RECLAIMING THE LAKEFRONT: Pontchartrain Beach and Lakeshore Park

New Orleans, LA

By: Brittany Algero
I would like to acknowledge....

...the God who gives me strength and encouragement

...my family who love and support me in all of my endeavors

...my parents and grandparents who always encourage me to be the very best version of myself, to make education a priority in my life, and who instilled in me a love for the culture of New Orleans

...my studio friends, who have become more like family than classmates, and who made my time in college the very best years of my life

...my capstone advisor, Lester Linscott, who dedicated his time to making this project a success

...and the city of New Orleans, which still holds my heart.
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chapter one:
an introduction
Beginning in the early 1800s, residents of New Orleans would leave the city in the summer time and flock to the shores of Lake Pontchartrain to take advantage of the cool lake breezes and outdoor recreation. As time passed and technology improved, a railroad was built to connect the city to the lake and it became one of the premier spots in the city for outdoor entertainment and music. People also began to build weekend homes, called camps, on stilts in the water and these became an iconic image for the lakefront. In the 1940’s the area gained recognition as the “Coney Island of the South,” with amusement parks and sand beaches. Over time, however, improvement projects on site and in the surrounding area, such as large scale dredging projects, began to degrade the water quality, so much so that in the 1980s, the amusement park closed and the government declared the lake unsuitable for recreation. Since then, through the efforts of government and non-profit organizations, the water quality now meets federal regulations for swimming and fishing. A local college has taken over the land formally occupied by the amusement park and the rest of the land has been left open to the public as a park. However, with no programmed space and no advertising, the park remains severely underutilized, especially in a city that denies the public access to bodies of water with levees and dikes.
goals and objectives

**Goal 1:** To create a recreation and civic hub for the city of New Orleans centered on the lake and the opportunities it offers.

  a. To design programmed activity spaces that act as magnets to attract people to the site from around the city
  b. To establish a park that provides the full gamut of activities including active and passive, team and solitary, and land and water based recreation
  c. To provide connections to existing and proposed open space or green infrastructure in the surrounding context

**Goal 2:** To educate visitors and local residents about the history of the site and the significance of the events that took place on it.

  a. To design visual communication tools and signage throughout the site, preferably in a linear fashion

**Goal 3:** To promote the continued improvements made to the water quality of the lake.

  a. To educate the general public about the importance of watershed and water quality management through visual storm water management strategies
  b. To manage the stormwater runoff on the site in a visual and meaningful way

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**project intent**

**Why this project?**

**Project Scope**

This site represents the marriage of my favorite aspects of landscape architecture. It encompasses natural recreation, public open space, large scale planning, natural and historical sensitivity, and waterfront design.

**Project Potential**

The site has unlimited potential. It is currently completely underutilized due to lack of programmed recreation and advertising. This park has been in the past and has the potential to become one of the premier public parks in the region.

**Personal Interest**

Having been raised in New Orleans, my parents and grandparents have fond memories of Pontchartrain Beach and I believe that it would have had a profound impact on my childhood had the area been operational at the time. In summation, the possibility of working with a project that is so versatile and underutilized and my desire to give back to the city that gave me so much, compelled me to choose this project.
chapter two: a history
Louis Armstrong records "West End Blues" along with several other jazz classics.

1920s
People build "camps" at Milneburg to use as family weekend houses on the water.

1920s
"Spanish Fort" known nationally as the "Coney Island of the South".

1900s
Harriett Beecher Stowe wrote about Lake Pontchartrain in "Uncle Tom's Cabin."

1852
The New Canal Basin extension from New Orleans to West End is opened.

1838
A hurricane killed 2,000 people in New Orleans.

1832
Pontchartrain Railroad was built which connected New Orleans to Milneburg along Elysian Fields. The train was called the "Smokey Mary."

1701
The French establish Fort St. Jean on Bayou St. John to protect New Orleans from an attack from the lake.

1699
Forts Pike and Macomb are constructed.

1818
Fort Pike and Macomb are decommisioned and is known as "Spanish Fort" to locals.

1823
The fort on Bayou St. John is decommisioned and is known as "Spanish Fort" to locals.

1830 The New Basin Canal is constructed from New Orleans to West End. Irish laborers were used and thousands died of disease during its construction and were buried where they fell.

1795
Gex. Coronellet begins construction of a canal to connect the lake to Bayou St. John and the Mississippi River.

1826
Lincoln Beach, a African American beach, is built.

1926
Orleans Levee Board begins construction to regain land on the lakefront.

1928
Pontchartrain Beach built opposite Spanish Fort on Bayou St. John.

1932
Pontchartrain light house replaced moved inland.

1893
A hurricane killed 2,000 people in New Orleans.

1920s
"Spanish Fort" known nationally as the "Coney Island of the South".

1938
The seawall on Lake Pontchartrain opened.

1921
People built "camps" at Milneburg to use as family weekend houses on the water.

1926
Spanish Fort Amusement Center closes.

1932
Pontchartrain Railroad was built which connected New Orleans to Milneburg along Elysian Fields. The train was called the "Smokey Mary."

1700
1800
1850
1900
1926
1937
1938
1930s
1920s
1926
1826
1832
1893
1852
1838
1818
1830
1855
1823
1832
1859
1869
1826
1852
“...where winding paths ran down to the very shores of the lake, whose silver sheen of water lay there, rising and falling in the sunbeams,—a picture never for an hour the same, yet every hour more beautiful...It is now one of those intensely golden sunsets which kindles the whole horizon into one blaze of glory, and makes the water another sky. The lake lay in rosy or golden streaks, save where the white-winged vessels glided hither and thither, like so many spirits, and little golden stars twinkled through the glow, and looked down at themselves as they trembled in the water.”

—an excerpt on Lake Pontchartrain from “Uncle Tom’s Cabin” by Harriet Beecher Stowe, 1852
surrounding landuse and context

Landuse Summary:
The site is predominately surrounded by single family detached housing.

The large highways, shown on the map, are mostly to the south of the project site. There is not much high density traffic in the area.

The Industrial Canal, which connects Lake Pontchartrain to the Mississippi River and downtown New Orleans, lies just east of the site.

Notable Land Uses:

City Park
This is the largest urban park in the southeast at 1300 acres. The southernmost portion of the park is dedicated to public use while the northern portion is mostly golf courses.

University of New Orleans Technology Campus
This is a college campus that is built on property leased from the Orleans Levee Board.

Industrial Site
There is a small industrial site just east of the project boundary. This industrial site is just west of the New Orleans Lakefront Airport (not shown). This is an historic airport currently used for small aircraft.

site context

Notable Land Uses:

West End
This is a mixed use area. It features a marina and house boats with a park, the New Orleans Yacht Club, and a Coast Guard facility.

City Park
This is the largest urban park in the southeast at 1300 acres. The southernmost portion of the park is dedicated to public use while the northern portion is mostly golf courses.

University of New Orleans Technology Campus
This is a college campus that is built on property leased from the Orleans Levee Board.

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There is a small industrial site just east of the project boundary. This industrial site is just west of the New Orleans Lakefront Airport (not shown). This is an historic airport currently used for small aircraft.
existing sections

- 90' Levee
- 210' Open Space
- 30' Parking
- 80' picnic shelter and garden
- 40' Lakeshore Drive
- 80' Open Space and Seawall

48' Lakeshore Drive over the levee (2 lanes in each direction)
The lake is the main focus of the park and runs along the northern edge of the site. It features a seawall along the entire length of the project, approximately 4 miles. The lakeshore intersects the site at the confluence of the 17th Street Canal (New Canal Basin), Orleans Ave. Canal, Bayou St. John, and the London Ave Canal, respectively from west to east. The water quality has recently been improved to meet Federal swimming and fishing regulations after years of dredging degraded the water quality.
PROJECT BOUNDARY
The project boundary consists of the open space between the lake and the residential neighborhood to the south. The park is about 240 acres and consists of several large trees and a two picnic structures. It is divided by canals into 4 major sections and then further divided by the roadway system.

Example of a small picnic structure and open space.

Typical existing vegetation on site.

Open space near Pontchartrain Beach.

POTENTIAL PROJECT EXTENSIONS
There are several sites, marked in yellow, that are adjacent to the project area and could be considered in the final design. These areas are open space areas that are run along the canals and bayous. These areas are directly connect to the existing project boundary and are currently designated as city open space.

An example of some of the existing, mature vegetation near Spanish Fort.

The bridge at Bayou St. John and the concrete levee.
There is one road runs the length of the project area, Lakeshore Drive. Its relationship with the lake edge and the levee varies. It weaves its way through the site, up and over the levee at some points and along the water’s edge at others. It is a two way street with two lanes of traffic in each direction. There is a short area where the road leaves the project area and enters a residential neighborhood adjacent to the site. It returns at the Bayou St. John bridge. Four main roads connect the site to the rest of the city: West End Blvd, Canal Blvd, Paris Ave, and Elysian Fields.

The levee runs the entire length of the project and usually serves as the southern boundary of the project area. It ranges in height from 14-17 feet. Aesthetically, it is very simple, appearing as a grassy mound, except in the Pontchartrain Beach area, where it is much more concrete and structural. When it intersects the canals, it follows along either side of the canal edge and eventually forms a check dam across the canal. It blocks the noise and view from the city with the exception of the second stories of the houses immediately adjacent to it. People commonly walk along the top of the levee.
site analysis

Areas of Historical Significance

Major Points of Ingress and Egress

Canals/Bayous

Existing Structures

Lakeshore Drive

Levee

West End Historic Marina

Picnic Shelter

Canal Blvd.

Canal

Oliver St. Ave.

Fountain

Picnic Shelter

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West End Blvd.

Areas outside of project area

University of New Orleans Technology Campus

Elysian Fields

Canal Blvd.

Canal

Levee

Canals/Bayous

Existing Structures

Lakeshore Drive

Major Points of Ingress and Egress

-35-

Historic Spanish Fort

Bayou St. John

Pontchartrain Beach

Canal Blvd.

London Ave.

Canal

Paris Ave.

Areas of Historical Significance

Existing Structures

Levee

Major Points of Ingress and Egress

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chapter four:

site synthesis
The seawall is a historic piece of infrastructure on the site and invites people to engage the water. It also makes certain water based activities such as crabbing and fishing easier. The four lane, two way road offers the chance to build upon the existing road infrastructure. Also, it’s winding, organic path could inspire a flowing design. The lack of any programmed space offers a clean slate to work with as far as recreation space is concerned. There is almost no limits in this respect.

The lake is an underutilized resource and has the potential to become the center of recreation for the city. The University of New Orleans offers a particular user group to design for. The surrounding land uses consists mainly of mid to upper class, single family homes. This provides a plethora of potential users in close proximity to the site. The park is very important to many people in New Orleans and it gives this project meaning. It also offers an opportunity to design with a historical perspective.

The beach offers the opportunity to provide a public swimming area, which is a real benefit in the hot, southern climate. Also, it affords the ability return the site to a former, historic use. The levee provides the dual function of blocking out the noise of the city while also protecting the surrounding residential communities from any noise that may come from events at the park. It also visually contains the site.

The parking is very sporatic and often disjonted with Lakeshore Drive. The parking will need to be improved upon in the design. The canals break up the large scale of the project in a logical, historical manner. It also brings the waterfront into the city and does not limit water access to only the edge of the lake. There are a number of large specimen trees, including oaks and palms that give the site and older, more mature feeling.

The area is extremely valuable to this project and blocks the view of the beach from the city. It’s not the best use of the space but will most likely remain due to the permanence of its buildings. Because the surrounding land uses are not varied, it offers little outside of the park to entice visitor.

The surrounding land uses consists mainly of mid to upper class, single family homes. This provides a plethora of potential users in close proximity to the site. Because this site is so historical, the design should be sensitive to the events that took place on the site.

Because this site is so historical, the design should be sensitive to the events that took place on the site.
program analysis

Recreational:
- Open Space
- Parking Pons
- Commercial/Restaurants
- Picnic Space
- Community Center
- Amphitheater
- Beach

Historical:
- Retain Existing Structures
- Scenic Drive with Signage
- Use Historic Architectural Styles
- Focus on Elysian Fields
- Entrance of Pontchartrain Beach
- Interpretive Signage

Hydrological:
- Stormwater Ponds
- Retain Stormwater on Site
- Visual Connection to the lake

Recreational & Historical:
- Information Center
- Museum

Historical & Hydrological:
- Museum
- Signage along Bayou St. John

Recreational, Historical & Hydrological:
- Kayak and Canoe Rentals
- Trails along Canals
- Maintain Seawall

Open Space
Fishing Ponds
Commercial/Restaurants
Picnic Space
Community Center
Amphitheater
Beach

Information Center
Museum
Signage along Bayou St. John

Kayak and Canoe Rentals
Trails along Canals
Maintain Seawall

Focus on Elysian Fields
Entrance of Pontchartrain Beach
Interpretive Signage
site synthesis

- Lakeshore Drive—opportunity to take advantage of existing infrastructure
- Open Space that provides recreation opportunities
- Opportunity to incorporate commercial activities
- Opportunity to maintain existing structure
- Opportunity to formalize entrance
- Canals and Bayou offer the recreation and interpretive opportunities
- Opportunity to take advantage of lake views—only area on project site where the lake and road are behind the open space
- Opportunity to formalize entrance
- Opportunity to take advantage of views
- Opportunity to restore the historic beach to its former prominence
- Canals and Bayou offer the recreation and interpretive opportunities
- Opportunity to form a defining entrance
- Open Space that provides recreation opportunities
- Opportunity to incorporate commercial activities
- Opportunity to connect these main elements: Recreational, Historical, and Hydrological
- Historic area that needs to be emphasized
- Opportunity to create a defining entrance
- Historic Lighthouse—opportunity to create a defining entrance
- Spanish Fort—opportunity to formalize entrance
- Elysian Fields
- Pontchartrain Beach

Link the park space along the canal to the lake

Ideal for commercial center

Opportunity to take advantage of existing infrastructure

Reuse building

Ideal for commercial center—need to create urban context

Opportunity to formalize entrance

Existing Fountain—need to create urban context

Opportunity to maintain existing structure
chapter five:

concept
The most significant historic sites in the project boundary are Pontchatrain Beach to the east, Bayou St. John and Spanish Fort in the center, and West End on the western edge of the project.

The most important hydrologic elements on the site are the canals, particularly their confluence with Lake Pontchartrain.

Recreation is a major component of this project and due to the project’s form, the most important sites for recreation are where there is a large area that could be dedicated to recreation. Also, this concept seeks to take advantage of the canals as well.

Two Approaches to Concept Development:

Nodal Frequency:
This concept is focused on the frequency of nodal opportunities based on the three elements identified in the goals and objectives for this project: hydrology, history, and recreation. Where these opportunities overlap, nodes will be created that emphasize the overlapping elements.

Motion vs. Stationary:
This concept is developed based on the idea that some activities will be stationary, meaning that users will visit the site to use a particular program element, such as a community center. Other elements are motion based, meaning that users will visit multiple areas of the park in one visit, such as a bike trail. The main goal of this concept is to use the motion based elements as connective tissue that links the stationary activities together.

concept approach

Two Approaches to Concept Development:

Nodal Frequency:

Motion vs. Stationary:

Nodal Frequency:
Motion vs Stationary:

Initial Concepts:
- Major civic space, provides a reason for people to visit the site
- Stationary design: based on program elements designed to bring people to an individual location
- Motion based design: design based on fluidity and circulation as an experience

Commercial Hub: Small scale shops and restaurants, social recreation opportunities, possible connection to West End

Recreation Hub: Nature based recreation facilities, equipment rentals, etc.

Historic Beach: Formal entrance, restored beach

When the two concepts are combined, they identify, for the most part, the same areas of concentration, or nodes.

Composite Concept:

Final Concepts:

This is the final concept, incorporating elements from both initial concepts

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The concept for form is based on the following factors:

The existing edge shape and roadway: Lakeshore Drive and the existing lake edge is curvilinear in shape and together they form spaces that vary in length and width.

The goal of the project to reconnect the user to natural processes: By using natural shapes, the design form creates natural looking spaces instead of rectilinear spaces.

The juxtaposition of the unnatural lake edge with organic forms: The lake edge, currently a concrete seawall, and
chapter six: masterplan
overall site masterplan
The commercial core utilizes historic dock forms and architecture to create a waterfront restaurant and commercial center that relates to the adjacent mixed-use area, West End. The surface water from the road and parking area is collected in a stormwater channel along the green space next to the promenade.
With spaces like an amphitheater, picnic areas, and a museum, the community center area seeks to create programmed, community-based recreation space. It also focuses on stormwater runoff, collecting all of the water from this smaller scale site into a small wetland.
The entrance of Pontchartrain Beach is a shared space with the University of New Orleans Technology Campus. The design diminishes the importance of the 17’ levee, which runs between the entrance and the beach, utilizing earth mounds surrounding a public plaza and with grand staircase that transverses the levee.
additional areas of focus

Pedestrian Promenade: The proposed waterfront promenade extends the entire length of the project, from the proposed commercial core to Pontchartrain Beach.

Pedestrian Bridge: Located where the park intersects the canals, the proposed pedestrian bridges separates pedestrian traffic from vehicular traffic.

Observation Tower
chapter seven: interpretation
interpretation ideas

Historic Architecture/Railings
The restaurant and boardwalk area design incorporates traditional architecture and features, such as the historical railings, pictured to the left.

Promenade Timeline
Between the museum and park plaza, the proposed interpretation includes a site timeline along the promenade. The timeline features architectural elements as well as places to stop and gather groups together, like school children. To the left is the cultural trail in Indianapolis, IN.

Spanish Fort
The Spanish Fort is on the National Register of Historic Places. Interpretation for this area includes a timeline and explanation of the historical relevance of the fort and what activities took place on the site.

Observation Tower
The observation tower is surrounded by a circular illustration of the various ecological communities in southeastern Louisiana.

Lakeshore Drive Scenic Parkway
The proposed scenic parkway along Lakeshore Drive would include stops at the major interpretive structures, such as the observation tower, museum, and information center. It would also have delineated paving to separate uses, such as biking, running, and motor traffic lanes. Shown above is the paving delineations along the Indianapolis Cultural Trail.

Information Center
The purpose of the Information Center is to orient visitors to the site utilizing a site masterplan and provide additional educational materials.
chapter eight: conclusion
This project focused on the visual education of history and hydrology.

It emphasised visitor experience at every level.

It provided much needed value along the waterfront in a city that denies its citizens access to the water.
BOOKS

TIMELINE IMAGES

IMAGES
All other photos are the property of Brittany Algero

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