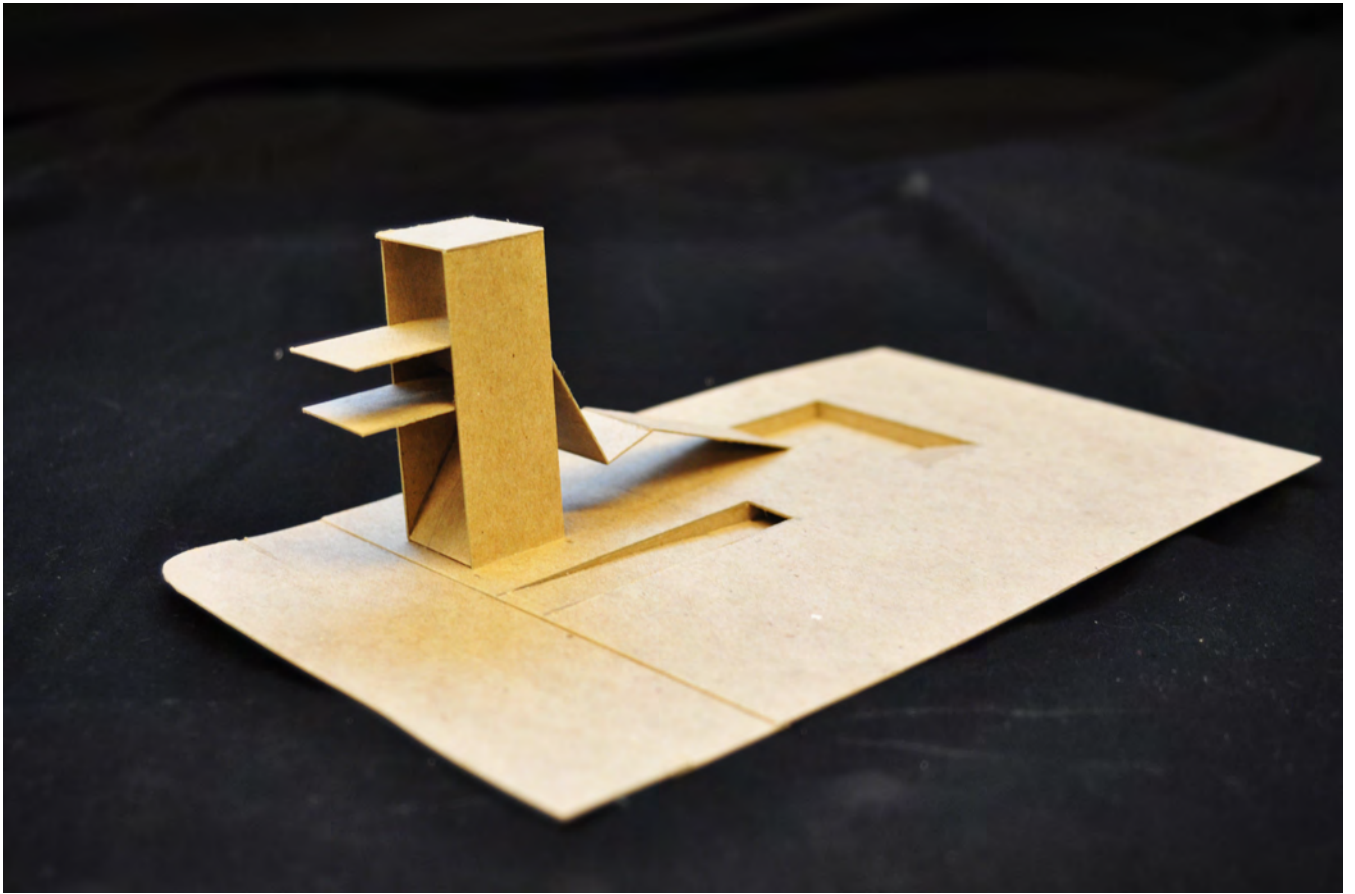


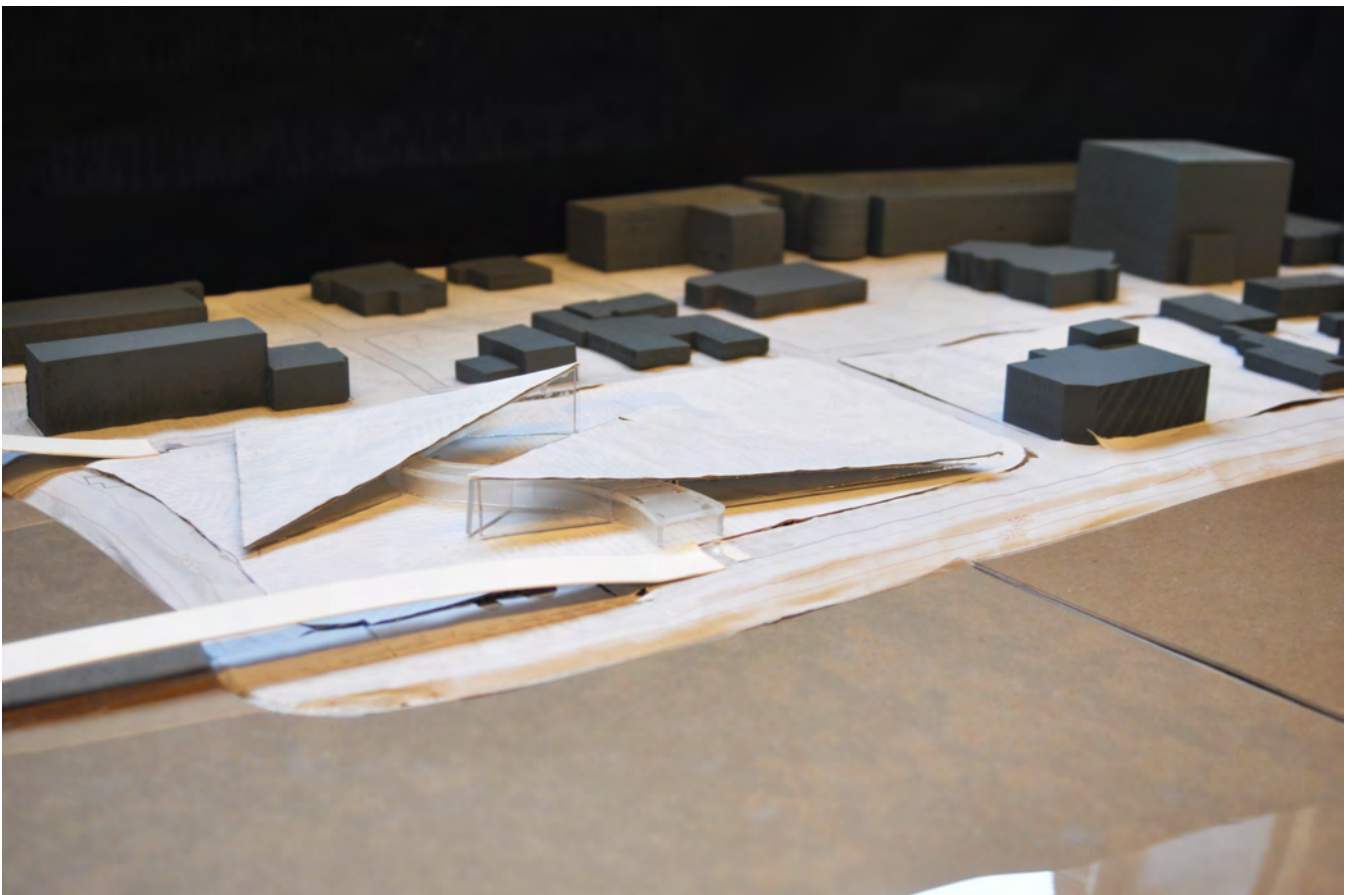


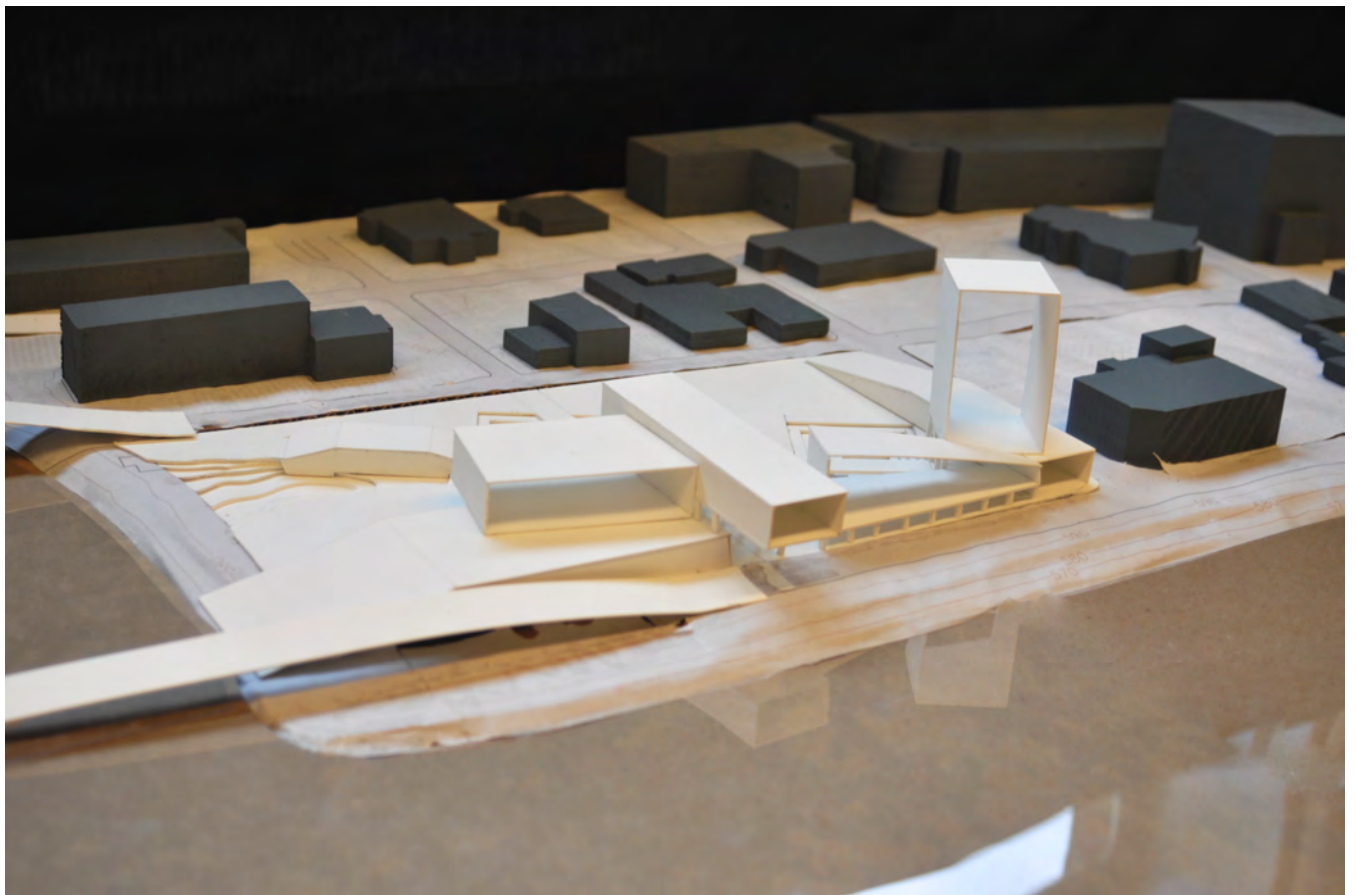
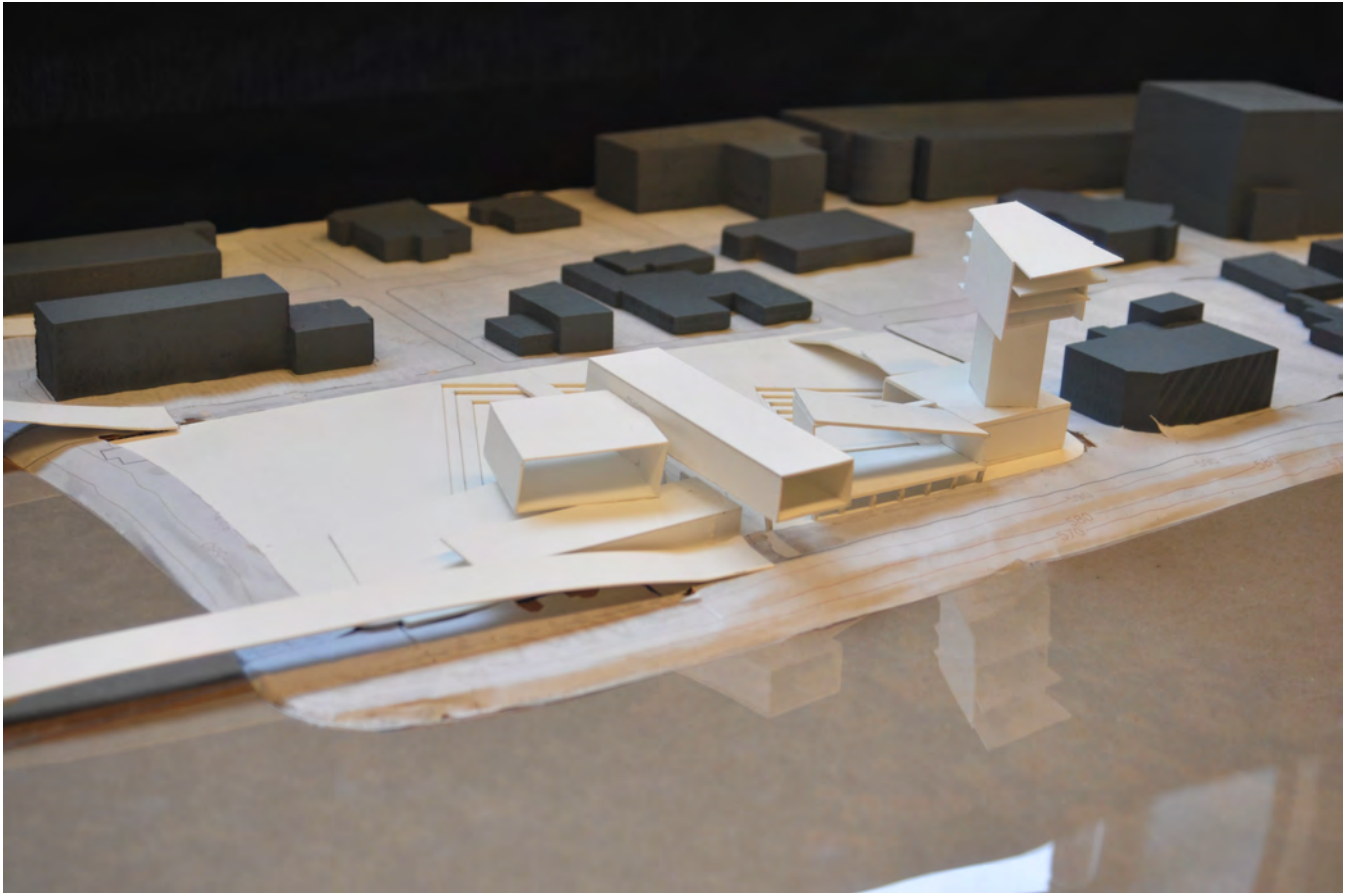


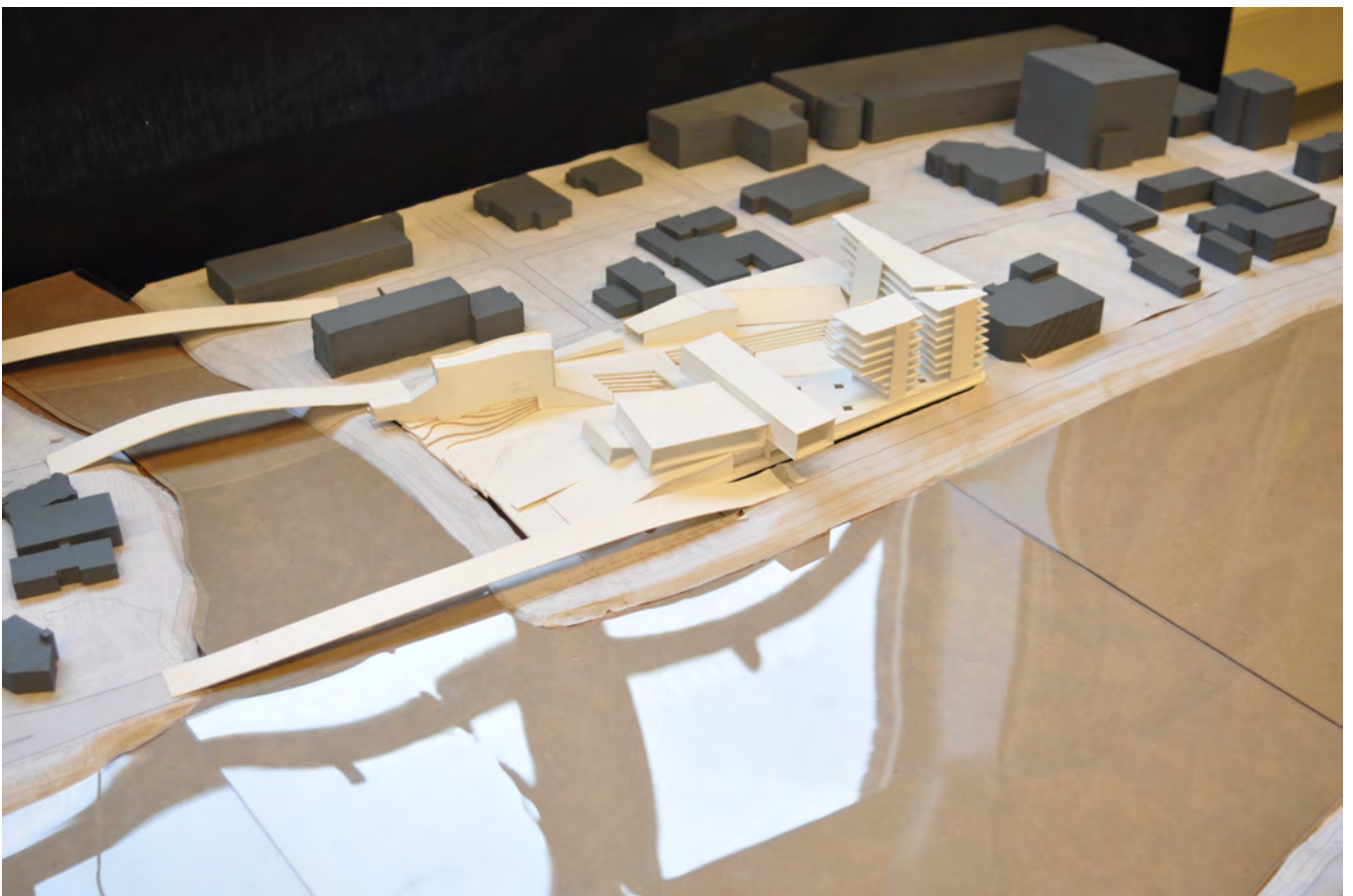
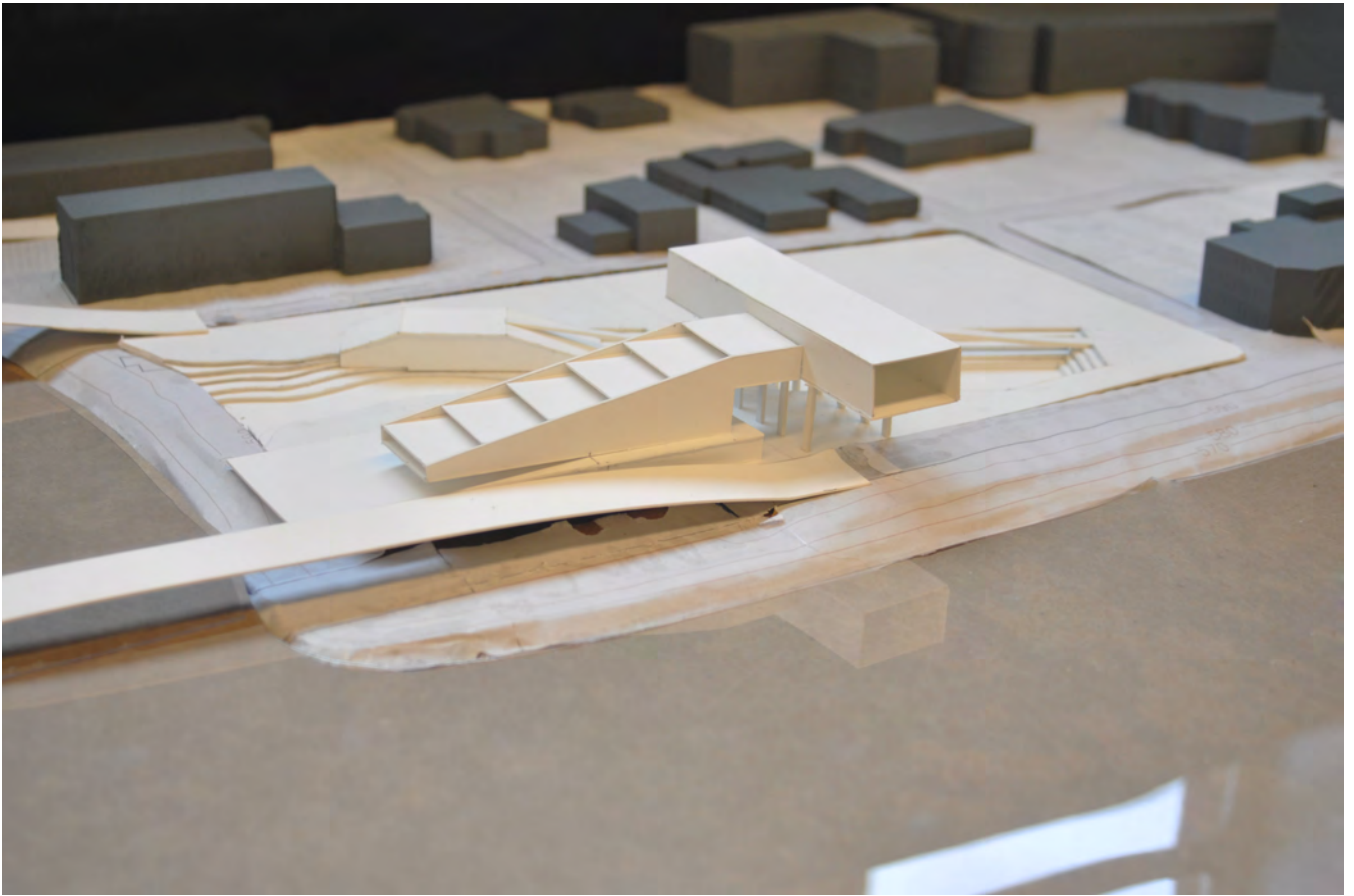




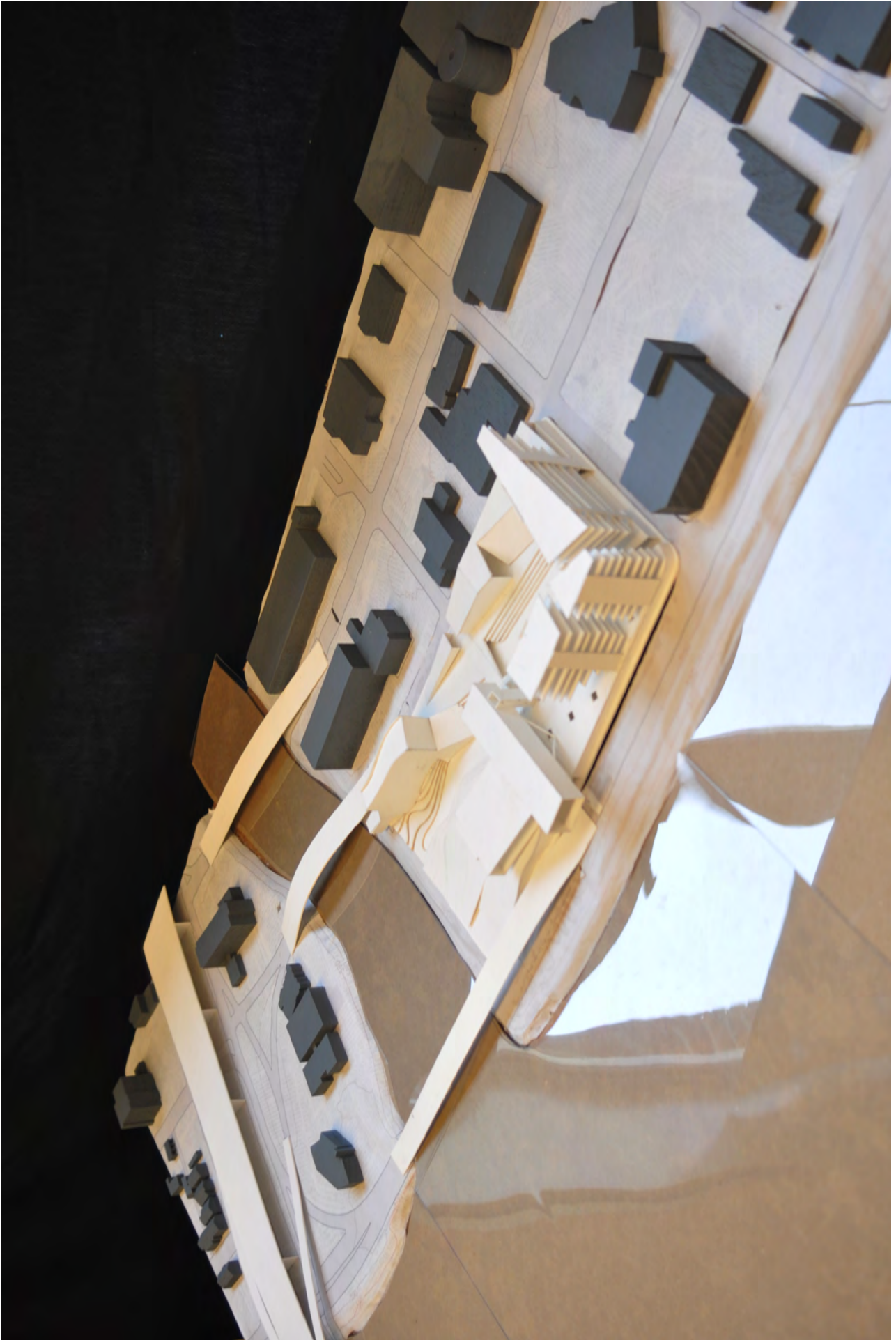


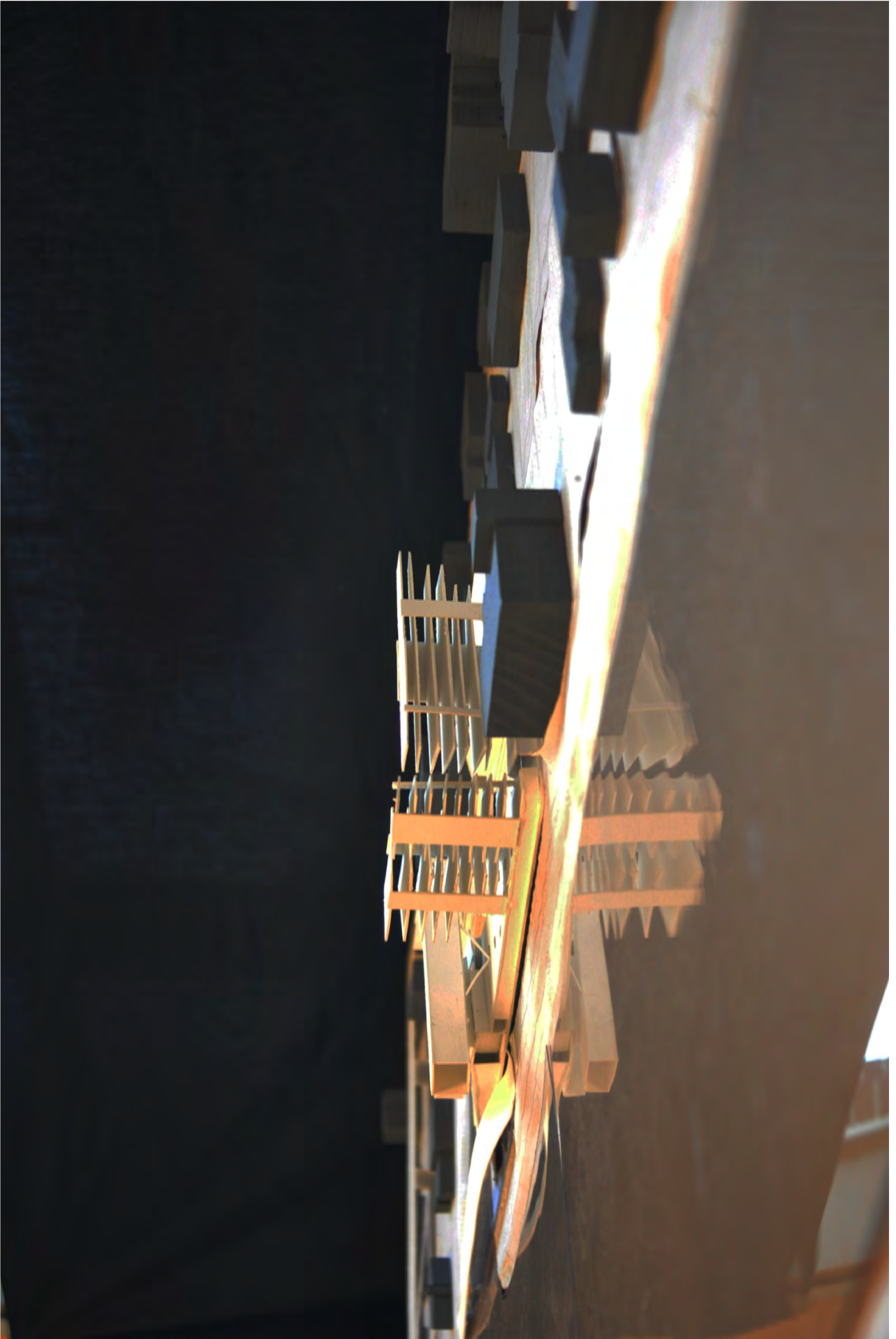


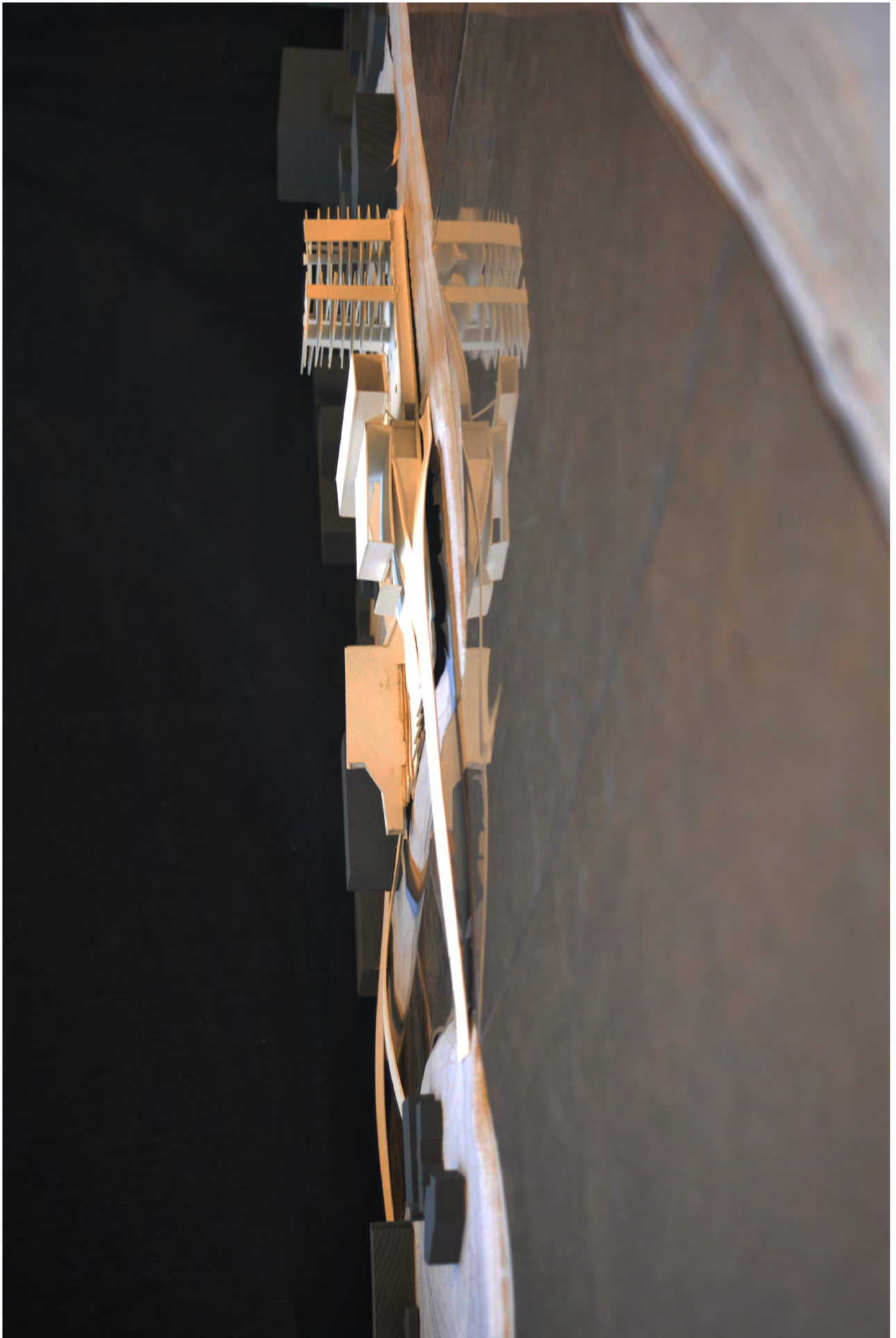




PRESENTATION

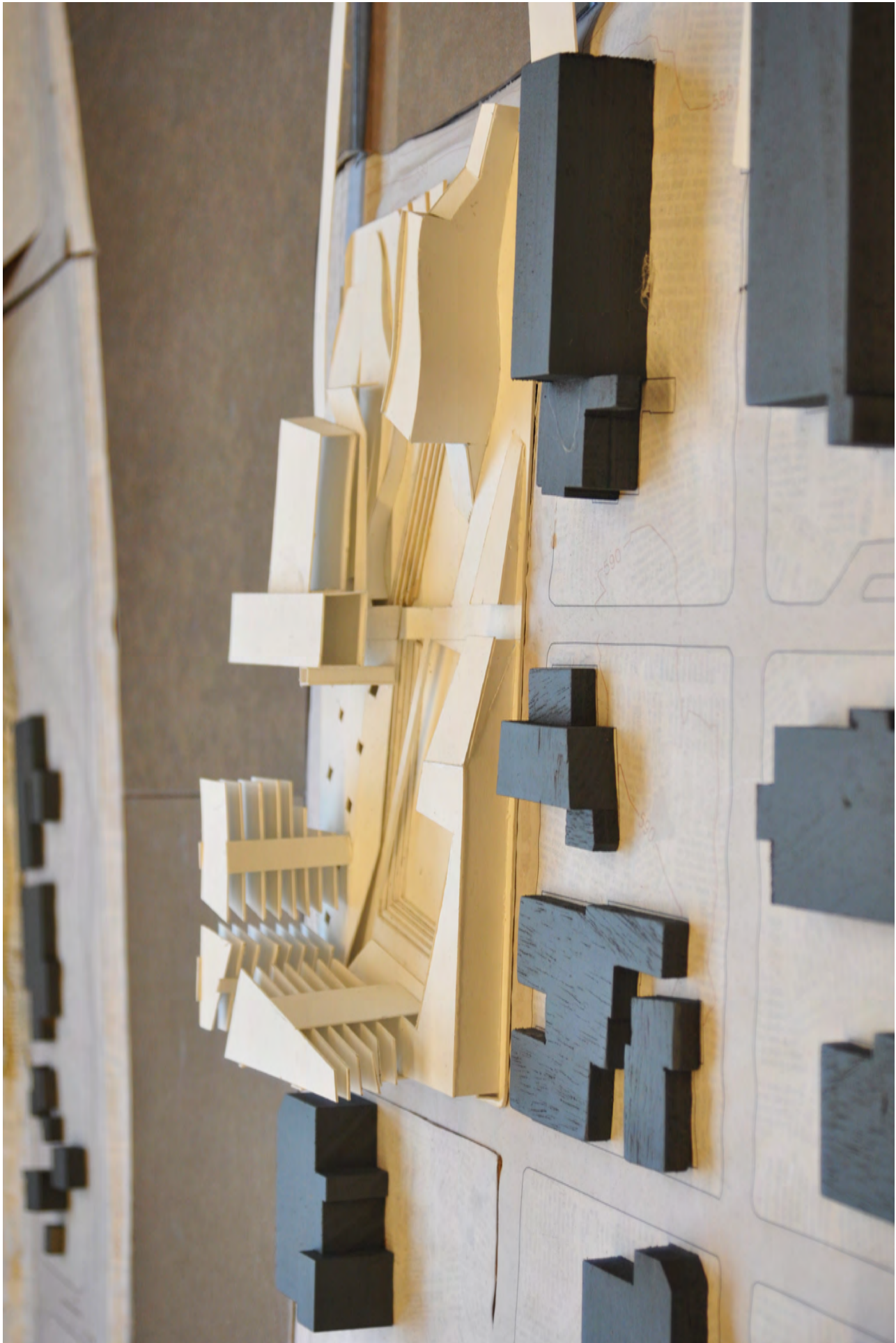


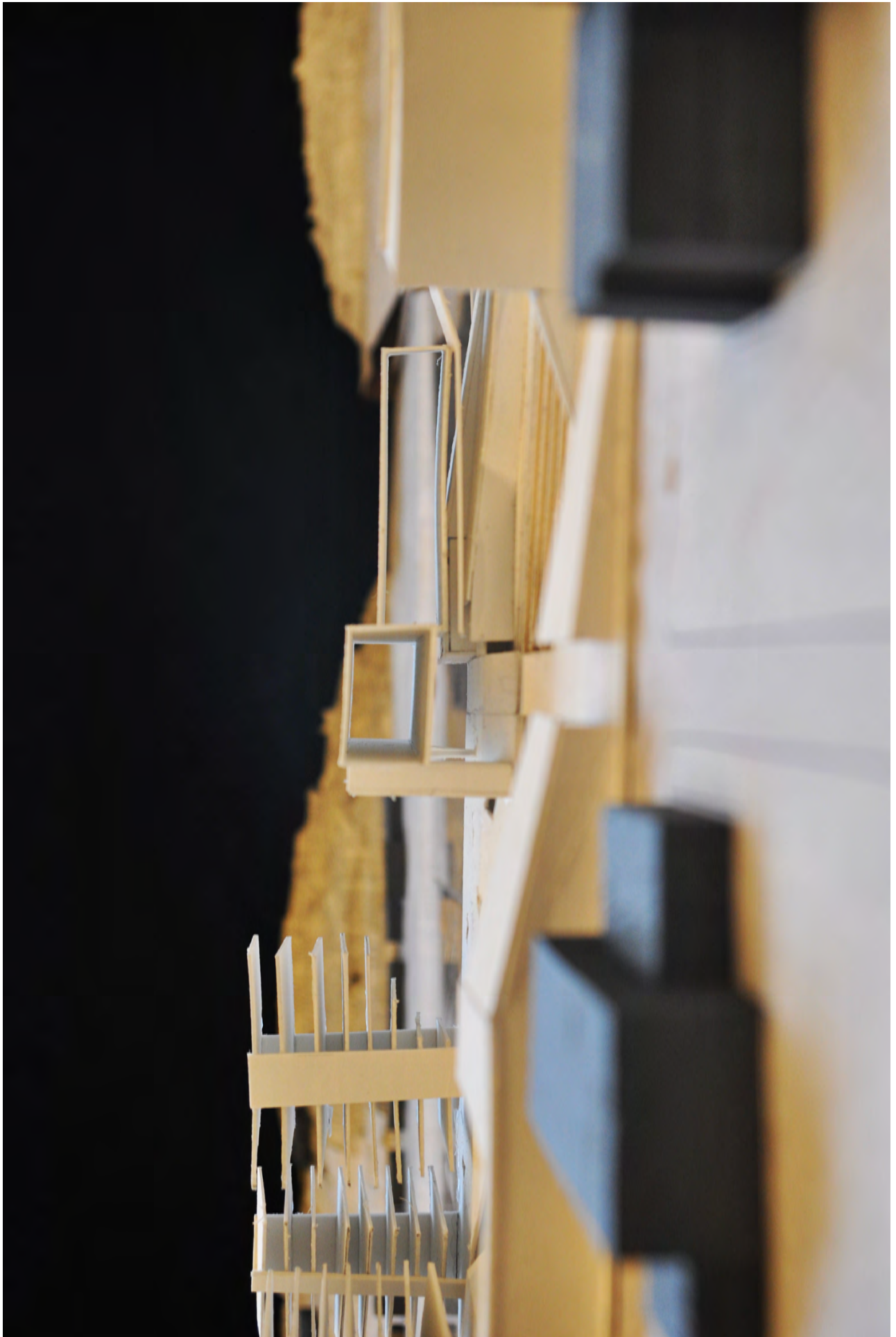


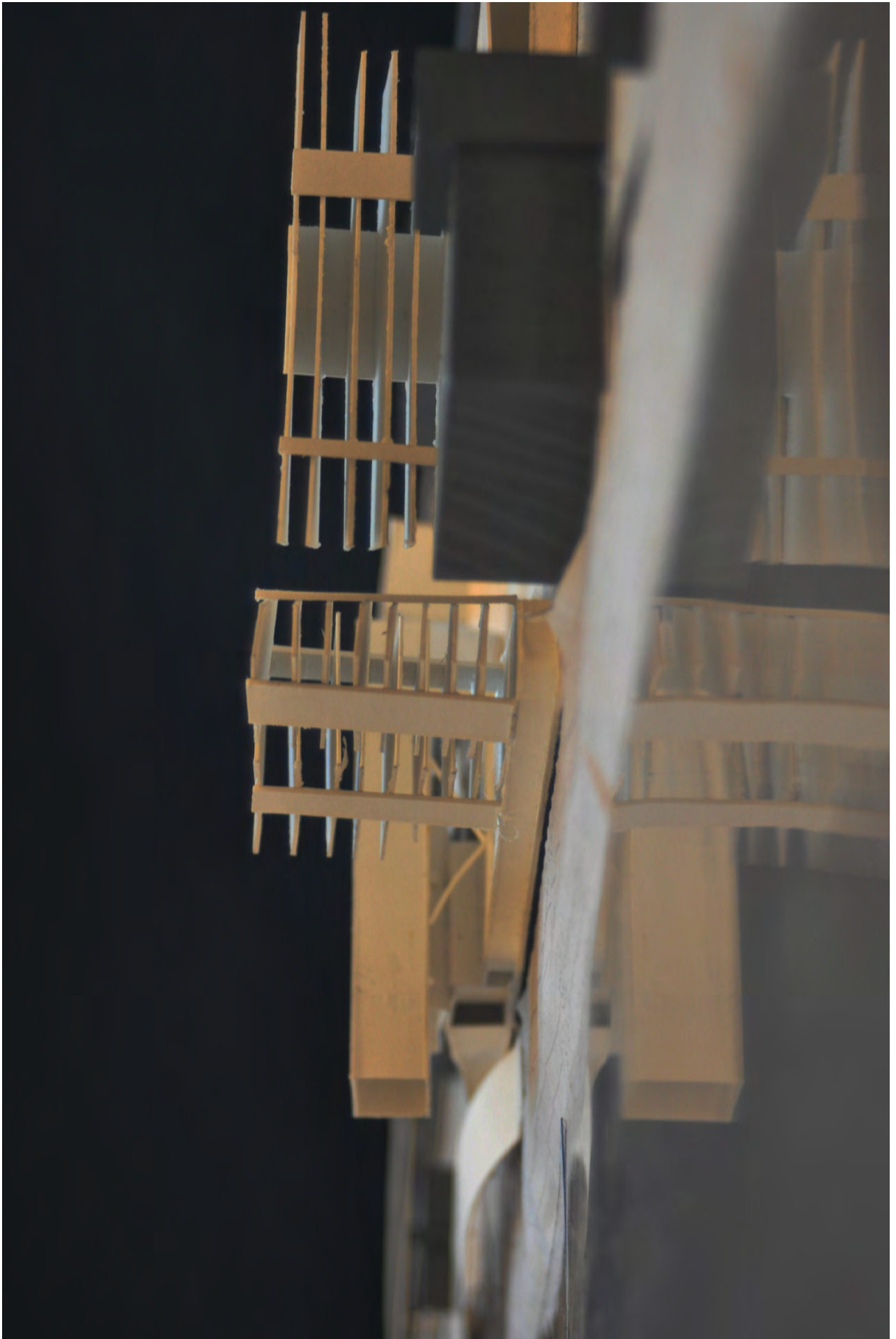






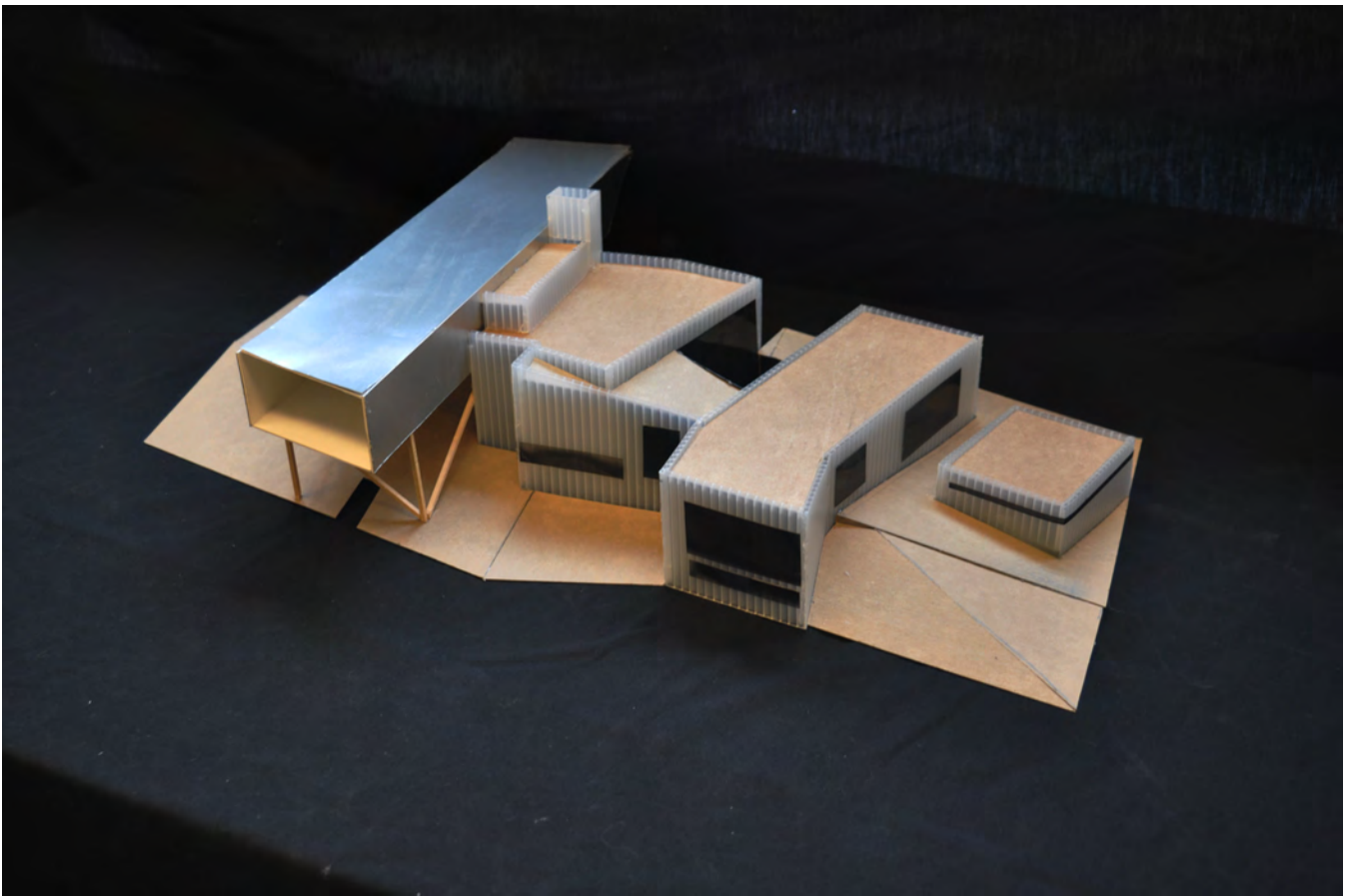


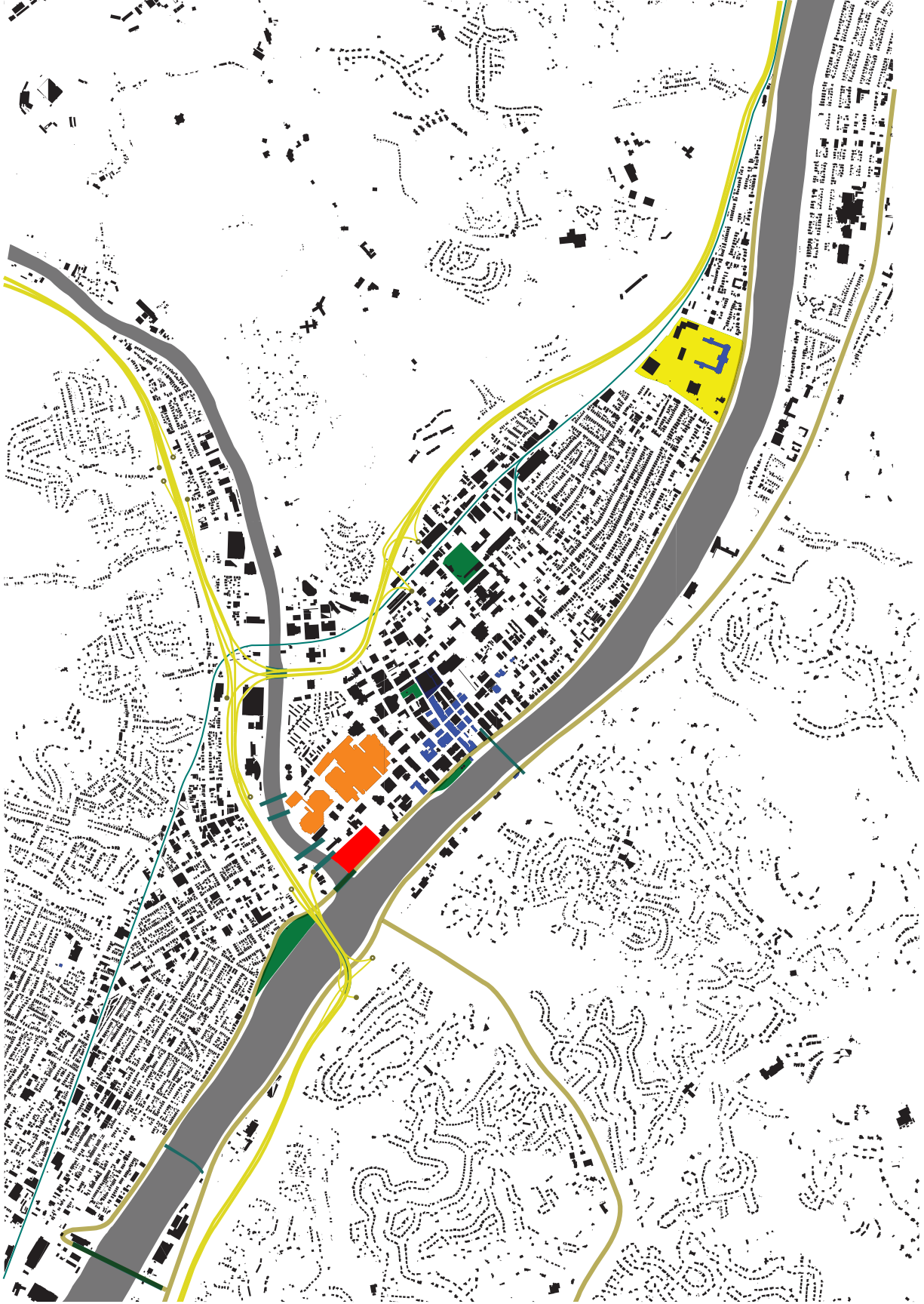












SITE

OLD STATE CAPITOL SITE

CAPITOL COMPLEX

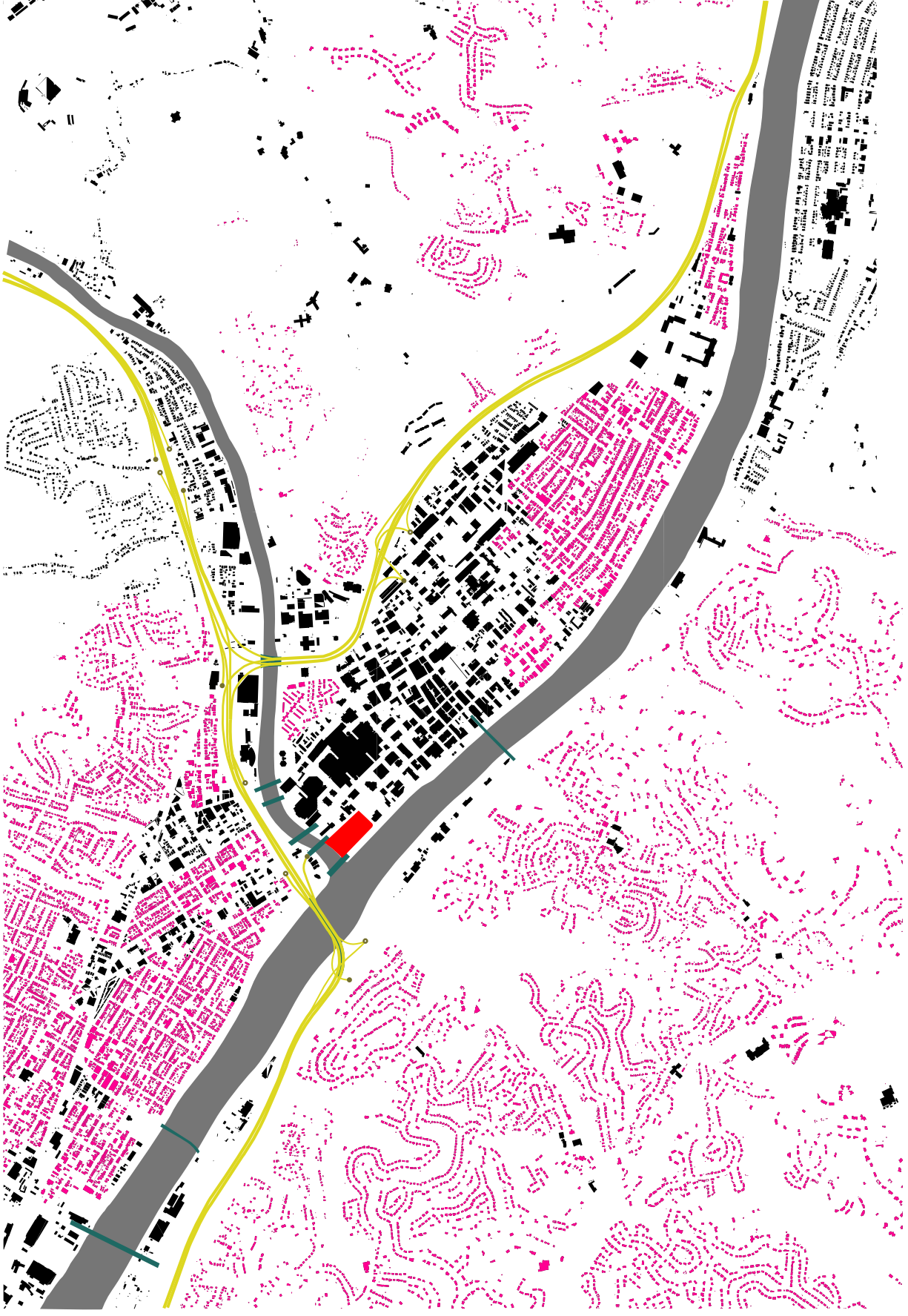
PUBLIC GREEN SPACE

HISTORIC DISTRICT

ATTRACTIONS



SCALE: 1" = 600'

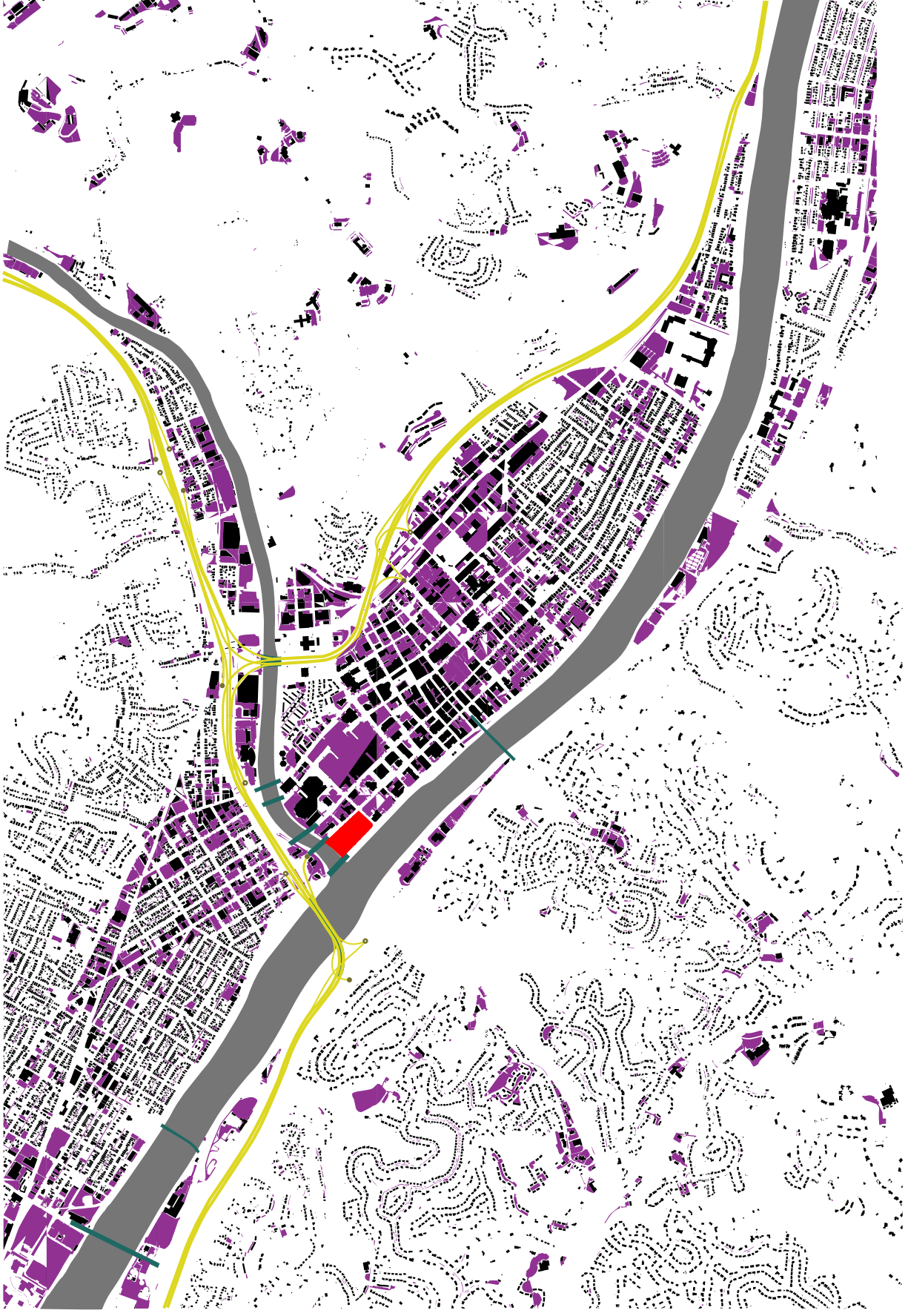


SITE

RESIDENTIAL



SCALE: 1" = 600'



SITE

PARKING



SCALE: 1" = 600'



SCALE: 1" = 600'

BIRD'S EYE VIEW CHARLESTON WEST VIRGINIA



Holiday Inn Express

Hampton Inn

Convention Center

Women + Children's Hospital

Charleston Marriott

Town Center Mall

Embassy Suites

Saint Francis Hospital

Kanawha Valley Building (2nd Tallest 265 ft)

Chase Center (4th Tallest 207 ft)

Old State Capitol Site

Municipal Auditorium

Kanawha County Court House

Kanawha County City Hall

Holiday Inn

Huntington Square (3rd Tallest 225 ft)

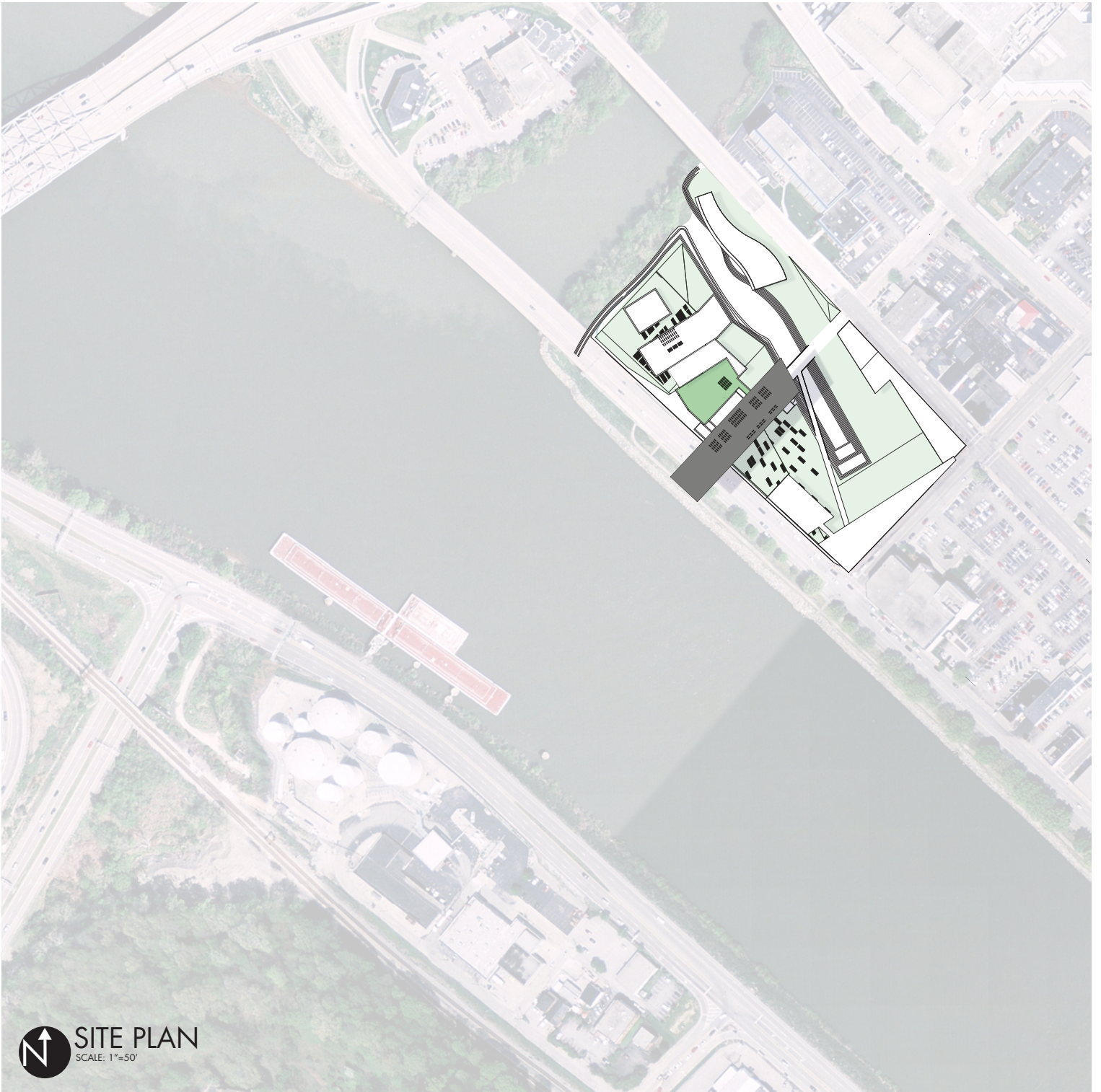
Library

Charleston Plaza Hotel

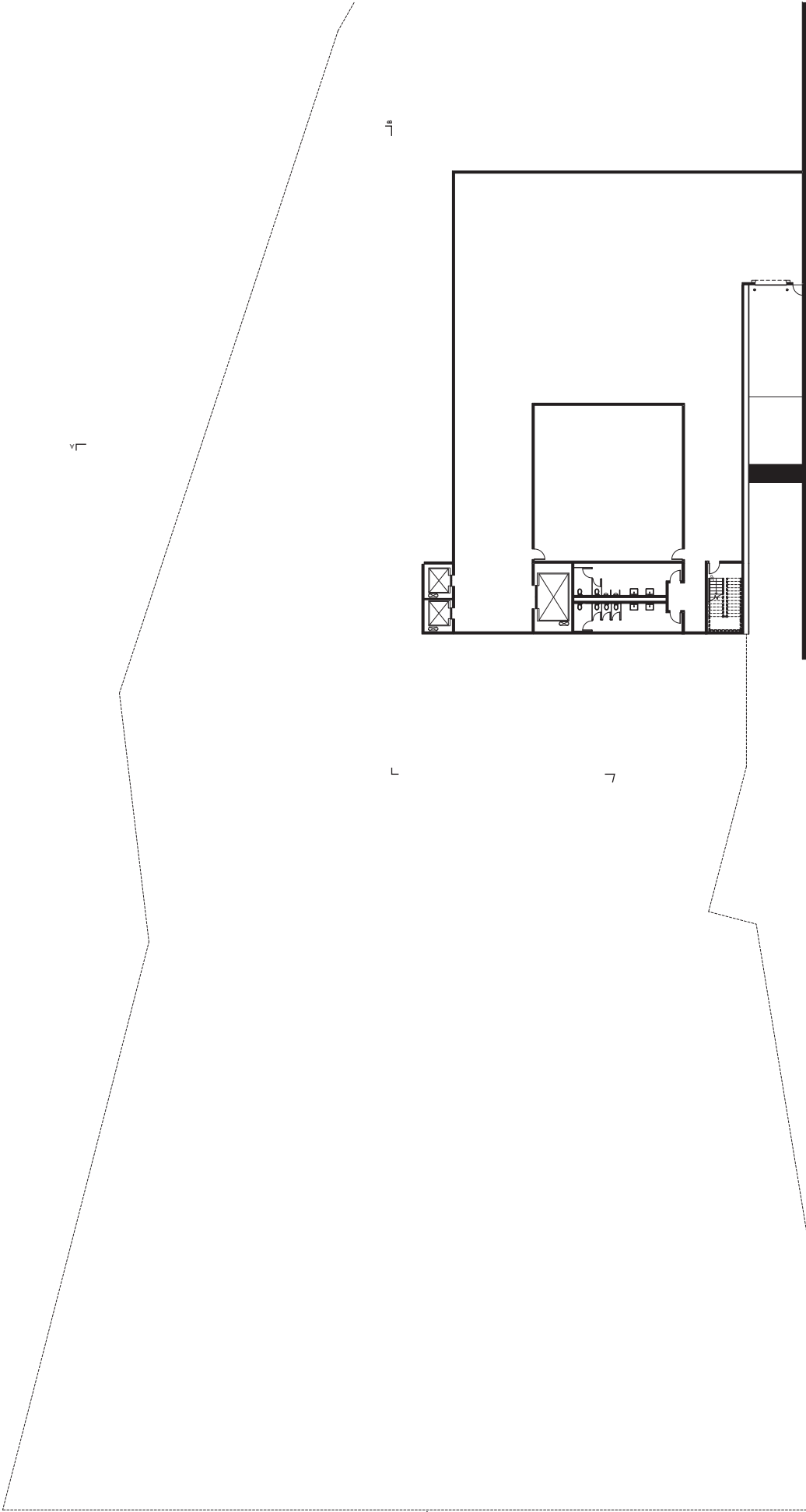
Fairfield Inn

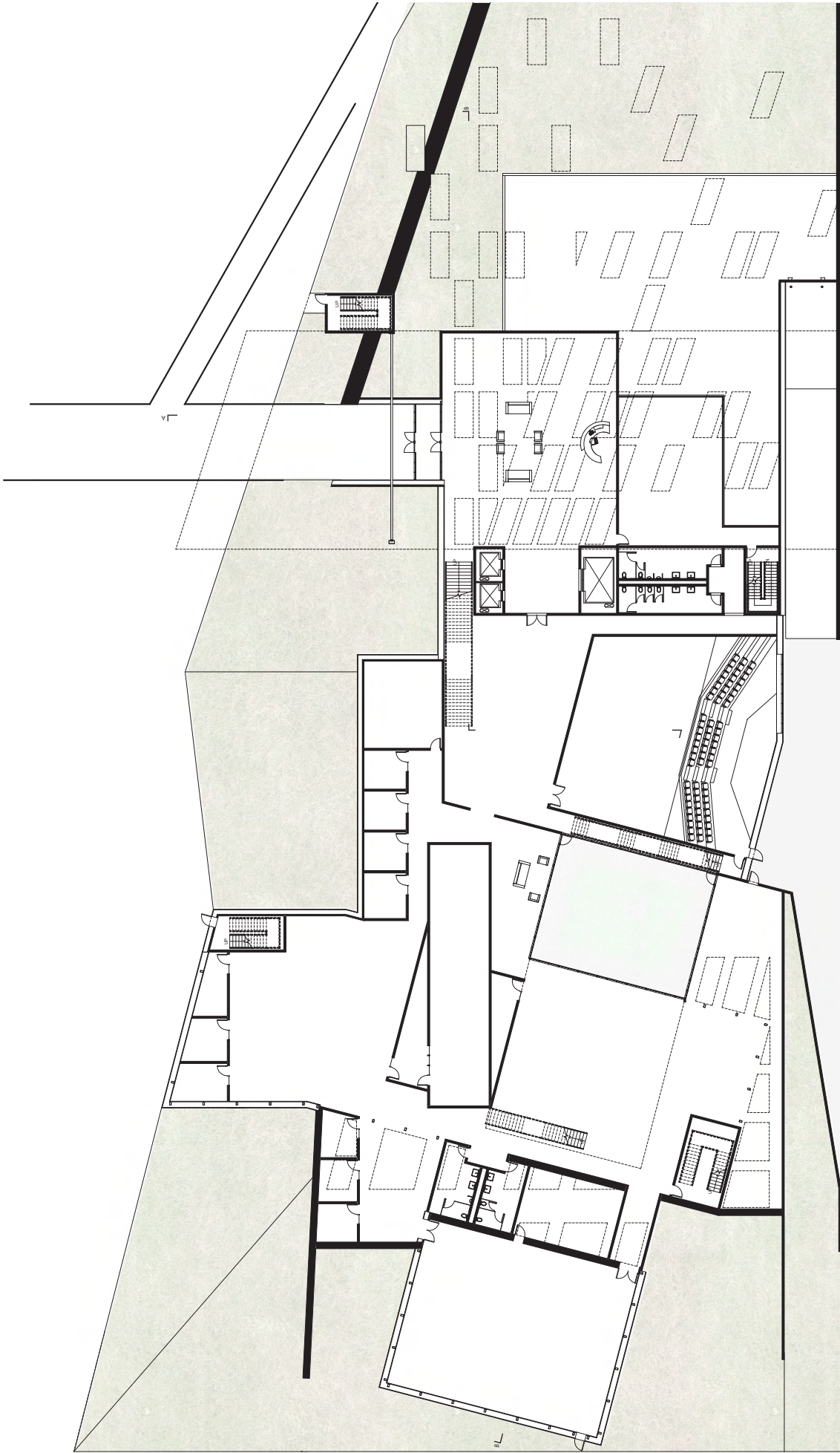
Medical Center - General Hospital

Clay Center for the Arts and Sciences



SITE PLAN
SCALE: 1"=50'



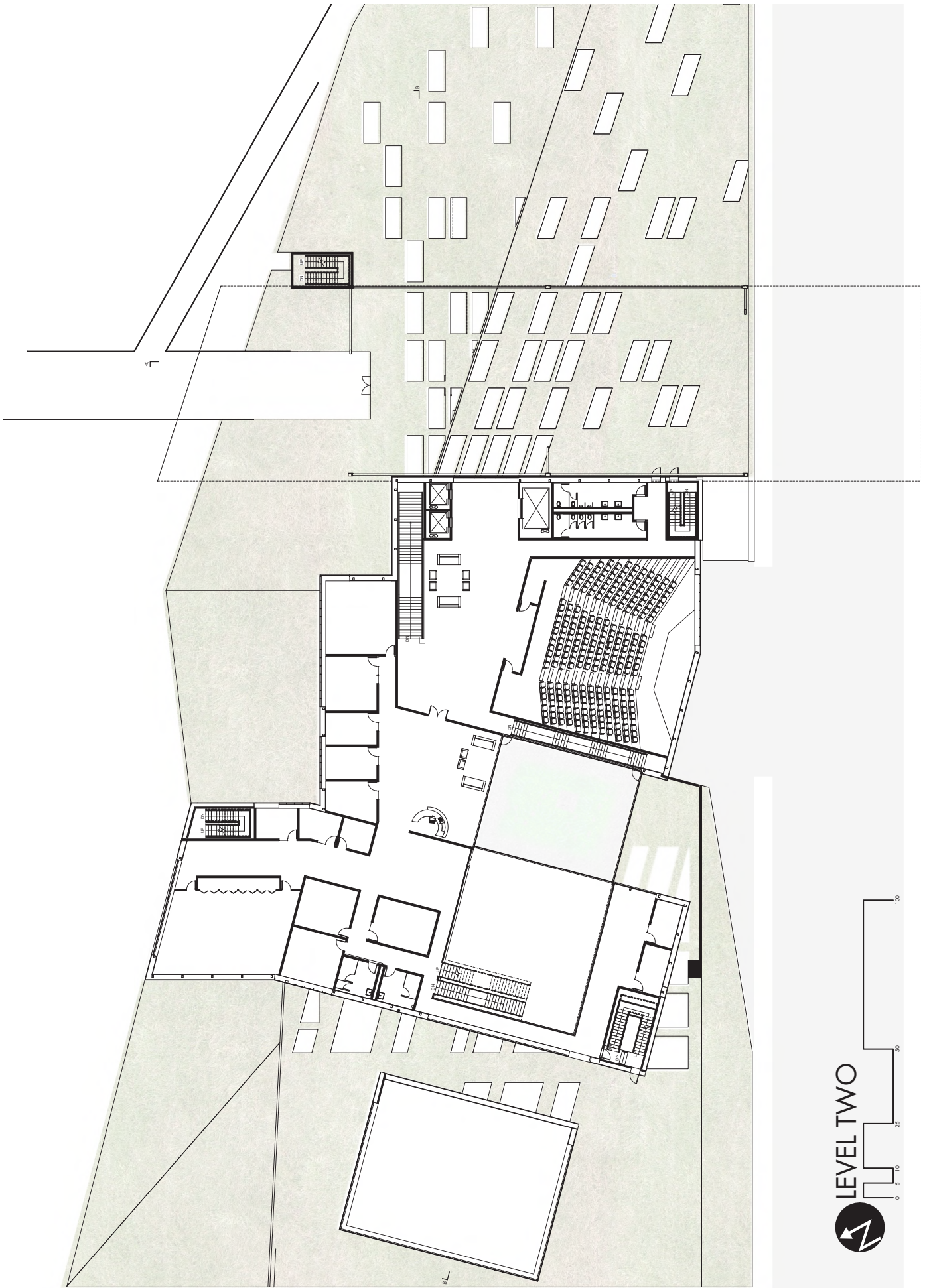


LEVEL ONE



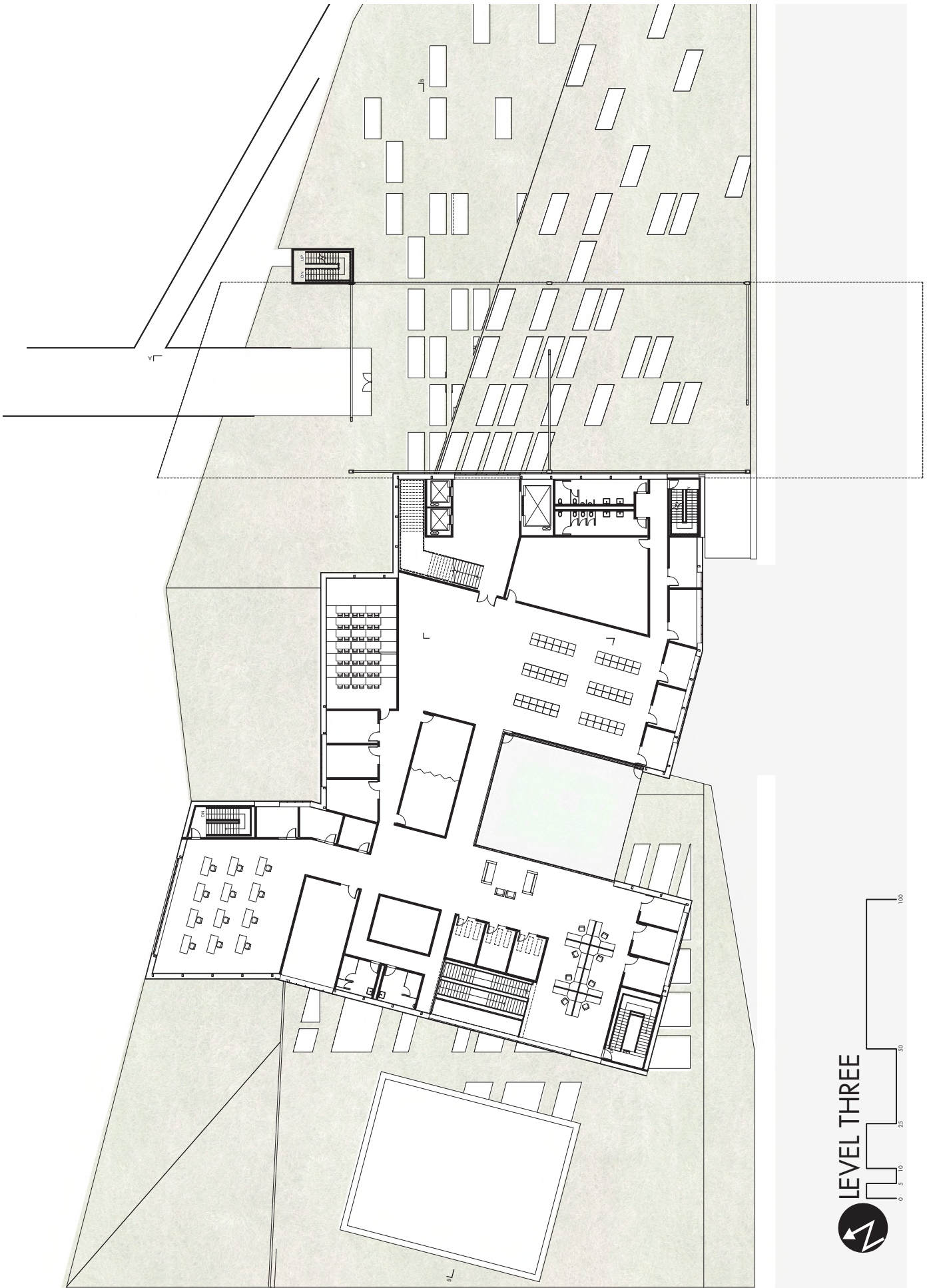
A-A

B-B



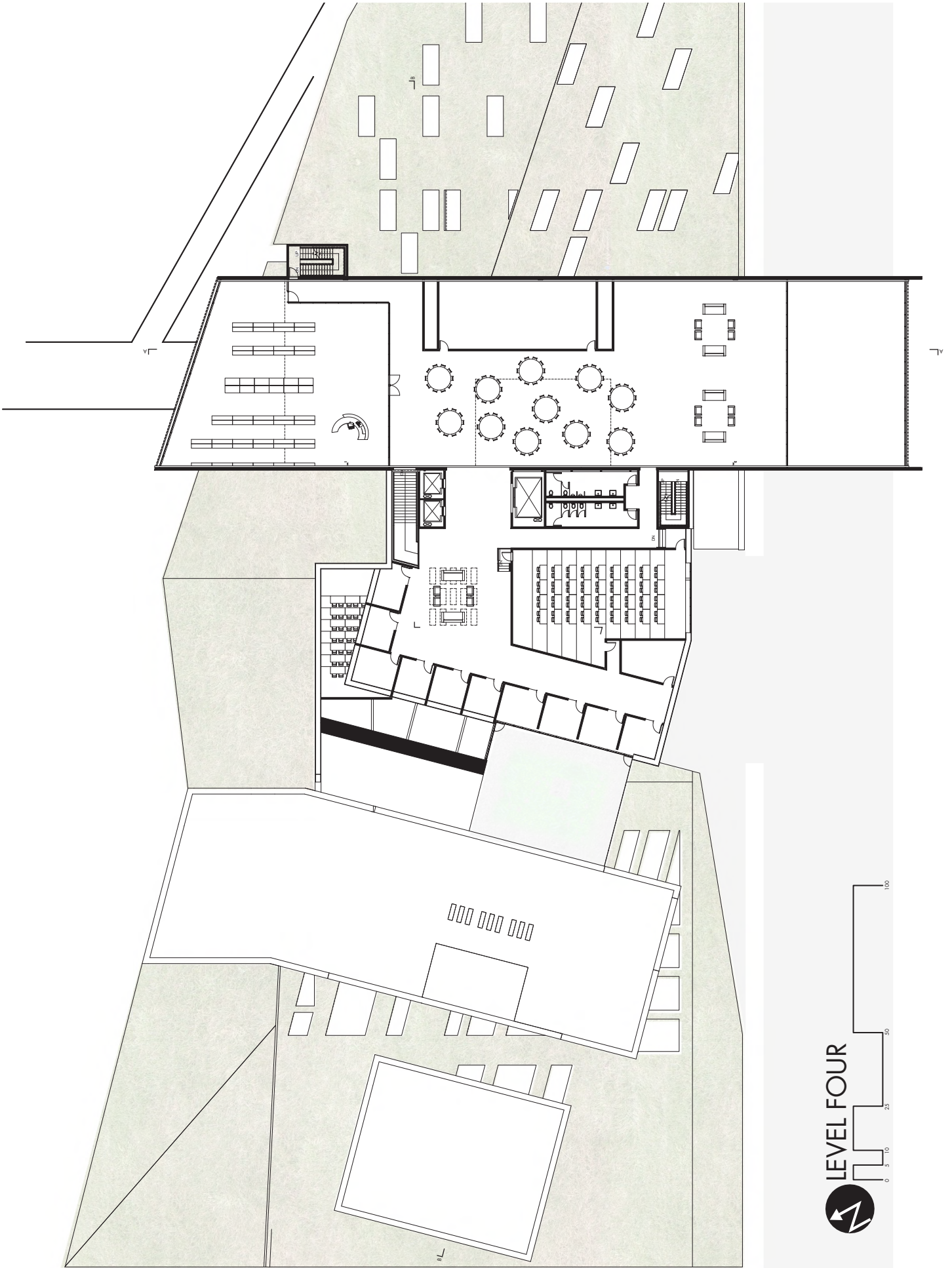
LEVEL TWO





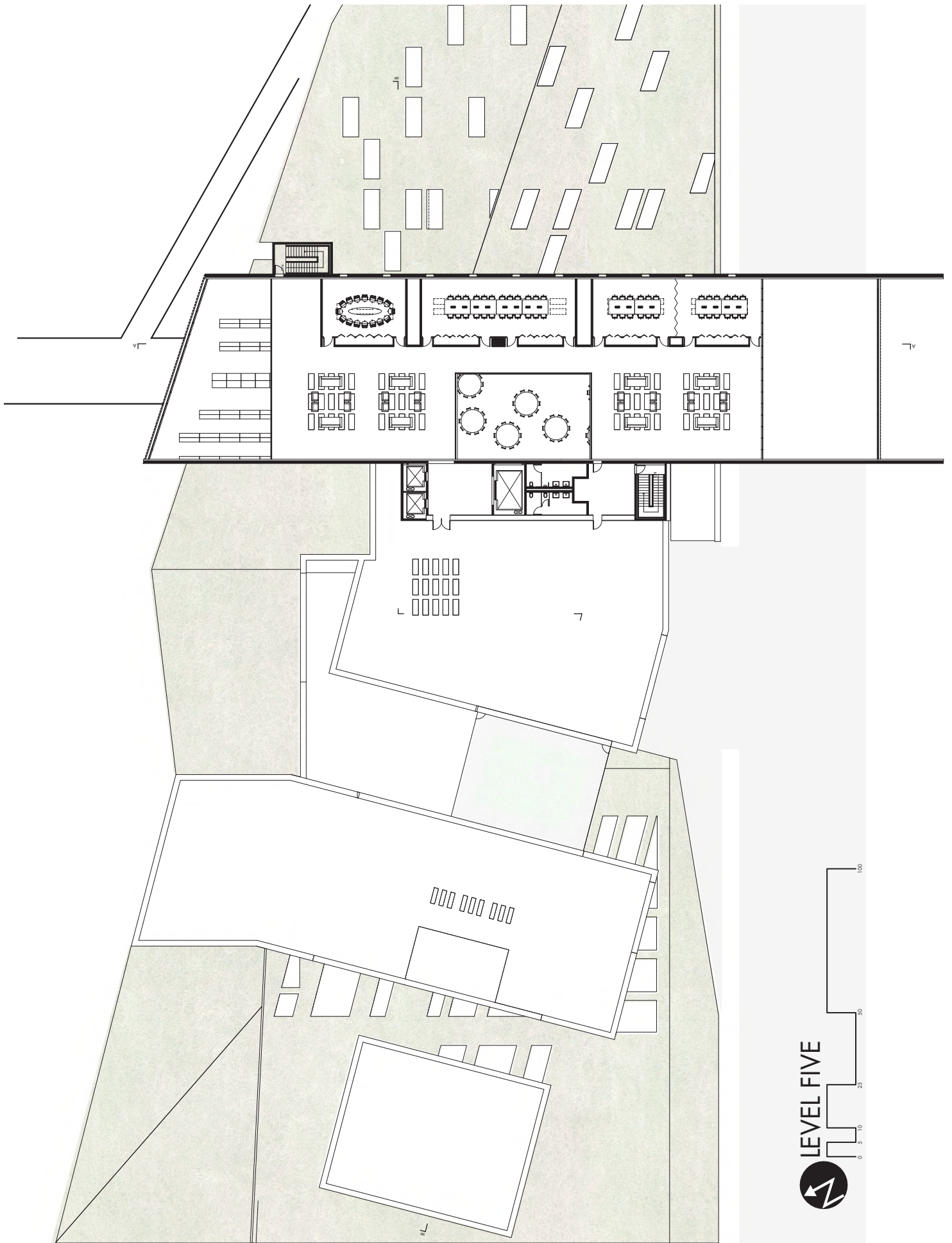
LEVEL THREE





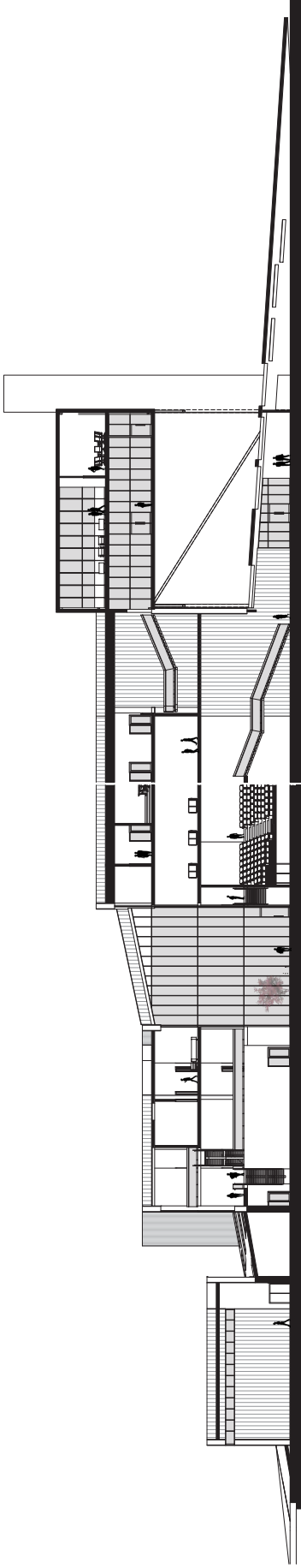
LEVEL FOUR



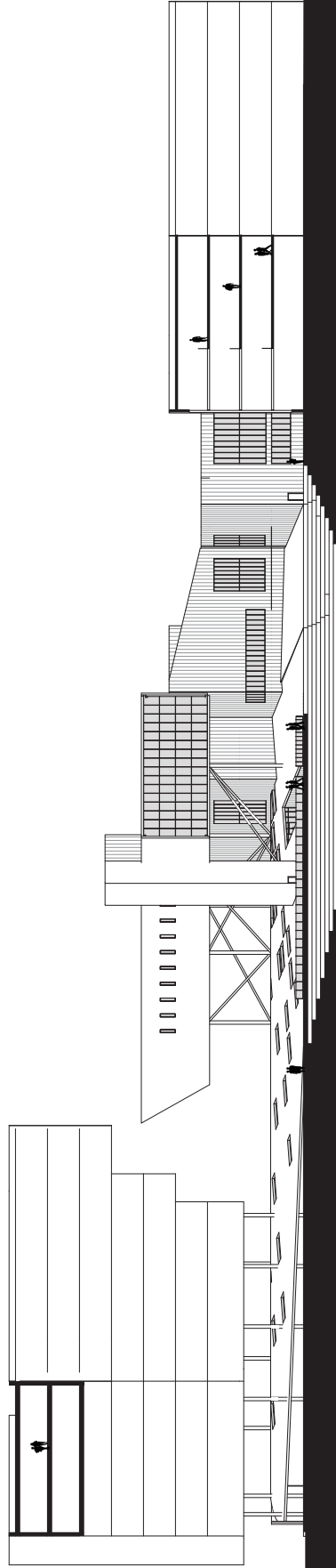


LEVEL FIVE



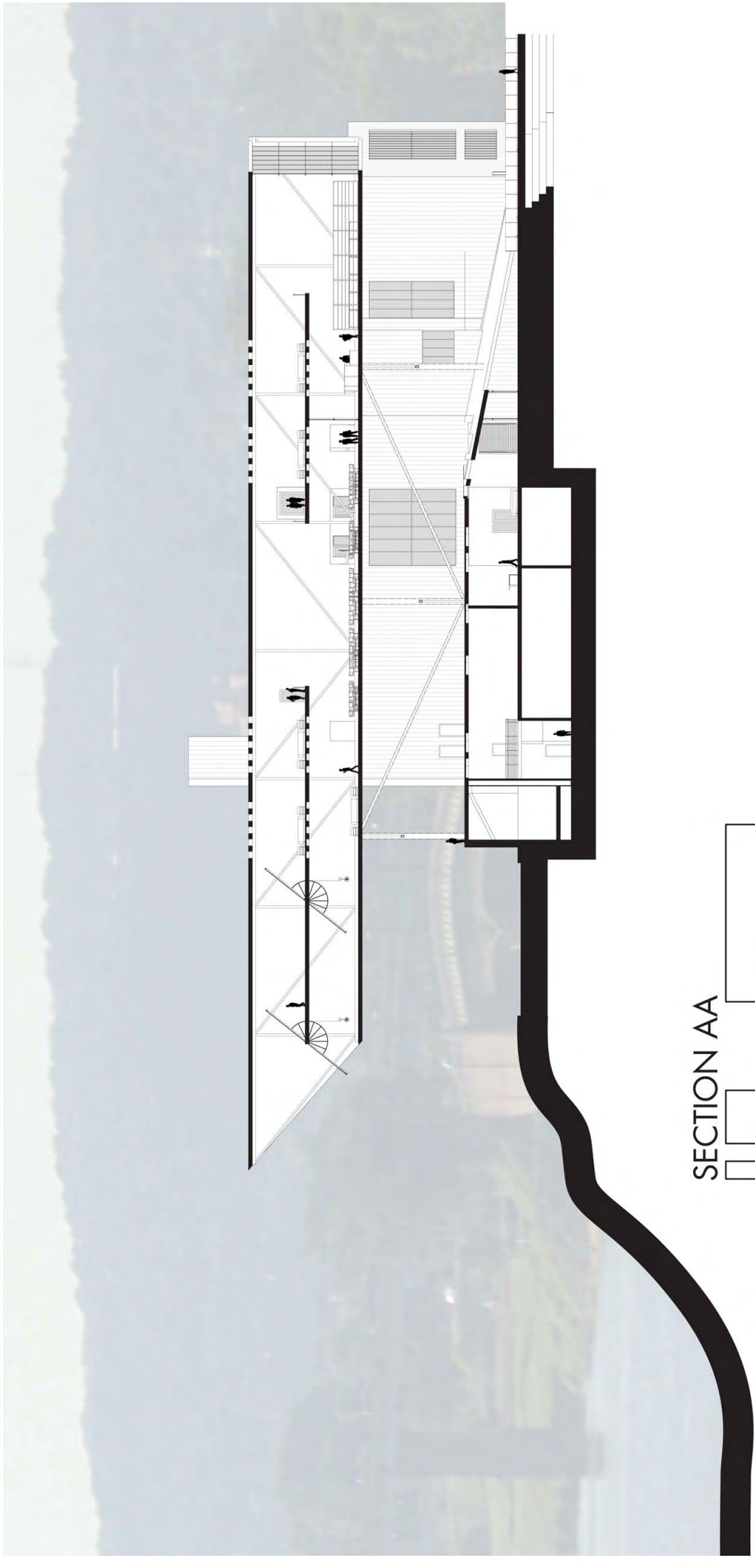


SECTION BB

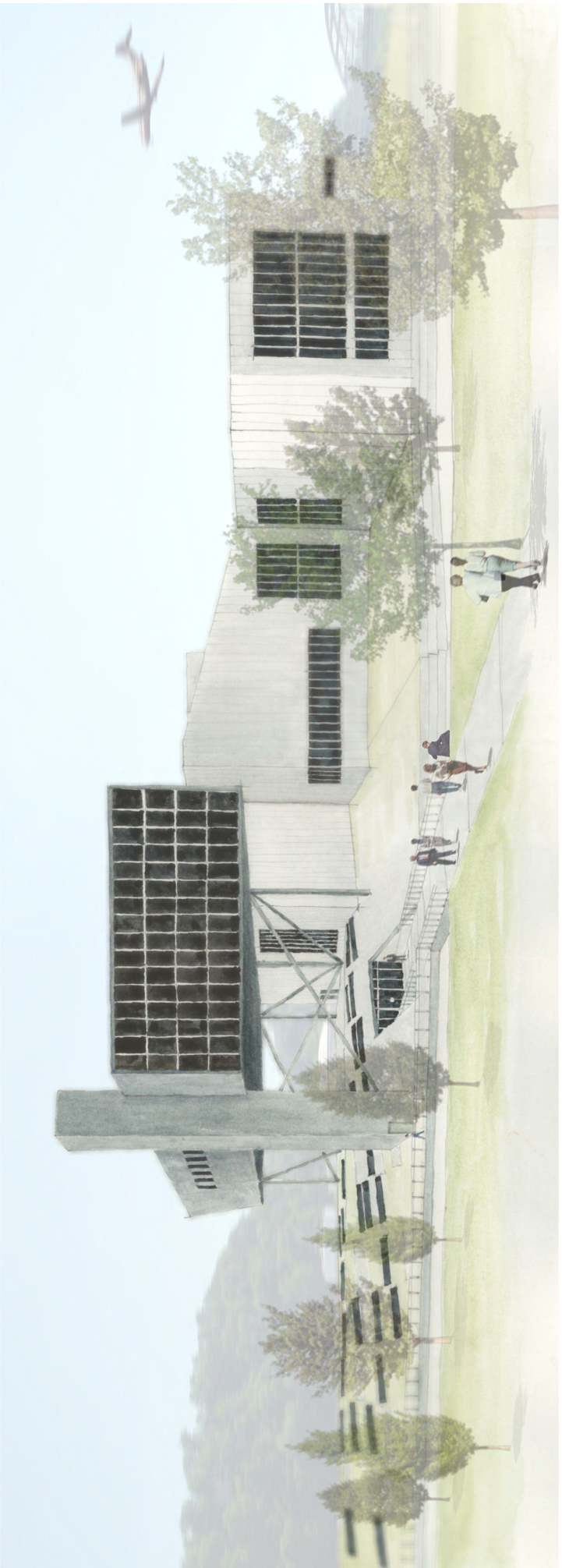


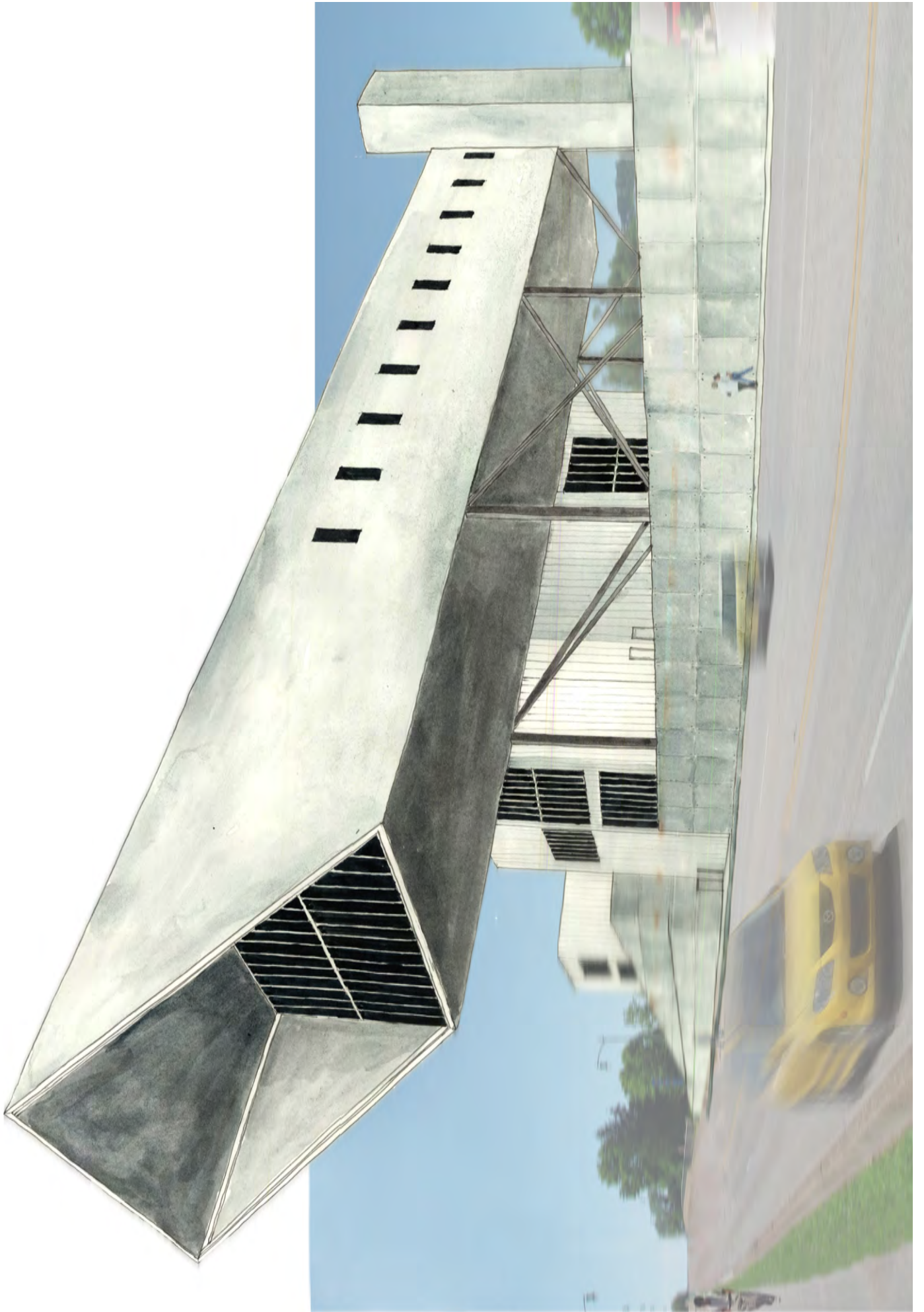
SECTION CC



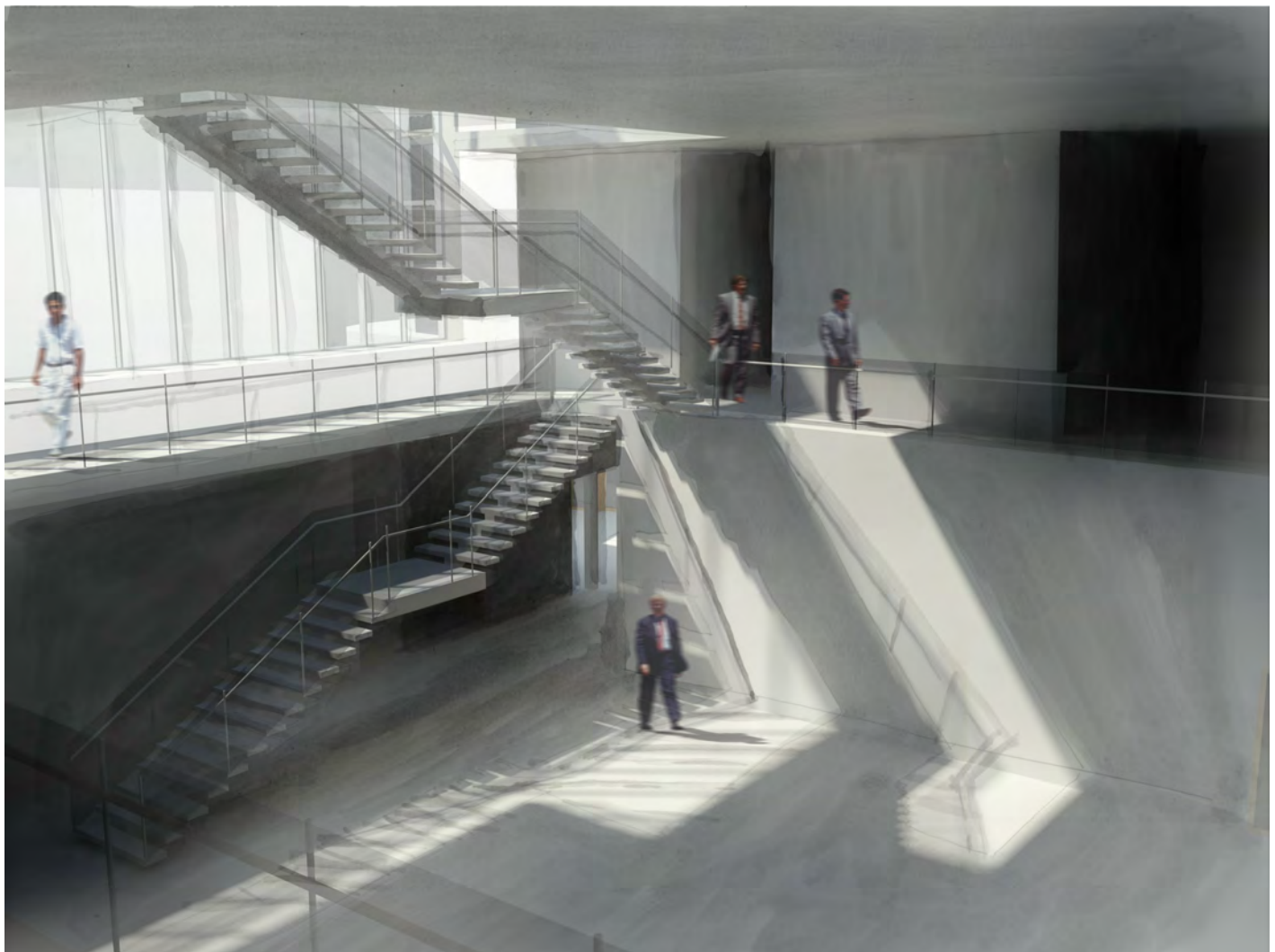


SECTION AA
0 5 10 25 50 100













Painting + Architecture: Place, Experience, and Quality of Space

Introduction

The written portion of my thesis explored creativity of architects through painting explorations and traced the use of painting in architecture since the Bauhaus and the early 20th century. I also looked at artists that seemed to introduce an architectonic language into their paintings and drew comparisons from built projects against investigations done on canvas. One of the quotes from my thesis that continued to keep me focused on my topic was that of Alfred H. Barr, Jr. about the role of the architect, "Though in this century he [the architect] has sometimes excused himself from the role, he is an artist—or should be."¹ Through my process I continually tried to keep an artistic approach to my process. At times this was very challenging as the required curriculum in the thesis design studio often challenged the process that I felt I needed to follow. Balance became an important component during the design process.

Following comments from reviewers from the paper presentation, my investigation went in the direction of human experience through the built environment, quality of space, and place making through a painted process.

My original question was: How can the artistic production of painting make a process oriented architecture?

Site Selection

What I was looking for was a small city, one that had little in the way of iconic architecture where a well designed project could make a statement and begin to set the stage for other signature projects or revitalization. After a discussion with my committee, the first city to be mentioned was Frankfort, Kentucky. Then it was stated that maybe I should look in my home state of West Virginia. Initially a few cities came to mind including Wheeling, Huntington, Martinsburg, Fairmont, and

Charleston. Wheeling seemed like a good option because of the degradation that has occurred from the death of the steel industry. It is also located along the Ohio River. It seemed like this city could be a good candidate for a project that could begin to offer some type of revitalization. The other one that seemed most viable was Charleston. Charleston is county seat of Kanawha County and the home of the state Capitol. It is also located along the Kanawha River which has been a major transportation route for the coal industry. Charleston is the state's largest city with just over 50,000 people so any project seemed like it would be more viable in this location. Like Wheeling, Charleston had industry as well, but instead of steel, it was the home of many chemical plants on the outer edge of town.

After considering the pros and cons of each city, I chose to work in Charleston. Over summer break I visited various sites in Charleston several times. It was apparent very early that the city had completely turned its back to the river. Part of this reason was flooding concerns. During the early part of the 20th century, the buildings along the river were fairly dense, but due to flooding over the years, only one eleven floor brick building remains so I knew that building down to the river with a building would not be viable. One requirement I set for myself was to keep a good distance away from the state capitol as the building has a huge gold dome that dominates everything around it. The capitol is located at the edge of the east side of town. I chose three sites, each very different having unique challenges and city contexts.

The first site is located in the heart of the historic district where some buildings have been demolished and replaced by an asphalt parking lot. This site was several blocks from the Kanawha River and is currently being considered by the FBI for a new project. This block is very large and would have to address

the context at the north, east, and south edges. There is also a small two story abandoned 1920s diner on the site which would have been worked into the program of a new building and master plan. The second site is a superblock located at the convergence of the Kanawha and Elk Rivers. The challenge here was allowing the building to receive as much view possible to the river and across to the hills as it is separated by Kanawha Boulevard (a four lane state highway) as well as the twenty-five foot drop to the river. This site is also located at the corners of two elevated bridges crossing the Elk River. This site is currently the home to Shoney's, Long John Silver's, Appalachian Tire, Captain D's, and Wendy's. It seemed to me that this site was being undervalued so removing or relocating them was an easy decision. The third site is much less urban than the other two and is located in a residential area on the west side of town. It was also adjacent to Kanawha Boulevard and Kanawha River giving ample views of the river and hills beyond. At the east edge of the site is an elevated steel train bridge that is no longer being used.

Site Diagnosis

After a lot of deliberation, I chose to work on the site at the convergence of the Kanawha and Elk Rivers. When traveling down Interstate 64 to the east, this site really becomes a gateway to the cityscape. This is the perfect real estate for a new project as it is one of the first places that can be noticed from the highway. I also hoped to pull some attention away from the convention center, the Town Centre Mall, and new Federal Courthouse (a 180 foot tall post-modern structure), which are all located a few blocks away. At this point, there is little to no view of the state capitol. Since the city has turned away from the river, I hoped to address this by not only making a people friendly site but define a terminus which will split the site in half using the dead end street leaving the convention center.

Program

Since I was working with a very artistic process to generate my project, my committee steered me away from doing a typology that dealt with art such as a museum or school of art. I really wanted to design a school, not necessarily for the arts, there did not seem to be a way of justifying it on any of these sites,

and there did not seem to be a need for it. My committee convinced me to consider looking at options for sustainability in a state that is so carbon and fossil focused. I began looking at research center typology such as Google Plex and the Stata Center at MIT. I found myself having a lot of trouble with this as I could find very little information on research centers for environmental technology especially ones dealing with local conditions. I basically had to create my own program which was good as this offered me a chance to create the interior conditions necessary for human interaction and spatial quality.

I still wanted to keep my desire for education alive in the program so my building became a Center for Environmental Technology Research and Education. This complex will serve as a place to employ full time environmental scientists to educate researchers, young (secondary education level) and old (men and women laid off from the coal mines), in the science of environmental technology with issues designed specifically for the state of West Virginia. This center will be the first of its typology in West Virginia and spawn satellite branches in other locations around the state, including Wheeling and Martinsburg. Some of the primary spaces in my program were to be: At the semi-public level; a generous lobby, a medium sized auditorium, meeting rooms, cafeteria, library, and social spaces, and administrative offices. These spaces will allow for meetings between government and researchers as well as occasional community educational events so security became a primary issue in the building design. The community would only be allowed to enter the auditorium. At the private level were the research spaces (at various sizes), classrooms, and research offices.

Realistically funding such a program became a concern so I went searching for a company that has had its hand in the coal industry that might be convinced to do something positive. CONSOL Energy seemed so be an appropriate company. A master plan had to be developed that would make use of the underdeveloped site. In this master plan would be a high rise office tower to be the new home of the funding company as well as a housing unit for the long term stay of visiting scientists and researchers, as well as leasable commercial space that would help keep up density and street frontage.

Design

From the beginning I knew that I wanted to bridge Kanawha Boulevard in order to get my building the needed views of the river and hills. After choosing my site, I was looking at designing low and within the landscape, but when I realized how important the site was for marketing purposes, the building became taller as did the corporate tower and housing unit. I began by looking back at some of my earlier paintings and saw some forms that I really liked that I had at some point discarded. These forms were ungluing and site manipulating.

The forms of the building and site became angled to reflect the angles of the streets from the western side of Charleston in order to bring both sides of the city together. The real focus for this project has always been the quality of space and human experience, but at the last minute the building façade became a hollow core glass structure to address some environmental issues. As the design progressed, the bridging element became a single cantilever that was supported by a web of structural columns. The inside of what became known as “the tube” was designed as a box truss system clad in a shiny metal skin. The tube became the home to the cafeteria, kitchen, meeting rooms on the second floor, double height exterior garden at the south end, and a double height library at the north. The meeting rooms were placed on the east wall to open access to a roof garden on the west. I kept the tube as sleek as possible while still giving it the openings that it needed to have for each of the meeting rooms. The double height garden can become an indoor/outdoor space as it received two large overhead doors that could be opened during different times of year. The exterior door could be left open in the summer to make it a fully outdoor room while the interior one remains closed. If ventilation is needed the interior door could be opened as well. During the winter months, the exterior door can be closed while the interior one can remain open to make the outdoor room indoors. The door design was inspired by one that Tom Kundig designed for the Chicken Point Cabin that was operated by a pulley system. Instead of rising, the door pivoted on an axis at its midpoint. This seemed less clunky than an overhead door with a motor and also more sustainable.

The entrance to the building is at ground level on the north side. One enters a lobby and is greeted by a receptionist who would show you the way upstairs to the administrative level and auditorium. The entrance to the auditorium was placed on the second level and was designed to be two floors in height, dropping down to the stage at ground level. Because the cladding of this portion of the building is hollow core glass, it would be necessary to place louvers inside the glass wall in order to have total black out for presentations. Other than this space and defining the administrative, faculty offices, and classrooms, the rest of the building became relatively undefined as it was difficult to know exactly how each space needed to function. I left a large double height laboratory space at the ground level for large projects and then divided the rest of the laboratories into smaller chunks, some with desk spaces and others with science lab style research tables. The in between spaces became important as they were sculpted out for informal meetings and communication between the researchers and students.

Reviewer Comments

- Design could reflect the river more.
- The tube is a little static and could take more advantage of the river.
- The master plan should be flipped with the high-rise building anchoring the corner of the site at the convergence of the two rivers.
- They understood that it was a difficult site.
- They criticized the floor plans as it did not seem to be an efficient use of space.
- They thought that I had a good beginning in my process of experience, place, and quality of space, but they felt that the middle portion of the process was missing before getting to a final product.
- One reviewer thought maybe I should allow the Elk River to overflow into my site to create a natural wetland and habitat rather than make it 100% for humans.

Conclusion

The choice of site was a crucial part of design process. I ended up falling behind in the design portion because the master plan required so much work. I spent a lot of time developing it so that it began to speak to its surroundings and context, but not succumb to them. It had to make a statement about keeping up urban density, even at the edge of

the urban area. Not only did this site scream for help, but Charleston in general has a lack of design and organization to hold it together. The city is crumbling and totally defined by asphalt parking lots. I wanted to address the two sides of Charleston as it is divided by the Elk River. The site needs to flow between east and west and in and out just like the rivers. Connecting site to water, sky and hills was crucial for a successful design. Human interaction was the biggest concern at the urban scale and building scale. This had to be a place to observe the beauty around them and begin to help preserve and rebuild it, even if it is an urban setting.

My final thesis question is: How does painting as a design process inform place, experience, and quality of space?

¹ Henry-Russell Hitchcock, *Painting Toward Architecture* (New York: Duell, Sloan and Pearce, 1948), 8.