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Vision in Architecture

A Thesis
Presented for the
Master of Architecture
Degree
The University of Tennessee, Knoxville

Sabrina Russell
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ABSTRACT

The way in which people see and perceive things varies with each individual. Although, it is possible to focus the individuals attention in a particular way causing them to have various perceptions of the same view. The gaze is an element that has been studied and analyzed in numerous medias. Each medium has found a way to manipulate or control the individuals gaze making it possible to convey a meaning or feeling through the use of this technique (see figure 1). In having some control over the gaze of the onlooker designs can be formulated that best stimulate the attention of the observer. In architecture relationships between different spatial units are able to convey a particular meaning to the observer. Elements within architecture such as the window, frame, and wall are able to shape the space to assistance in this conveyance. Involving the manipulation of the sense of sight in a design can result in a more meaningful and captivating experience in a place.

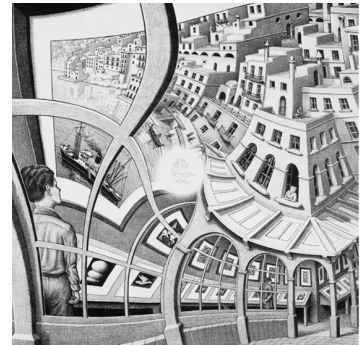


Figure 1.
Print Gallery.
M.C Escher
Lithograph
320 x 315m
1956
(Ernst, 32)



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1 THE GAZE

Description

A gaze challenges, it inquires, it takes pleasure, and it asks for a response. The ideal viewer looks with a particular intensity, not at a single point, but at an entire scene or moment. To gaze means to fix the eyes in a steady intent look often with eagerness or studious attention (Merriam-Webster). When gazing at a loved one it can be a form of admiration or silent communication or when gazing at a beautiful sunset it can cause total enrapture to the point where everything else is forgotten. The gaze can transcend space and time causing the viewer's attention to be held captive by a someone or something. "Gazing is unfocused awareness, and a gazer does not see anything very well" (Elkins, 210).

The individual's gaze is manipulated by numerous forms of sensory stimuli (see figure 2). Many different combinations of stimuli can be represented to guide the viewer's understanding and perception of a space. Architectural tradition presents two central representational ideas that are crucial to the way in which we identify with the spaces that we inhabit. The first idea deals with the mind of the individual. Three-dimensional constructs can form different

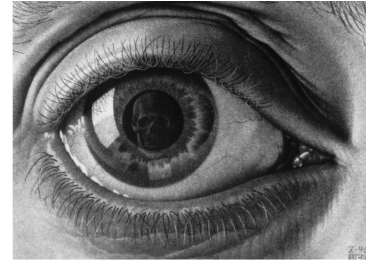


Figure 2. *Eye*.
M.C. Escher
Mezzotint
6 x 8"
1967
(Ernst, 15)

spatial arrangements that can stimulate the mind and form relationships between the individual and the architecture.

The way in which spaces are represented can affect the way the individual identifies with the space.

“To gaze implies more than to look at - it signifies a psychological relationship of poser, in which the gazer is superior to the object of the gaze.”
(Schroeder, 208)

The landscape is another factor that effects the way in which the individual identifies with the space. The contextual information surrounding a structure can greatly impact the individuals understanding of a space. Man and his landscape find expression in certain architectural elements, such as columns and the relationship of walls to ground planes (Graves, 28). Different architectural elements can be used to guide and/or manipulate the individuals gaze.

This idea is also seen in different media such as painting, photography, and cinematography. Jacques Tati's film *Playtime* (1967) portrays people's perception of modern architecture and attitude toward modern life in the historic city of Paris (see figure 3). The film is about observation and how one perceives specific locations. Throughout the film there are only three primary locations inhabited successively: an office tower, atrial apartment rooms, visible only through a building's entire wall of glass, and an overly decorated restaurant. Each place is used to exemplify inefficient modern architecture. The architecture of the past is lost and the realm of sterile modernization

has prevailed. The synthetic black chairs, glass and steel skyscrapers, and glossy waxed floors dominate the landmarks that define the city of Paris. Throughout the film Paris landmarks are only shown as glimpses that are dim reflections in glass doors and windows. The rest of Paris has been consumed by the progress of modern architecture that is a somewhat alien futuristic cityscape. This outcome is Tati's idea of the worst possible outcome of modernization in which the remains of the old (human) are wiped away and replaced by cleanliness, order, and convenience. Tati's unique cinematic vision pushed him to a high status among filmmakers. *Playtime* is composed almost entirely of long and medium static shots, with no close-ups to be found. Tati doesn't draw attention to any one object in the frame because there is always more than one thing going on, which is why the film demands multiple viewings. Just as in architecture many different elements are used to manipulate the individuals attention. Jacques Tati's film subtly encourages people to observe more intently and to think more intelligently about social concerns through a gentle form of humour.

The Observer and the Observed

Painters often manipulated the focus of the observer to specific areas of a painting to emphasis a point or to create a feeling. By framing an object the focus of the eye is constrained within the boundaries of the frame. In



Figure 3.
Playtime.
Jacques Tati
Film
1967
(frenchculture.org)

Marcel Duchamp's, *Given*, the individual looks through the holes in the outside door and sees through a gap in a brick wall the image of a naked woman arranged in an unflattering position (see figure 4). In her left hand she is holding a lighted gas lamp and in the background a naturalistic landscape with a flowing waterfall is found. Everything is contained in the appearance of what is seen. This experience also makes the observer a witnesses or voyeur to the violent act. The particular view that is depicted elicits an uncomfortable feeling. By staging this scene behind a closed door and forcing the viewer to look through a hole and then through a brick silhouette the viewer immediately becomes aware of the people around. As they are the observer, because of the violent act they are witnessing, they immediately become paranoid that they are the ones being observed as a voyeur. In framing this particular scene Duchamp creates for the viewer an instant shock and awareness of the actions taking place around. The Voyeur's Gaze: 'Just a gaze. An inspecting gaze, a gaze which each individual under its weight will end by interiorizing to the point that he/she is his own overseer, each individual thus exercising this surveillance over, and against him/herself. A superb formula: power exercised continuously and for what turns out to be a minimal cost' (Foucault, *Power/Knowledge*, 155).



Figure 4.
Given: 1. The Waterfall 2. The Illuminating Gas.
 Marcel Duchamp
 Mixed media assemblage
 1945-66
 (Bailly, 86 and 87)

The tourist gaze involves relations between individuals and corporeal travel. People maneuver back and forth directly sensing the external world as they move in and through it, and as they encounter meaningful moments or visual stimulants they stop and look. "Bodies are not fixed and given but involves performances especially to fold notions of movement, nature, taste and desire, into and through the body. The body senses as it moves." Especially important in the 'mechanics of space' is that of touch, for example the feet on a gravel path or a paved path, the hands on a sheet of glass or on a rock face. (Urry, 4) "The 'static' forms of the tourist gaze, such as that from 'the balcony vantage point', focuses on the two-dimensional shape, colors, and details of the view that is laid out before one and can be moved around with one's eyes (Pratt, 222). Such a static gaze is exemplified through the capturing of images through a still camera. Photographing is an act of non-intervention, although it may presume, intrude, trespass, distort, and exploit, but all from a distance. It acts as more than just passive looking because it encourages the action taking place to continue happening. A key feature of the gaze in recorded texts such as photographs and films is that the object of the gaze is not aware of the current viewer (although they may have been aware that it was possible that viewers would be gazing at their image).

"...a certain concerted distribution of bodies, surfaces, lights, gazes; in an arrangement whose internal mechanisms produce the relation in which individuals are caught up."
(Foucault, 155)

In *Panopticon* by Jeremy Bentham the viewer is able to

see without being seen contrary to the previous example of Duchamp's *Given* in which the viewer is acutely aware of his position (see figure 5). Panopticon is a circular prison that is centered around an observation tower with special shutters to prevent the prisoners from seeing inside. The prisoners are located in cells located around the tower. The cells extend the entire thickness of the building so that the prisoners are isolated from one another, but still have a view both inside and outside the prison. The light penetrating the outside of the cells allows the unseen guards to see inside the cells individually as well as collectively. The main idea is that a prisoner will constrain his or her own behavior with the knowledge that a guard may or may not be observing their every move. The uncertainty creates a paranoia within the imprisoned individual (the observed). The observer is able to be more relaxed in their viewing allowing them to stare, glance, or glimpse at whatever or whomever they please. "In modern society, our spaces are organized like so many cages, so many small theatres, in which each actor is alone, perfectly individualized and constantly visible" (Foucault).

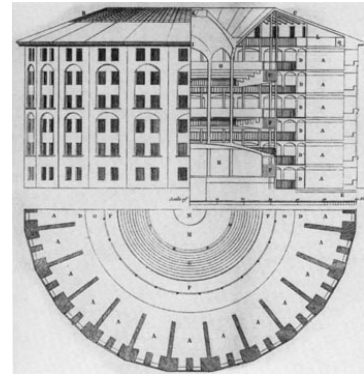


Figure 5.
Panopticon.
Jeremy Bentham
Unbuilt
1962
(Cartome.org)

A large part of seeing is really composed of numerous glances. We glance at bright reflections and dark shadows where nothing exist (see figure 6). A glance can suggest strong emotion towards someone or something or no

emotion at all. It is an attempt to see as little as possible when there is no emotion attached. When the glance is meant to be seen then it becomes an invitation for reciprocation. Glances shared by strangers passing on the street are a way of not seeing, “an urban strategy for avoiding eye contact. On the street I don’t want to see people clearly, and really I don’t want to see them at all” (Elkins 206).

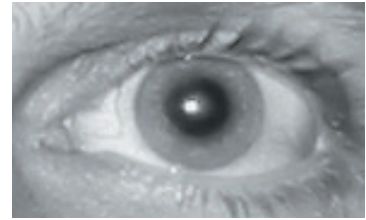


Figure 6.
Glance.
Author

The opposite of a glance is a glimpse. In a glance we see for only a second, and in a glimpse, the object shows itself only for a second. In both cases we see only for a moment, but the glimpse is the glance of an object as it is perhaps glancing at us. A more intense version of seeing is to stare. This means that there is none of the turning away that accompanies ordinary looking or the quickness of glances and glimpses. Inexplicable or unusual things that are not overly disturbing, but just enough so to hold attention tend to cause people to stare. People also stare out into nothing when they are tired or in deep thought, they stare at speakers, faces in crowds, television, and artwork. Staring is an unusual kind of seeing that is usually attributed to something odd happening. “Perhaps staring is a sign that an artwork has malfunctioned: it has arrested my thinking, slowed me down, paralyzed me so I can barely move.” (Elkins 209) The harder an individual tries to see the more blind they become. A piercing stare

is a form of blindness that is found in the observer and the observed.

Throughout the history of art, artists have studied the way people view different types of media. What causes the viewer's focus to move from one image to another? Pablo Picasso's, *Women of Avignon*, can be intimidating to look at because of the images intensely staring back (see figure 7). Leo Steinberg writes, "The picture is a tidal wave of female aggression no modern painting engages you with such brutal immediacy. Of the five figures depicted, one holds back a curtain to make you see; one intrudes from the rear, the remaining three stare you down." The essence of the picture is the "startled awareness of a viewer who sees himself seen." The eyes are empty, directionless as if they are not trying to capture our attention, but alert to the idea that they are being observed. The wall of eyes impel the viewer to stand rooted in place as if they too are a painting. Even after departing from the picture the eyes follow the viewer. "The history of art has many examples of pictures that gently push viewers toward preferred viewing positions, herding them into little imaginary enclosures where they can best see the image" (Elkins 214).



Figure 7.
Women of Avignon.
Pablo Picasso
Oil on canvas
8' x 7'8"
1907
(Moma.org)

James Elkins lists ten different ways of looking at a

figurative painting in a gallery (Elkins, 38-9):

You, looking at the painting, figures in the painting who look out at you, figures in the painting who look at one another, and figures in the painting who look at objects or stare off into space or have their eyes closed. In addition there is often the museum guard, who may be looking at the back of your head, and the other people in the gallery, who may be looking at you or at the painting. There are imaginary observers, too: the artist, who was once looking at this painting, the models for the figures in the painting, who may once have seen themselves there, and all the other people who have seen the painting - the buyers, the museum officials, and so forth. And finally, there are also people who have never seen the painting: they may know it only from reproductions... or from descriptions.



Figure 8.
The Arnolfini Marriage.
Jan van Eyck
Oil on Wood
32 1/4 x 23 1/2
1434
(Pioch)

The observer can also visually inhabit the space in which they are viewing. In this case the observer and observed are the same person. In Jan van Eyck's "*The Arnolfini Marriage*" the bride and groom stand side by side in the bridal chamber, facing the viewer (see figure 8). The portrait is a celebration of the wedding day and reveals to us that what is thought to be the true meaning of a marriage. The restricted space contains numerous symbols that emphasis this point. Although, these

elements are of secondary importance when compared to the mirror, the center of the whole composition. The mirror contains within it the reflection of two figures standing across the room from the couple, the painter and presumably us. The convex mirror also reflects the floor and ceiling, as well as the sky and garden outside, both of which are otherwise barely visible through the side window. The mirror creates a hole in the fabric of the space. Van Eyck extends the space of the painting forward from the picture plane creating a foreground in which the observer finds themselves within. The middle ground is created by the surface of the picture plane. The background is the reflected images within the mirror of van Eyck and the observer. This then links the observer back to the foreground in which they are located.

Van Eyck is forcing the observer to enter the picture by the framed extension of the picture plane. He is then forcing the observer back out of the picture plane by using the mirror to reflect himself and the observer. The observer is forced to imagine themselves looking back into the painting.

Architectural elements can create relationships between different spatial units that convey a meaning to the viewer. The way in which spaces are represented can affect the way the individual identifies with the space (see figure 9). Man and his landscape find expression in certain architectural elements, such as columns and the relationship of walls to ground planes. (Graves, 28)

Different architectural elements can be used to guide and/or manipulate the individuals views.

Windows as Mirrors

Windows in architecture are able to create portals between the indoor and outdoor space and frame a view, it acts as a divider and a connector between two “spatial units.”

A basic function of a window is to allow passage from the exterior to the interior. A window offers the opportunity to filter and manipulate elements of a view (Chen 12). In Eugene Atget’s photographs he uses a storefront window to show the superimposition that can be created through the window and the reflection cast from the glass (see figure 10). The viewer can look through the window seeing the posed mannequins, as well as, look at the glass and see an image reflected. This places the viewer in the



Figure 9.
Three Worlds.
 M.C Escher
 Lithograph
 361 x 247m
 1955
 (Ernst, 76)

“But that which is transparent, like the glass in our window, also reflects the interior and superimposes it onto our vision of the exterior. The glass functions as a mirror when the camera obscura is lit” (Colominia, 80).

foreground, which is the viewer and their surroundings, and the middle ground which is the reflection of the viewer and their surroundings. The mannequins are located in the background which is the space behind the pane of glass. The viewer is able to experience two spaces by viewing a single window while simultaneously being aware of the space surrounding them. This awareness is also found in mirrors.

Mirrors as Windows

“Mirrors are like empty eyes, blind until I step in front of them...” (Elkins 48) The mirror transforms its surface throughout the course of a day. During the day the mirror acts as an empty eye that awaits to see, but cannot until the viewer is present. Once the viewer is present then the mirror reflects back a copy of their image and surroundings (see figure 11). At night the absence of the viewer causes the reflective surface to act as a black hole, dark and hollow. “To see is to be seen, and everything I see is like an eye, collecting my gaze, blinking, staring, focusing and reflecting, sending my look back to me” (Elkins 51).

A mirror’s image is an optical response to the viewer’s movements mimicing with exactness the positions of the individual. As the viewer moves closer to the mirror the view within the frame of the two-dimensional space becomes wider and deeper and magnifies the image of the



Figure 10.
Storefront,
Avenue des Gobelins.
Eugene Atget
Albumen silver print
20.6 x 16 cm
1925
(Getty, 85)

perceiver. The mirror's image connects the mind of the individual with the time and space in which they are located. Optically, mirrors are designed to be seen from the front. Mirrors in enclosures exteriorize all objects within the interior space, so that they appear on the mirror as frontal surface planes. The space enclosed within the two-dimensional plane of the mirror is a replication of a three-dimensional space. As discussed earlier, *"The Arnolfini Marriage"* by van Eyck uses the convex mirror to reflect the couple as well as the space surrounding them. It also gives the impression that van Eyck himself as well as the observer of the painting are located in the foreground of the painting looking in. The mirror acts as a hole that positions the viewer in the space of the room. The viewer is aware of their presence inside and outside the painting.

"In rectilinear enclosures, mirrors create illusory perspective boxes. The symmetry of mirrors tends to conceal or cancel the passage of time, so that the overall architectural form appears to transcend time, while the interior area of the architecture, inhabited by human movements, process, and gradual change, is emptied of significance. As the image in the mirror is perceived as a static instant, place (time and space) becomes illusorily eternal" (Graham, 4).

Dziga Vertov uses the lens of the camera in his movie, *The*



Figure 11.
Au Tambour,
63 quai de la Tournelle.
Matte albumen print
22.2 x 17.6 cm (trimmed)
Eugene Atget
1908
(Wiegand, 43)

"...think of the mirror as a pane of glass. You'll see yourself in the glass and you'll see objects beyond it." -Lacan

Man with the Movie Camera, as a mirror so that the first thing the eye sees is its own reflected image (see figure 12). The superimposition of the two images (two realities) produces a new reality, one that is both interior and exterior. The convergence between the two-dimensional space of photography and three-dimensional space of architecture highlights the confusion of surface and depth, inside and outside, and subjects and objects (Sanders 113).

Frame

Framing an object is one way of focusing the attention of the viewer on a specific event. The eye is constrained by the edge of the frame. A frame can be used in such a way that the focus of the viewer is cast intently on someone or something. Through photography the viewer can freeze the view that they want. The act of photographing involves both an operator, a spectator, and the spectrum of the photograph. The operator or viewer is free to choose what he/she wants to look at or focus on. Constraints are placed on the essence of the photo because of the size of the hole through which the photographer looks. The hole limits, frames and perspectives the spectrum of the photograph. The spectators approach to photography is quite different in that they are only allowed to see what the photographer allows. They do not have a choice in what they see because it has already been decided for them. The operator and spectator are both observers

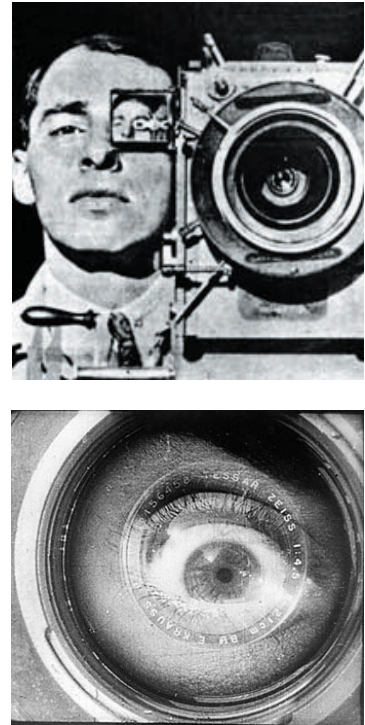


Figure 12.
Man With a Movie Camera.
Dziga Vertov
Film
Black and White
1929
(Vertov, Film)

yet one has a choice in what they want to look at and the other is given no options in what they are allowed to look at. The spectrum of the photograph is the object or person that is being observed. The observed has no choice in what image is captured and may not be aware of the observation that is taking place during and after the photograph has occurred. The camera can capture time and space without intervening with the actions that are taking place. The observed can be viewed by the observer during the action of the photograph as well as after the photograph is developed.



Figure 13.
The Annunciation.
Sandro Boticelli
tempera on wood
150x156 cm
1489
(italian-art.org)

Wall and Frame

In *The Annunciation*, by Sandro Boticelli, the wall in the background becomes a division between inside and outside (see figure 13). The wall is very important to Boticelli in this painting because without the division that it creates it would be impossible to tell the story. A boundary is created between the sacred space of the inside and the profane space of the outside. The Archangel comes through the door carrying a symbolic lily that is co-planar with the tree in the background. This symbol connects him with the outside and with the ascension toward heaven. It is also evident that the door or window is made for the archangel because he is on axis with the opening. The sacred virgin mother that stands to his side is located in the frame of the space of the room. Mary is not associated

with the outside through the division that the door frame provides. The frame is perpendicular to the picture plane and provides the datum within the painting creating a middle ground. The Archangel's hands are in line with the edge of the frame and seem to be pushing it, which is impossible given his location within the room. The frame is used not only to signify the importance of the Archangel, but also to divide the outside and inside, the figure and ground. Boticelli's attempt at distinguishing between the outside and inside and the importance and meaning of a particular space was very successful (Graves 45).

The Outer Banks of North Carolina

This thesis project supports the environmental and social conditions found along the Outer Banks (see figure 14). Specific views are created due to the limited path that one has to follow to maneuver down the banks. It is surrounded by water with the Atlantic Ocean on one side and the Pamlico Sound on the other. The Pamlico Sound stretches ninety miles from north to south and twenty-five miles across at its widest point. It is a shallow 2,000 square mile estuary and is protected from the ocean tides and gets no deeper than twenty feet. The isolation of the islands due to the vast amount of water is a beautiful site to behold, but in reality the banks are dominated by the water. The rising and falling tides along with the wind are constantly changing the shoreline along the banks. The inhabitants of these islands along with the animal and marine life have to adjust with the land in order to survive. Often times, man's interference with the natural conditions destroys the survival of other living organisms. The Cape Hatteras National Seashore was established to protect the land, people, animal and marine life. Due to the zoning ordinances and preservation standards much of the National Seashore has a natural uncommercialized feeling.



Figure 14.
Outer Banks Map.

“From the time the Cape Hatteras National Seashore was established in 1953, its story has always been about water. The land, its resources, the lives and activities of the people who have come to the barrier islands have all been shaped by water. Even for those who choose to stay on shore, whose interest lie in the history of the place or its geography, who spend their time along its roads and byways or sheltered under a canopy of live oaks in the woods, there’s no escaping the fact that these are islands ruled by the sea and sounds that surround them.” Chris Kidder

Cape Hatteras National Seashore encompasses 30,000 acres of sand beach, dunes, salt marsh, and maritime forest that begins with Coquina Beach near Bodie Island Lighthouse, and continuing down Hatteras, and Ocracoke Islands. The park has three lighthouses, with the historic light keepers quarters and lifesaving stations, a herd of “banker ponies”, four campgrounds, several miles of nature trails, picnic areas, and visitor centers. The Outer Banks follow the upper coast of North Carolina and arch eastward like a bent elbow. At Cape Point in Buxton they turn sharply and the mainland falls away putting more than thirty miles of open water between the islands and the mainland. Water plays a vital role in the daily life of the people of the Outer Banks (see figure 15).



Figure 15.
Ocean Currents.

Choosing a Specific Location

Buxton, Hatteras Village and Ocracoke each offer unique conditions in regards to their location. All three are located at the south end of the Outer Banks in an area that is least accessible from the mainland.

Buxton

Buxton is located at the island's widest point, and near the famous Cape Hatteras Lighthouse (see figures 16,17, and 18). Buxton has become the “center of the island” for residents and visitors. The village is made up of a number of shops, motels, and restaurants. The Cape Hatteras lighthouse is located at the point of the island. The lighthouse was built to guide the sailors around Diamond Shoals located at the bend of the elbow off Hatteras Island. The shoals stretch for fourteen treacherous miles. The shifting sand and deadly currents have claimed hundreds of ships and thousands of lives. Cape Hatteras Lighthouse still stands on a spot dreaded by mariners today and has come to be known as the “Graveyard of the Atlantic”. The turbulent waters offer no repetition for the mariners who travel them. Its needle of light still guides them as it has for 100 years.

The specific site at Buxton (see figures A-1 through A-6) is located on the Pamlico Sound. It offers views out to the sound, to Highway 12, and to the residential neighborhood. (see figures A-7 and A-8). The Pilot Lighthouse Restaurant



Figure 16.
Map of Outer Banks
locating Buxton.

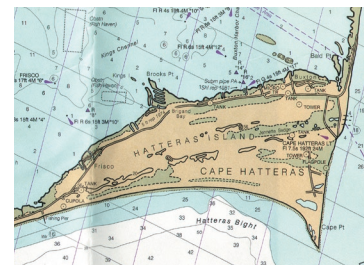


Figure 17.
Buxton Island.

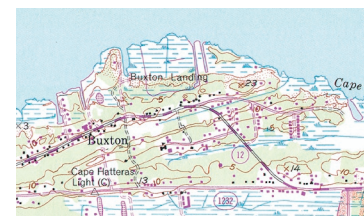


Figure 18.
Specific Site at Buxton.

is located adjacent to the site offering additional exposure to the building (see figure A-9). The lighthouse is not visible from the ground level, but would most likely be seen from a higher elevation (see figure A-10). The site is beautiful and easily accessible, but doesn't have a large amount of traffic flow. It is isolated from the rest of the island and only offers views out from the site due to the lack of a main focal point in the area.

Hatteras Village

Hatteras Village is located thirteen miles south of Cape Hatteras and about four miles north of Hatteras inlet (see figures 19 through 21). The area is full of inns and hotels located on both the ocean and sound. This commercial fishing center is host to several prestigious fishing tournaments.

The specific site at Hatteras Village is located on the Atlantic ocean next to the Museum and the Ferry Terminal (see figures A-11 through A- 13). Hatteras Village was hit very hard by Hurricane Isabel on September 19, 2003.

The storm washed away part of the island creating a new inlet into the Pamlico Sound. Some areas had the opposite problem by being partially buried in sand (see figure A-14 and A-15). The exposure of the site is excellent as well as offers beautiful views (see figure A-16) The Graveyard of the Atlantic Museum, which is nearing completion



Figure 19.
Map of Outer Banks locat-
ing Hatteras Village.

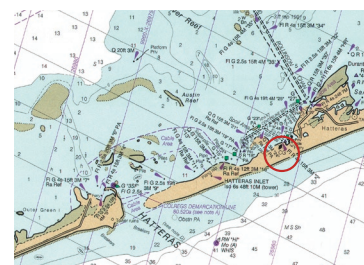


Figure 20.
Hatteras Village.

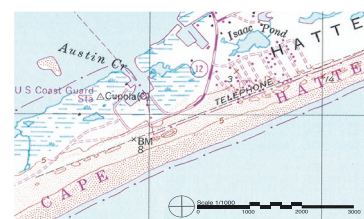


Figure 21.
Specific Site at Hatteras
Village.

is located adjacent to the site (see figure A-17 and A-18). Also, located at the south end of Hatteras is the Hatteras Inlet Ferry Terminal (see figure A-19 and A-20). This ferry takes travelers to Ocracoke Island located forty five minutes south of Hatteras. Due to the roughness of the wind, weather, and sea the ocean front location could be a problem.

Ocracoke

Ocracoke is the end of the road (see figure 22-23). It is located at the south end of Cape Hatteras National Seashore, thus the only way to continue is to take a two and a half hour toll ferry ride either back to the mainland or further south to smaller islands (see figures A-21 through A-27). Ocracoke was originally named “Pilot Town,” because the village was settled by pilots who guided ships through the inlet and shallow sound waters. A few historical buildings and monuments remain setting the tone for the small fishing town (see figures A-28). Newer houses have been added in the residential areas (see figure A-29).

The village partially encircles a small body of water called Silver Lake. Dredged to a depth of fourteen feet, the harbor has accommodated fish and shrimp trawlers, yachts, and military ships. The retail shops and restaurants as well as the inns and hotels have built up around the lake making it the main focus of the town.



Figure 22.
Map of Outer Banks
locating Ocracoke.



Figure 23.
Specific site at Ocracoke.

Ocracoke Lighthouse is located just south of the lake and is owned by the National Park Service and is still used by the U.S. Coast Guard (see figure A-29). The lighthouse stands seventy-five feet tall towering above everything on the island, which is limited to a thirty-five foot height. The calculated height differential between the ground level, the thirty-five foot building height, and the seventy-five foot lighthouse make distinct views possible from various locations along the lake (see figure A-31). The national seashore surrounds the town as does the ocean and sound. Just as the town is surrounded it too encircles the lake with retail bordering the shoreline and residential on its outer layer (see figures A-32 through A-34). The cozy setting offers great visibility all around the island as well as unique connections. The only connections to the island are the two ferries located at each end. The ferry from the north travels from Hatteras Village to the island giving the traveler a view of Hatteras Inlet. The ferry from the south travels from Ocracoke to the mainland and to smaller islands further south (see figure A-35).

Thesis Description

Oceanarium and research institute: saltwater aquarium used for displaying marine animals and plants often used as the centre for public entertainment and education and scientific study (Encyclopedia Britannica).

The purpose of this building type is to explore the issues of the individuals visual perceptions. In creating different spacial conditions that interact with the marine life and the site at different scales and locations a unique experience is created (see figure 24).

Conditions that may occur are:

- The individual observing the marine life and site.
- Individual observing people observing marine life and site.
- Observing without being seen.
- Observing with being seen.

Three scales of viewing

- Overall views
- Face to face views
- Up close study

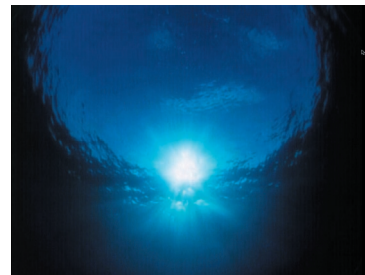
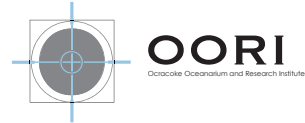


Figure 24.
Dolphins
(Film).

Three zones (see figure B-1)

- Public
- Private
- Semi-public

Points of viewing (see figure B-2):

- Visibility inward
- Visibility outward

The human eye is a powerful tool for understanding and analyzing information. To analyze and discover through the concept of focused attention can deliver information in a unique way to the observer.

The promenade (see figure B-3) carries the viewer from the public to the semi-public space to view each type of visibility and to see each type of scale of viewing. The viewer is exposed to different conditions that build on each other as they move through the building. As the viewer progresses through the building their knowledge increases and their exposure to the three scales of visibility is recognized.

Building Description (see appendix c)

The promenade to the building begins with the entrance of the ferry boat into Silver Lake. The viewer entering from this direction is aware that the town is focused around the lake and that most of its activity is centered here. As the

ferry turns to dock, OORI (Ocracoke Oceanarium and Research Institute) comes into view. The connection created between the lake and the sound is evident due to the long horizontal bar that crosses the site. The large skeletal like building that intersects with the horizontal bar creates a strong public face towards the town. The building appears to erode into the water relating the ecology of the environment to the building. It's relation to the site creates an edge to the town being accessible to both the sound and the lake.

Upon approaching the building all visitors engage the bar by circulating under it to enter the building in the public area that is free to everyone. This public space provides exhibits to view such as the large whale bone skeletal system located in the center of the building along with smaller exhibits found in the kiosk. Also located in this area is a small cafe, that allows visitors to relax and take in the beautiful scenery outside the building. If the viewer chooses to continue through the building they must pay before entering the semi-public area, which is the bar that was seen upon approach.

After entering the semi-public bar the visitor follows a specific promenade through the building that brings them in contact with the different scales of visibility. A deeper understanding of the marine life and the environmental issues

being researched is gained when the viewer is exposed to these multiple scales. The viewer is first introduced to the information in an auditorium that offers only inwardly focused views. The audience is given a presentation then, while they are still seated, a screen moves and a large fish tank is revealed as well as the pathway to their next destination. The visitors move from the auditorium to the fish tank where they are able to see back into the auditorium and up to the second floor through the fish tank. This encourages people watching and has a slightly voyeuristic approach.

The visitor then moves into the semi-public outwardly viewing area. This area offers an overall view of the island and helps the viewer locate themselves on the site. Specific framed views are located on the south side of the building creating snapshots of the scenery. This area also serves as a transition space between the two inwardly focused spaces. The next area along the promenade is darker and intimate offering a face to face view into smaller fish tanks. The views here are even more limited than before offering only a glimpse out through the slits in the walls. The slits as well as the ramps down indicates to the visitor that they are moving down into the water in the sound. Upon reaching the bottom the lowered ceiling forces the visitor out to the end submerging them completely underwater. Here the once observer is now the observed standing below the wa-

ter level being able to study the contents more thoroughly. The viewer then circulates up the ramp and is face to face with the water line. As they circulate up again they are above the water level and gain an overall view of the water being able to see out into the sound and down below.

Located above the visitors is the research area. This area is connected by the opening that is found in the middle of the space and allows the researchers to view the visitors, yet offers them privacy to complete their work. The researchers also have views out into the sound allowing them to observed the conditions of their environment and the fish.

The visitor crosses over the smaller fish tanks to get back to the final presentation. This event offers the visitor a chance to interact with the animals and see them in action with their trainer. The tank stands five feet high and has a ledge around the top to accommodate the trainers.

The final destination takes the viewer back through the exhibit space allowing them to view the area down below. The viewer then becomes aware that as they entered the building they were possibly being watched from above. This could present the visitor with an uneasy feeling and create some ethical questions of should this type of viewing without permission be allowed.

After viewing the exhibit area for the final time the visitor then moves to the end of the bar. This completes the tour with an overall view of the sound and the lighthouse standing in the distance. From here the visitor moves to the free standing wall with the elevator and stairs to move back down to the main area so that they can exit the building.

The private space located on the back of the building next to the sound is programmed with living quarters, cafeterias, and classrooms to accommodate the researchers and or school children that plan on attending the facility. This offers another means of income to the town when the winter months roll around and the tourist are gone.

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APPENDICES

APPENDIX A
SITE SELECTION

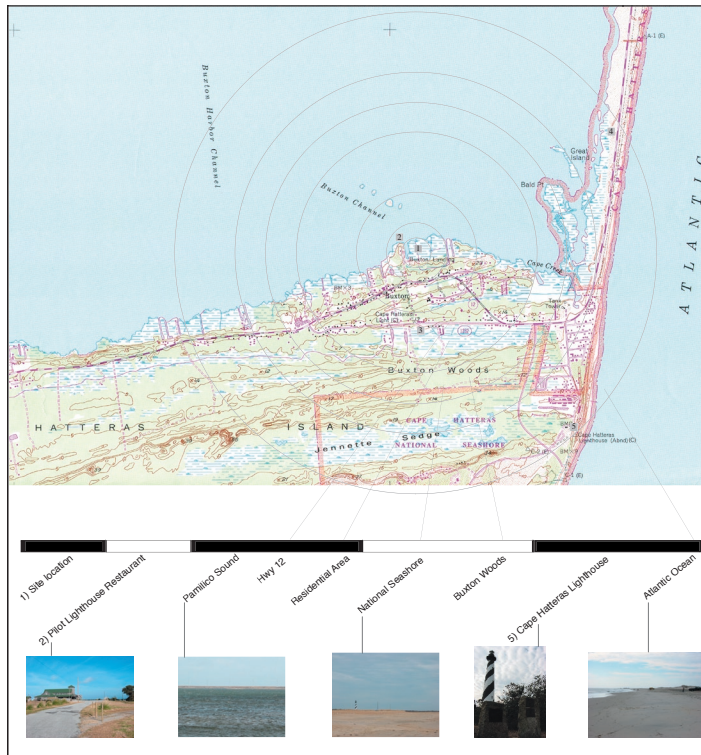


Figure A-1. Buxton Site Analysis.



Figure A-2. 1) Northeast View of Site.



Figure A-3. View from Entrance Road Looking East.



Figure A-4.
Looking West.



Figure A-5.
Surrounding Area.



Figure A-6.
Residential Area.



Figure A-7.
3) Historic Buxton House.



Figure A-8.
4) Southeast View of Site
from Highway Twelve.



Figure A-9.
2) Pilot Lighthouse
Restaurant.

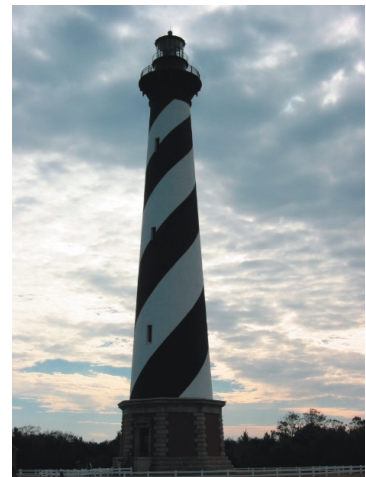


Figure A-10.
5) Cape Hatteras
Lighthouse.

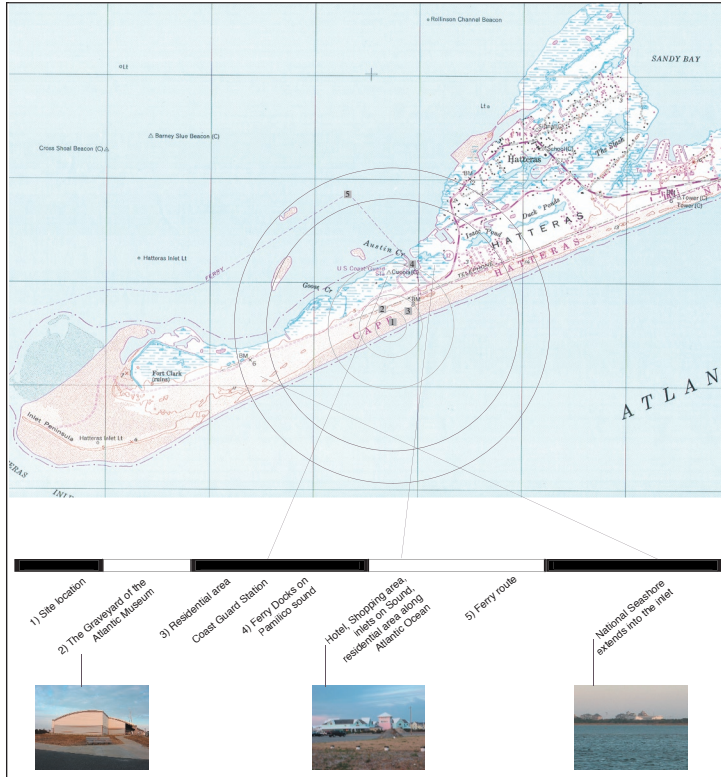


Figure A-11. Hatteras Site Analysis.

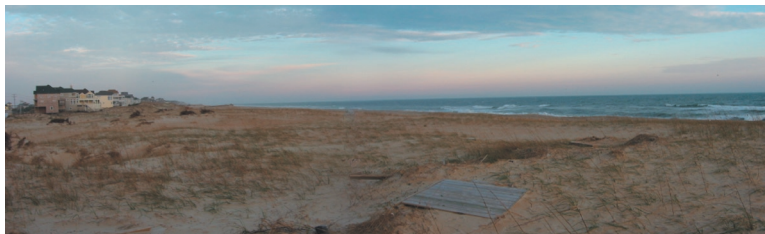


Figure A-12. 1) Southeast View.

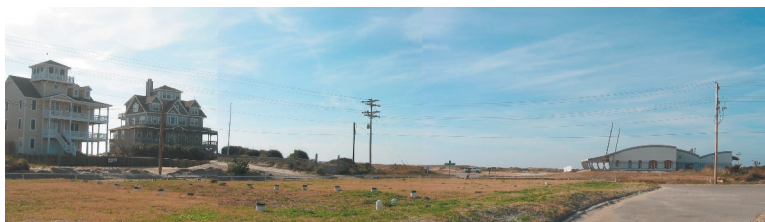


Figure A-13. Southwest View.



Figure A-14.
Observation Deck.



Figure A-15.
Northeast View.

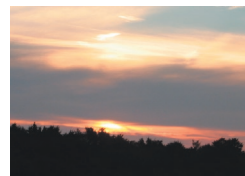


Figure A-16.
Sunset at Hatteras.



Figure A-17.
2) The Graveyard of
the Atlantic Museum.



Figure A-18.
3) East View from Site.



Figure A-19.
4) View of Site from Ferry
Boat.



Figure A-20.
5) View of Ferry Docks
from Ferry.

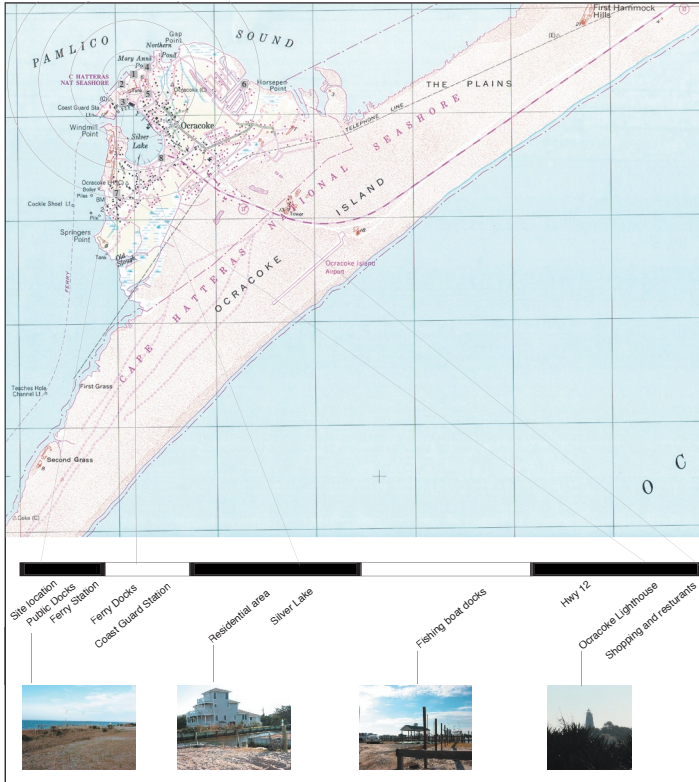


Figure A-21. Ocracoke Site Analysis.



Figure A-27.
4) Jetties.



Figure A-28.
5) Ocracoke Museum.



Figure A-22. 1) Southwest View from Public Docks.



Figure A-29.
6) Inlets.



Figure A-23.
2) DOT Ferry Station.



Figure A-24.
3) Coast Guard Station.



Figure A-25.
Memorial to Fort Ocracoke.

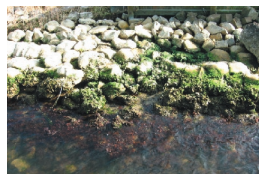


Figure A-26.
Estuary.



Figure A-30.
Ocracoke Lighthouse.



Figure A-31. Visibility Diagram.

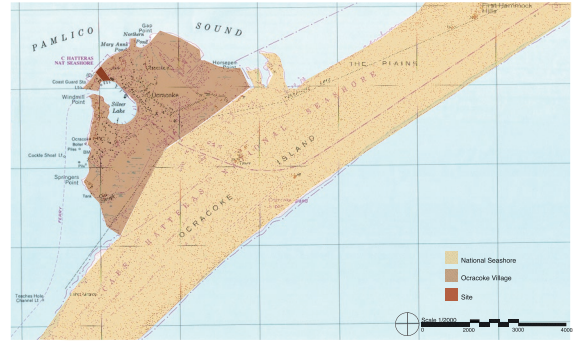


Figure A-33. Zoning.



Figure A-32.
Residential / Commercial Areas.



Figure A-34. Three Scales of Water.

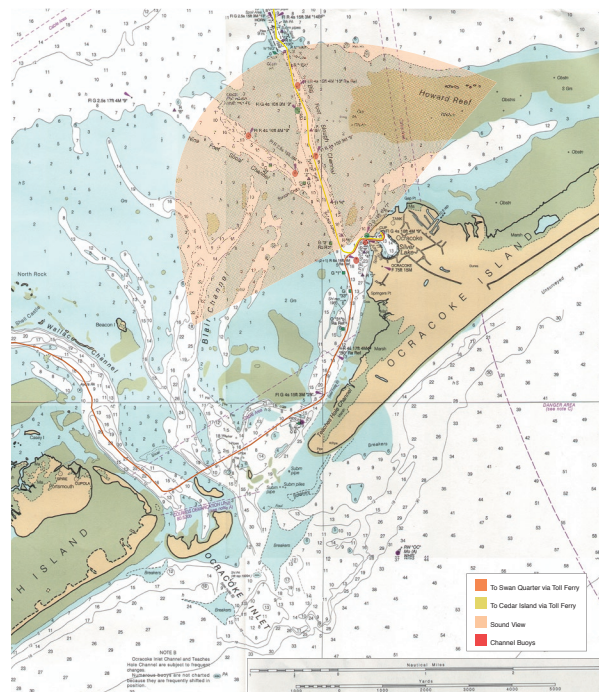


Figure A-35.
Ferry Route and Outward Visibiltiy.

APPENDIX B
PROGRAM ANALYSIS

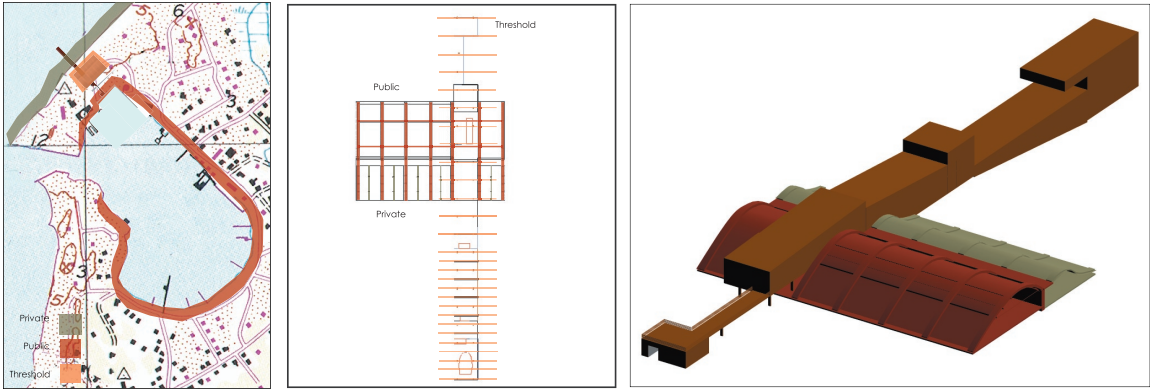


Figure B-1.
Public / Private Zones.

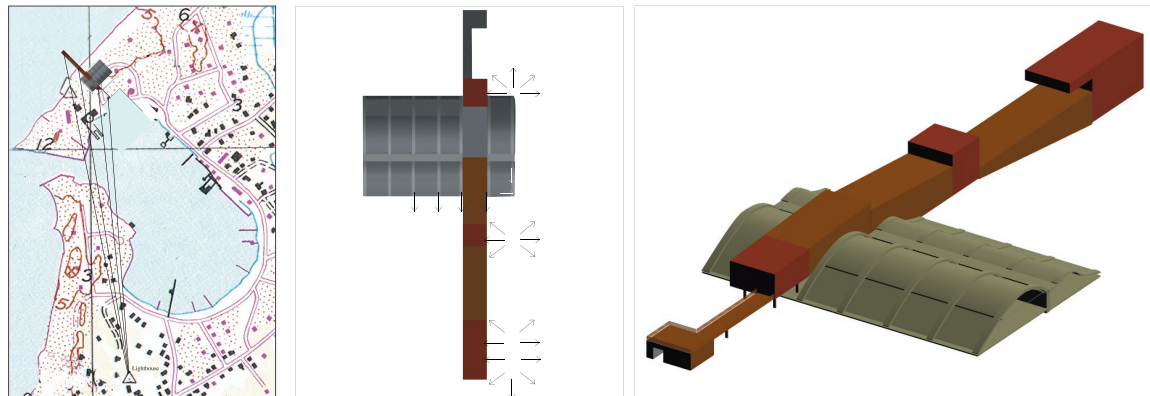


Figure B-2.
Visibility Diagrams.

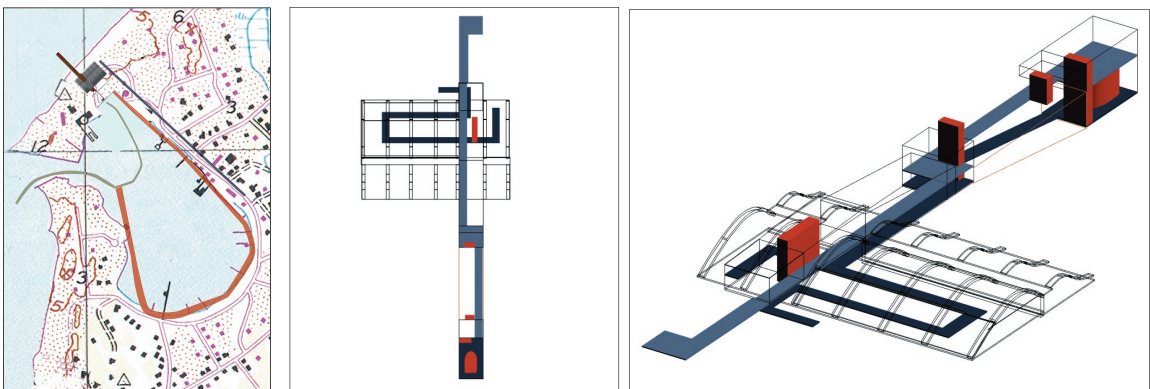


Figure B-3.
Promenade.

APPENDIX C
ARCHITECTURAL DRAWINGS

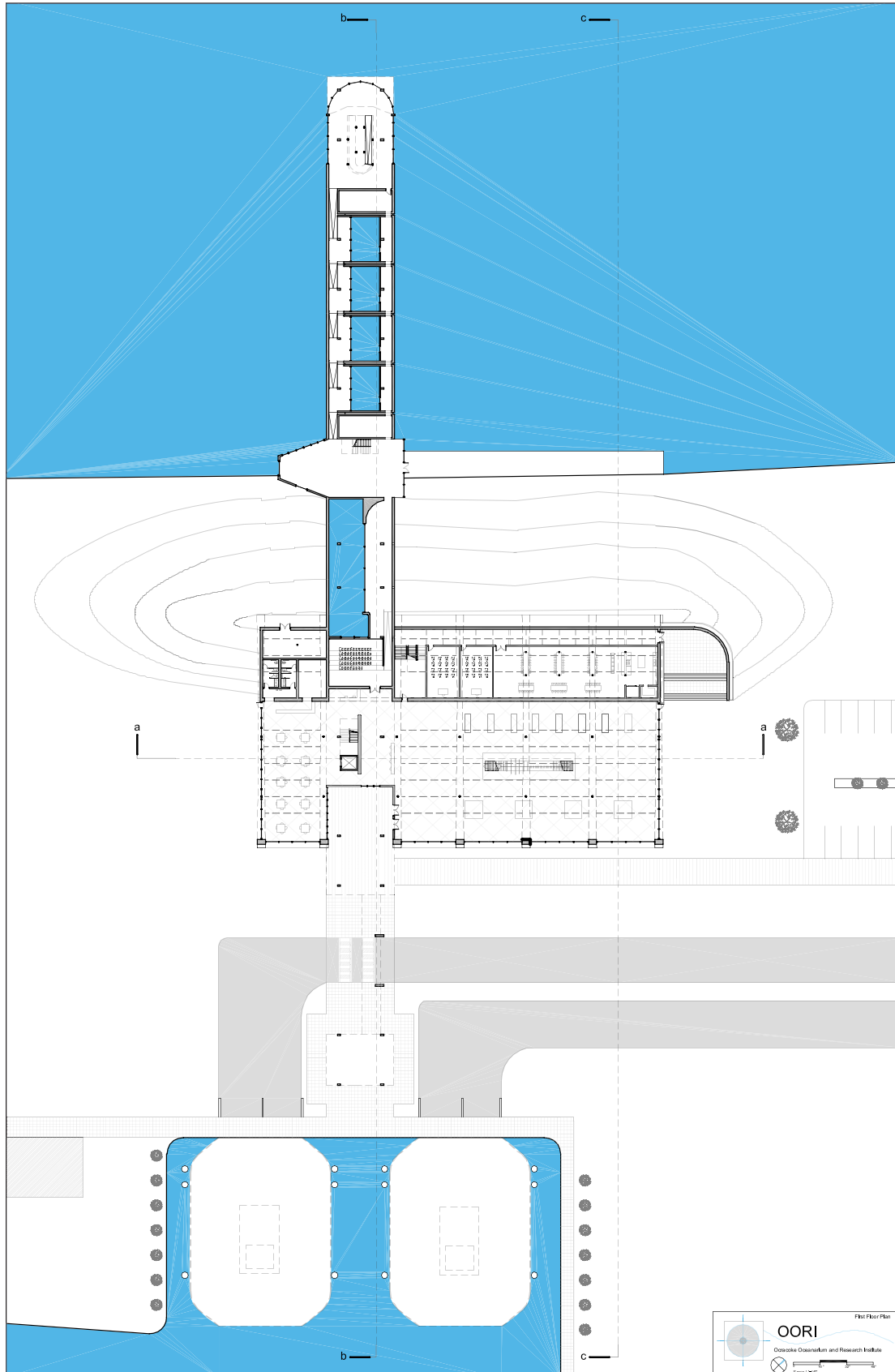


Figure C-1. First Floor Plan.

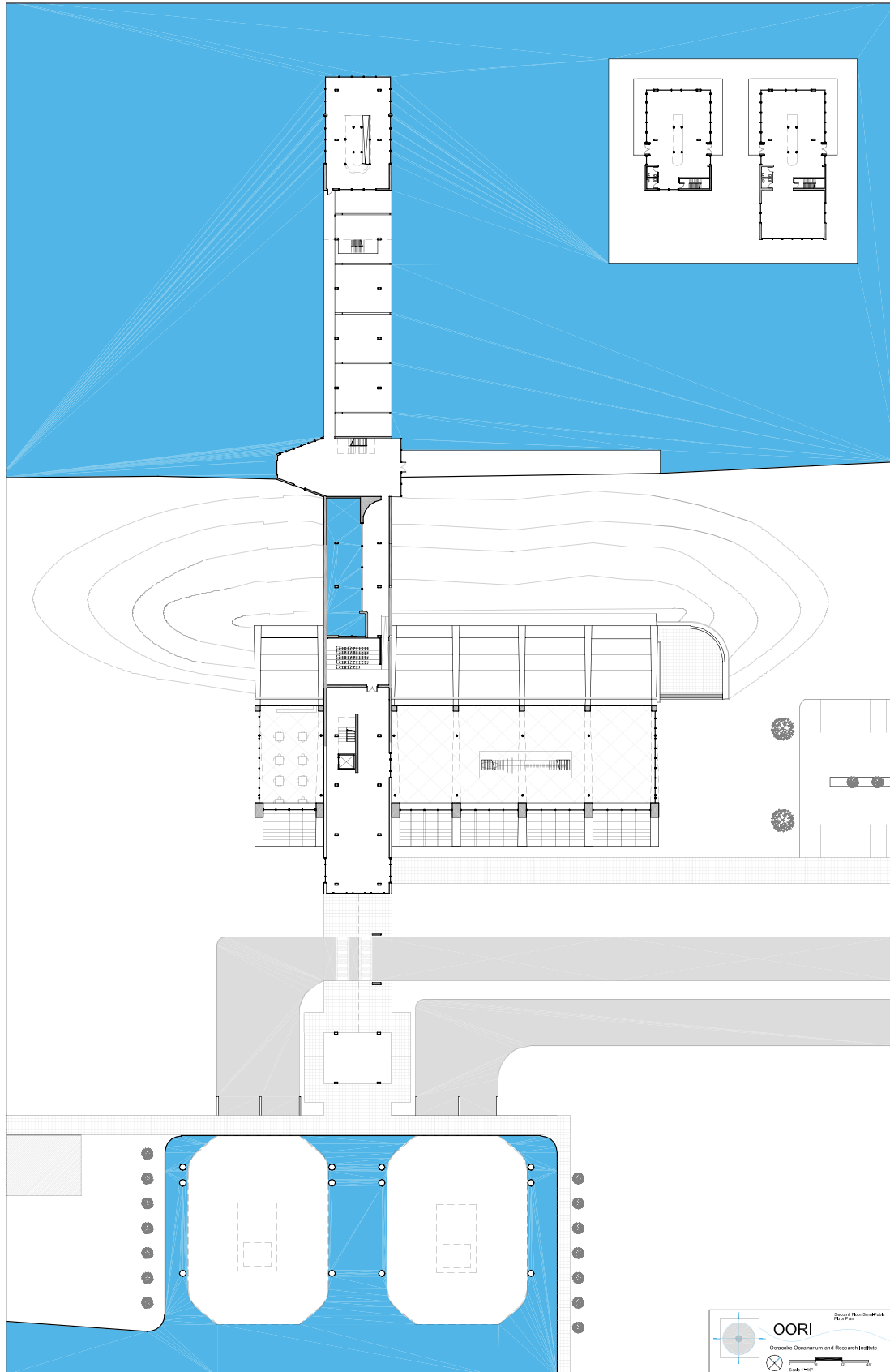


Figure C-2. A)Second Floor Plan.

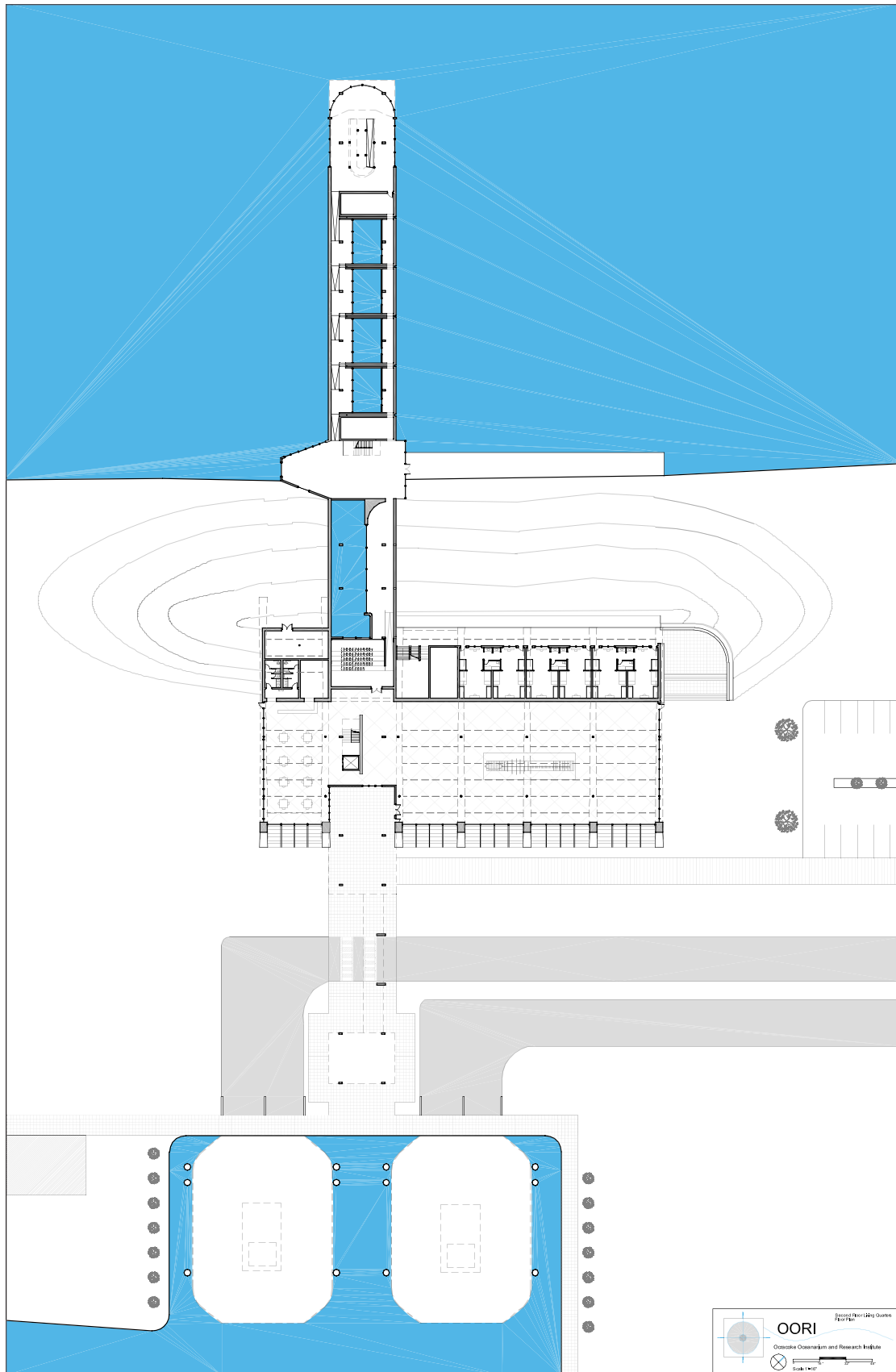


Figure C-3. B) Second Floor Plan.

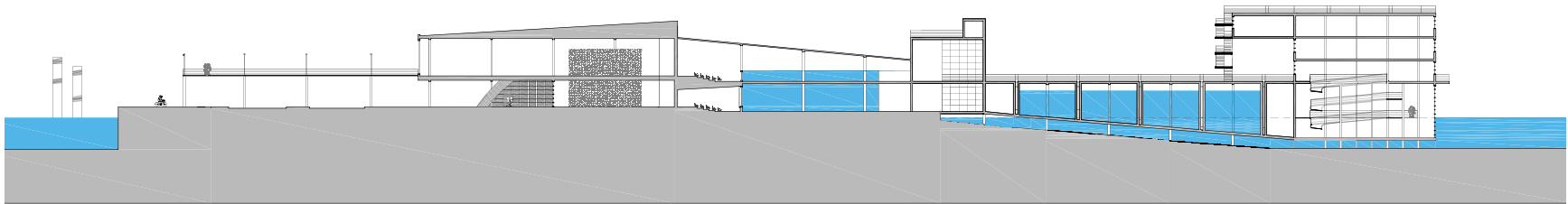


Figure C-4. Section B-B.

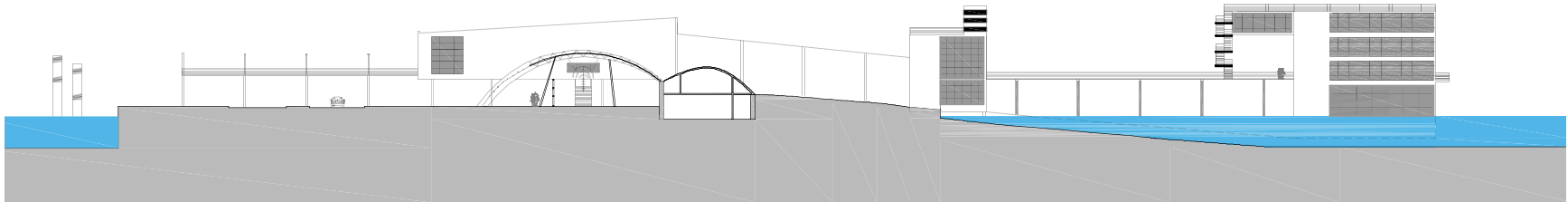


Figure C-5. Section C-C.

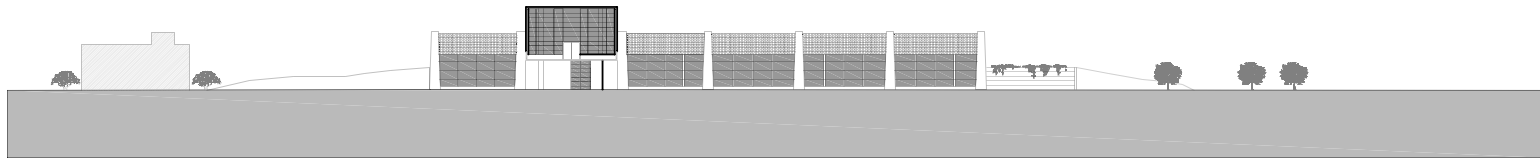


Figure C-6. South Elevation.

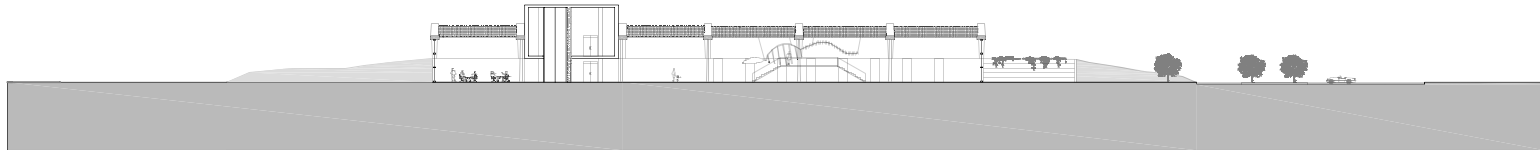


Figure C-7. Section A-A.

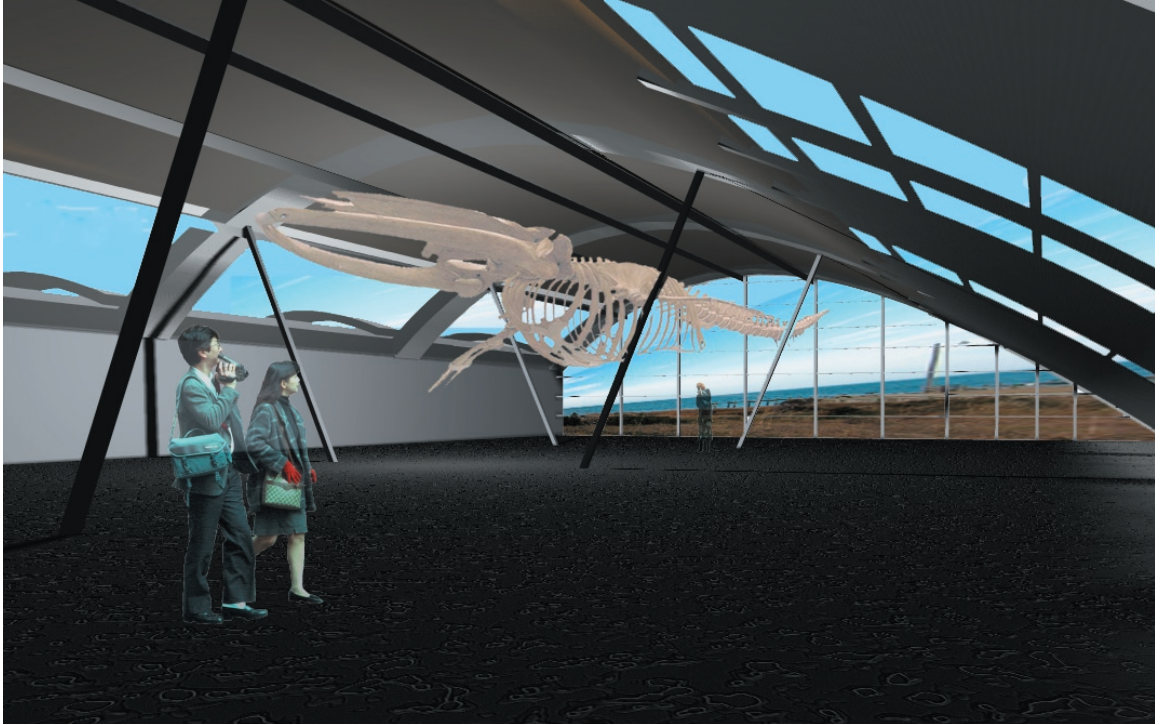


Figure C-8. Exhibit Space.

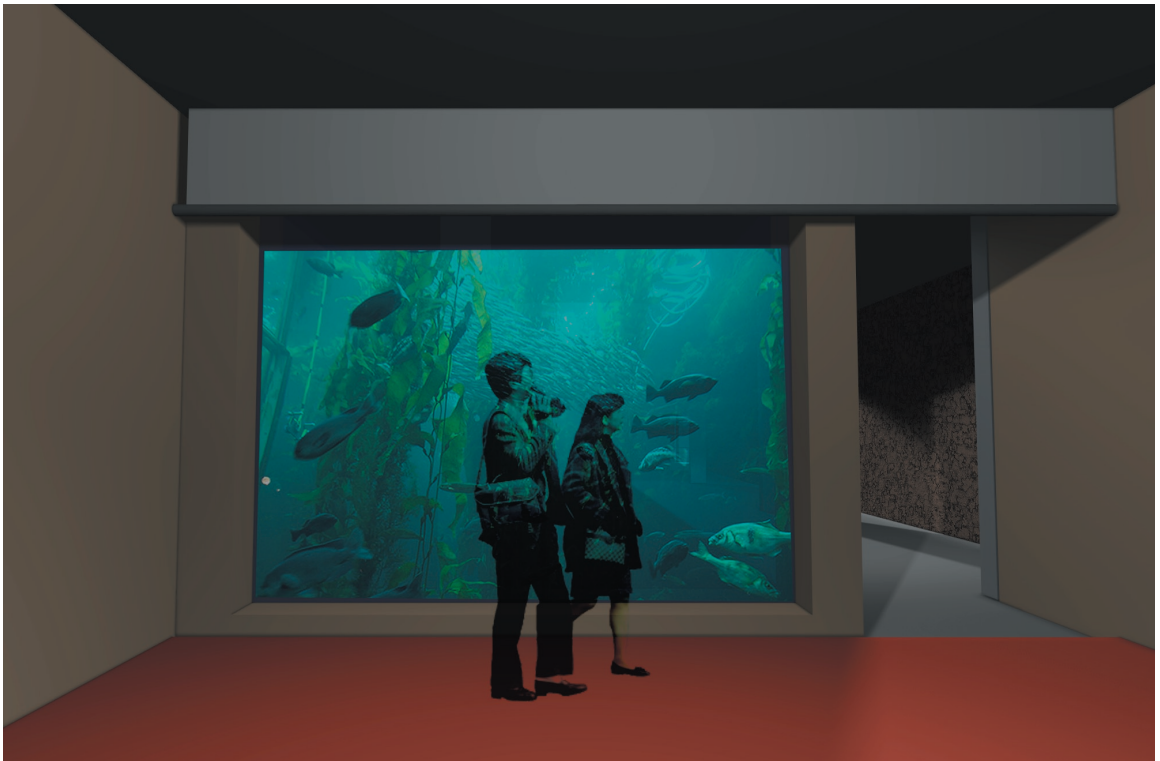


Figure C-9. Auditorium.

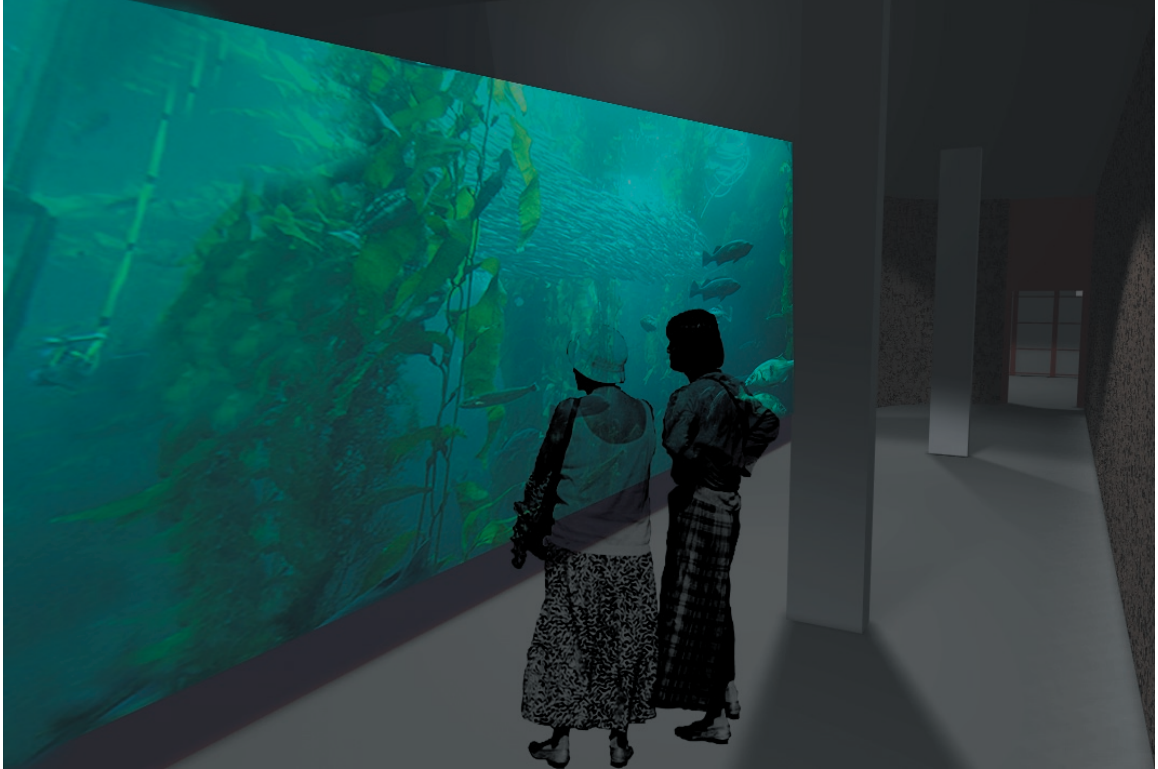


Figure C-10. Large Fish Tank.

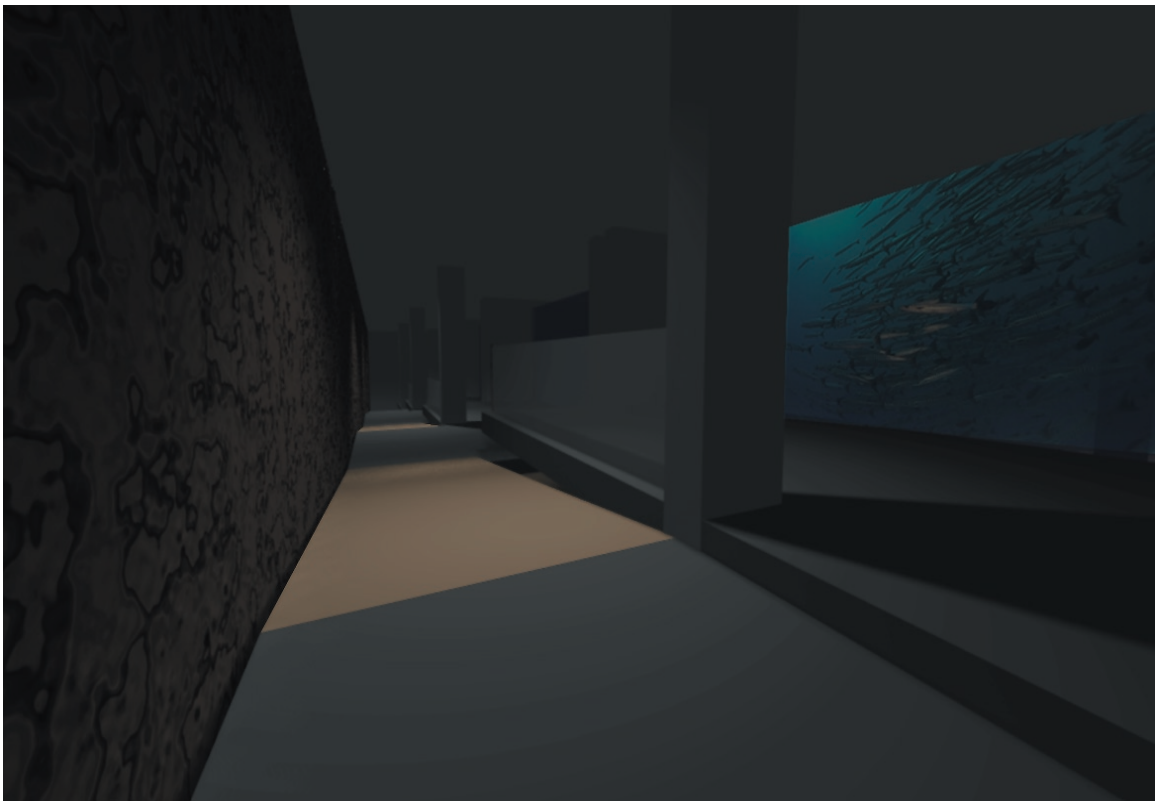


Figure C-11. Small Fish Tank.

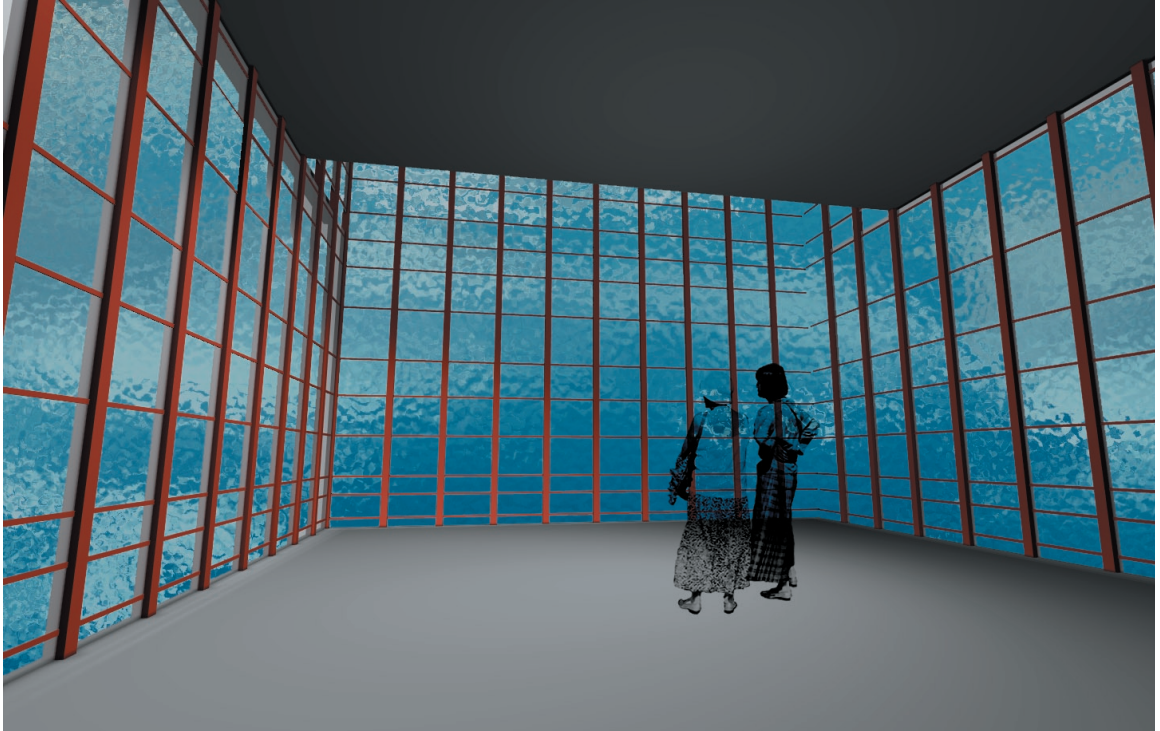


Figure C-12. Underwater.

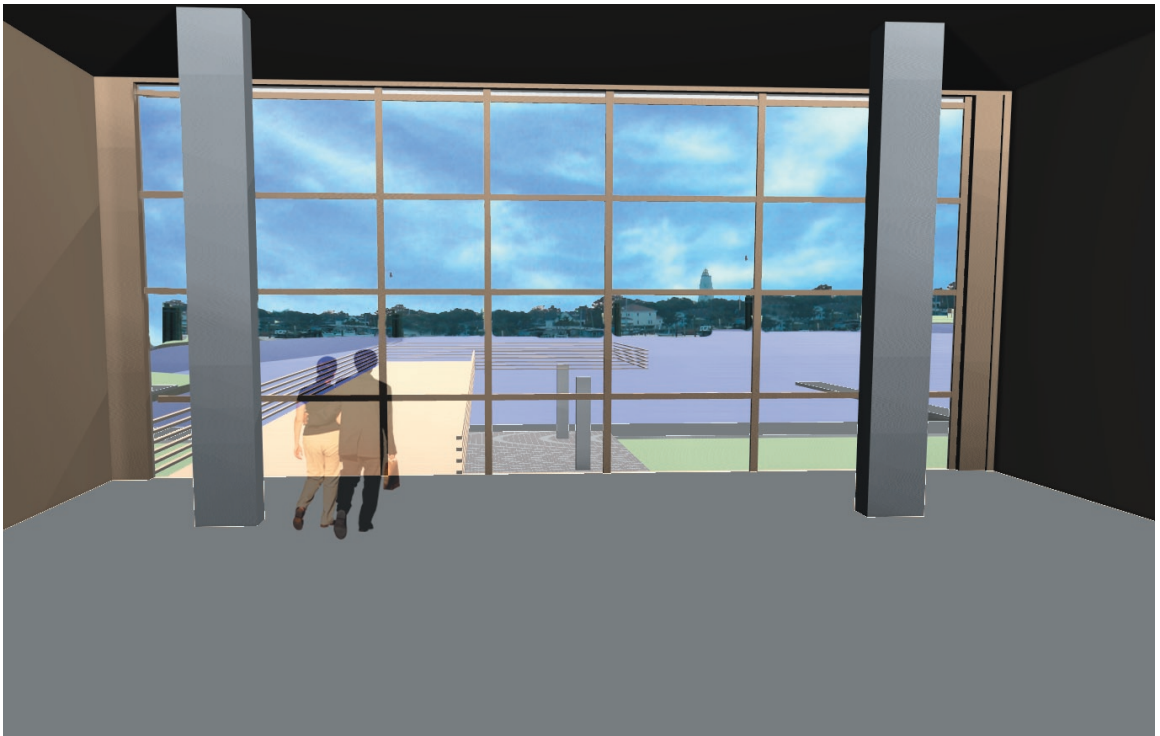


Figure C-13. End.

VITA

Sabrina Ann Russell was born in Gadsden, AL on August 26, 1977. She was raised in rural Piedmont, AL and went to elementary, junior high and high school at Piedmont City Schools. She graduated from Piedmont High School in 1995. From there, she went to Jacksonville State University in Jacksonville, AL and received a Bachelor of Science in Merchandising, with a minor in Art, in 1999.

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