

Nyack River Front Park :
a conversation between land and water
- Kerri Ann Mullins

This thesis is submitted to the faculty of Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Master of Architecture.

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The steps taken from start to stop in the design process are not a solo effort. To take complete credit for this project would be misleading. My meetings with my committee and my discussions with fellow students have been invaluable. They asked me the questions that I had not considered. They asked me the questions that would challenge me to make the project better. My discussions with family and friends gave me a new perspective of how to look at my project. Without these influences my project would not be where it is today.

To all of these people in my life, thank you for bringing out the best in me and my work. Your guidance and support will always be remembered and treasured.

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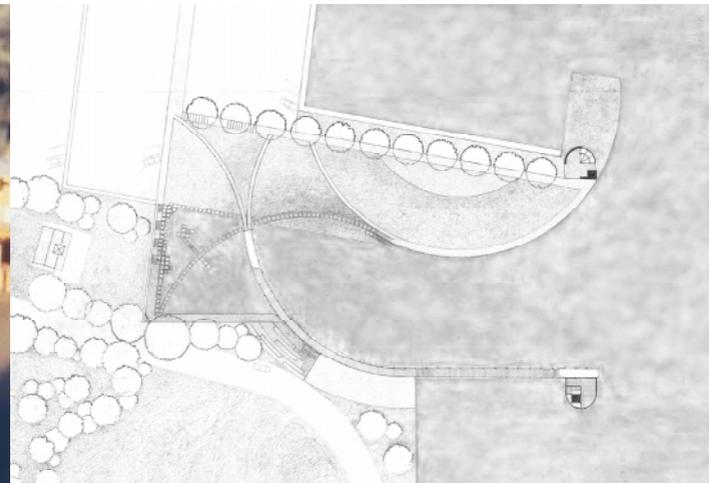
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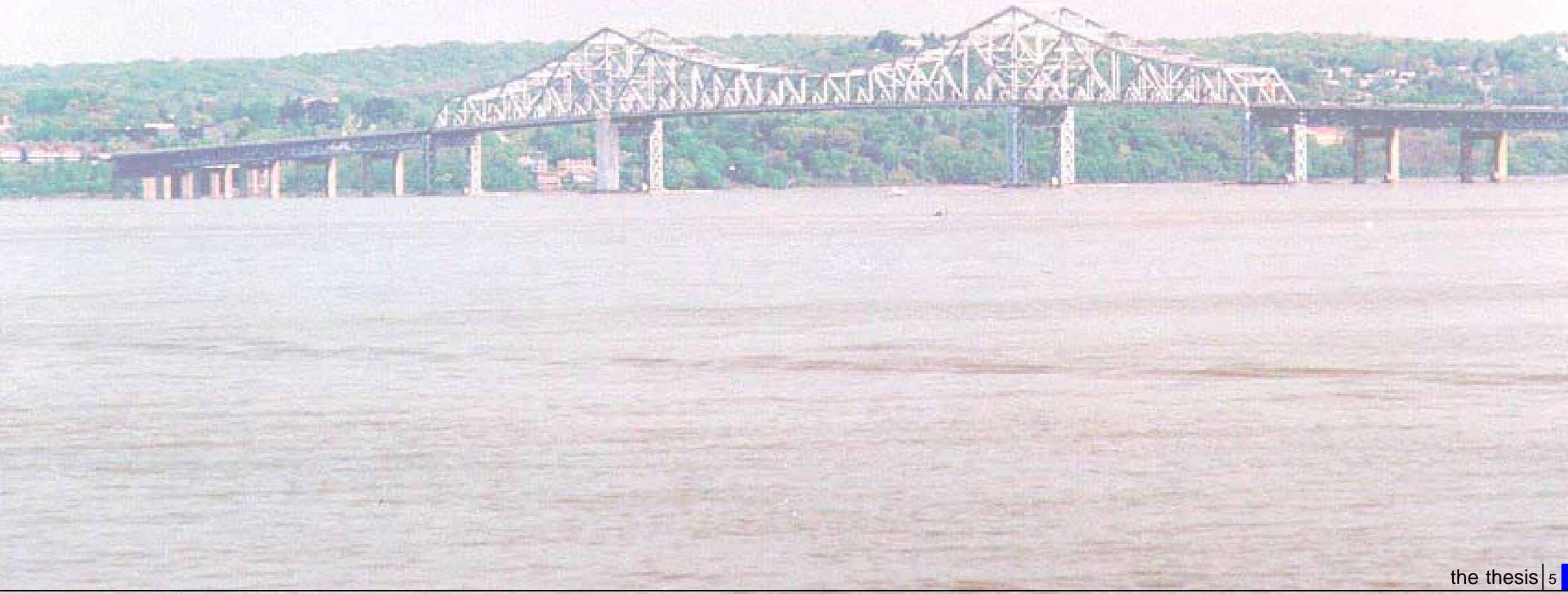
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"Naturally, a writer has some joys he lives for and that do satisfy him fully. But for me, these come at the moment of conception, at the instant when the subject reveals itself, when the articulation of the work sketches itself out before suddenly heightened awareness, at those delicious moments when imagination and intelligence are fused. These moments disappear as they are born. What is left is the execution, that is to say, a long period of hard work."

-Albert Camus



Calm: the description or effect; the smooth glassy surface... a feeling that the water has the power to bring out in people through sound, through sight, through smell **Cleansing:** literally and figuratively... in the way we use water to wash and figuratively how the act of being in or near water can emotionally or spiritually cleanse **Moving:** bodies of water in constant motion... gravity carrying water down from higher elevations... tides moving in and out... objects moving on the surface of the water **Fluid:** water moving in around and through... the patterns and shapes... it can whirlpool, it can make waves as it moves over itself, it will ripple when something is thrown at it **Reflective:** mirror like... clouds and boats vertically above and on top of the water while being reflected horizontally on its surface... thought provoking; a reflection of thoughts **Strong:** the power that water has to move things... flood waters, waves, tides and currents all have the potential to have a deadly strength **Unpredictable:** like the weather it is constantly changing... a smooth surface can turn rough and dangerous... distant storms can affect the tides and the waves **Mysterious:** a fog hanging motionless over the water, nothing to see but the mist... the way that you can only see so deep into it, not knowing what is beneath or beyond **Calm:** the description or effect; the smooth glassy surface... a feeling that the water has the power to bring out in people through sound, through sight, through smell **Cleansing:** literally and figuratively... in the way we use water to wash and figuratively how the act of being in or near water can emotionally or spiritually cleanse **Moving:** bodies of water in constant motion... gravity carrying water down from higher elevations... tides moving in and out... objects moving on the surface of the water **Fluid:** water moving in around and through... the patterns and shapes... it can whirlpool, it can make waves as it moves over itself, it will ripple when something is thrown at it **Reflective:** mirror like... clouds and boats vertically above and on top of the water while being reflected horizontally on its surface... thought provoking; a reflection of thoughts **Strong:** the power that water has to move things... flood waters, waves, tides and currents all have the potential to have a deadly strength **Unpredictable:** like the weather it is constantly changing... a smooth surface can turn rough and dangerous... distant storms can affect the tides and the waves **Mysterious:** a fog hanging motionless over the water, nothing to see but the mist... the way that you can only see so deep into it, not knowing what is beneath or beyond



Steps descending into the Grand Canal - Venice, Italy

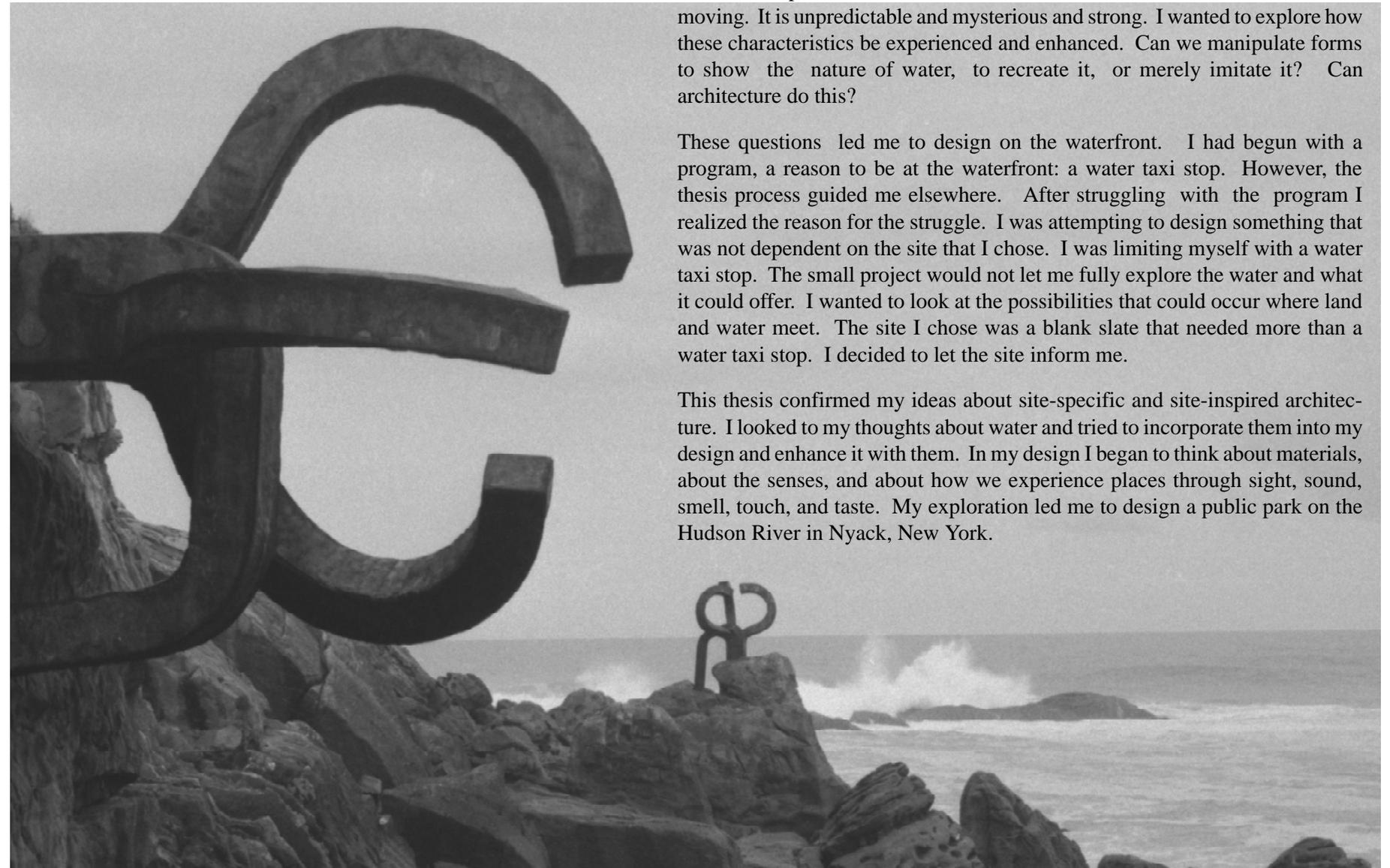
This architecture thesis is an exploration of an idea, an event, and a place. The idea was to explore design with water. The design had to be thoughtful and have an impact: an event. My place is on the waterfront.

Growing up in a river town instilled in me an interest in the junction of land and water. This junction should be meaningful. I looked to places I have visited with a strong connection between land and water. In San Sebastian, Spain, I viewed the Wind Combs by Chillida. This place changes daily with the weather and the force of the waves. Coming to this place is an event. So many European cities have paths along their rivers and Venice has the unique marriage between land and water. Although these places by the water have so many different qualities, they all hold equal attraction for me. I tried to combine my thoughts and feelings into my design.

What is my fascination with the river, with water? Its characteristics are sometimes contradictions. Water can be calm and flat or rough and choppy. It can be transparent, reflective, or both at the same time. It can be still or moving. It is unpredictable and mysterious and strong. I wanted to explore how these characteristics be experienced and enhanced. Can we manipulate forms to show the nature of water, to recreate it, or merely imitate it? Can architecture do this?

These questions led me to design on the waterfront. I had begun with a program, a reason to be at the waterfront: a water taxi stop. However, the thesis process guided me elsewhere. After struggling with the program I realized the reason for the struggle. I was attempting to design something that was not dependent on the site that I chose. I was limiting myself with a water taxi stop. The small project would not let me fully explore the water and what it could offer. I wanted to look at the possibilities that could occur where land and water meet. The site I chose was a blank slate that needed more than a water taxi stop. I decided to let the site inform me.

This thesis confirmed my ideas about site-specific and site-inspired architecture. I looked to my thoughts about water and tried to incorporate them into my design and enhance it with them. In my design I began to think about materials, about the senses, and about how we experience places through sight, sound, smell, touch, and taste. My exploration led me to design a public park on the Hudson River in Nyack, New York.



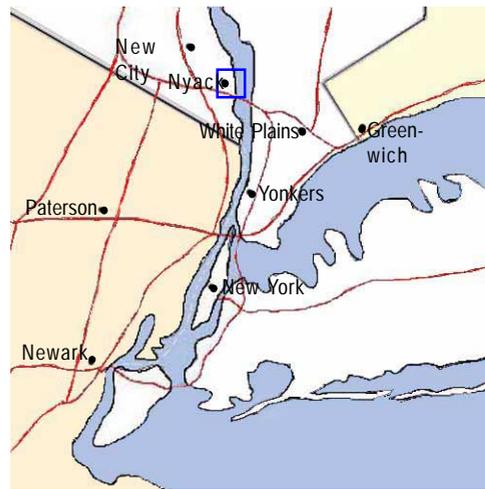
Wind Combs by Chillida - San Sebastian, Spain

I grew up in a town on the Hudson River. The sights and sounds of the river are strong in my memory. I can close my eyes and feel the wind in my hair and hear the sounds of the seagulls. This is my place of comfort, my place of reflection. This is my home...

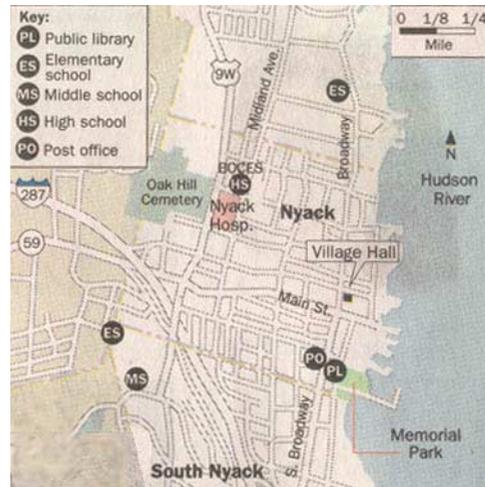




Map of the east coast



Close-up of the New York Metropolitan area

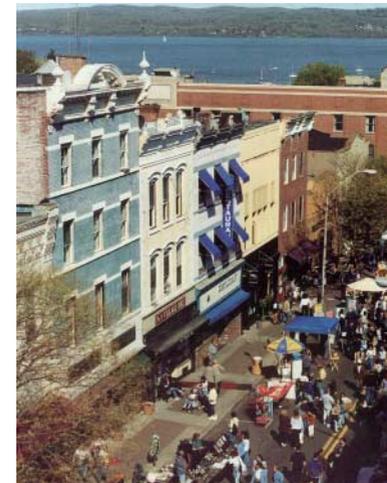


Map of Nyack, New York

Nyack, New York is located approximately thirty miles north of New York City on the west bank of the Hudson River. The Village of Nyack is a commercial center surrounded by residential properties. Main Street and Broadway make up the primary shopping areas with more shopping in the streets fanning from them. The village is enclosed by the residential areas of Upper Nyack and South Nyack. The cumulative population of the Nyacks is approximately 12,000.

Nyack's location on the Hudson River has been a large factor in the development of the village. The earliest residents of Nyack were a tribe of American Indians who had migrated north from Brooklyn by river and settled in the town that was eventually named after them. The town was very accessible by river but less so by land. The geography surrounding Nyack was either swampy or mountainous, making land travel very difficult. The accessibility of the river is what made Nyack an attractive place to settle. Dutch settlers purchased the land in 1671 and started a farming community. Slowly the town grew and commerce began. Nyack changed from a predominately farming community to a small village with a growing industry. Boat building was one of the largest industries with a public shipping point at the base of what is now Main Street. Nyack was truly a river town.

Over the years industry faded in Nyack and the arts moved in. Nyack is known for its antique shops, as well as small craft shops, restaurants, and galleries that are spread throughout it. Artist Edward Hopper, born and raised in Nyack, used the Hudson Valley and Nyack as the subject for many of his paintings. His childhood home is now a local art museum. Other notable residents were actress Helen Hayes and writer Carson McCullers. The influence of these residents made Nyack what it is today: a small community rich in art, music, antiques, and theater.



Main Street during a street fair



View of the Hudson River from Main Street

Weekends in Nyack are filled with visitors. Nyack is a popular bicycling destination from New York City, an escape from crowded city life. Visitors may frequent the antique shops and restaurants. Others may take a drive through the neighborhoods to enjoy the Victorian homes. Nyack is very proud of its heritage and its position as a cultural center. From April through September Nyack shows off its charm through frequent street fairs. Whether it is the galleries, theaters, shops, or restaurants, people come from all over to enjoy the Village of Nyack.

What visitors and many residents are missing out on, however, is a place to enjoy and celebrate the river. This river that helped Nyack evolve is inaccessible to the public. Most of the waterfront property is privately owned with only one walkway along the river at the edge of the northern residential area. Other than that the only public access to the river is a small wooden pier at the base of Main Street and Memorial Park, a small park made up of a baseball field and a small playground (pictured right). The park dead ends with parking spaces that face out to the river. Across a small inlet is a parking lot.

This is the place where the town could have made a statement and it did not. This is where the town could combine its richness in culture and beauty of nature. I saw this as my opportunity to make an important connection between the river and the town, to make a gateway, to make a place...



Memorial Park



Corner of Main Street and Broadway

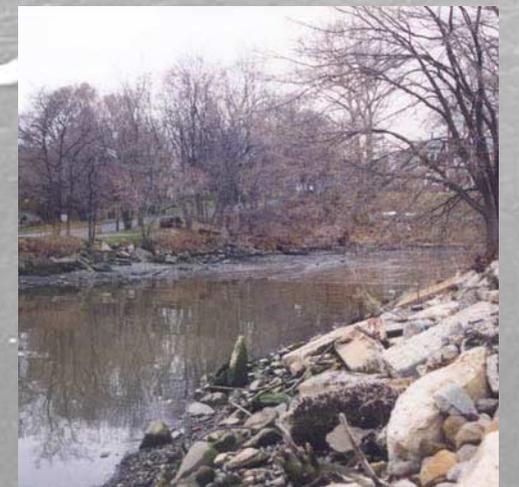
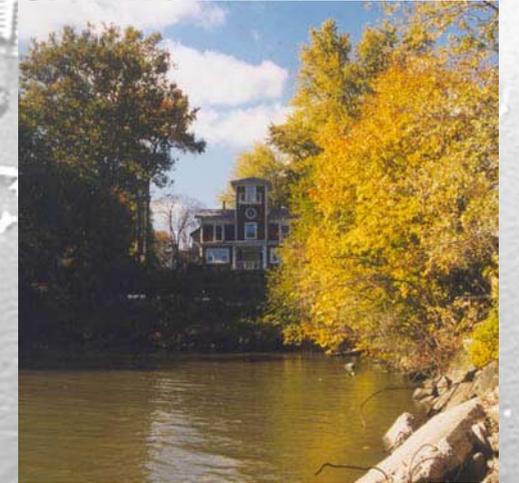


Local business in renovated home



Local residence

With every hour, day, and month the site changes.
The cycles of the day and seasons are always present.
The tide comes in and out changing the water's edge.
The smells in the air change and the colors of the area vary.
Lush greens and yellows with bright blue in the summer.
Yellows and oranges and browns in the fall.
Greys, blues, purples and browns in the winter.
And the water always reflects its surroundings.

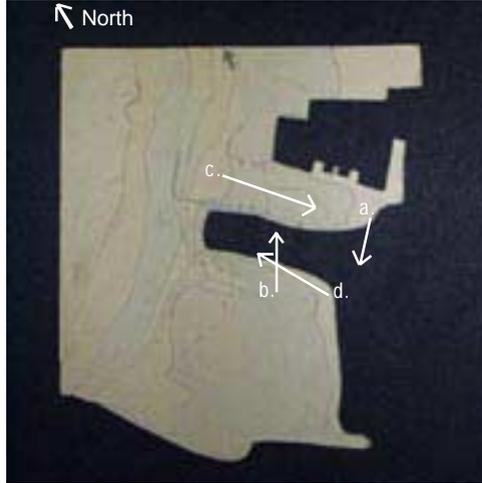




Memorial Park



View of Memorial Park from the river



Contour map of site with camera positions

The new century has seen the Hudson River enter a kind of renaissance. The towns along the river are beginning to embrace it once again. New developments and parks are popping up all along the banks of the river. I took this new interest in waterfront redevelopment to explore some ideas for the Village of Nyack. My first ideas of the thesis were to develop a water taxi stop for the Village of Nyack. This allowed greater access to the village from the river while allowing me to explore architectural possibilities of designing in a tidal river.

Nyack's Memorial Park, a waterfront park located close to the intersection of Main Street and Broadway, is where I chose to do my study. This is an established public area with parking spaces facing the water. What occurs here is a 10 foot strip of land between cars and river with occasional benches to sit on. My ideas were to improve on the dead end quality of the park and expand into the water. To the north side of the park are a narrow inlet and an empty lot. This paved space is used for overflow parking during busy weekends in the town. Most of the time, however, it is empty.

A distinguishing characteristic of the area is the presence of barges in the water. The Hudson River is still subject to tides in this area with the water level varying from two and a half to three and a half feet between high and low tide. The barges are the easiest way to gauge the tides. At high tide a small amount of wood peeks above the water surface (top right) and when the tide goes out what is revealed is a mess of wood and metal and it looks to be a sunken ship (bottom right). I learned that these were barges that had been intentionally sunk in the shallow area in front of Memorial Park.



Camera position a. - barge during high tide



Camera position a. - barge during low tide



Camera position b. - looking across inlet

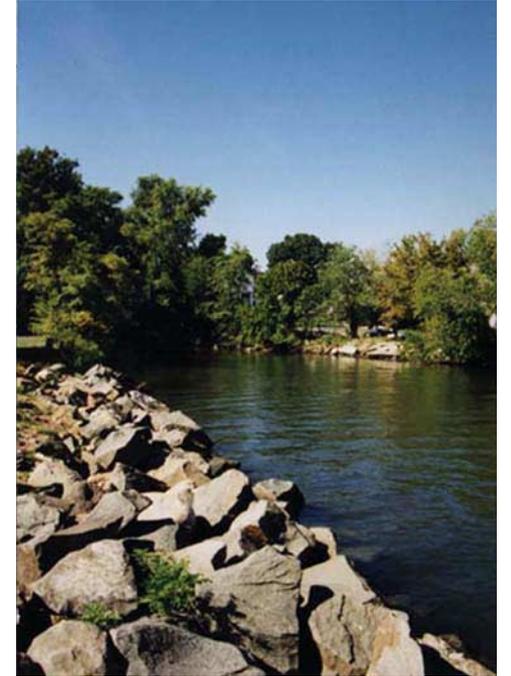


Camera position c. - spanning the paved lot

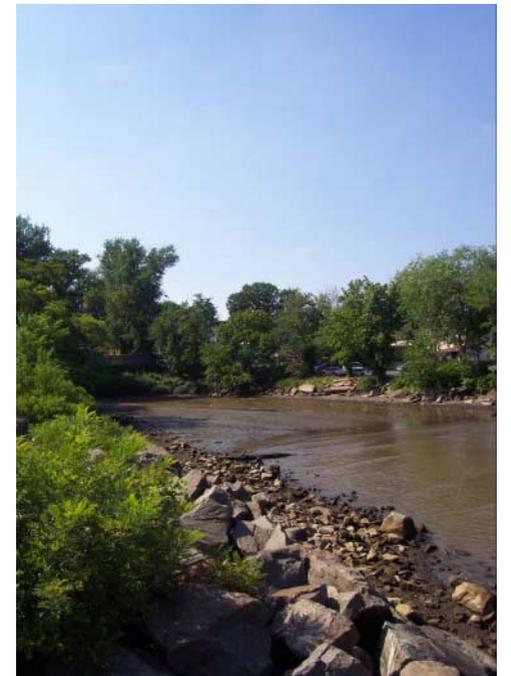
The placement of these barges in the water corresponds to the town limits into the river. I learned from old maps that the river's edge had been quite different eighty years prior. The area which now contains Memorial Park had been covered with water. The park and paved lot were later created by landfill. These barges may give us a clue as to how this park came about. Some maps of the area show a squared off jetty in the area of the barges with a partially enclosed area of water. Perhaps it would become a beach or a marina. What the barges are or would have been is not known, but they leave a visitor curious.

As noted, Memorial Park and the paved lot are separated by a long narrow inlet. During low tide, more than half of the inlet bed is exposed (pictured bottom right). What remains is a brown murky surface that is strewn with trash from the river. The smell that comes off this bed is unpleasant. It is during low tide that you begin to understand the neglect of the waterfront and the lack of maintenance. The park is edged by large boulders which descend into the water but the paved lot has crumbling concrete and plant life falling into the river.

The potential of the empty paved lot and the inlet shifted the focus of the project. I decided not to limit myself with a water taxi stop. Instead I allowed the site to inform me. My project shifted to the design of the paved lot and a way to improve and cross the inlet. This paved lot has hundreds of feet of land that touches the water. This allowed for more and different explorations of tide and edge condition that I would not have been able to do on a small scale. I allowed the site to inform me and direct me... and then I took charge.



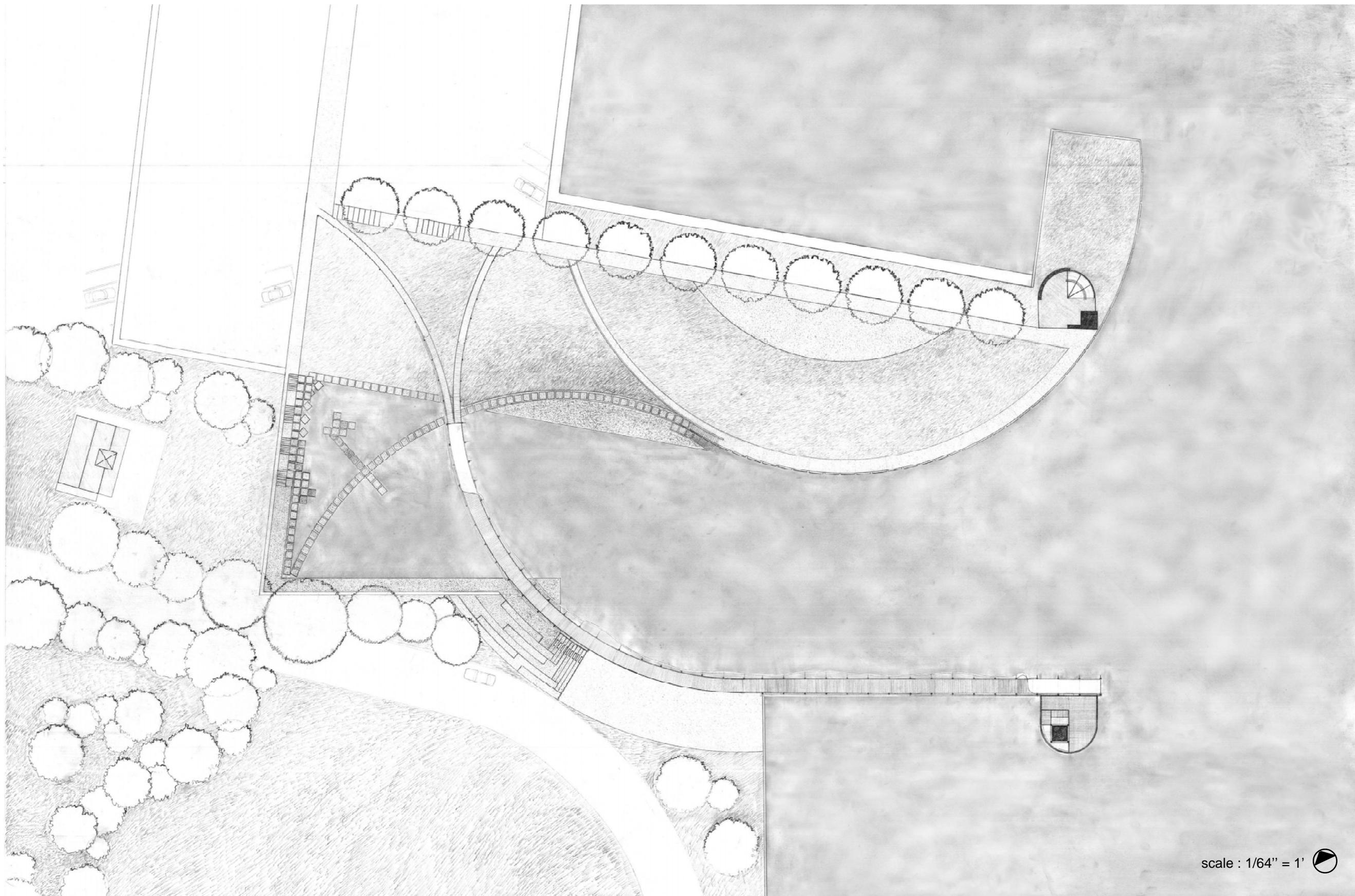
Camera position d. - inlet during high tide



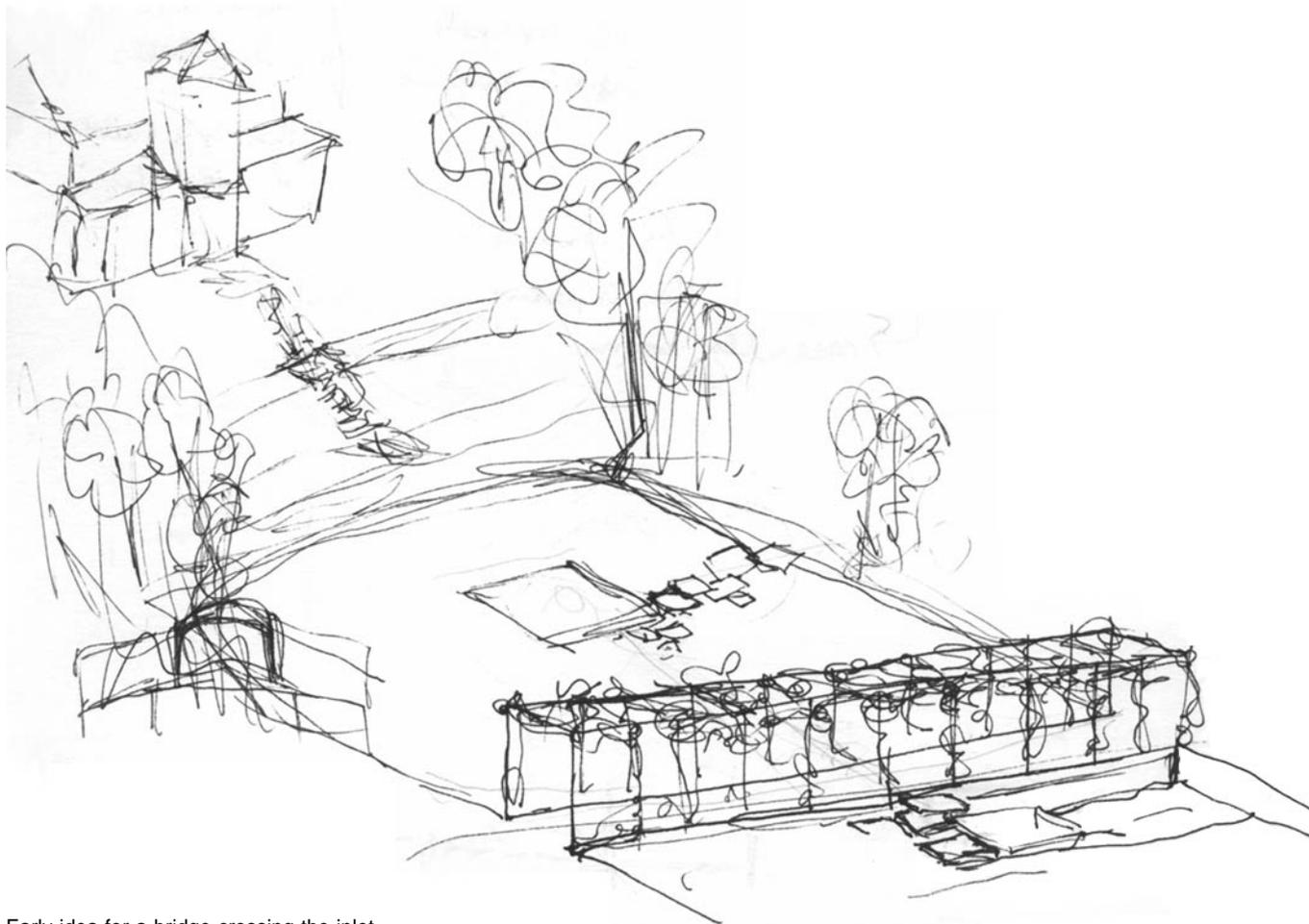
Camera position d. - inlet during low tide



The Nyack River Front Park is made up of a piece of land that is approximately one hundred feet by four hundred fifty feet and located on the banks of the Hudson River. A tree lined walkway leads the visitor to the river and to a tower that includes a cafe, rest room facilities, and information of Nyack and the surrounding area. The walkway wraps around in a semi circle enclosing a sloped area and a semi circular staging area. The park includes an inlet that is one hundred feet wide. A series of concrete squares arc across the inlet. These stepping stones are six inches above high tide. At the halfway point of the arc is a path leading to a small island of alternating heights of stepping stones. The path to the island is clearly revealed during low tide and partially hidden at high tide. A footbridge crosses this inlet to connect to the existing Memorial Park and extends as a pier into the river. At the end of this pier is an observation tower. The two towers create a gateway to Nyack from the river.



scale : 1/64" = 1' 



Early idea for a bridge crossing the inlet

The thesis *process* began with a series of questions about the site. What is there? What are the problems? What is missing? What do I keep? I abandoned my initial project and let the thesis become a site inspired exploration. I began the thesis with a project and discovered a site with possibilities.

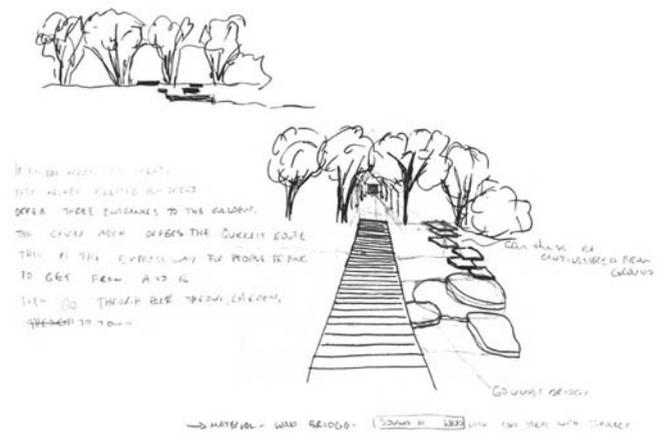
The site became the empty paved lot and the inlet next to it. The lot does not offer very much. The river edge is rough and messy. There are trees and shrubs around the site with no particular order. What the site does have to offer is a view, a perfect view of the Tappan Zee Bridge. The river is at its widest in Nyack. A look to the north reveals the cliffs of Hook Mountain. Views of The Palisades of New Jersey are to the south. A glance across the river reveals the hills and the other river towns of the lower Hudson Valley.

The first obstacle was the inlet (pictured bottom left). This small area of water separates Memorial Park from the paved lot. The physical separation is only part of the inlet obstacle. An other issue is what is revealed at low tide; the mud, the garbage, and the odor. What is missing from the area is a bridge, a way to cross the inlet and join the two public areas. This is the beginning of what could become a continuous walk along the waterfront. The next decision was to dredge part of the inlet to prevent land from being uncovered during low tide and to prevent the odor. These were the most important site determining factors for the project.

I struggled long with the question of what to keep. I began by using all that the site gave to me and only added what I thought could enhance it. My initial designs included the rough curving edge of the land and the trees at the water's edge. I wanted my designs to work with what nature had made in the site without destroying all that was there. After researching the area I had found that the very land that I stood upon was not nature made at all.



Photo looking across the inlet



Sketch of how a bridge could go through the existing trees



Drawing of the first bridge design



First design proposal for the park

The entire paved lot and Memorial park were man made. The town created a landfill in the form of a park. The paved lot was created in the same way to provide a place for waste management facility. The inlet was created because that part of the waterfront between the park and the waste management facility was privately owned. At this point I decided to take over. I did not have to submit to the messy chaos of what remained by neglect and lack of planning.

The site became a place for me to sculpt the land. The inlet stays and Memorial Park stays. The concrete garbage and shrubs all go. Most of the trees go. Three oak trees on the site are aligned and create a canopy that frames the Tappan Zee Bridge (drawing at right). This was something to keep. This would be enhanced and this would become a line. I keep the view. I keep the sun. I keep the wind. I keep the air.

The next set of questions relate to me. What were my experiences as a child on this site? What did I imagine for this area, what did I long for? Where have I been? What have I seen that I can draw from? How can my experiences influence *this* design?

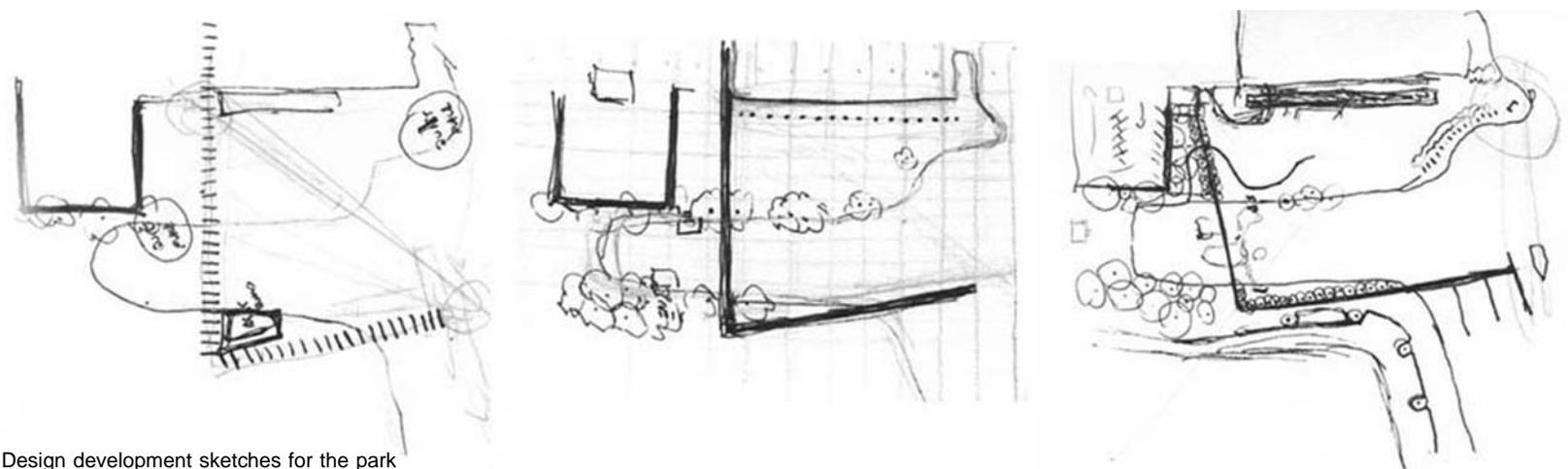
I used to come to Memorial Park as a child to watch my brothers in little league baseball. I would find all kinds of things to occupy me other than actually watching the game. I used to walk down to the inlet to explore and look for turtles (there never were any). Sometimes I would go to the river's edge and wonder what those wooden things in the water were. I remember always wanting to get closer. My childhood urge to get near the water inspired the idea for stepping stones across the inlet and a pier that stretches out into the river. These thoughts were the beginnings of my design.

After searching the site and myself I began to ask questions of the project and the design. How do I create an outdoor room? How do I make a place? How do I add to the enjoyment of that place? Can I use the senses to add to the experience? How do I use different materials to do this? How can I bring it all together to reflect the thoughts of water in my head?

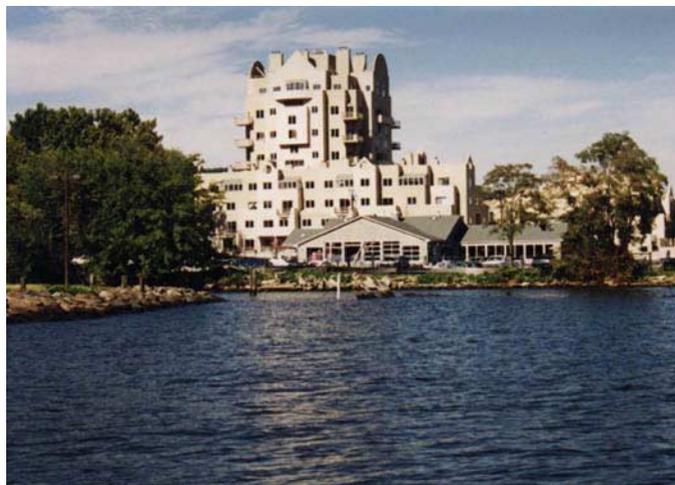
Fragments of ideas began to grow. The strongest of these ideas became a bridge, stepping stones and two towers. The master plan was the foundation that they all worked together with. These three elements were primarily designed individually, however, they informed each other and began to intertwine and incorporate into a whole. The following pages will explore the separate elements more closely.



Sketch of existing oak trees framing the Tappan Zee Bridge



Design development sketches for the park



View north taken from the southern tip of memorial park

The first design phase of the project was the development of the master plan. I had ideas of what needed to be in the park and I began to place them in plan view. First was a footbridge, then stepping stones, and a building for services and information. From there I began to explore the idea of an outdoor room. There are three Oak trees existing on the north end of the site. While standing in the empty lot, these trees begin to block the view of the condominiums to the north (pictured left). These trees also naturally frame a view to the Tappan Zee Bridge. The three trees would be turned into a row of trees acting as a wall to block the north view and pointing the visitor along a path towards the river with a beautiful view of the Tappan Zee Bridge.

The tree lined walkway was the first definitive line of my master plan. This begins to define the room. This also controls the view. Two building were designed for the park. These tower-shaped buildings become the corners of the room and act as a gateway from the river to the town.

Once the separate elements were placed I had to decide how to connect them all. The most important part of the plan would be the movement and flow. How do I direct people through the space thoughtfully? My initial designs (drawn below) were rough and angular. The lines were derived from nearby buildings, the town grid, and a north/south axis. I looked back to the characteristics of water and thought about the *fluid* nature of water. I thought of the water moving around and through the rocks at the water's edge. The ideas of ripples and pathways moving in and around and through.

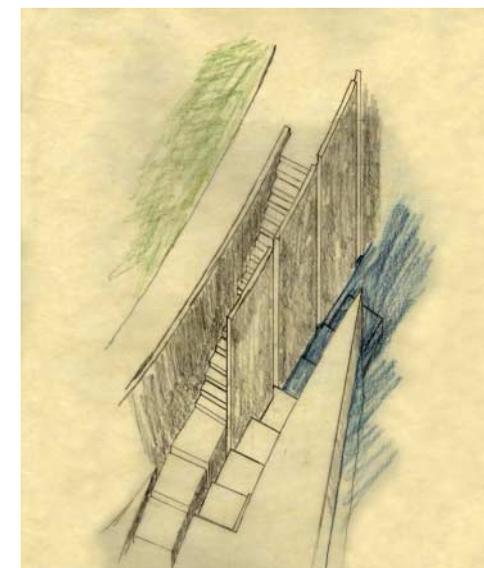
The final design incorporates some of the initial angular lines, defining the edges of the park, with the curves of the walkways. The curves intersect and divide into smaller paths. The main paths are designated by a width of eight feet. These paths are the most direct way to get from one place to the

other. The wide paths split into smaller, four feet wide paths throughout the park. The smaller paths begin to branch out when you are given the option to go one way or the other (drawn below).

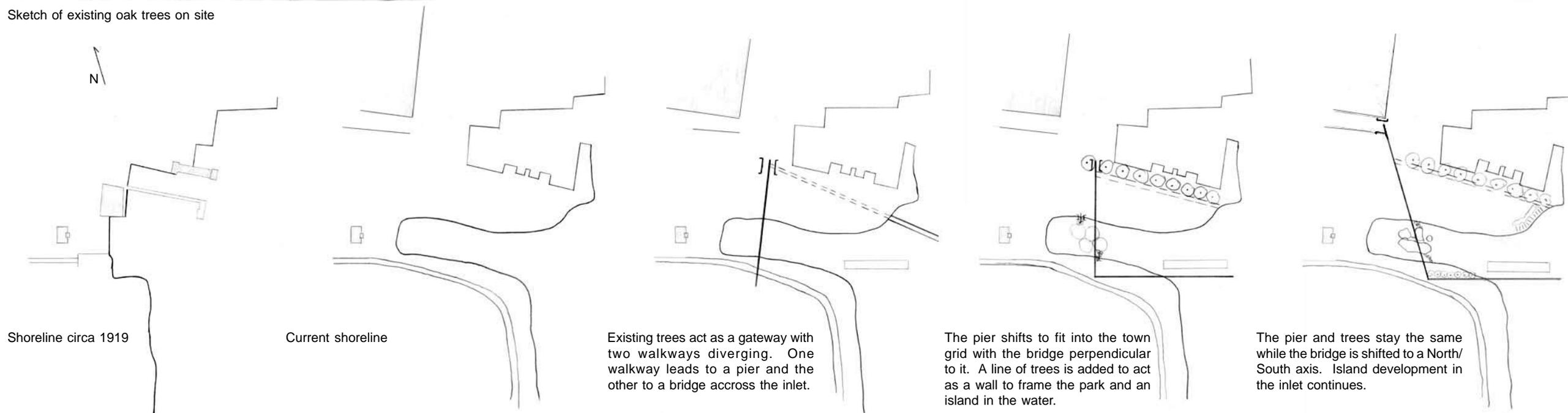
Once the flow and movement were designed I began to think about what happens in the site. The water characteristics came to mind again. I created small, secluded, quiet places for *calmness*. The stepping stones enclose water which will be more *calm* and *reflective* than the river. These places are there to ease the mind, *reflect* on your own thoughts and *cleanse* the soul. There are open areas for gathering. There are pathways to stroll and enjoy the scents and sights. There is a bridge to connect the large public areas. There are islands from which to enjoy the tides.

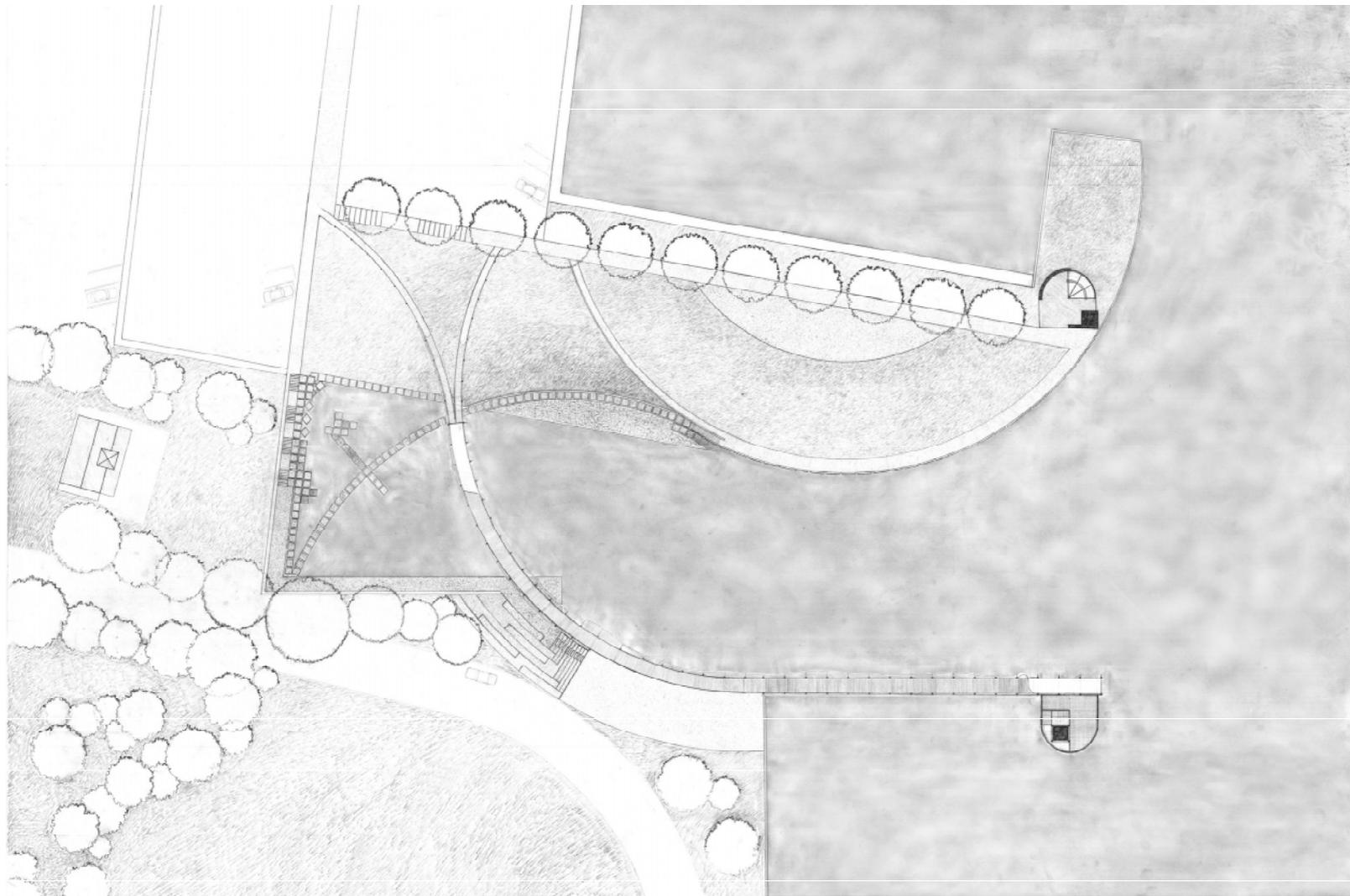


Sketch of existing oak trees on site



Axon drawing to show where the major walkway splits into two smaller walkways

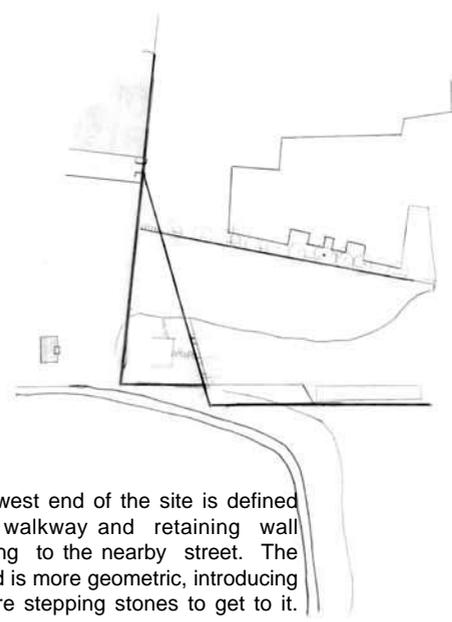




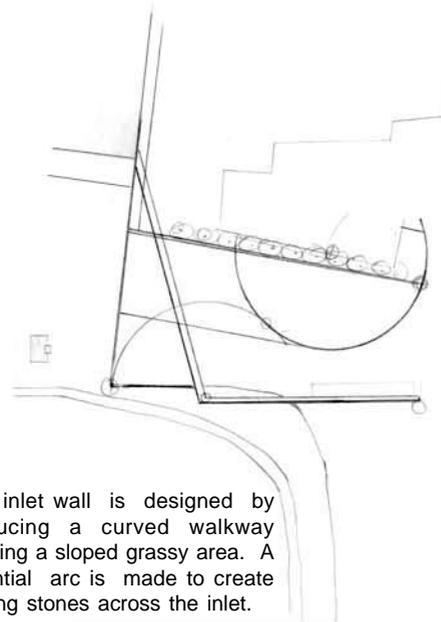
Plan drawing of site



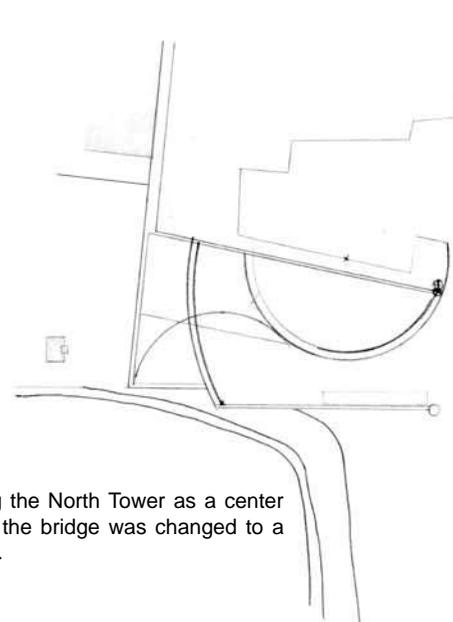
View north showing model and wall of trees



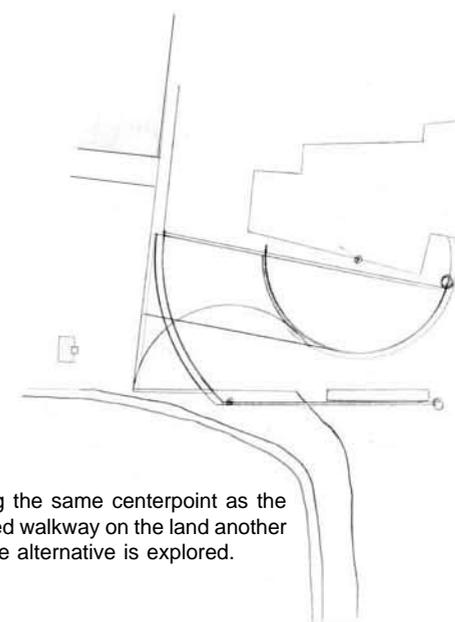
The west end of the site is defined by a walkway and retaining wall relating to the nearby street. The island is more geometric, introducing square stepping stones to get to it.



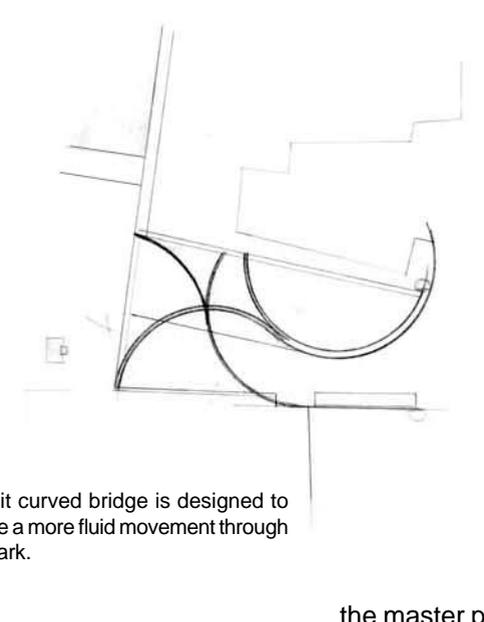
The inlet wall is designed by introducing a curved walkway enclosing a sloped grassy area. A tangential arc is made to create stepping stones across the inlet.



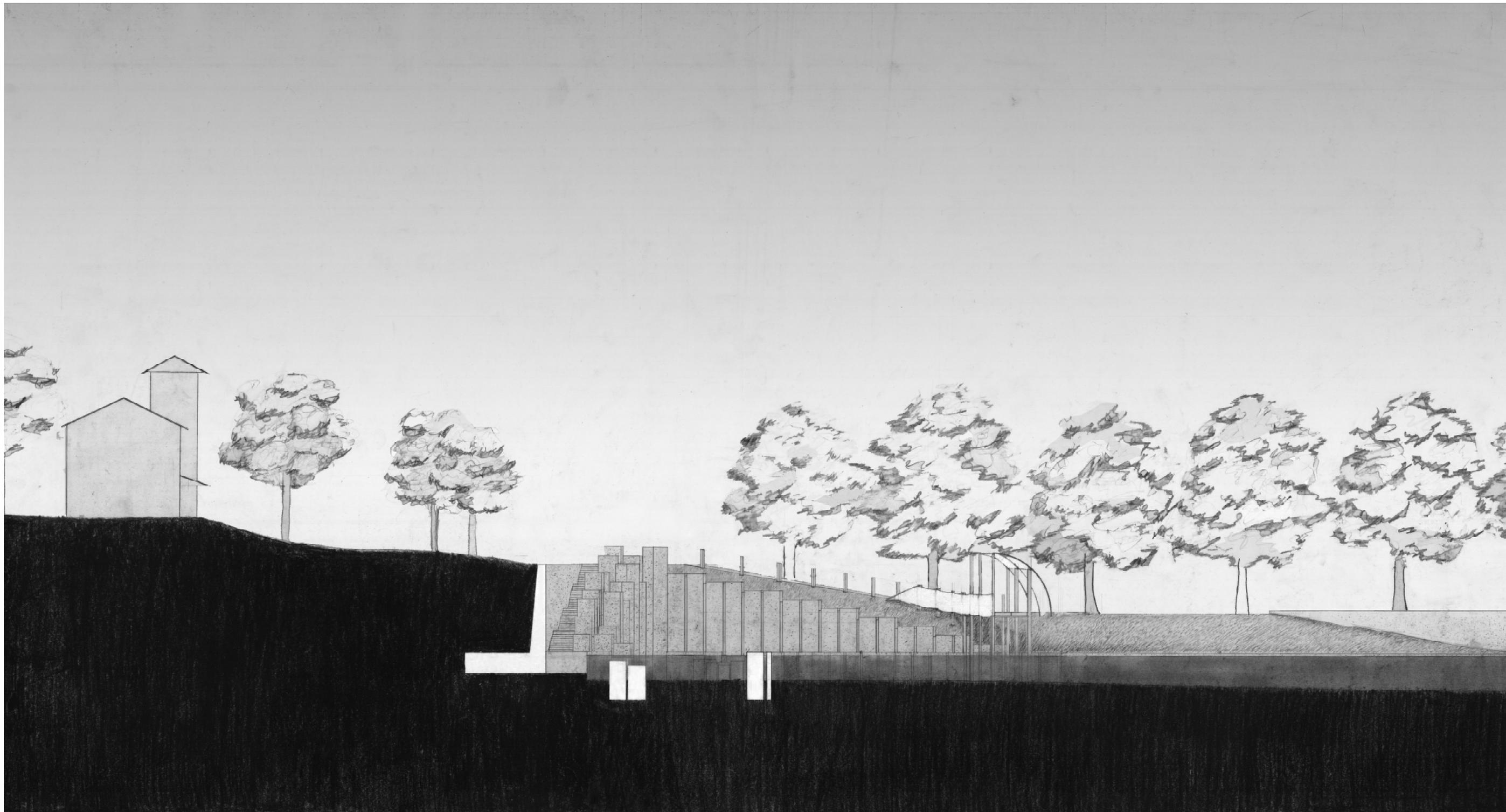
Using the North Tower as a center point the bridge was changed to a curve.



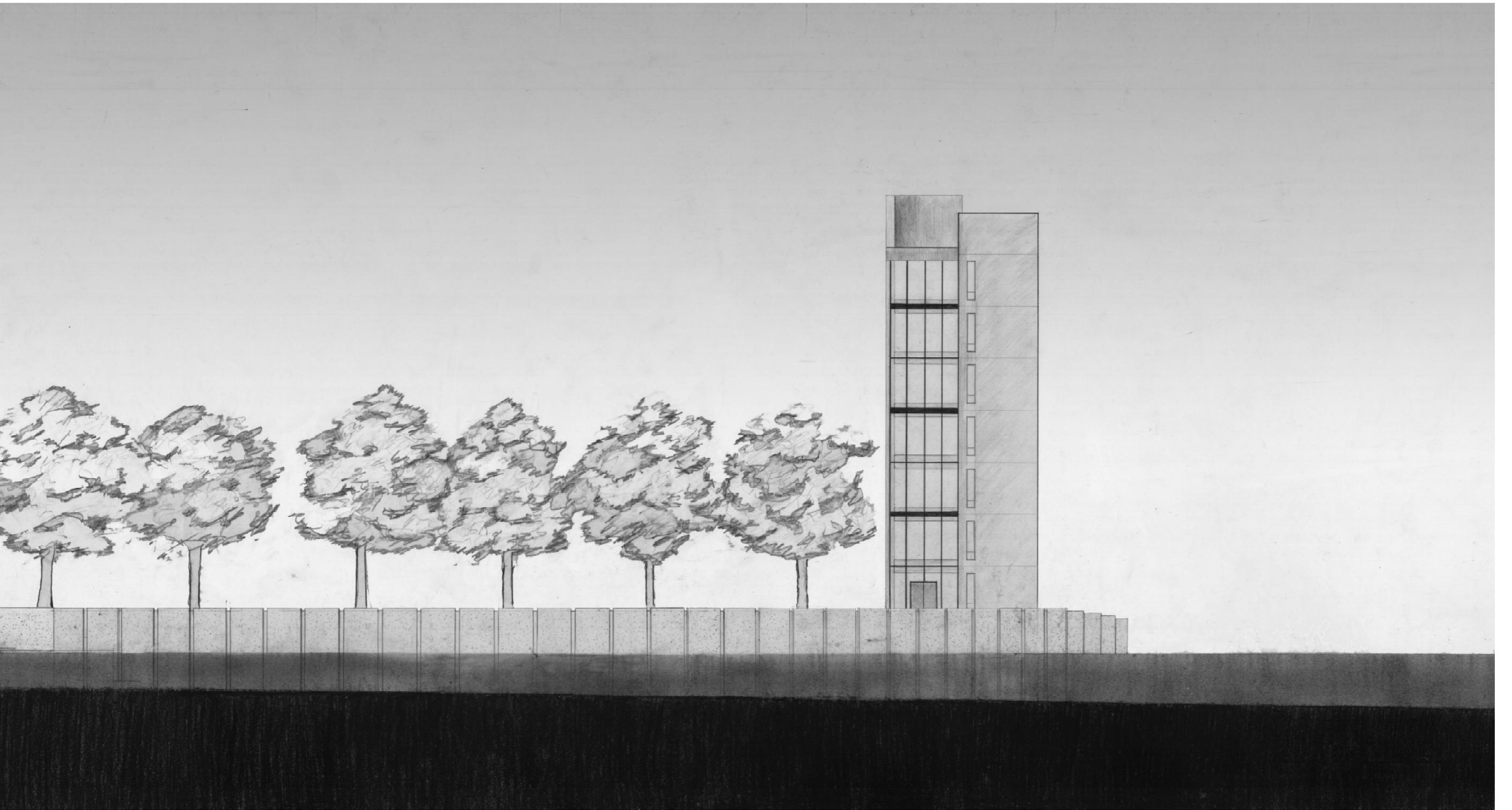
Using the same centerpoint as the curved walkway on the land another bridge alternative is explored.

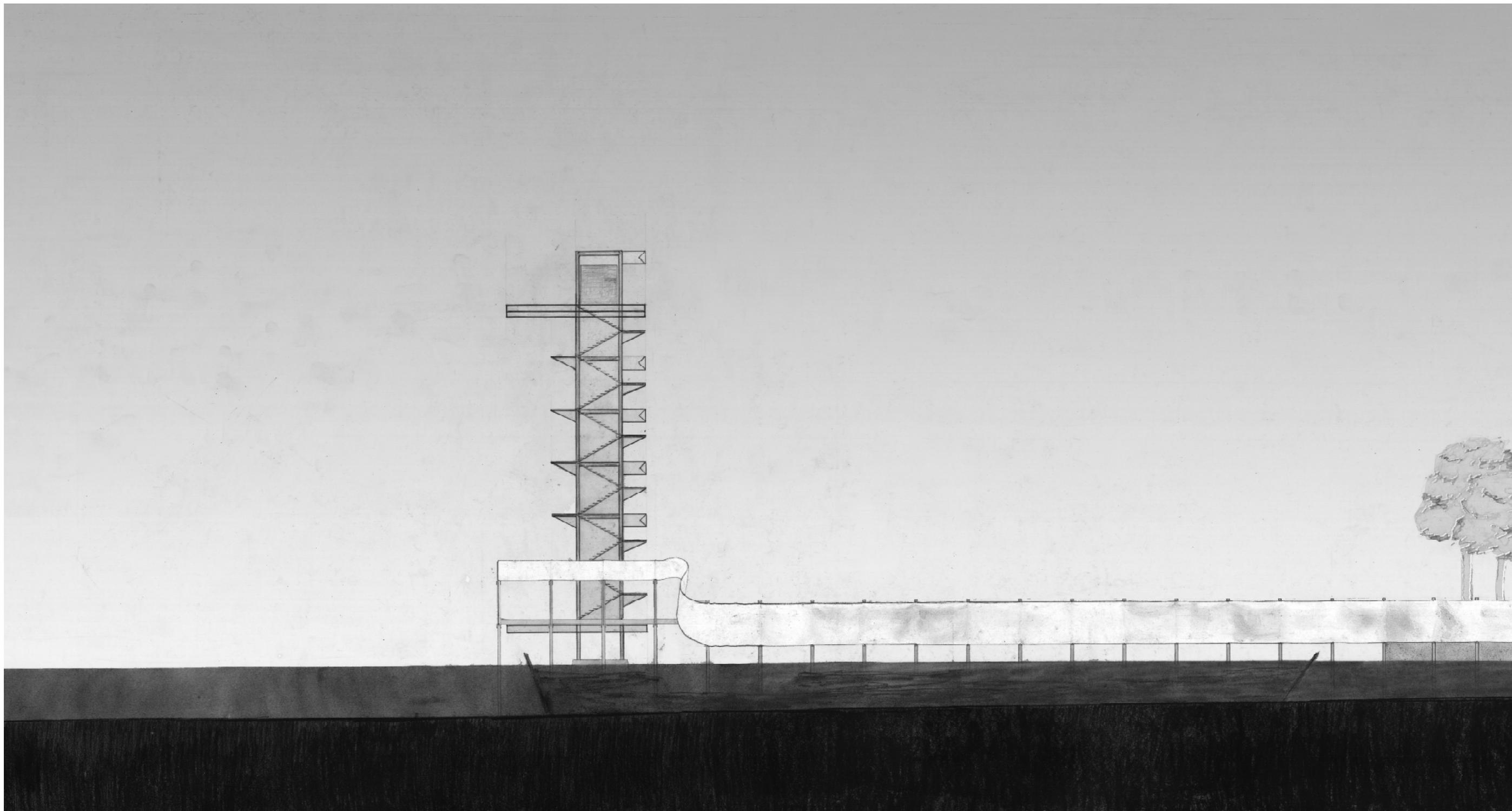


A split curved bridge is designed to create a more fluid movement through the park.

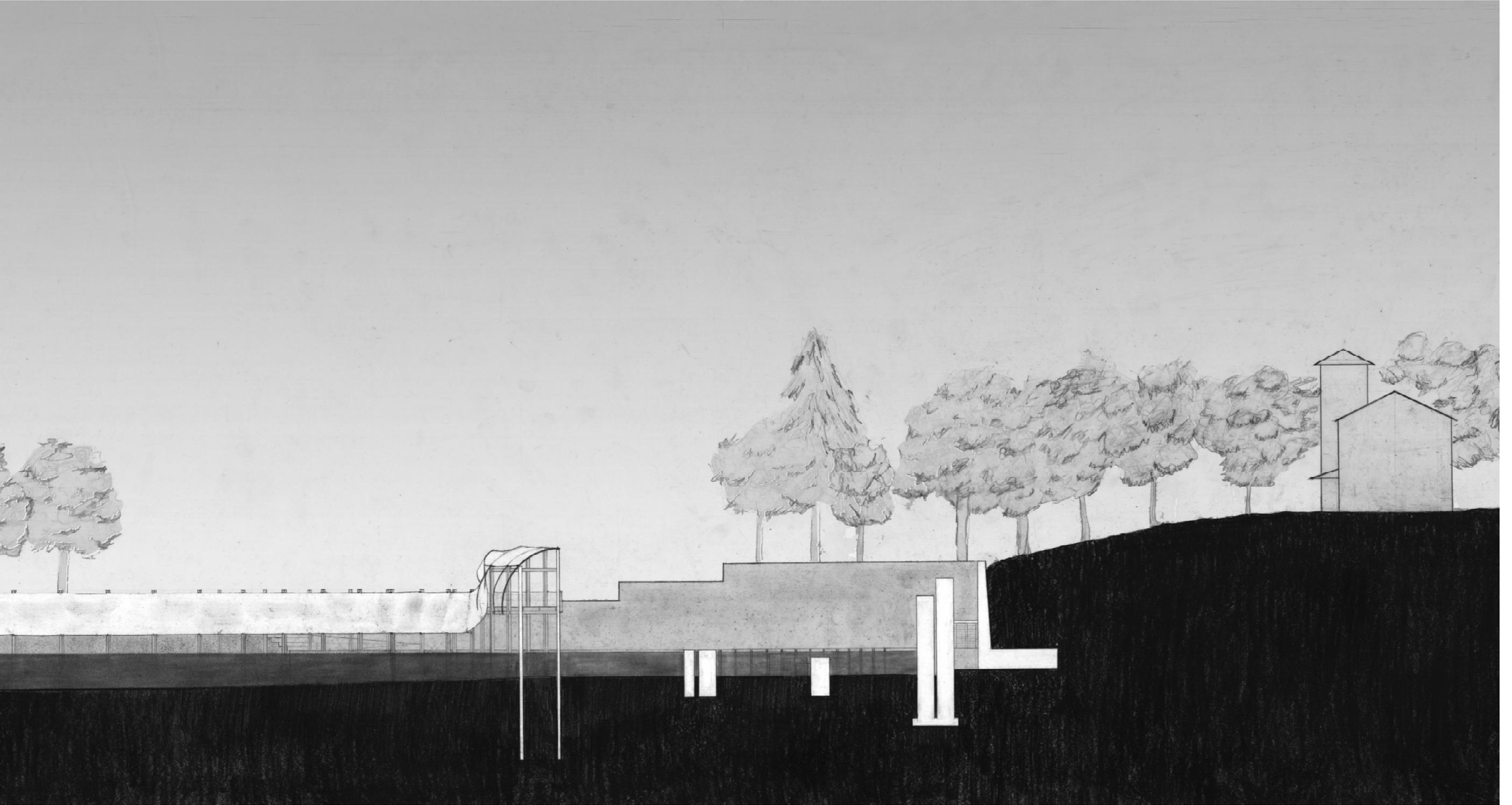


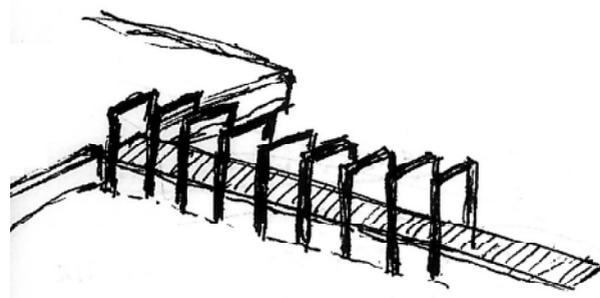
This drawing represents a section cut through the center of the inlet and looking north. The property of the private house ends with a retaining wall to enclose a staircase between a series of columns. A walkway slopes downward towards the bridge. The lawn continues down to the edge of the inlet to the stepping stones. A solid wall arcs along the remainder of the park and ends at a tower.





This section drawing looks the opposite way across the inlet. The view to the south is mainly made up of the bridge and pier that lead to the observation tower. A fabric element undulates along length of the bridge and canopies at the end of the pier. A lower walkway is located at the edge of the water and enclosed by the retaining wall that steps up towards the private house. This walkway stretches under the bridge to a small landing that is somewhat secluded.

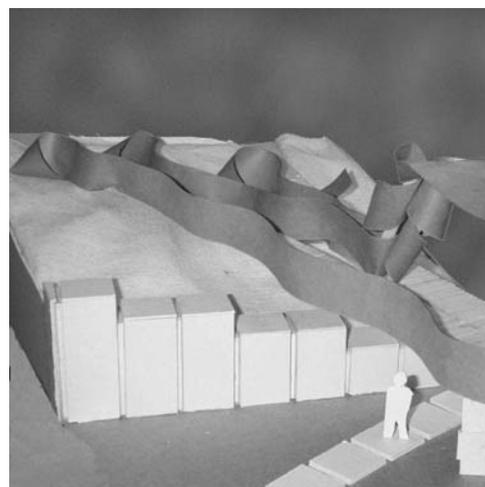




Sketch of early bridge idea



Segment 17 - The Running Fence Project

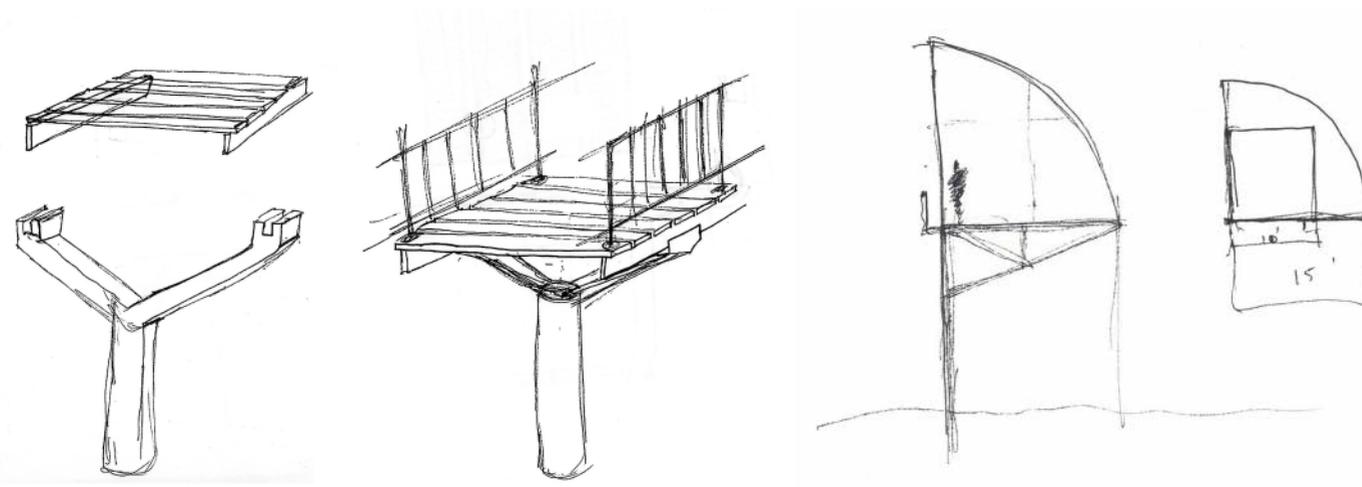


Study model of fabric element

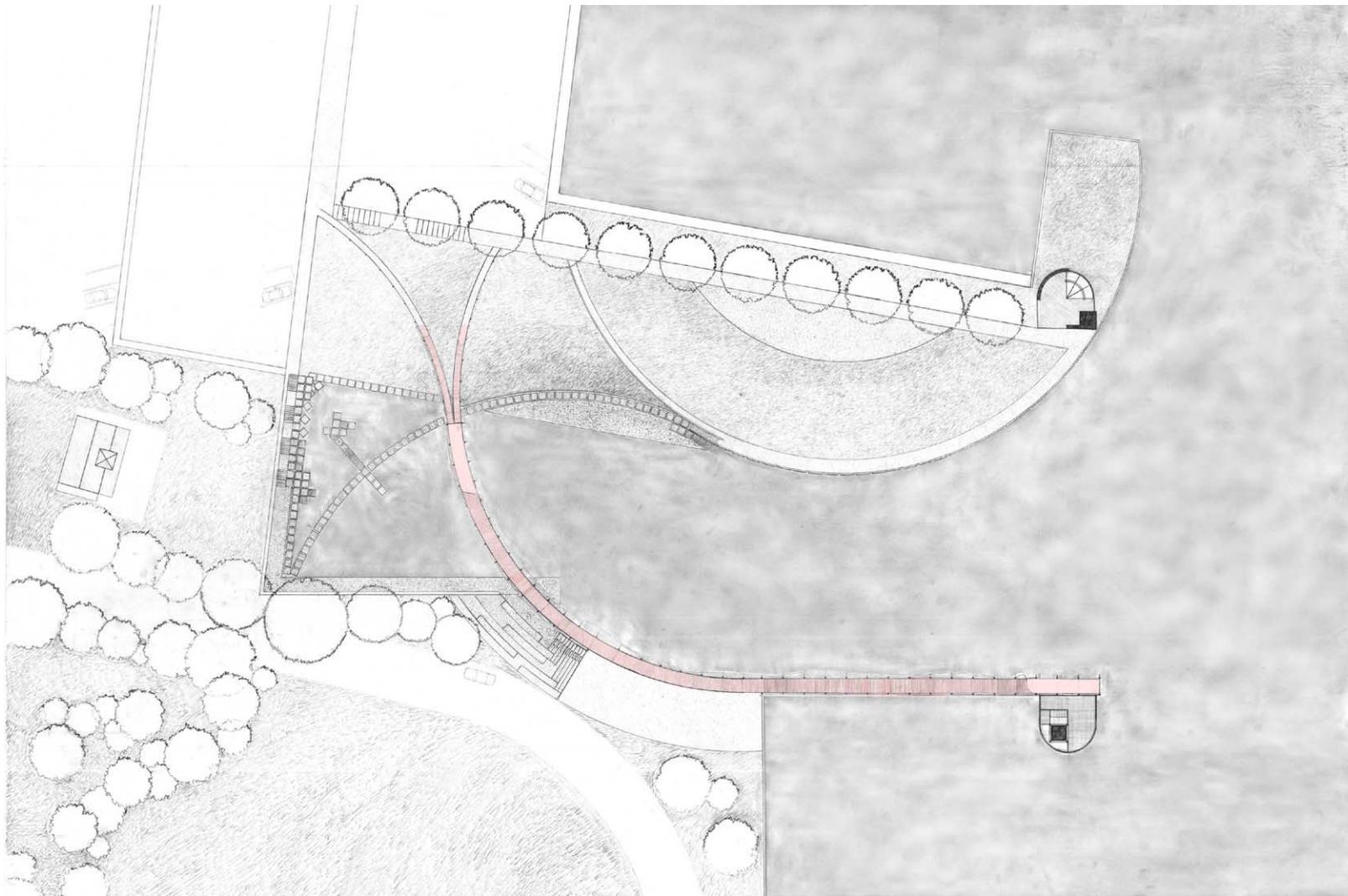
My memories of spending time by the water include not only the visions and activities, but the scents and sounds. If I close my eyes I can smell the air and hear the wind blowing. The seagulls screech and the ducks quack. It is the wind that is so clear in my mind. The bridge was my opportunity to explore how I could use the senses to enhance a person's experience in a place. I chose to make a statement. The bridge became my place to play.

I chose to incorporate a fabric element into the bridge. The first inspiration was the sounds of sailing or of a flag whipping in the wind. The initial ideas were of rectangular sheets of fabric that hung from the railings in between the structural supports. While this satisfied my goal to bring the sounds to the bridge it did not have the visual impact I intended. I wanted something *fluid* and beautiful. I thought if the Running Fence project by the artist Christo (pictured left). The miles and miles of fabric suspended from cables and blowing in the wind while catching the light was my creative inspiration. This is where I began to play.

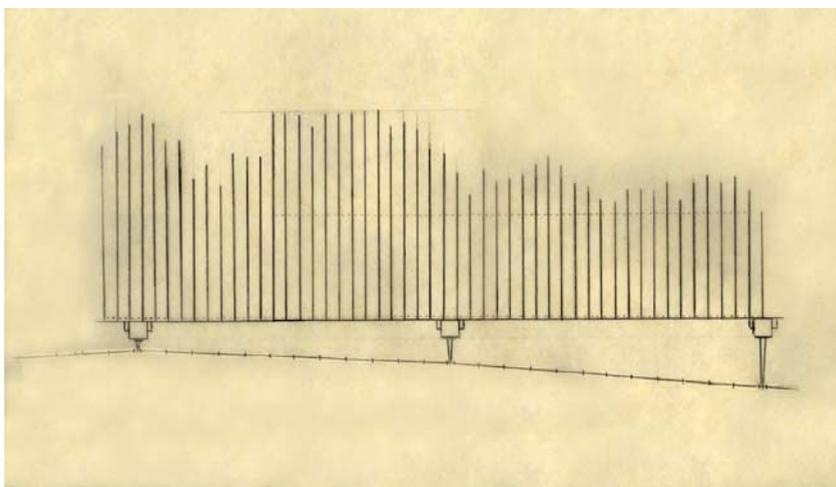
The decision of material was an important one. The walkways in the park are concrete and I could have continued this surface over the bridge. However, I felt that when you stepped onto the bridge, the material should reflect that you are no longer on land. The first and only choice was to construct the bridge of wood. I can hear the footsteps on the wooden bridge and the water crashing into its piles. I can feel those same footsteps resonating through the wood.



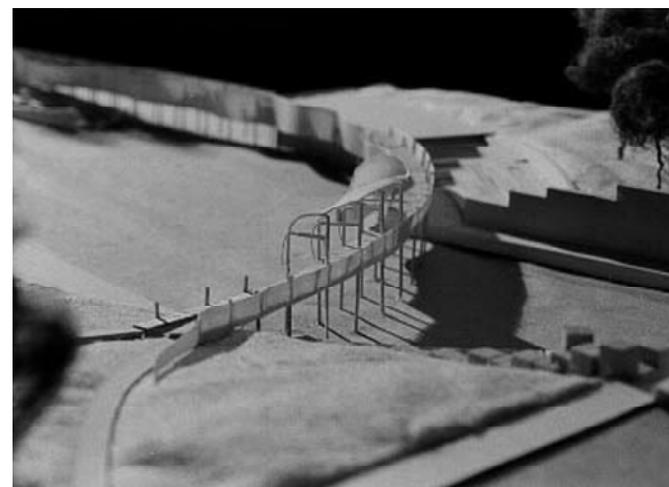
Sketches exploring the bridge structure



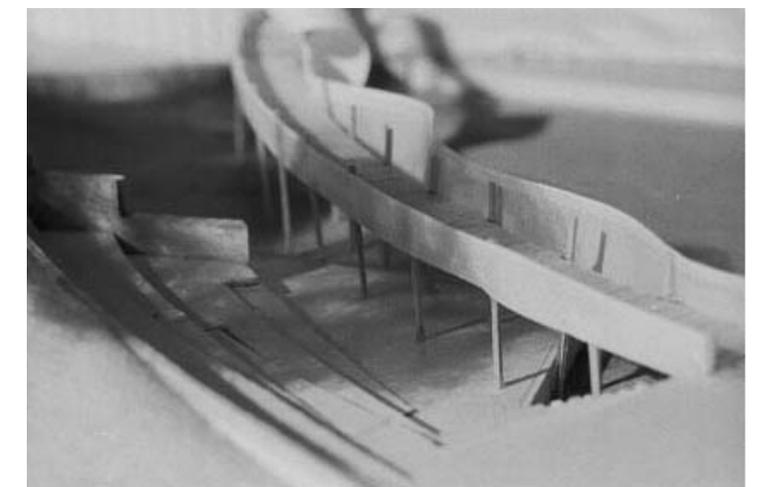
View of bridge from top of south tower



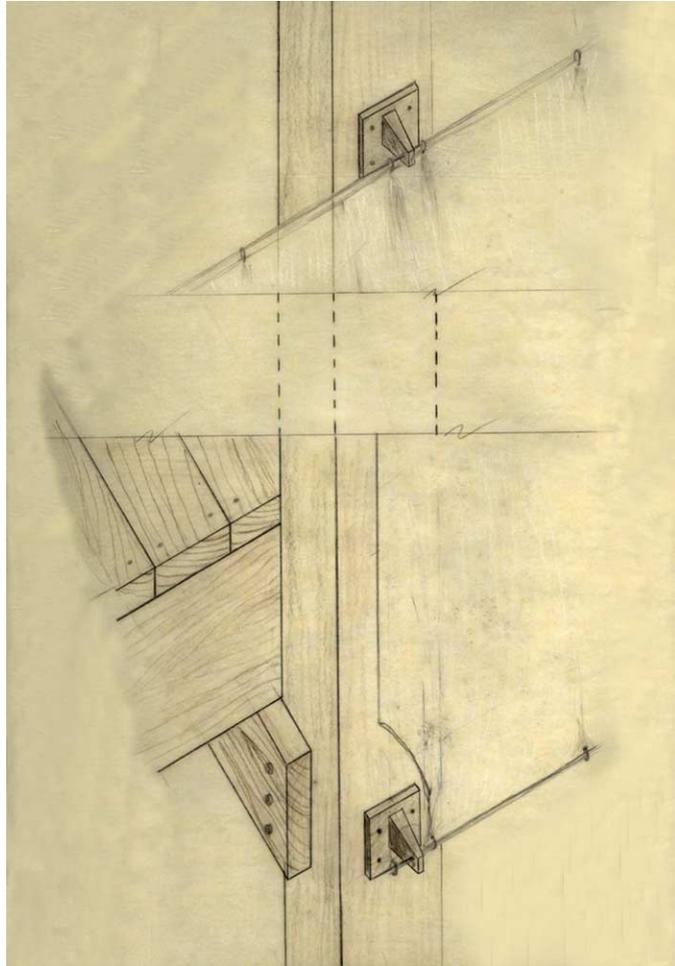
Plan drawing of bridge with fabric detail



View of bridge from north entrance to park



View to the bridge from Memorial Park

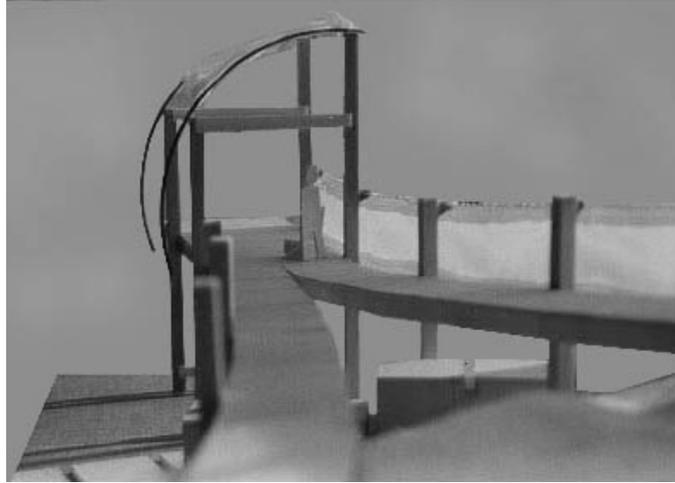


Drawing showing how the fabric and cable is connected to the bridge

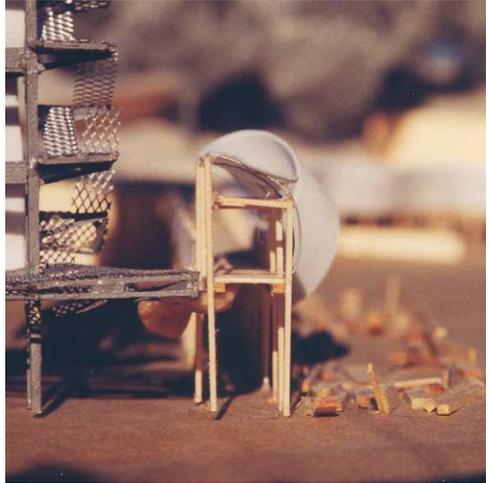
The bridge is a curved wooden walkway that stretches out into the river, ending at an observation tower. When walking along the path from the main park to the bridge you can feel the difference in material beneath your feet, you can hear the difference. On the ground you see an arc of concrete leading into the wood surface (pictured below). Above your head is a canopy of fabric that loops around and undulates along the length of the bridge. The wooden handrail supports the undulating white fabric.

The fabric is hung from a cable that feeds through metal brackets connected to the bridge structure (drawn left). The brackets on the south side of the bridge are a constant length of four inches. On the north side of the bridge the brackets alternate in length to create the undulating effect.

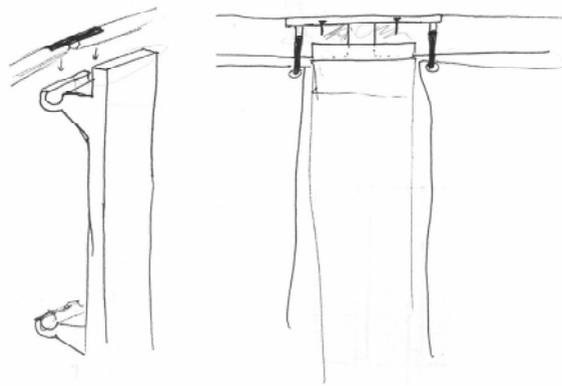
The structure of the bridge was ultimately inspired by the structure of the south tower. When the model was sitting on its side (pictured below right) I noticed the pattern of the curves in the structure. I used the shapes outlined by the elevator shaft and curved tubing to design the structure of the bridge (drawn far right). The new structure added interest to the bridge but ultimately was too distracting along the length of the bridge. Therefore, I limited the use of this structure to the beginning and end of the bridge to support the canopy. The remainder of the bridge supports are in line with the handrail as seen in the detail model.



Detail model of bridge



Close up of fabric canopy



Sketch of early design of fabric incorporated into the handrail

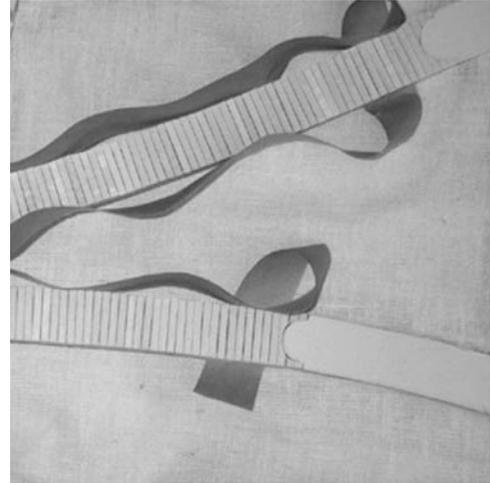


Photo of detail model of the bridge showing the change in material of the walkway



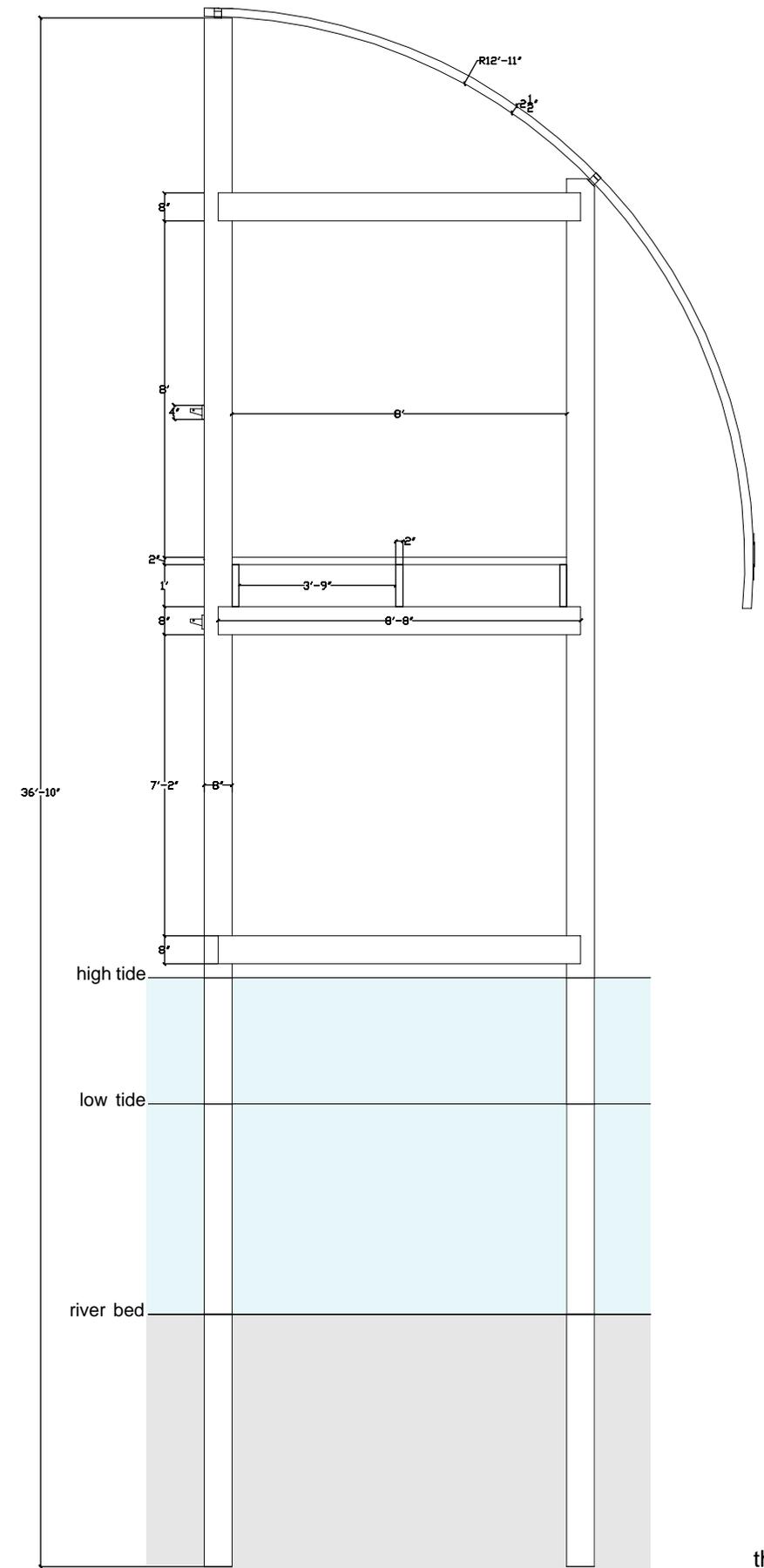
Photo of bridge with fabric



Model of south tower frame showing the repetition of the curves

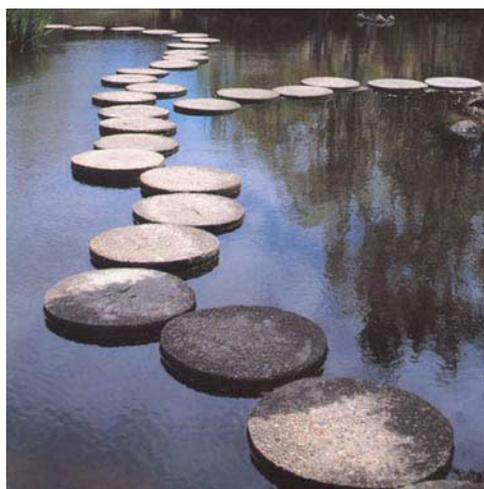


Frame of south tower - plan view





Hyotan Pond, Osaka Expo '70 Commemoration Park



Example of stepping stones



Concrete and stone condition at water's edge

How close can I get to the water? This is what I wanted to know as a child. I wanted to be close enough to feel the water without feeling like I could fall in. These thoughts led me to think of stepping-stones in my design. I looked through books to see examples of stepping stones, water installations, and waterfronts. I saw examples of large stepping-stones and small stepping-stones and places for one person or many. I took the idea of stepping stones as a secondary way of crossing the inlet. The bridge was the direct way from one side to the other. The person who crosses at the stepping-stones would be taking the long way. They would go down to go back up again. They could rest on a small island. They could observe the change in the tides. The stepping-stones are for the people who are not in a hurry. For the people who want to explore a little bit more.

The stepping-stones were designed in conjunction with the columns. The columns are a direct reaction to the time I spent at Giant's Causeway in Northern Ireland (pictured right). This is a place where people can go to the water and climb or sit or explore. While the causeway is a natural occurring place, what I have created is a visual. The columns begin in an open area at the highest point of the park and begin to descend into this outdoor hallway. The columns work with the retaining wall to create a smaller enclosed space. The columns hide the stairs from the rest of the site. At the same time they hide the rest of the site from the person walking down them. The differing heights of the columns allow something different to be revealed with each step. This is a very controlled path compared to some of the others.

When you reach the bottom of the stairs you have the opportunity to follow the path along the wall to the opposite side of the inlet or when you arrive at the corner of the inlet you can go back across the inlet over the curved path of stepping stones. One thought I had during the design of the stepping stones was to create a separate pool of water. The stepping stones react as a type of dam. The water comes in and out during the tides, but the stepping stones slow the water down. The result will be a pool of water inside the arc of the stepping stones that is more *calm* and more *reflective* than the water in the inlet and the river. This decision was a result of the early thoughts I had about the water characteristics. I wanted to use this area to show off the *moving* characteristic of the water through the tides. The small island is made up of varying heights of stepping stones and some are partially covered during high tide. This is a place in the park that allows you to take the time to sit and relax and enjoy being close to the water.



Giant's Causeway, County Antrim, Northern Ireland

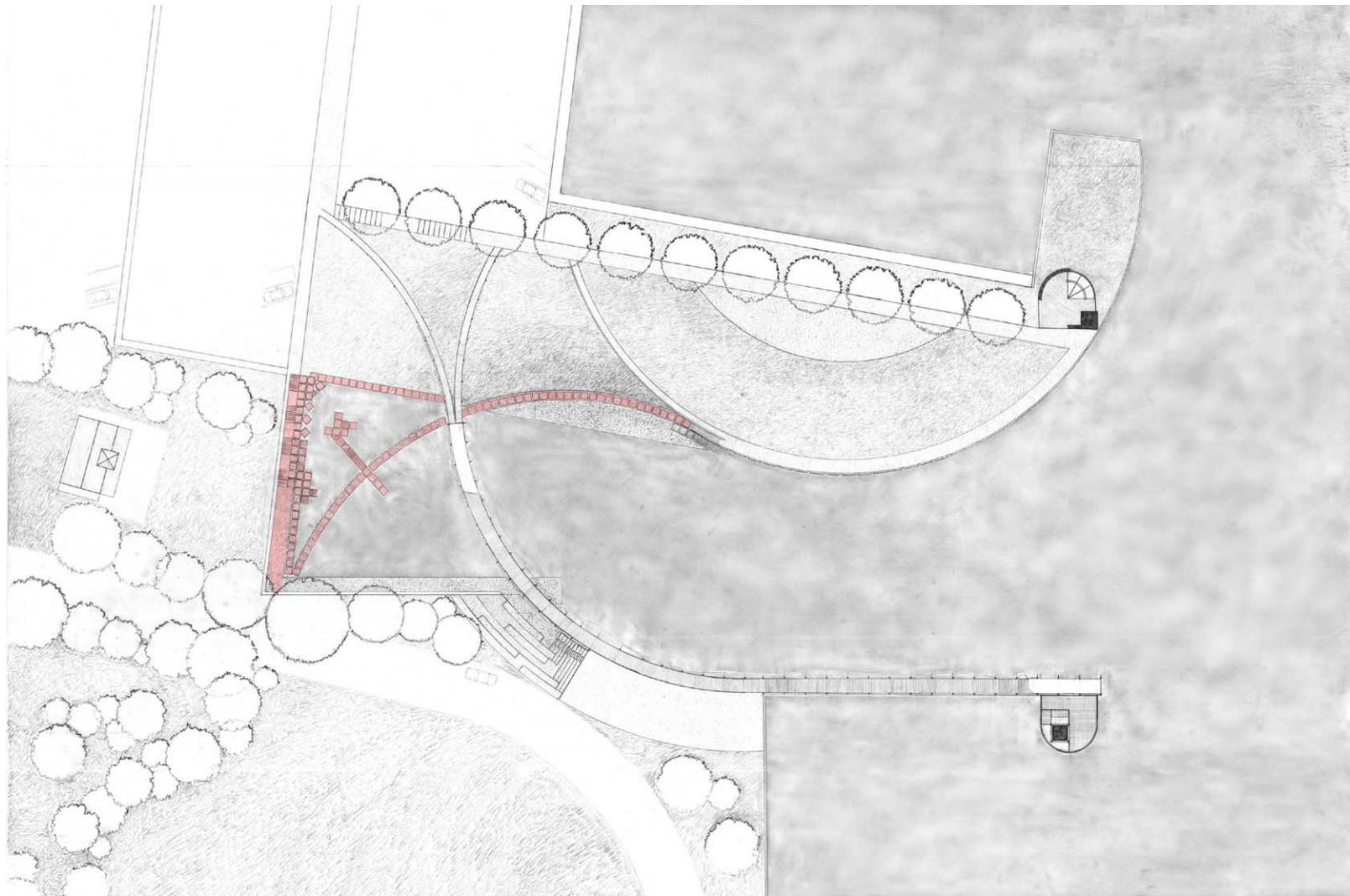
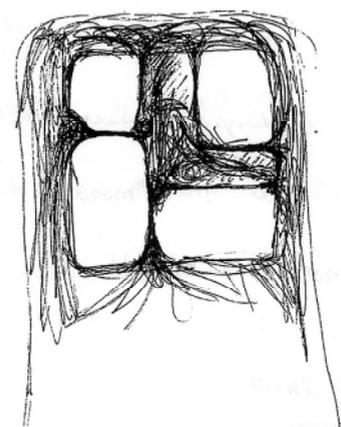


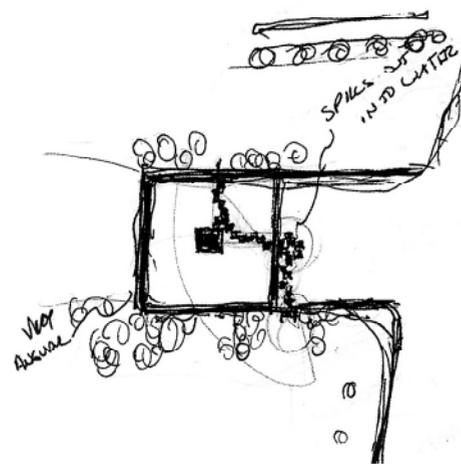
Photo of the column and stepping stone area



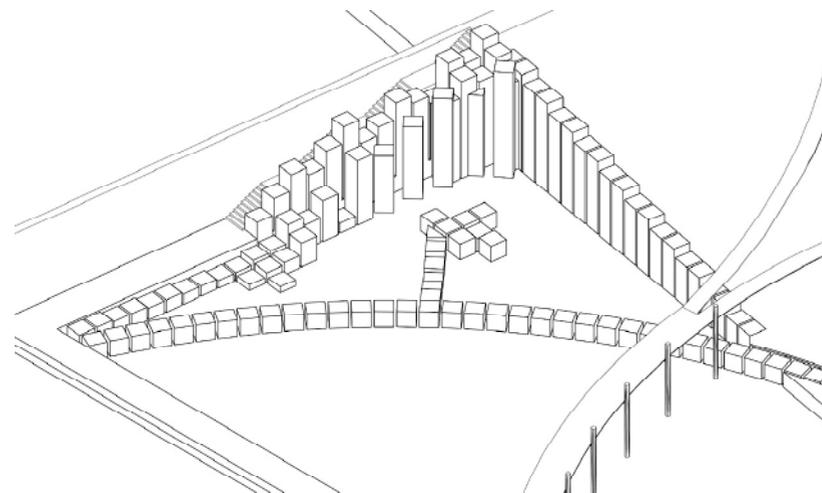
Photo showing the island



Design development sketch of island



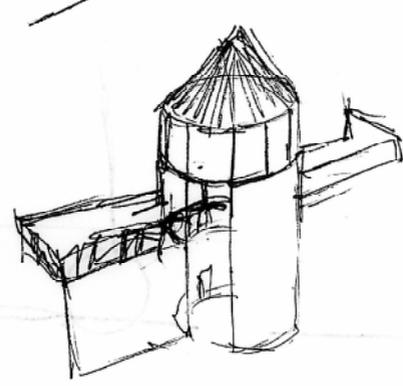
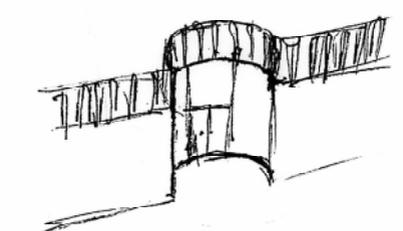
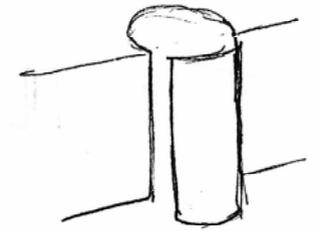
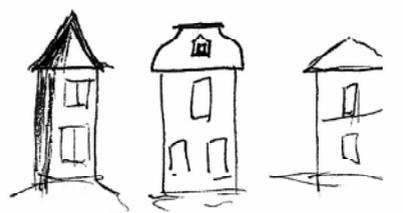
Design development sketch of island and stepping stones



Computer image of the columns and stepping stones



Photo of back stair hidden by columns



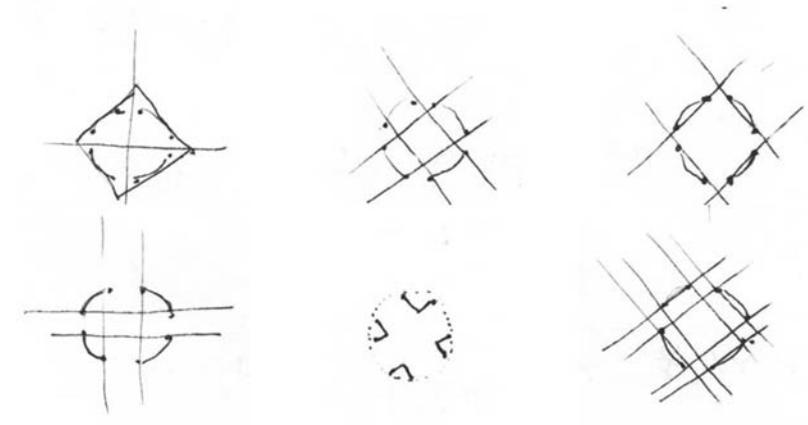
The idea of a tower began with the local architecture. The turrets of Victorian homes kept calling to me. A stroll down Broadway will allow you to enjoy turrets of all shapes and styles. The footprints of these tower-like elements are all different, as are their roof lines. I incorporated a turret type element in early ideas for a building on my site (sketches at left). As I struggled with what the building would be, or how it should look, I came to the conclusion that it was the turret, the tower that I wanted to design. Eventually this led to the idea of two towers located on the river's edge. These two towers act as a gateway to the town.

I continued to look at towers in architecture around the world. I looked at bell towers and castles with turrets and modern observation towers. The first image of a tower that came into my head was a cylindrical shape. This is where I began. I worked with the land available and began the north tower as a cylinder with a radius of thirty feet. With the measurement of the plan decided I worked with many different ideas to order the tower. I began with a geometric order and worked my way to free forming curves to try to tie into the curves of the layout. Eventually I came back to a more geometric plan.



Caernarvon Castle - Caernarvon, Wales

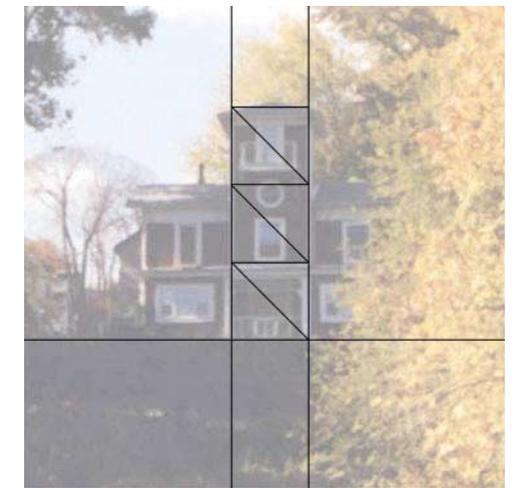
Sketches of early designs



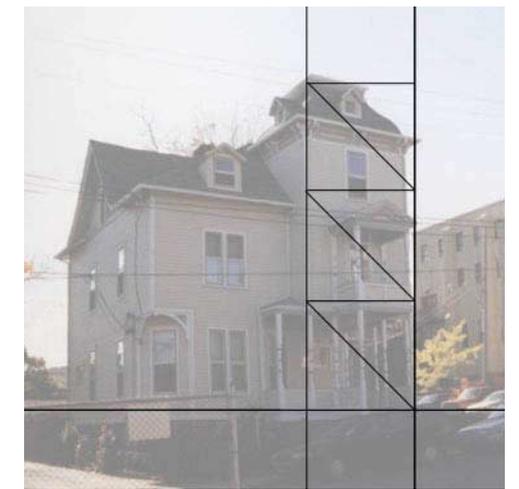
Geometric studies within a circle



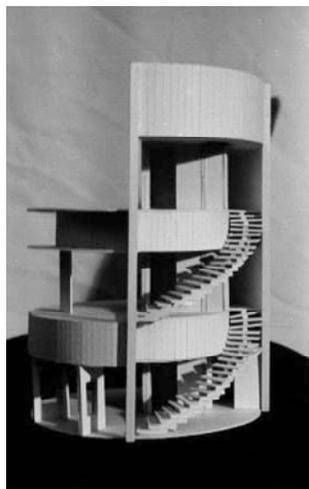
Observation tower - Stanley Saitowitz
Mill Race Park, Columbus, Indiana



Local residence with study of turret



Local residence with study of turret

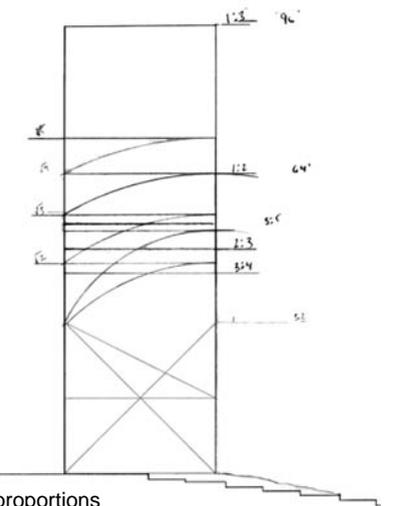


Model of round tower design



Model of early tower design

After looking at many different models and drawings I still was not happy. The buildings were not very tower like. They were short round buildings. I then looked back to what interested me in the first place. I looked at the turrets and tried to find a likeness among the differing shapes. The link was proportion. Many of these turrets, when looked at separately from the houses, were at a 3:1 ratio of height to width. It was after this finding that I went back to the models and paper and began again.



A look at proportions

Proportion studies:

A series of photos showing the changes during the development of the towers.



Massing models of the towers showing how they bookend the park. They are meant to be identical buildings.



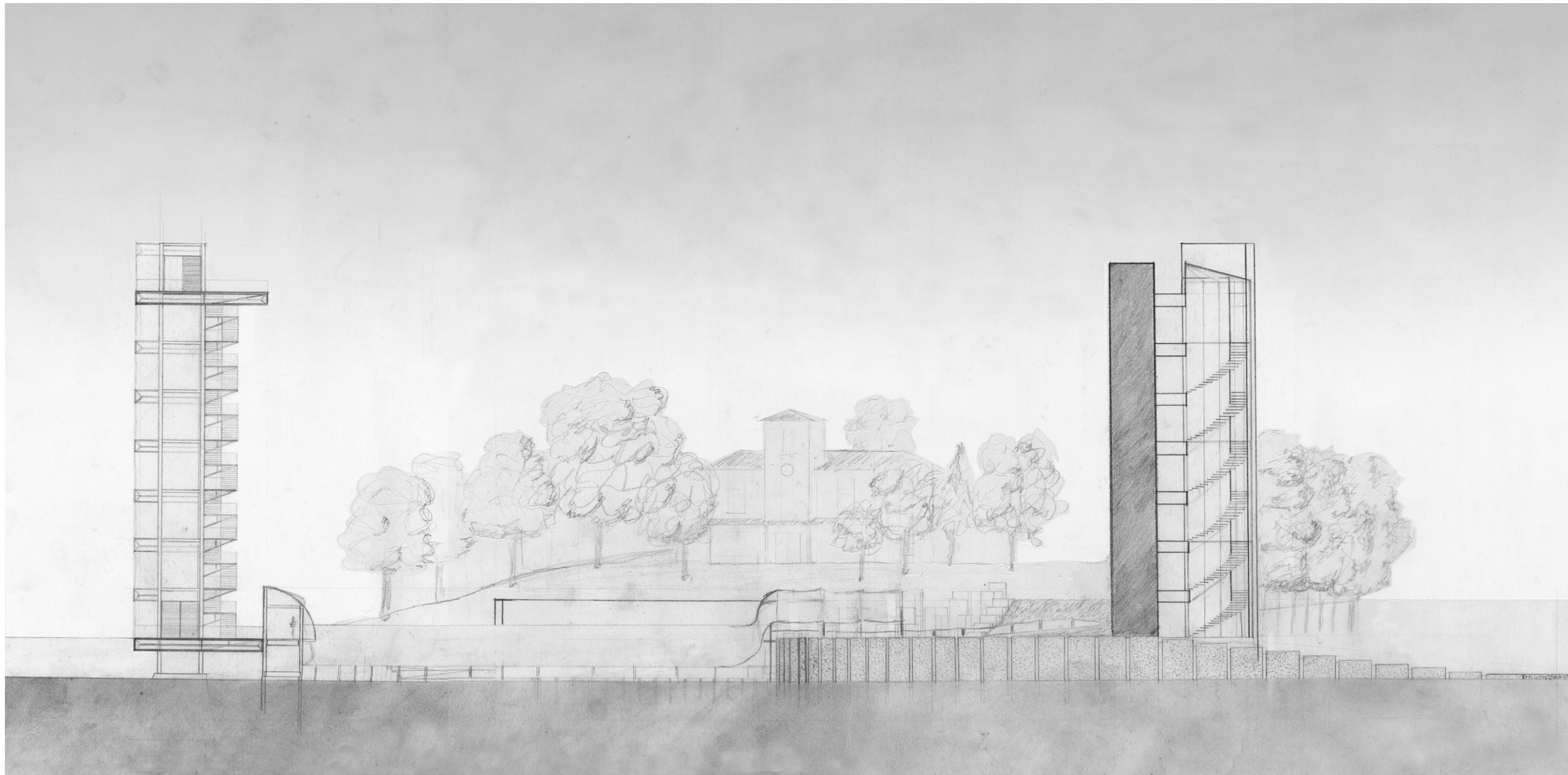
Early models of the bookend towers. Each tower is made up of a four column structure supporting three floors. The south tower, on the left, is planned as an open air building while the north is enclosed.



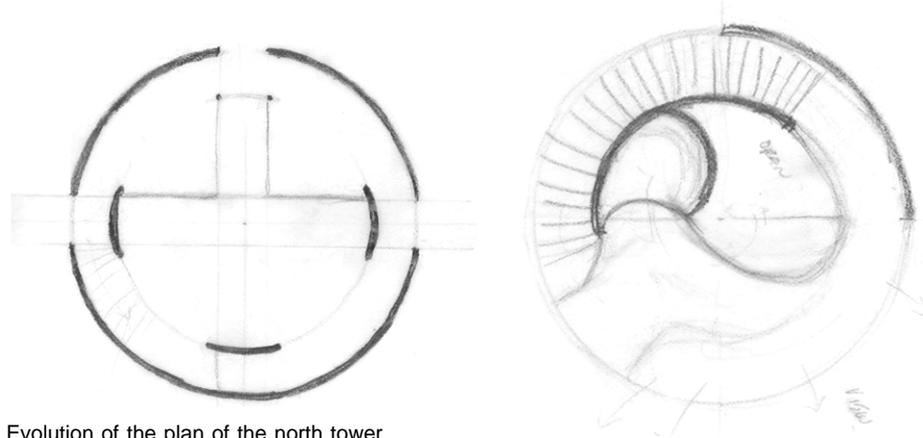
First version of the 3:1 proportion towers. The towers maintain the four column structure. However, they begin to have differences in plan.



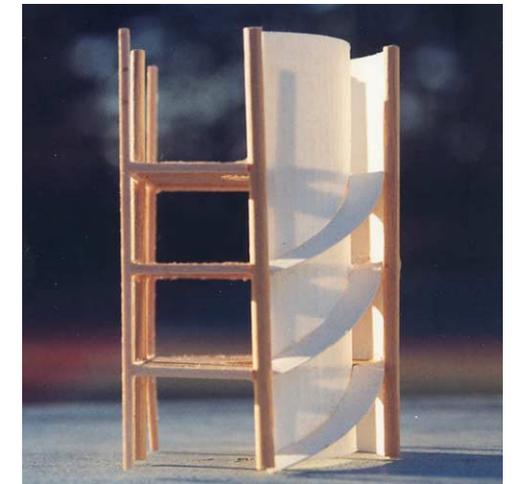
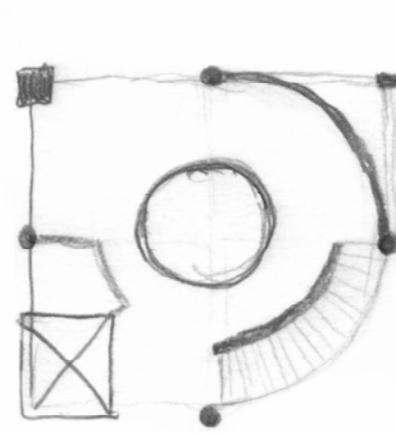
Final design for the towers. The enclosed north tower houses a variety of services and the south tower is for observation. The structures of the two buildings are now completely different.



Elevation drawing showing the final designs of the towers. The tower on the left is the south tower, an observation tower. The right building is the north tower that houses an information center, a cafe, and an area to house and display historical documents of the area.



Evolution of the plan of the north tower



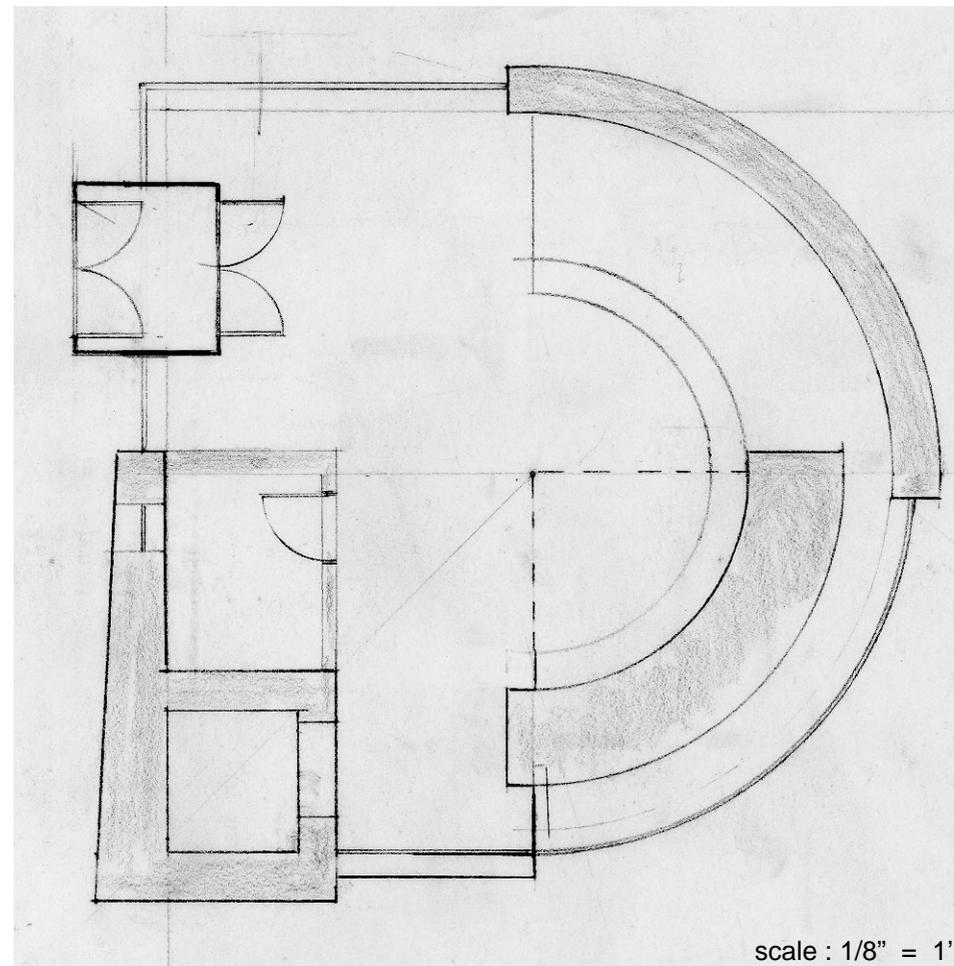
Model of column structure in beginning designs

The north tower is a local tourist information center, as well as a home for the historical collection of books and maps for the town. Two floors of the tower are dedicated to gallery space for local artists and school art programs. This building will be a welcomed addition to this community that is already so rich in the arts but lacking in public spaces.

The tower is a structure of concrete and glass. Three concrete forms make up the vertical structure; the outer curved wall, the elevator shaft, and the inner curved wall and stair combination. The initial plans for the building were to have a round tower. The bulk of the exterior would be glazed excluding a section of solid concrete in the north quadrant. My goal was to create a place to enjoy the river and the park. To do this I felt it was necessary to block the view of the condominiums while in the park. The solid wall separates the view from the rest of the town and controls the views towards the river and the park.

The location of the elevator shaft shifted throughout the development of the tower. In the final design I placed the elevator shaft in the southern corner to balance the outer curved wall.

The inner wall tapers and creates an anchor for the curving staircase. The stair had been an important element of the tower design from the beginning. I envisioned a slow climb up the curved staircase while looking at the sailboats on the river. The solid wall encloses the stair to enhance the experience.



First floor plan of the north tower

scale : 1/8" = 1'

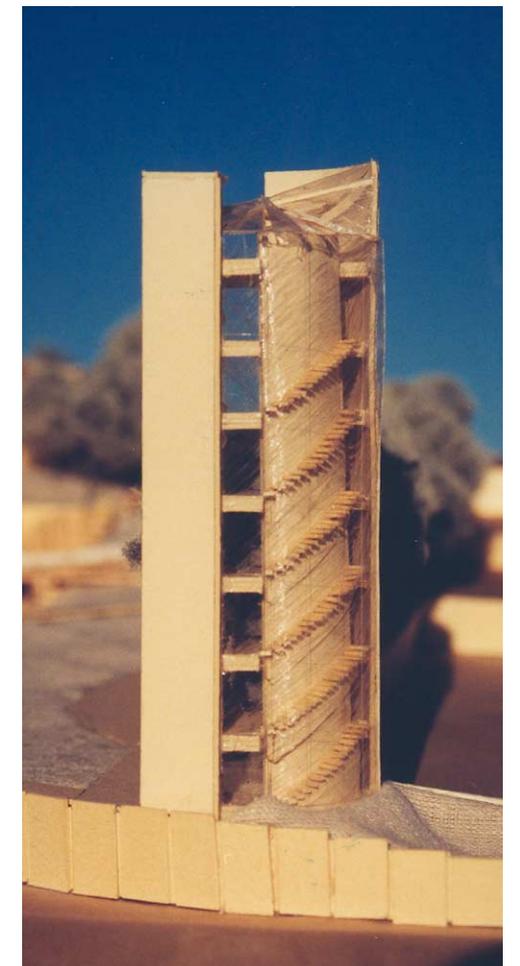
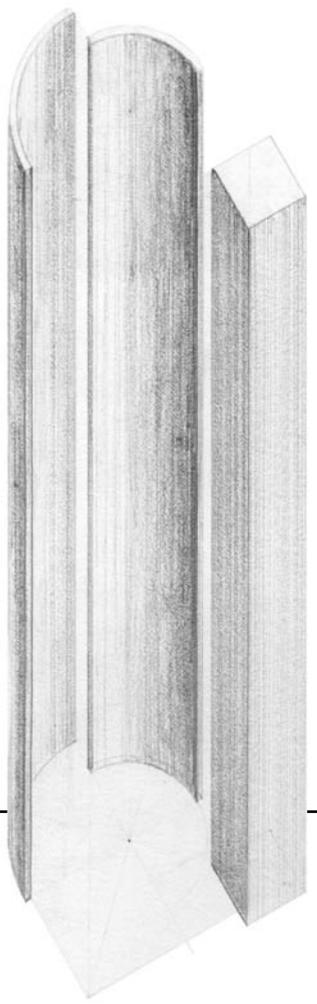
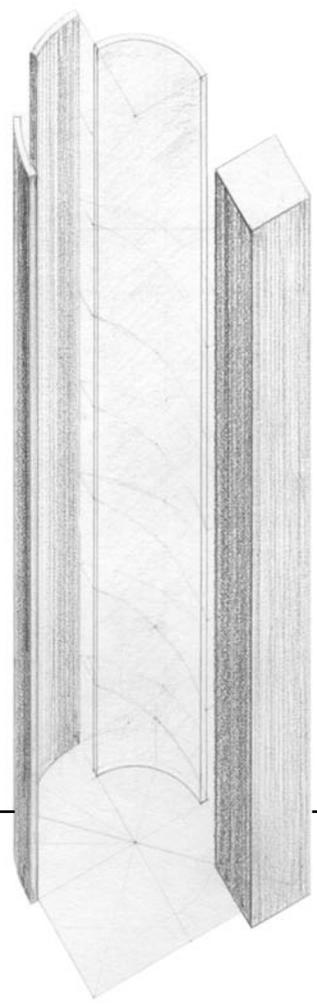


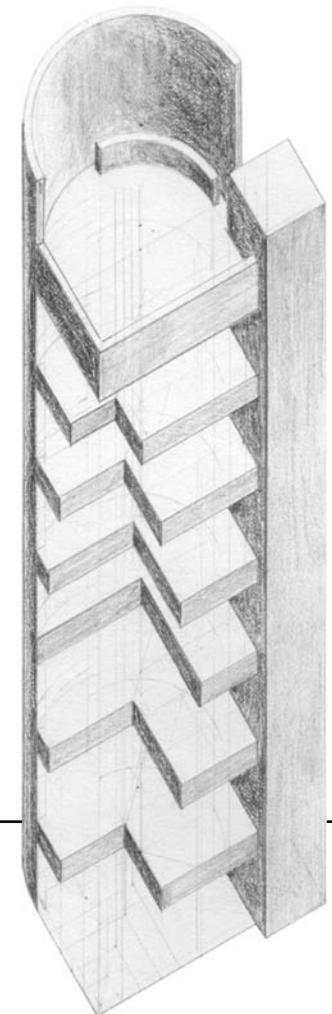
Photo of north tower showing the curved stairs



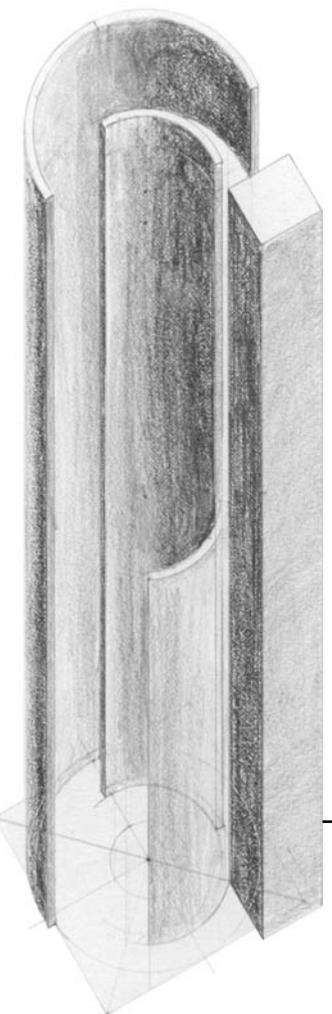
A look at solid forms.



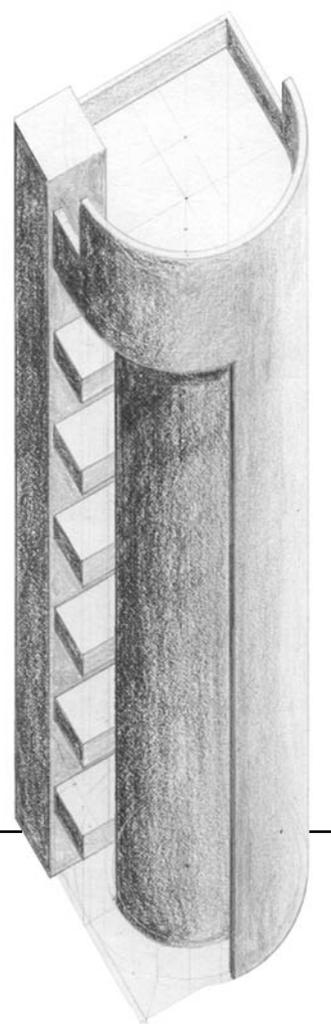
Experiments with putting a break in the wall and using a translucent material.



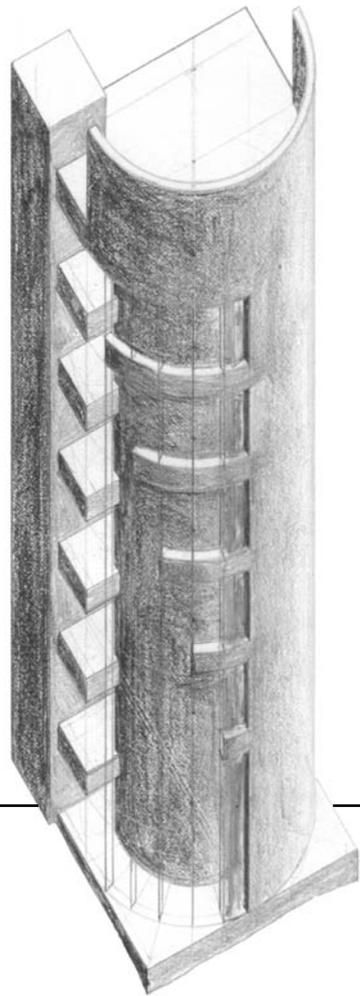
Experiments with the floor slab using the idea of varied floor voids to show off the height of the building.



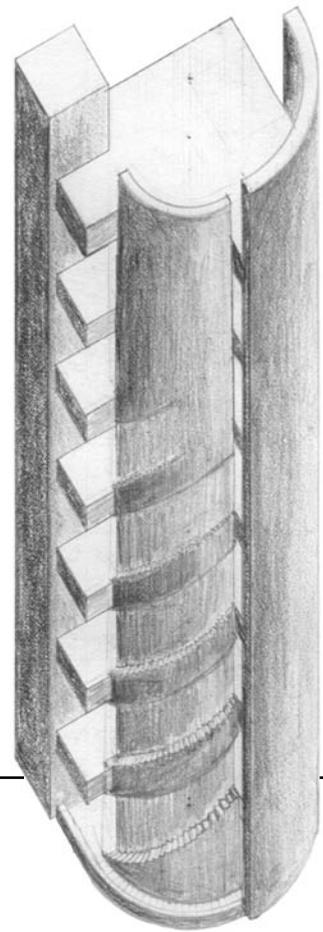
Further look at the solid forms and how they could extend through the building.



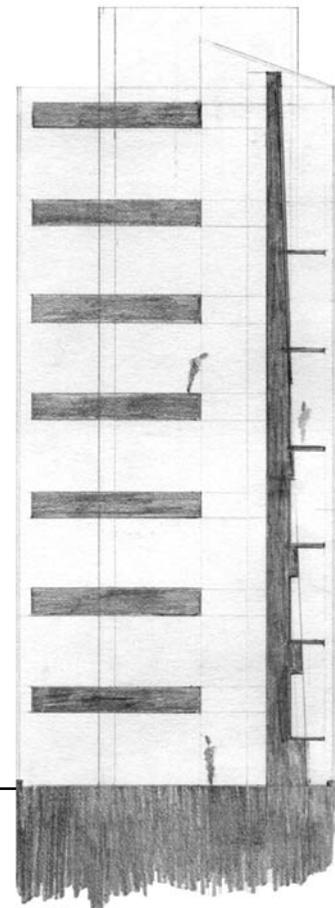
A look at the outer wall and how it could partially wrap the inner wall.



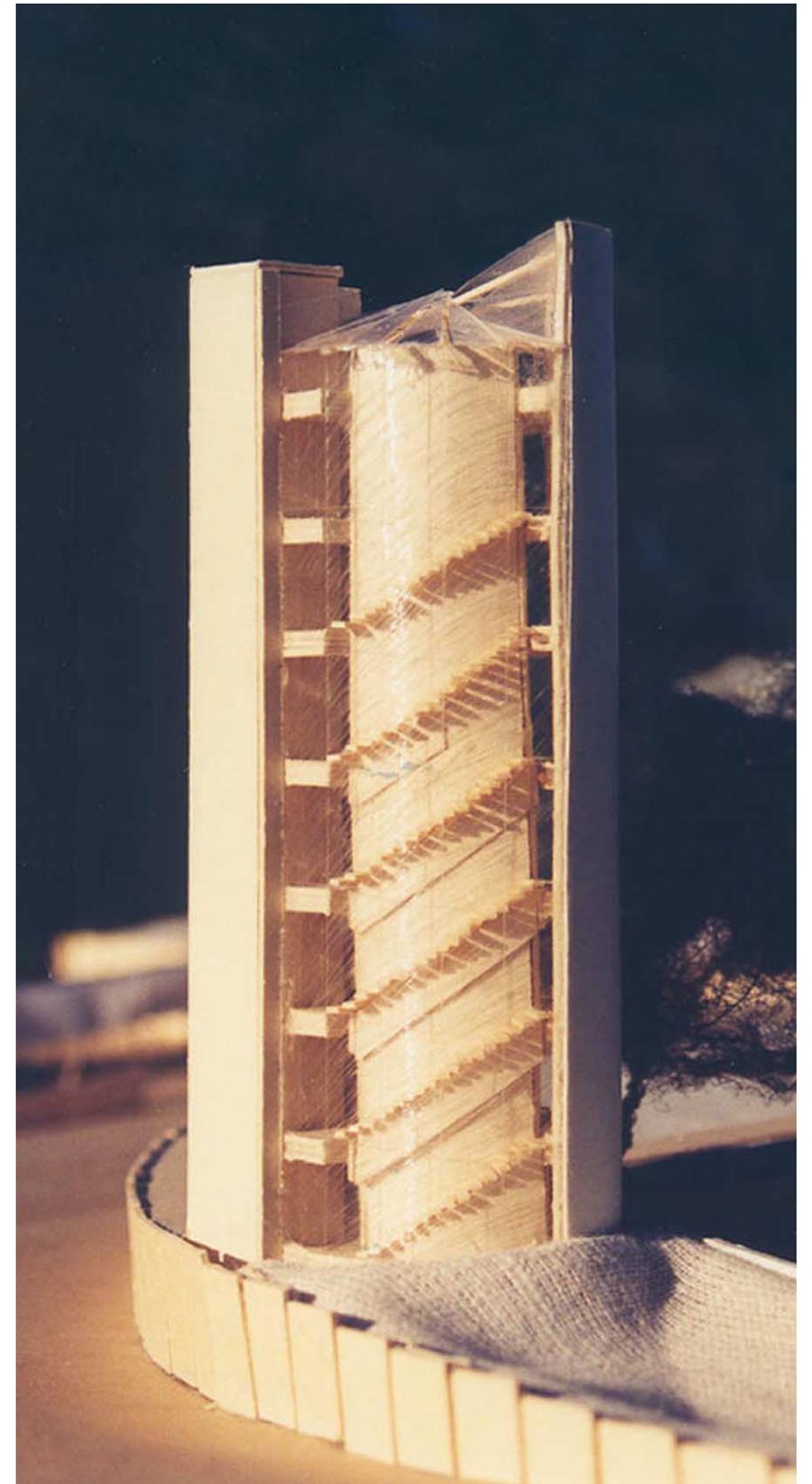
More studies on wrapping the inner wall with the outer wall at each floor level .

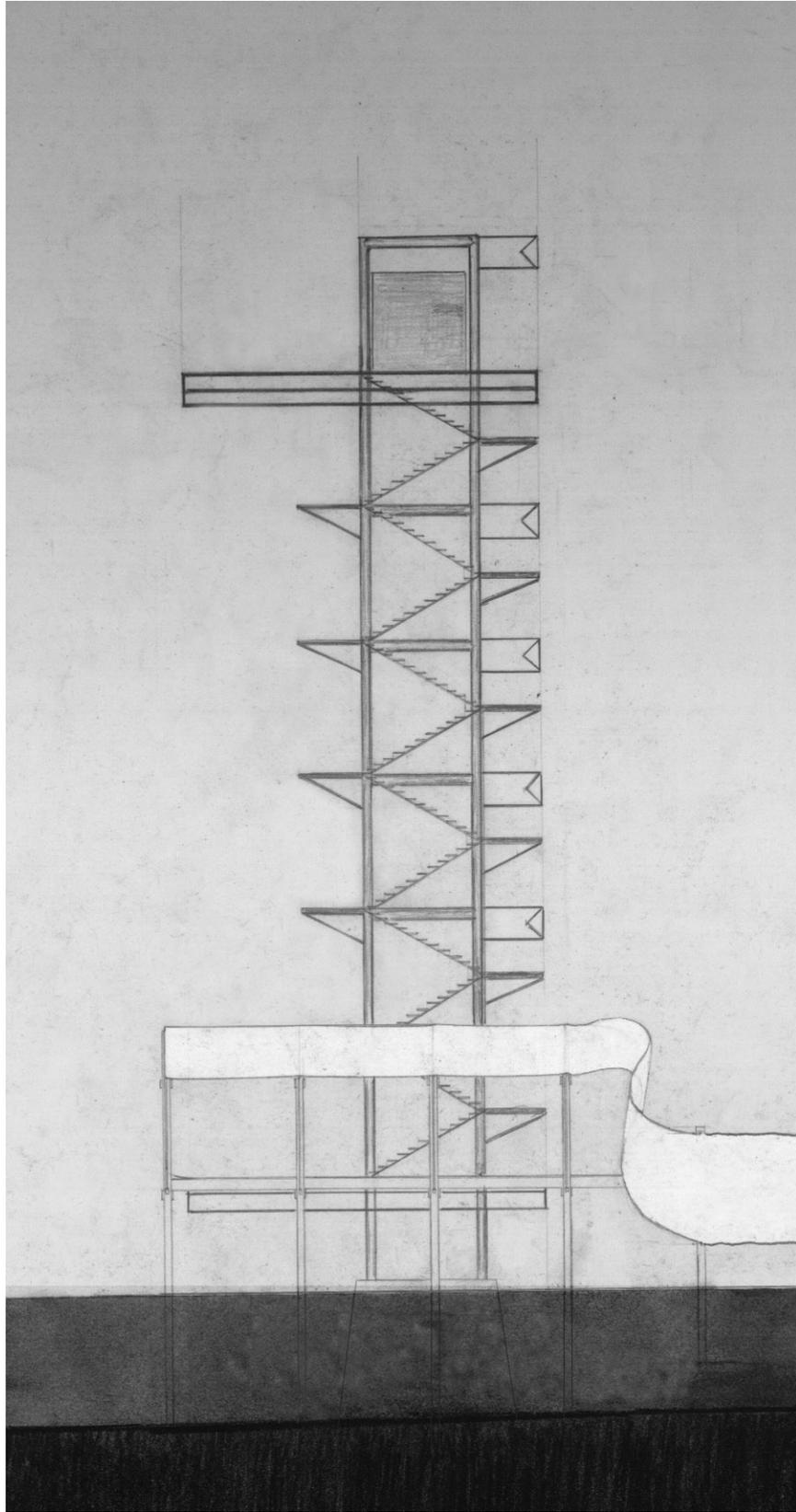


A look at the tapering of the inner wall and how it incorporates the stairway. This model maintains a visibly separate inner and outer wall.



Section through north tower showing the atrium space and how the stairs fit into the tapering wall.

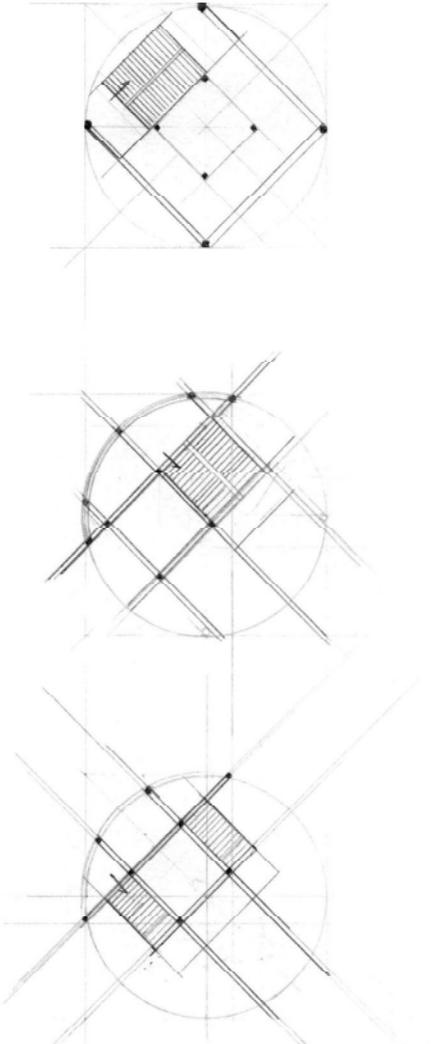




Initially I thought of the towers as bookends, identical buildings on either side of the inlet. Once the north tower was designed it was obvious that the large concrete structure would not be suitable in the water. I struggled with what the south tower had to be since the north tower already held a variety of uses. I was been told about the observation tower in Mill Race Park in Columbus, Indiana. The simplicity of an observation tower appealed to me. I stripped my tower down of all the excess and allowed the structure to speak for itself and become an observation tower to view the Hudson River.

The tower is made up of a square central core that houses the elevator. The steel truss supports for the floors and stairs are welded to the central core. The floors are made of perforated steel. The west side of the tower is made up of a series of curved trusses. Weaving through the curved trusses are panels of fabric. The fabric wall is a surface to collect light and color. The colors of the sunset wash along the white fabric and change from day to day and from hour to hour. At times the fabric acts as a silhouette screen lit from behind. I thought that it could also act as a projection screen for special events in the park.

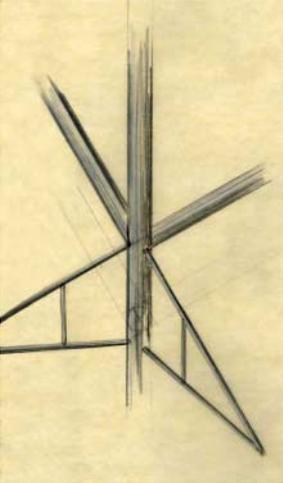
The towers still act as bookends. They are the same height and width and similar in some aspects. However, these two buildings can now stand alone. Their differences add to the experience of the park.



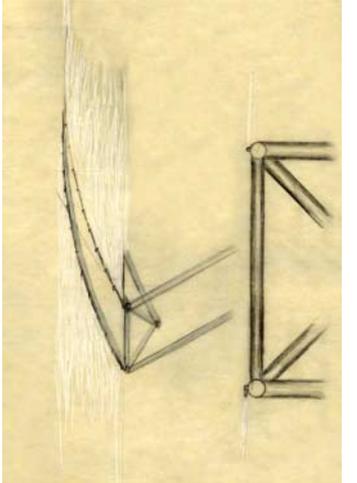
A study of possible floor plans for the structure of the tower. The final design is a variation on the center drawing.



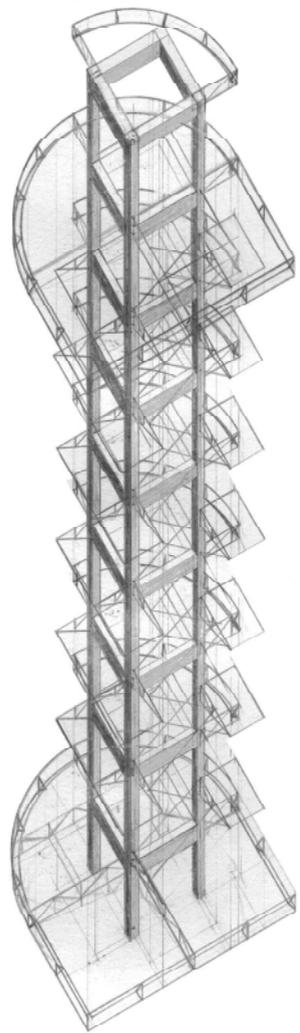
Sketch showing early design idea for the south tower



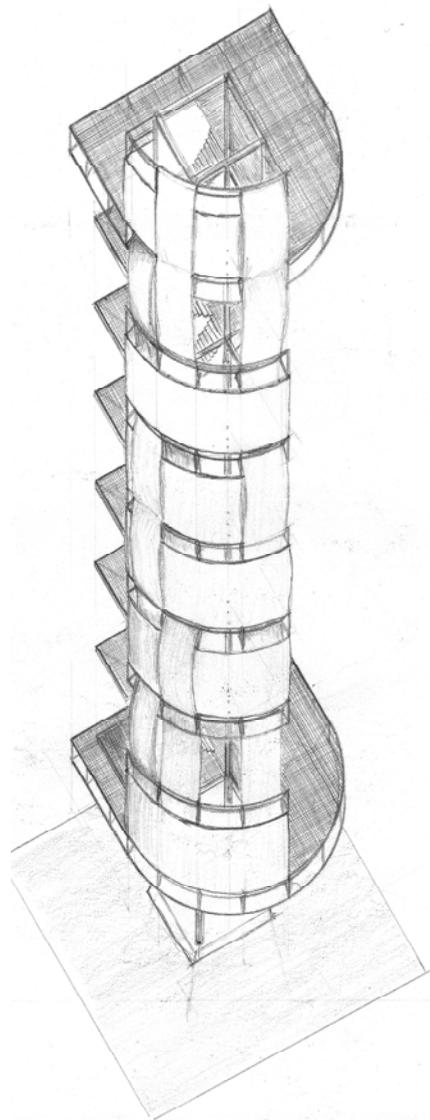
Drawing showing the steel trusses



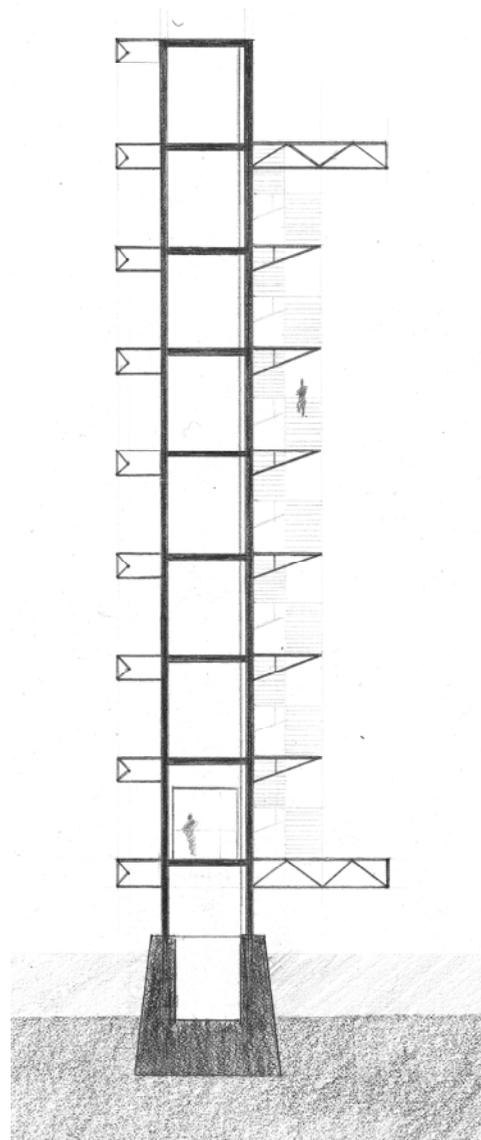
Drawing of the fabric connecting to the steel framing



Axon drawing showing the structure of the tower. A main column structure encloses an elevator shaft and steel trusses are welded to the main frame to support the stairs and floors.



Axon drawing of the west fabric wall of the tower. The fabric weaves through the curved trusses leaving a pattern of solids and voids.



Section drawing through the elevator shaft.





Eiffel Tower during the day - Paris, France



Eiffel Tower at night - Paris, France

The idea of how the park looks at night is important. Water has the possibility of being rough or still like a sheet of *reflective* glass. It was in this reflection that I thought of the towers. On a clear night when the wind is calm, I thought of how the lights of the tower and park would reflect on the water. These were present early on in the project. Many buildings and landmarks are lit up at night. Some buildings have spotlights shining on them others are lit from inside. The Eiffel Tower is a good example. The lights in the tower clearly show off the structure in silhouette. They are impressive by day but they sparkle at night.

The lighting in my park is functional in some places and decorative in others. The towers are lit from inside. I have placed no extra spotlights on them. The structure of the south tower is illuminated at night in the way of the Eiffel Tower. The fabric wall on the western face will glow at night. The north tower's interior lights show off the curving staircase and give a glimpse of what is inside. The lighting shows the contrast of the massive concrete structure and glazed walls.

The bridge has lighting worked into the supports. The walkway is carefully lit and from the outside the white fabric will glow. The walkways on the land are lit from above. At night this will add verticality to the walkways which may not be perceived as well during the day. The retaining walls are designed to work with the idea of creating shadow in daylight and at night. The walls are formed in intervals of eight feet with one foot between them. This allows for the play of light and shadow during the day and at night it creates a small hollow for a light. During the dark night these lights will define the wall and add a twinkle to the reflection in the water.

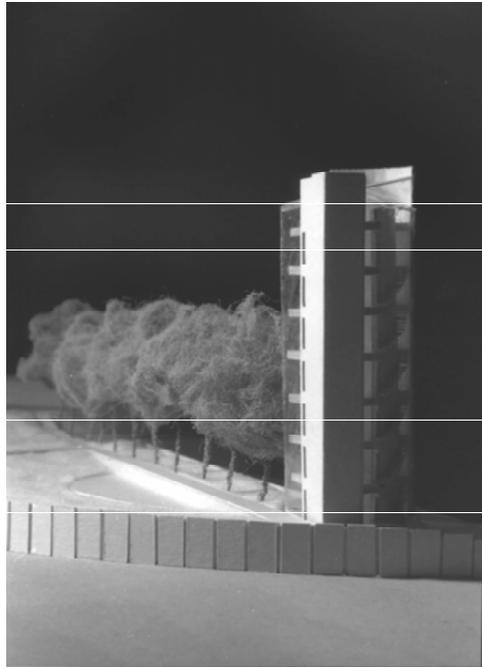
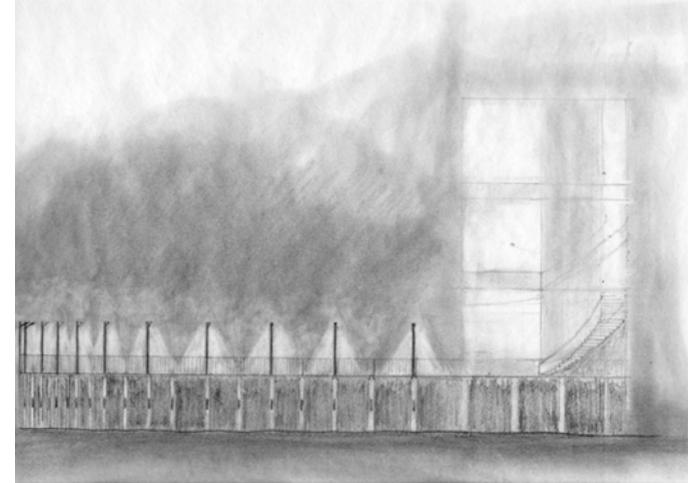
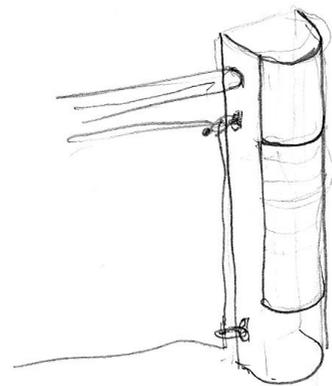


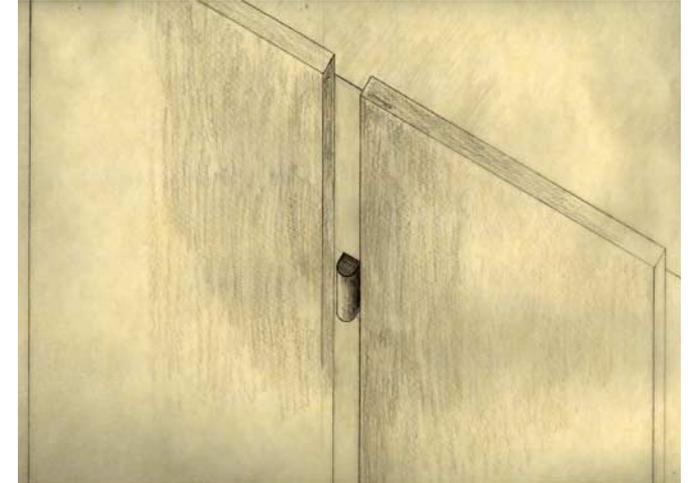
Photo of the wall panels on the curved walkway. The lighting represents early evening sunlight.



Sketch of early design of north tower and curved walkway at night.



Sketch of light incorporated into the frame of bridge



Drawing to show the light within the wall panels.

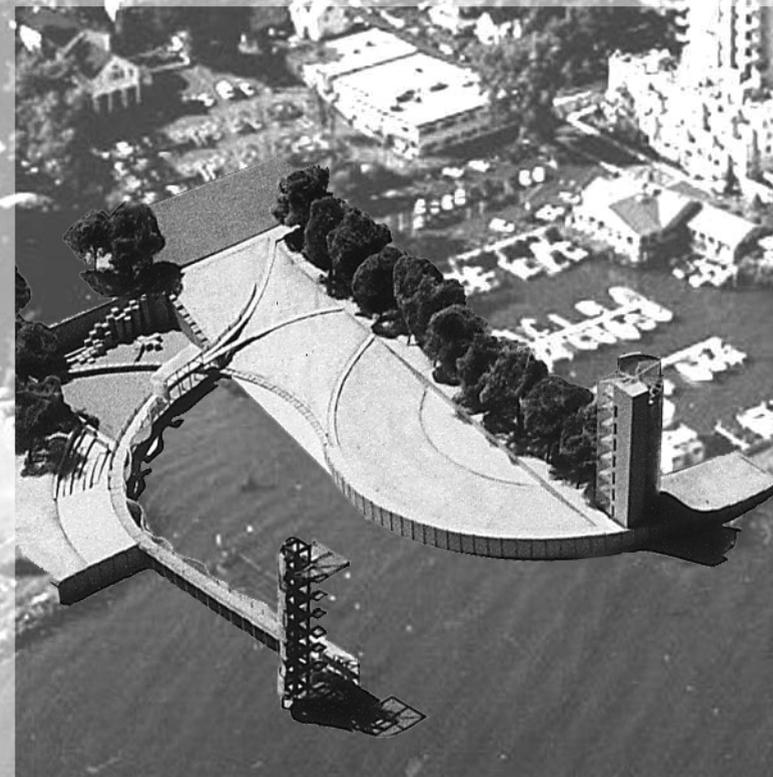


View of the park from the water - night time rendering

Like most works of art and architecture, this project will never be finished. There is always room for change and improvement. However, I am at my stopping point. I learned a great deal through my exploration and will take a new set of references with me to the next project. Until then, I will wait for my next subject to reveal itself, enjoy the 'delicious moment,' and continue with another long period of hard work.

At the end of this long period of hard work I have already begun to think of what happens next. The whole of Memorial Park would be included in a second phase of design. This would include improved boat ramp facilities and a public mooring facility. Another phase includes a detailed landscaping and garden plan.

I can close my eyes and imagine myself in the Nyack River Front Park. It is all clear to me and my senses. I wish I could sit on the small island and see the smooth surface of the pool that is created by the stepping stones. I want to enjoy an afternoon listening to music being played on a stage in the semicircular lawn. This place is clear in my mind. This thesis is intended to give you a small glimpse into this place that I created.



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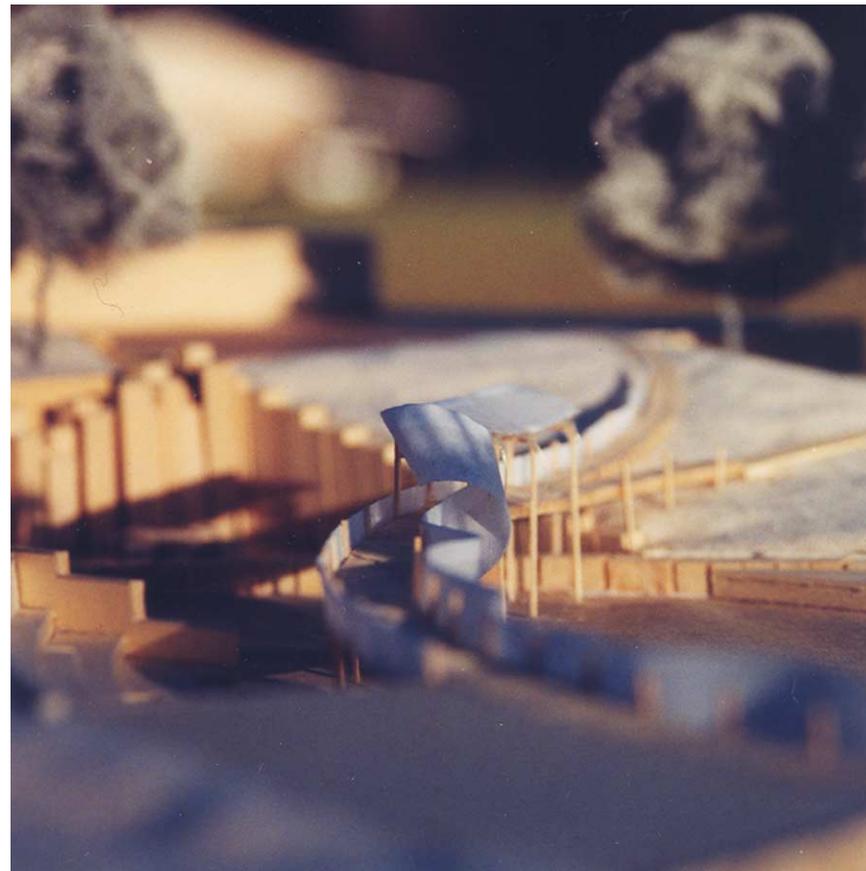
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Page 5 : Camus, Albert. Lyrical and Critical Essays, pages 10-11.

Page 17: Walker, Peter. Peter Walker: minimalist gardens, inside cover

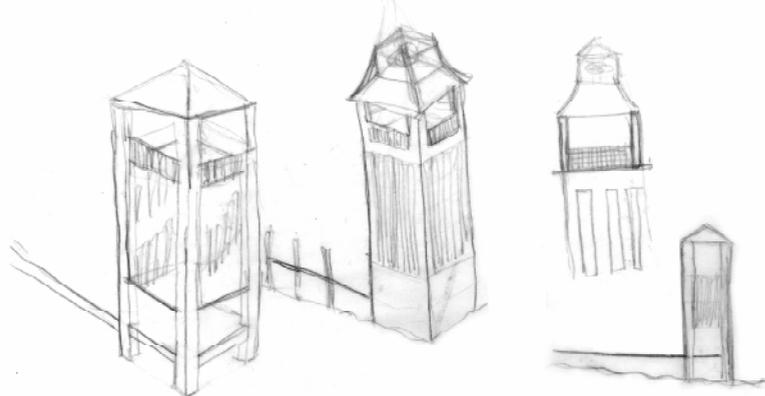




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Page 5: James Mullins. View of Tappan Zee Bridge

Page 9: Bob Vergara, A.P.S. Aerial photo of Nyack also used on pages 9, 13, 17, and 47

Page 10: Pak Nagasing. Map of Nyack. Rockland Journal News. May 22, 2001, page 8K

Bob Vergara, A.P.S. Main Street during a street fair. Guide to the Nyacks, Cover page.

Page 14: Bob Vergara, A.P.S. View of Memorial Park from the river. Local Scenes

Page 15: James Mullins. inlet during low tide

Page 28: Wolfgang Volz. "Segment 17." The Running Fence Project, plate 69.

Page 30: Elizabeth Shirey. Close up of fabric canopy

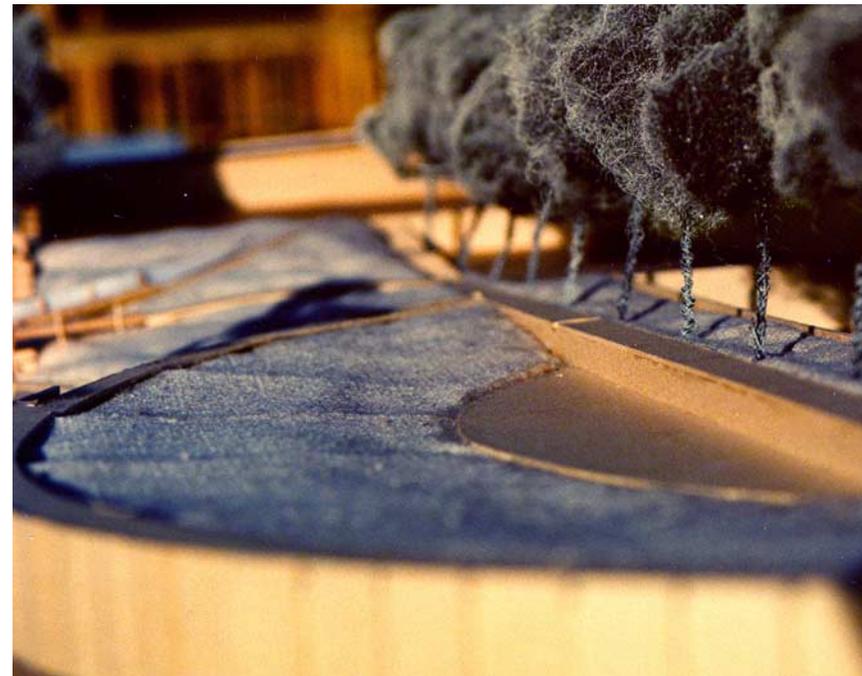
Page 32: Nobuhiro Suzuk. Hyotan Pond. Aquascape Water in Japanese Landscape Architecture, page 82.

Derek Fell. Stepping stones. Pool Ponds and Waterways, page 18.

Page 34: Ed Novack. Observation tower, Mill Race Park, Columbus, Indiana

Page 48: Elizabeth Shirey. both photos

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