Chicago’s Gateway Park

Re-envisioning Chicago’s Lakefront

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Abstract

This study reveals alternatives for Chicago’s lakefront where the city core is seamlessly connected to the lakefront. Waterfronts are important assets to a city’s economic, environmental, and social vitality. Currently, Chicago’s city core is isolated from the waterfront by a ten-lane expressway that stretches almost 16 miles parallel to Lake Michigan. Like all cities, Chicago’s earliest planners underestimated the impact the automobile would have on the urban fabric. In effect, many of these cities built super highways that severed the city from its important assets. The smartest cities have redeveloped their waterfronts which focus on pedestrian circulation, facilitate a diversity of activities, and respect the waterfront ecology.

This project focused on topics including waterfront redevelopments, urban parks, and urban ecology to develop a plan to reconnect Chicago’s city core to the lakefront. An evaluation of case studies gave precedent to design, while interviews with local city leaders identified the specific needs for Chicago’s lakefront redevelopment. A thorough site analysis further identified environmental and social influences and guide design decisions toward a final plan. The master plan was based on connecting users from North and South Chicago across the Chicago River, connecting Chicago’s city core to the lakefront, promoting a diversity of recreational activities, and protecting the ecology of the lakefront.
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Introduction and Project Background

Chicago is considered one of the greatest cities in the world. Known for its world-class architecture, outstanding museums, world champion athletic teams, and a thriving business district, it is no wonder why almost 9 million people call Chicagoland home. However, like most major cities, Chicago’s urban identity has fallen victim to the automobile. Most jeopardized by the impact of the automobile is access to Chicago’s greatest natural asset, Lake Michigan.

Chicago’s lakefront is dominated by a ten lane expressway that runs in a north-south direction parallel to Lake Michigan. Following along with Chicago’s motto Urbs in Horto, or City in Garden, Chicago’s planners originally designated the lakefront as public park space to be enjoyed by citizens of every social class. A narrow pedestrian path does extend the length of the lakefront connecting the South and North ends of Central Chicago. Nevertheless, Lakeshore Drive is a passageway to some of Chicago’s most expensive property, and to exclusive yacht clubs with decadent sailboats.

This design project began to discuss how Chicago could benefit from a redevelopment of Lakeshore Drive. First, this proposal defined the problems that faced Chicago’s lakefront, and then further identified any subproblems, delimitations and assumptions. Second, this proposal reviewed literature related to the topic of urban parks, waterfront redevelopment, and urban ecology. Third, this proposal sorted-out a methodology which guided progression of the research. Lastly, a site summary expressed site boundaries, size, owners, future uses, clients, and biophysical descriptions.
Literature Review

Introduction:

Open space is a vital component to the urban fabric. Within a dense city, where buildings sore to the sky and cars careen through heavy traffic, residents seek balance and find solitude in neighborhood parks, outdoor plazas, and urban waterfronts. Public open space is inherent to cities and the new-urbanite’s demand for parks is at an all time high. Whether a new urban park or a redeveloped waterfront, urban open space is crucial to a city’s economic, social, and environmental vitality.

Urban Waterfronts:

Waterways have played an important role in cities across the United States for the past four centuries. The earliest settlements were located on coasts and along inland waterways because the transportation of people and goods was efficient along these routes. Although today we are less dependent on waterways as modes of transportation, waterways are still important assets to cities.

Recognizing the economic, environmental, and social importance of waterways, urban waterfront redevelopment has gained momentum among cities over the past 30 years. The resurgence of waterfront development can be attributed to several factors including available land, cleaner water and land, historic preservation, citizen activism, urban revitalization, and the return of certain water uses (ULI, p.4). One of the biggest driving factors was to improve the water quality. Cleaner water led to more attractive waterfronts which sparked developers and local government to revitalize the urban area which eventually attracted more residents and visitors to interact with the waterfront.
The following are some guidelines adapted from Remaking the Urban Waterfront that will help guide further research and developing a better lakefront for the city of Chicago. First, the waterfront is a natural boundary between land and water, yet it must not be viewed as a thin line for redevelopment. Second, the success of waterfront development is dependent on the environmental quality of the water and the shore. Carefully planning must take soils, water, structures, flora and fauna, and the different users into consideration when planning this waterfront. (ULI, p.46-53).

Urban Ecology

Mark Benedict in Green Infrastructure, presses the importance of restoring connected green space and natural systems to urban areas. He states that while open space is typically viewed as “a nice amenity,” green infrastructure implies something that we “must” have. Green infrastructure has health benefits, wildlife benefits, aesthetic benefits and economic benefits.

Michael Hough in “Cities & Natural Process” calls upon a change of society’s values. He argues that the formal landscape is often valued for its aesthetic value and civic spirit. Conversely, natural landscapes are viewed as derelict wasteland in need of urban renewal. These natural landscapes carry a far greater floral and faunal diversity than formal landscapes most common in urban design. Hough discusses the urban ecology as it relates to water, climate, wildlife, city farming, and plants.

Urban Parks

Urban parks are being built at an unprecedented rate. In the past two years, 29 of the biggest U.S. cities have built nearly 14,000 acres of new parkland (Weinback, p.80). Recent cultural trends have increased the demand for greenspace. As more and more residents expect cities to provide park amenities, city planners and designers are being pressed to produce the
next “Central Park” to surpass other cities. What should parks be? What programs should they offer?

Linda Pollack writes in “Matrix Landscape” about the construction of identity in large parks. She argues that disparate and multidimensional areas of a site should be unified without creating a monolithic identity. Similarly, Anita Berrizbeitia in “Re-Placing Process” discusses design strategies for large parks including a layering of multiple forms of organization that acknowledges diverse input. On the other hand, John Beardsley in “Conflict and Erosion: The Contemporary Public Life of Large Parks” brings up the issue of parcelization of different activities.

According to Donna Erickson, open spaces are only valuable if they are connected to other open spaces. In her book, *Metro Green*, she explains two motivations for connectivity: one is ecological and the second is human. Landscape ecologists support the idea that a connected web of open spaces benefits ecosystem diversity which in turn produces a high species diversity. This principle relies on wide, continuous corridors, that are structurally diverse and where natural connectivity can be maintained or restored. From a human ecology perspective, connected open space is more humane, more accessible and more democratic. “The walkable, connected city is one that helps foster sound human-ecological health,” (Erickson, p.24).

Similarly, *Rethinking Urban Parks*, discusses how urban open spaces can strengthen communities and the democratic fabric of society. The authors believe that cultural diversity is essential to the design and maintenance of successful urban parks. Through an analysis of case studies, the book discusses how some parks are designed to be inhospitable to certain groups of people. The authors identify ways to promote cultural diversity through design in urban parks.
Urban parks and waterfronts are vital to the economic vitality of cities and inherent part of the urban culture of the United States. Designing large parks is a difficult task that requires careful and thoughtful planning to meet the needs of the city, its residents, and its ecology. The following case studies will help guide further research into the complexity of large urban parks and urban waterfronts.

**Precedence-Hudson River Park, New York City**

It’s been deemed the most significant park New York City has built since Central Park. Officially, it is known as the Hudson River Park which stretches along the Hudson River from West 26th Street to West 59th Street. The five-mile-long linear park was conceived in order to link the city to the river. The urban revitalization project has been built in segments as funding becomes more available. The major components of the park are reused piers that have created access points to the river and programmed for both passive and active uses.

After years of neglect many of the piers needed extensive repairs. These piers extend over the water but are connected by a linear bike path that stretches the entire length of the park. The industrial past of the area, like other major waterfront cities, has long been abandoned and neglected. The park uses the industrial history of the site as precedence while designing the piers and park. Materials used and the art installations all call upon the historical precedence of the site. Metal boat houses and wood decks remind users of the past while also keeping with the area’s character.

The Hudson River Park set a unique set of requirements for the development and maintenance of the park. From the very beginning, the city decided that in order for the park to succeed it would have to be a financially self-sustaining park. A growing trend for urban parks is private and corporate sponsors funding for the parks construction and maintenance. Although
progress has been slower than normal, the development of the park has been funded without using city money, and will continue to fund itself in the future.

**Conclusion:**

Open space is inherent to cities across the world. Vital to all aspects of a city’s vitality, urban open space connects people to nature, facilitates recreation, embraces wildlife, invites pedestrians, and balances the urban infrastructure. Urban sprawl and super highways have threatened the strength of the urban fabric by severing important connections. The smartest cities have recognized this damaging effect and have responded by mending the mistakes. Chicago’s redeveloped waterfront will benefit the city economically, socially, and ecologically.
Problem Statement

Chicago’s lakefront is a unique fusion of urbanism on the front door of the Great Lakes. Preserved since 1909, Chicago’s lakefront is the best protected park space in the world. However, the city core (the densest area of Chicago that stretches from the Museum Campus to North Street) does not have pedestrian friendly access to the lakefront. In fact, the city core has only seven pedestrian crossings in three miles. All but one of the pedestrian access points could be deemed “friendly.” The majority of pedestrian crossings are subordinate in importance to the ten lane expressway, Lakeshore Drive. Lakeshore Drive not only physically cuts off access to the lakefront but it also breaks the continuity of the lakefront parks and important viewsheds. As the centennial celebration of the 1909 Plan of Chicago is approaching, now is a good time to reevaluate Chicago’s strengths and weaknesses.

Significance of Project

The city core can be described as the densest part of the city, or the heart of downtown Chicago. This area includes significant tourist destinations, landmark buildings, the shopping district, the business district, and several school, universities, hospitals, museums, and parks. Sitting on “the front door” of the city, Chicago Gateway Park will be a new landmark and jewel to the city. Chicago Gateway Park plans to highlight the city and welcome the city’s visitors and give residents easy, contiguous access to the lakefront.
Project Goals

The project goals followed the simple principles first established by Daniel Burnham’s 1909 Plan of Chicago:

*First in importance [to the city] is the shore of Lake Michigan. It should be treated as park space to the greatest possible extent. The lakefront by right belongs to the people… not a foot of its shores should be appropriated to the exclusion of the people...public ground — common to Remain Forever Open, Clear, and Free of Any Buildings, or Other Obstruction What-so-ever.*

-Daniel Burnham, 1909 Plan of Chicago

Project Program

This project achieved that goal through enhancing the quality of the pedestrian experience by:

1. Creating a contiguous park along the lakefront between the Museum Campus to Oak Street Beach (*North/South Connection*)

2. Maximizing uninterrupted pedestrian access from the City Core to the Lakefront (*East/West Connection*)

3. Minimizing the visual and physical dominance of Lakeshore Drive

4. Developing a diversity of passive and active recreational spaces that promote multiple simultaneous park uses

5. Creating diverse opportunities for park visitors to experience Lake Michigan

Site Issues

The site is currently dominated by ten lanes of traffic that run parallel to the lakefront. Lakeshore Drive is heavily trafficked throughout the day and accommodates vehicular movement for sixteen miles in a north/south direction. In some locations, the pedestrian right of way consists of a narrow 50ft concrete boardwalk, sandwiched between Lakeshore Drive and the...
lakefront. Other issues include strong winds from Lake Michigan. All of these issues must be addressed through design implementation.

**Client and Users**

The centennial celebration of the 1909 Burnham Plan has sparked the City of Chicago’s interest in reevaluating the quality of the lakefront experience. Sitting at the “front door” of the city, the City of Chicago would like to improve the visual appearance, and physical connection to the lake. Planned improvements would provide enhanced experiences for residents of Chicago and the millions of residents that visit the city throughout the year.
Methodology

To define waterfront redevelopment techniques in urban contexts, case studies were examined to find appropriate precedence. To find these appropriate case studies I further examined Remaking the Urban Waterfront which is an overview of waterfront development that includes historical waterfront information, current waterfront redevelopment principles, and an introduction to several exemplary case studies. Such case studies include but not limited to Seattle’s Blue Ring, New York’s Hudson River Park, and New York’s Battery Park City. Other sources of academic research will include journals including Landscape Architecture Magazine. Specific articles of interest include the discussion of the Hudson River Park and the Eerie Canal Historic Corridor. It was also important to understand current trends and projects along the Chicago River, both those projects that have been built and those that plan to be built. These sites were analyzed for its content, including circulation patterns, materials used, size, activities, and users. By understanding the existing condition of Chicago’s waterfronts, the better I was able to prepare a plan that coheres to Chicago’s current trends.

The interrelationship between land and water is inherent to waterfront development. Water quality and land quality are important to the success of the development that can include not only environmental issues, but social and political as well. Comparative listings of urban ecology techniques gave me insight into the factors that contribute to water and land quality. The list compared literature from Ecological City, City and Environment, Cities & Natural Process, Green Infrastructure, and Large Parks. These publications, written by leading ecologists, landscape architects, planners and architects will provide a multidisciplinary look at urban ecology and how ecological planning can impact cities, and their regions.
Chicago is well known for its parks and is rightfully dubbed the City in a Garden which extends from the city’s motto, *Urbs in Horto*. The Plan for Chicago of 1909, developed by Daniel Burnham, is seen as a successful plan due to the vitality of Chicago. Burnham was a proponent of the City Beautiful movement along with Frederick Law Olmsted, Charles Robinson, and George Kessler. Examining the roots of urban design with an emphasis on the City Beautiful movement, gave me a better understanding of the existing urban fabric that makes cities successful. The historical context of Chicago and the City Beautiful movement gave insight into design guidelines for the project.

Understanding historical context is important to understand when designing for the future. With a firm understanding of historical relevance I then examined the changing role of urban parks as they exist today. To start, I studied *Large Parks*, edited by Julia Czerniak and George Hargreaves. This publication is an in-depth analysis about the role of urban parks which is examined by leading landscape architects, ecologists and urban planners. Other sources of knowledge about large urban parks include Ken Smith’s work on Orange County Great Park and James Corner’s design of Fresh Kills.

To develop site specific design characteristics, I needed to obtain site photos, aerial photos, topographic information, GIS information, and AutoCAD base maps. These photos were supplemented by several site photos I personally took while visiting the site.

Aerial photos were obtained through Google Earth. Topographic information and AutoCAD base maps were obtained from the City of Chicago website. The design process included obtaining these documents so that an inventory and analysis could be completed.
Site/Setting/Context

Chicago is a world-class city known for its architecture, sporting events, museums, shopping, theaters, parks, and business district. The site is in the heart of the city, sitting along the lakefront at the intersection of the Chicago River and Lake Michigan.

Location Map

Figure 1

Chicago is located in the northeast corner of Illinois almost equal distance from the borders of Wisconsin (to the north) and Indiana (to the southeast). The city is sited on the southwest corner of Lake Michigan. (See figure 1)
The site boundaries are the Museum Campus to the south, North Ave to the north, Lake Michigan to the east, and Michigan Ave to the west. (See figure 2)
Figure 3 shows significant buildings adjacent to the site. Figure 4 shows significant sites adjacent to the site. Figure 5 shows vehicular traffic.
Figure 4
Figure 5
Site Analysis

Site analysis shows the four major weaknesses of the site. Weakness #1 is at the northern tip of the site, at the intersection of Lakeshore Drive and Michigan Ave. This intersection has 14 lanes of traffic separating the city core from Oak Street Beach. Oak Street Beach is a popular outdoor
activity during the warmer months. The only access to the beach is through an unwelcoming pedestrian tunnel underneath Lakeshore Drive. Weakness #2 is a 50ft wide concrete boardwalk. A lack of vegetation and monotony makes this an unwelcoming pedestrian space. This .75 mile stretch of lakefront is not park-like especially sandwiched between Lakeshore Drive’s busy traffic and the lakefront. One surface pedestrian access point is located within this strip, but pedestrians must cross the ten lanes of Lakeshore Drive to get to the other side. Weakness #3 is located at the bridge that crosses the Chicago River. This bridge is a double level bridge with a thin, dark, uninviting pedestrian sidewalk attached on the side. Although the pedestrian sidewalk is functional, it lacks appropriate pedestrian needs of safety and scale. Weakness #4 is at Buckingham Fountain in Grant Park. Buckingham Fountain and Grant Park are physically cut off from the lakefront by Lakeshore Drive. No pedestrian crossings exist at this important landmark and key axis.
Concepts

The following concepts were developed using the project goals and program as guiding principles.

Concept 1: Boulevard Concept

The Boulevard Concept is seen in figure 6. This concept changes Lakeshore Drive into a four lane boulevard, returning the expressway into its original design intent. This concept would decrease the physical dominance of the expressway by half, creating 40ft of reclaimed space for new pedestrian spaces. The lakefront would benefit from more open space dedicated to pedestrians using the space, rather than vehicles passing through. However, the 40ft of space was not wide enough in some places, and without a traffic study, it is unclear if four lanes of traffic would be enough to accommodate the vehicular needs.
Concept 2: Lakefront Expansion

The Lakefront Expansion Concept extends the lakefront to the east, giving an extra 200-300ft of dedicated pedestrian space. The expansion would include a dedicated pedestrian bridge over the Chicago River, new civic spaces, new public slips, a larger beach, art walks near the Contemporary Museum of Art, and most important, a contiguous park connecting North and South Chicago. This concept keeps the ten lanes of Lakeshore Drive, but would hope future phases of the project would eventually decrease the size of Lakeshore Drive into a boulevard.
Details and Perspective

Pedestrian Circulation

Terra Firma

Building Footprints

Lake Michigan

Master Plan
Chicago Gateway Park

This image shows Chicago’s future skyline, including the proposed “Chicago Spire” seen in the middle of the picture. In the foreground, Chicago Gateway Park welcomes visitors to the city.
Chicago Sculpture Park

Extending the width of lakefront into Lake Michigan regains lost ground and develops new open space. This image looks south at the proposed Chicago Sculpture Park. Contemporary art displayed throughout open lawns attract users to the park.
Chicago Gateway Park

This image shows the proposed slip, that mimics the existing slip to the north. In the background, the pedestrian bridge can be seen. Kayak rentals allow for visitors to experience Lake Michigan upfront.
Randolph Street Splash Basin

The splash basin is a shallow canal at the northeast end of Grant Park. Currently under-used, this section of Grant Park would be activated by the sounds of splashing water, and families playing in the water. The pedestrian bridge can be seen in the background, which serves as a focal point.
Buckingham Fountain Terrace

This one block wide park deck stretches across the existing eight lanes of Lakeshore Drive. The park deck allows for more open space, and a contiguous pedestrian access from Buckingham Fountain in Grant Park to the lakefront.
Conclusions

Chicago is one of the world’s greatest cities. Like many great cities, it is activated by a diversity of restaurants, shops, businesses, civic centers, and parks. Unique to Chicago, however, is its lakefront. Since its founding in 1837, Chicago’s preservation of its lakefront has been under battle. Even today, Chicago’s lakefront is under fight.

As the Centennial of the Burnham Plan approaches us (1909-2009), now is a perfect time to reevaluate Daniel Burnham’s vision to keep Chicago’s lakefront, “forever open, free and clear…” The densest park of Chicago has the worst and least pedestrian friendly access to the lakefront. Chicago Gateway Park establishes clearer connections which make the pedestrian experience to the lakefront a priority. No longer shall the automobiles and the eight lanes of Lakeshore Drive serve as a barrier to the lakefront. The lakefront shall forever remain open, free and clear.
Works Cited/Reference List


