REPROGRAMMING PITTSBURGH'S POST-INDUSTRIAL RIVERFRONT: AN OPEN SPACE VISION FOR THE SOUTH SIDE

BY

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THESIS

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ABSTRACT

As Pittsburgh strives to revive its image as a river city it must contend with its dilapidated urban riverfronts along the Monongahela, Allegheny, and Ohio Rivers. In the late 19th and 20th centuries, the river was considered solely as an economic engine that fueled the growth of America. Once the world’s largest producer of glass and steel, Pittsburgh’s popular South Side district has become disconnected from the river, despite its close proximity. The purpose of this thesis is to generate a new vision plan for the South Side by reprogramming the neglected margin with the intention of providing public access and activating the life-less boundary between the community and the riverfront. In response to the inadequacies of some recent projects completed within the city, this project suggests a new model for the South Side that aims to integrate the riverfront with the urban fabric. The process focuses on the neglected riverfront by extending programs from the surrounding context to pollinate the marginal spaces. An exploratory method is developed to create an open space framework that is capable of supporting the diverse social and cultural demands of Pittsburgh’s South Side. It demonstrates that strategic urban design can effectively create new viable connections with the river by creating spaces that are flexible enough to facilitate the changing demands on the urban riverfront.
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CHAPTER 1: INTRODUCTION

Figure 1.1 – Photomontage as a metaphor describing the conditions and disconnection between Pittsburgh’s South Side district and the riverfront.

1.1 PROBLEM STATEMENT

As Pittsburgh strives to revive its image as river city it must contend with its dilapidated urban riverfronts along the Monongahela, Allegheny, and Ohio Rivers. Many of these areas have been completely neglected since the 1960s following the collapse of the steel industry which had once dominated the river landscape. In many ways, Pittsburgh is like every other American city that abused the riverfront throughout the industrial revolution. In the late 19th and 20th centuries, the river was only considered as an economic engine that fueled the growth of America. Today, the riverfront is the center of focus for urban revitalization as cities are taking steps to clean up their image and create a higher quality of life. This thesis responds to Pittsburgh’s marginal riverfront landscape by examining these conditions along the Monongahela River in the South Side District. Despite its close proximity to the river, the popular South Side community remains disconnected from the riverfront. This study examines the missed opportunity to engage the riverfront and projects a strategic landscape approach to generate a more cohesive riverfront that reconnects the neighborhood with the river.

It is evident that the Pittsburgh riverfront has the potential to play a new role in many (re)development strategies, but it is part of a complex urban situation that will be subject to a number of interrelated issues. These areas are often composed of fragmented irregular shaped tracts of land that are inaccessible by the public, they subject to frequent flooding, and difficult to develop. They have become removed from the fabric of the city and forgotten. However, these “lost” spaces are key components to reconnecting with the riverfront and it is essential to reintegrate them as part of both the city and the riverfront. Establishing adequate public access and reprogramming the land removes
physical and mentally constructed barriers, thus allowing for new exchanges and relationships to occur between the city and river. Figure 1.1 is intended as a metaphor that describes a public desire to transect these boundaries and experience the riverfront.

The purpose of this thesis is to generate a new vision plan for the South Side by reprogramming and resurfacing the neglected margin with the intention of activating the life-less isolated edge. This project focuses on the neglected riverfront by extending programs from the surrounding context to pollinate the marginal spaces. An exploratory method is developed to create an open space framework that is capable of supporting the diverse social and cultural demands of Pittsburgh’s South Side. It demonstrates that strategic urban design can effectively create new connections with the river by creating spaces that are flexible enough to facilitate the changing urban demands on the riverfront. The value of this project lies in the process of developing and programming the public spaces as it offers a new model compared to that of some recent precedent projects completed within the city.

1.2 HISTORICAL CONTEXT OF ISSUE

The waterfront has always held an inherent and timeless attraction for many people because of its capacity to meet such a wide range of needs and demands - survival, economic, or recreational. However, across America, many urban waterfronts remain isolated from the cities and the people who live, work, and visit there. These riverfronts have become crumbling relics of an earlier time when they were teeming with activity. Today, the substantial impact of the industrial revolution is still evident, over five decades after it collapsed in many American cities throughout the 1960s and '70s.

Throughout the 19th-century industrial revolution, the riverfront was an integral part of urban life. However it was solely considered for its utilitarian functions and certainly not regarded as a public amenity. Industrial towns were fully concentrated on economic activity and viewed any other functions as a waste of time and effort (Mumford 1961). In 1961 Lewis Mumford wrote that “Coketown” was “. . . displacing every traditional concept of the city . . . the older principles of aristocratic education and rural culture were replaced by a single-minded devotion to industrial power . . .” (Mumford 1961, 447). Writing at the height of the industrial revolution, he forecast its temporality and the potential for consequence, stating that “The new industrial city had many lessons to teach; but for the urbanist its chief lesson was in what to avoid.” (1961. 446)

During this industrial era, huge tracts of land were swallowed by steel mills, factories, and railroad yards. “The factory usually claimed the best sites: . . . the sites near a waterfront” (Mumford 1961, 459). They were primarily concentrated along navigable rivers because the river provided the
cheapest and often only option for transporting materials and dumping waste. The economic success of these industrial towns was completely dependent on a physical connection to the river. Consequently any space along the urban riverfront became completely dominated by heavy industrial infrastructure.

In the 1950s and 1960s the development of the Interstate Highway System began to further congest America’s urban riverfronts and also marked a major decline in water dependent transport and its associated industries. Trucking companies offered a worthy alternative to rail and barge transportation, making the physical connection to the river obsolete. By 1970 many of America’s heavy industries were also in economic trouble because of foreign competition. A period of industrial decentralization and further economic globalization followed, causing many factories to close down or move away from the urban core. These shifts in industrial practices and cargo handling encouraged the subsequent dereliction at the riverfront.

Emerging from the wake of de-industrialization are remnant sites that create a neglected margin that disconnects the waterfront from the city and its communities. Many of these areas were quickly abandoned because the rigid mentality of the industrial city included no vision for alternative uses of the riverfront. Left behind are large parcels of industrial scars that fragment the urban riverfront. In most cases, public access is now denied and any new buildings are typically oriented to face away from the river (White et al 1993). “The riverfront virtually became a ghost area – a deserted, inaccessible, depressing reminder of better days.” (Wrenn 1983, 12). At first glance these marginal spaces seem to be the toughest, most unforgiving urban spaces imaginable. However, they embody the greatest opportunity for cities to physically reconnect with their rivers and create a new image associated with these great natural resources.

1.3 POTENTIAL

A new era has emerged for the urban waterfront as city officials are questioning the current role of the river and exploring potential future roles. Regardless of the form the new riverfront will adopt, cities are hopeful that it will propel economic stimulus and overall urban revitalization. This is however not a new concept as cities have been revitalizing urban waterfronts for over the past 30 years (Souers and Otto 2005). Many cities have already initiated projects that have successfully attracted people to the waterfront and stimulated local economic activities. Some recent projects have been selected as case studies and will be discussed in more detail in chapter 2. Based on these precedents; this thesis claims that the post industrial riverfront is capable of creating new connections between the city,
history, and the environment, while gaining appreciation from residents and visitors during daily leisure activity and other events (Carmichael and McCann 2004).

1.4 IMAGE

Historically, the character, function, and image of the urban riverfront have seen dramatic changes but the role of the riverfront has been evident for the past 250 years. Previously, the great American rivers served as the staging ground for western expansion, commerce, and industrial activities. Today, cities are much less dependent on their rivers and the role played by the river has become less evident. In many cities of the American “rust belt”, the neglected condition of the riverfront now portrays an old worn out image associated with the river.

River cities are defined by the image associated with their rivers. The riverfront is the public face of the city and it reflects the image of the city. Drawing parallels with Jane Jacobs’s ideology of city streets, she emphasizes that the activity of the streets influences the image of the city. “Think of a city and what comes to mind? Its streets” (Jacobs 1961, 29). The same may be said of the riverfront, especially in cities like Pittsburgh, which is defined by the rivers. If the riverfront looks interesting, the city will look interesting; if it looks dull, the city looks dull (Jacobs 1961). Despite the lack of use, the condition of the riverfront actively influences how people perceive the city as a whole.

Post industrial riverfronts are forgotten spaces where the memory of a past condition predominates over that of the present (de Solà-Morales 1995). Spanish architect Ignasi de Solà-Morales classifies these spaces as the city’s Terrain Vague. They support a negative image because they exist outside of the productive structure of the city. These “. . . places are where the city is no longer. . . In short, they are foreign to the urban system, mentally exterior in the physical interior of the city” (de Solà-Morales 1995, 120). However, he also explains that the terrain vague is a potential asset for the city. The absence of use and activity instills a sense of freedom and expectancy. “Void, absence, yet also promise, the space of the possible, of expectation.” (de Solà-Morales 1995, 120). To this end, the potential of the urban riverfront was not consumed by the industrial era. However, neglecting the marginal space is to waste the opportunity to reveal the present potential of the space.

The “wasted landscape” is common to de-industrialized cities. According to Alan Berger, it emerges from rapid horizontal urbanization and becomes the detritus left behind after local economic and production regimes have moved on. These spaces then fall into a liminal state where they elude classification until there is a social desire to reincorporate them (Berger 2006). Many cities have reached this threshold where there is a refreshed desire to occupy and reintegrate their neglected urban
riverfronts. These situations should be planned carefully as to avoid the same chaotic development displayed during the industrial era.

Berger indicates that conditions like this are best acted upon by those with an understanding of both landscape and urbanization. He refers to the strategic integration and reuse of wasted landscapes as “drosscape”. It implies an intentional resurfacing and reprogramming of an existing waste landscape. A new condition is thus generated where new social programs and values replace the perceived wasteful aspects (Berger 2006). This approach to the urban riverfront can replace its worn out image with one that reflects the new cultural values while transforming the neglected space into a more productive landscape.

1.5 FUNCTION

The form and role of the new urban riverfront will be much different than its industrial legacy. This project employs an open space strategy that reincorporates the riverfront into the productive circuitry of the city. It is possible for open space at the riverfront to assume a functional role and it can be utilized more effectively as cities move forward in the 21st century. The marginal riverfront exists at a crucial time and place where it can potentially mitigate some of the negative effects of urbanization. Not only can it rejuvenate the city’s image, but it can have positive effects on the health of the economy, the environment, and the people of the city.

In 2009, urbanization reached the threshold where over half of the world’s population lives in urban areas. By the year 2030 it is expected to surge to 60% as the density of urban areas will continue to increase (United Nations 2006). Growing density in urban communities will place a greater demand on existing open space while the amount of available and affordable sites for new open space will almost certainly decrease. During America’s early stages of urbanization, parks emerged parallel to or even before the city, e.g. Central Park and Golden Gate Park (Czerniak 2007). In developed cities this is simply not an option, however, land within the existing fabric can be utilized to create new networks of open spaces. This may prove especially important for Pittsburgh as the city is becoming more and more desirable for major corporations that will certainly attract new residents and visitors.

Open space is a critical part of the urban fabric. Where green open spaces have been obliterated or defaced the city will deteriorate around it, for the relationship is symbiotic (Mumford 1961). Almost 50 years ago Lewis Mumford saw the potential of the “green matrix”, stating that “The re-occupation and replenishment of the landscape, as a source of essential values in a balanced life, is one of the most important conditions for urban renewal” (Mumford 1961, plate 58). He also explained that establishing
and preserving the green matrix is necessary to prevent uncontrolled urban growth from effacing the limited amount of open space. Today, with an increase in recreational and leisure demand, these ideas are just as evident. “It has become more important than ever to conserve the natural background, not merely by maintaining areas with impressive topographic features for recreation and solitude, but to increase the opportunity for personal activities on an amateur level” (Mumford 1961, plate 58).

Open space also offers psychological benefits that can improve people’s health and well-being (Kaplan and Kaplan 1998). Psychologists Steven and Rachel Kaplan explain that prolonged exposure to situations in which people must concentrate wears them down, causing mental fatigue. They use the term “information overload” to describe the vast amount of information that is concentrated into urban lifestyles and how it is constantly competing for attention. According to The World Health Organization, in addition to the absence of illness, health is also a condition of physical, mental, and social wellness (World Health Organization 1). Open space provides a psychological fulfillment where people benefit from the perception of a temporary removal from stressful experience. Addressing the mental well being of users in public space is essential to influencing how they form a holistic perception of urban life.

Often situated at the periphery of the dense core of the city, the urban riverfront can offer the open space required by growing cities. Available land is often limited to the detritus of the industrial era and often consists of decommissioned industrial parcels in some form or another, including rail yards, abandoned warehouses, and other marginal land. Some of these spaces have already been redeveloped for a variety of uses ranging including: new industrial, commercial, retail, and even residential uses. The neglected spaces are less attractive to private investments because they may be frequent to seasonal flooding and thus too costly to insure. After being sub-divided or partially developed, some spaces inherit irregular shapes, perimeters, and interiors that may not be conducive to existing patterns of development. In such cases the configuration is imposed rather than chosen (Czerniak 2007). These parcels may still be owned by industrial enterprises or may have fallen into ownership of the city. Strategically transforming these unwanted spaces into public assets would provide residents with much needed open space while attracting visitors to the riverfront.

1.6 PROGRAM

The neglected spaces, which have not been considered for redevelopment, make up the left over pieces and parcels that fragment the urban riverfront. In their current form, they act as inaccessible voids that interrupt the surrounding context and inhibit the formation of flows, relationships, and exchanges between adjacent spaces. Historian Sam Bass Warner suggests that the spatial and social
disconnections in this type of urban context contribute to fragmented interests and a lack of identity (Warner 1993). The fragmented nature displayed by many urban riverfronts creates an incoherent condition that runs parallel to the river. This is the margin that disconnects the city from the water.

The discernable image of the industrial riverfront depicts massive tracts of land intended for one single use. Vacant or occupied, these spaces have adopted the rigid boundaries and monolithic program that was instilled by the industrial age. The vacant tracts are often inaccessible and offer no public uses. Developed areas normally cater to one specific use which attracts only a narrow range of users. The limited connectivity and relationship between these confined spaces produces a segregated and static condition. As a result, the riverfront displays a lack of capacity to offer diverse public options and fails to support a wide range of people and activities.

A diverse program is an important aspect of successful public spaces. A wide range of recreational and leisure options will attract more users to support the space. Jane Jacobs relates intricacy to the various reasons people choose to visit and use public spaces. “Even the same person comes for different reasons at different times . . . “(Jacobs 1961, 103). When spaces are designed with the capacity to accommodate several uses it is both economical and enriching for the social spaces (Wall 1999). Attracting more people to claim the riverfront for their own uses allows them to make personal investments in it. Subsequently, a strong diversity of public uses will ensure the riverfront is affectionately occupied (Wall 1999).

Despite the mentality of the industrial era, the riverfront is intrinsically suitable for a plethora of uses. Nina-Marie Lister suggests that the demand for open space will be compounded by the “demographic reality of the contemporary global city” (Lister 2007, 36). She insists that open spaces will require a new capacity to satisfy the programmatic complexity demanded by a much wider range of users than previously acknowledged. The neglected margin along the urban riverfront is situated perfectly to simultaneously entertain various cultural demands pertaining to the land as well as the water.

The marginal spaces are also capable of creating connections between existing spaces with different uses. Alex Wall suggests that ambiguous urban spaces have significance as part of an urban infrastructure for the contemporary metropolis. They can be utilized to establish a connective tissue between existing fragments and programs, while encouraging a diversity of users and activities (Wall 1999). This approach intends to create a “continuous matrix that effectively binds the increasingly disparate elements” of the riverfront together (Wall 1999, 246). Thus, a primary use of the marginal spaces is to extend the continuity of the riverfront while diversifying its potential range of services.
1.7 ACCESS

The marginal spaces also create a rigid boundary between the water and the adjacent city districts. It inhibits or limits public access to the riverfront and effectively severs the connection between the river and the city. The lack of physical and visual access combine to create a sense of isolation related to the riverfront. Establishing adequate access is necessary in order to recover the connection and successfully reprogram the urban riverfront. It will allow these areas to be more intensively used by a wide user group, thus benefiting the supporting community.

Recovering the riverfront may seem ambiguous considering the value of the river was solely reflected in the industrial regimes that occupied the shore. “The term recovery implies that something once lost, devalued, forgotten, or misplaced has been found again, retrieved, and brought forward with renewed vitality” (Corner 1999, 10). This could imply returning the riverfront to a pre-industrial condition. However, James Corner suggests that “… there are more creative reasons to reclaim sites and places than the merely nostalgic and compensatory – reasons that see invention as an essential ingredient of reclamation, engendering new kinds of landscape for public enjoyment and use” (Corner 1999, 13). Establishing public access is crucial to the recovery of these spaces. It will serve as the conduit through which people will occupy the landscape and return vitality to the river. In short, public access will recover the value of the landscape by reconnecting the city to the river.

Even in areas where some public space exists at the riverfront there is often a lack of explicit public right-of-ways to access the space. Vacant buildings, scrap yards, and empty lots with rusty chain link fences create an unfriendly atmosphere. They also block potential views of the river from within the city. Districts that are very close to the water may not even feel the presence of the river because there is little or no visual access. Spaces between the river and the city that exhibit this condition make the distance between the two seem much greater than it actually is, essentially separating them from each other.

In many cases, a distinct boundary has formed between the riverfront and the adjacent city districts. Whether the boundary is physically defined or mentally constructed it creates a polarity between the two (Berman 2006). The neglected tracts of land fortify the boundary, making a stronger distinction between the riverfront and the rest of the district. They have become two individual entities separate from each other. This condition has become an accepted norm by residents of many rust belt cities because they do not and never have considered the riverfront as part of their communities.

The riverfront area, however, can refer to an area larger than just the thin edge along the water. It can actually extend a few blocks from the water into the city fabric (Berman 2006). When the outer
edge of the riverfront area is not strictly defined it may potentially encompass an entire community. In some cases it seems that the riverfront exists in isolation but it does not. It exists in relation to its surrounding. Without sufficient access, the activity of the city cannot percolate to the riverfront. Thus, the riverfront will exist as part of the neglected margin rather than the city.

As it exists, the impervious boundary denies the riverfront from creating a relationship with the city fabric. However, the boundary should be considered “as a space of communication rather than a line of sharp division” (Pollak 1999, 54). As Martin Heidegger suggests, “a boundary is not that at which something stops but . . . is that from which something begins its essential unfolding” (Heidegger 1954, 356). Applying this concept to the urban riverfront embeds potential in the neglected margins. They can become connective spaces rather than dividers, allowing the riverfront to unfold into the city, and vice-versa.

A more porous boundary can integrate the riverfront with the city fabric by allowing a greater diversity of people and programs to occupy the riverfront. Richard Rogers contends that designers should aim to create places “that are socially cohesive, avoiding disparity of opportunity and promoting equity and social solidarity.” Adding that “. . . to achieve urban integration means thinking of urban open space not as an isolated unit . . . but as a vital part of urban landscape . . . Public spaces work best when they establish a direct relationship between the space and the people who live and work around it” (Urban Task Force 1999, 57). In order for the urban riverfront to play a role in the social function of the city it must create a dialogue with the adjacent communities. This is significant because the success of the riverfront will depend on establishing sufficient access and encouraging exchanges of people, program, and activity; connecting the river and the city.

Supporting a diverse range of program and users will require the riverfront to be easily accessible through various means of transportation. Currently some riverfronts are only realistically accessible by private vehicles, but the urban riverfront is situated so that it can take advantage intermodal access. The Project for Public Spaces (PPS) suggests the character and experience of the waterfront can be enhanced when it is reachable by means other than driving. Convenient pedestrian access by foot and bicycle are crucial for local residents and tourists so that they feel welcome and safe. Access roads may be necessary, but they should minimize their impact on pedestrian safety and enjoyment (PPS 2008). The water also provides public options for ferries and taxis as well as private boating options. Despite the many challenges, an emerging trend to revitalize urban waterfronts is evident as several American cities have realized the potential of the urban riverfront and have embarked on enormous efforts to reclaim them as public assets.
CHAPTER 2: CASE STUDIES

Across the United States, cities are experiencing a renewed interest in the potential for public access to neglected open spaces along the water’s edge. This section will discuss some recent projects that have used landscape as a medium to successfully reconnect with the waterfront while stimulating local economies and ecologies. The following projects were selected and examined because they were challenged with a limited public access yet succeeded in reprogramming the waterfront by integrating people with the river landscape. Each project is a unique situation but they all invented a new image and role for the waterfront in their city. Collectively they represent a transition away from an industrial based waterfront to a waterfront that favors recreation and leisure.

These precedents are being studied to learn about the strategies that have been implemented to revitalize other post-industrial waterfronts. Each project is located along a major river of an inland port city. All the cities have a similar geographic size and population as Pittsburgh. Many of the pre-existing conditions and problems encountered when creating these projects are similar to those surrounding the neglected riverfronts in Pittsburgh. The strategies discussed here are important to consider when addressing Pittsburgh’s riverfront because they may be potentially adapted to Pittsburgh’s riverfront. The success of these projects can also serve to demonstrate the positive impact and by-products that can be generated from such investments in the waterfront.

Beginning in the 1970s, The City of Baltimore moved into the forefront of the movement in waterfront regeneration and has since inspired other cities to consider similar investments (Kashef 2008). Baltimore’s inner harbor was previously home to dilapidated warehouses. Today it has become a safe area where locals and tourists enjoy shopping, dining, and sightseeing (Urban Land Institute 2004). Boston’s Waterfront and the San Antonio Riverwalk also serve as early precedents from the 1950s, setting an example for other waterfront cities considering the next generation of revitalization efforts.
2.1 LOUISVILLE WATERFRONT PARK, LOUISVILLE KENTUCKY

In 2003 the City of Louisville was awarded the Phoenix Award Grand Prize for Excellence, for transforming a site ridden with industrial urban blight into a waterfront park that attracts an estimated 1.3 million people a year. This riverfront represents a major reclamation of marginal land formerly used for industrial and transportation purposes. It then became isolated from the urban fabric by an elevated expressway and rail lines. The 100+ acre site (constructed in 2 phases) has recaptured the energy of the early 19th century working riverfront and returned the city’s primary focus to the river (Allen 2002). The large tracts of land were once rigid and served only limited industrial uses. They have been transformed into flexible spaces that provide for a wide range of active and passive recreation including playgrounds, festival space, a functional wharf, trails, and open lawns. Figure 2.2 shows part of the promenade and the “great lawn” which reconnects the city with the water. There are also wet lands and other native plantings that provide ecological benefits to the riverfront. Establishing access and reprogramming the riverfront has made it a central civic space and has allowed the city to retake the river. New infill and redevelopment of the neighboring historic business district has begun near the park, and adjacent land is now in high demand (Allen 2002). Once referred to as “Junk City” because of the industrial remnants along the riverfront, Louisville has established a new image because of this riverfront endeavor.

Figure 2.2 – Louisville has transformed its abandoned industrial riverfront into a public attraction that reconnects the city to the riverfront and draws 1.3 million visitors each year.
The strategies used in Louisville are significant to reviving Pittsburgh’s riverfront because they demonstrate how public open space can resurrect a productive image for the post-industrial riverfront. Like Pittsburgh, Louisville’s riverfront is so prominent because it is a very visible piece of the city. Now beautifully landscaped, these large green spaces create a visual asset that clearly displays the riverfront as a public place intended for recreation and leisure. The great diversity of programmed and unprogrammed space provides a wide range of options that offer everyone opportunities to use the riverfront. Although the wetland areas are not very large, it is a gesture that exhibits the potential and importance for ecological conservation in an urban setting. Both Pittsburgh and Louisville also have riverfronts that are subject to periodic flooding. Louisville’s park is completely located in a flood zone and successfully utilizes land that is not attractive for other economic uses.

2.2 MEMPHIS RIVERFRONT, MEMPHIS TENNESSEE

Over the past fifty years, Memphis has become much less reliant on the Mississippi River for transportation and commerce. During this time the city became oriented away from the river and its relationship with the Mississippi became solely historic. The riverfront master plan for Memphis consists of a system of connected parks with an ultimate vision of reuniting the city with the river (memphisriverfront.com 2002). The bold plan represents a 50-year vision that will incrementally develop five miles of riverfront. Over time the plan offers a mixed-use urban setting that integrates living, working, and entertainment opportunities with the system of open spaces and parks. The Riverfront Development Corporation suggests that the success of this plan depends on attracting private investment, although the emphasis is on public place making. As most of the valuable real estate in Memphis is not located near the river, the intention of the plan is to use urban design to change these trends. The new park system intends to create value at the riverfront by establishing the area as a
desirable place (memphisriverfront.com 2002). While this may seem very optimistic, the completed areas have become attractions for both residents and tourists; private real estate development has already begun.

Figure 2.4 – Memphis built almost 5 miles of riverfront parks, successfully reorienting the city towards the Mississippi River.

Both Memphis and Pittsburgh have turned their back to the river for the past thirty years but are now interested in returning the focus of the city to the river. Memphis is strategically using the landscape to re-orient the entire city towards the river and encouraging new buildings to face the river. Figure 2.4 shows how Memphis has created public spaces that engage the river rather than avoiding it. To make the riverfront more accessible, Memphis has gone as far as building new public transportation outlets, including a new suspended monorail that exclusively serves the riverfront park area. This does not suggest that Pittsburgh should do exactly the same, but Pittsburgh should strive to celebrate and diversify access to the riverfront. Memphis offers almost 5 miles of public riverfront space with virtually uninterrupted access along the entire boundary. This is significant because much of Pittsburgh’s riverfront is isolated by rigid boundaries with only limited access points. This precedent provides a model where the boundary is clear yet permeable; making the riverfront distinct yet easily accessible by boat, bike, foot, and vehicle, as well as public transportation.
Cincinnati’s east riverfront experienced redevelopment throughout the 1970s and 80s that created Sawyer Point which includes: The Serpentine Wall, Yeatman’s Cove Park, and Bicentennial Commons. These spaces still flourish today and have proven to be great assets prompting the city to plan a massive effort to expand the redevelopment along the central riverfront. Much of the riverfront in Cincinnati has been cut off from the city by transportation infrastructure however a renewed interest in reclaiming the riverfront has lead to reconfiguring roads and expressways. The existing park sits atop of a former scrap yard while the planned 45 acre project will reconnect the city to the river by transforming Cincinnati’s obsolete post industrial riverfront into a diverse destination. Figure 2.6 shows part of the existing park along with a vision of the new proposed riverfront park. A diverse program for the new park will deliver several local and regional benefits, including flood and erosion control. After completion in 2011 the park is expected to attract 1.1 million new visitors to downtown. It is also expected to generate enough revenue to leverage the building of adjacent housing units while acting as the front yard for the city and its residents (http://www.crpark.org 2008).

The riverfront in Cincinnati demonstrates a commercial campaign to attract more residents and tourists to live and visit downtown. This model is important as Pittsburgh is also attempting to offer more attractions to lure potential residents and tourists to the city. The Functional wharf provides
Figure 2.6 – Part of Cincinnati’s existing riverfront and a vision of the anticipated expansion project. (Image on right: www.crpark.com)

further access options for both public and private water transportation. It can accommodate the off-loading of large touring riverboats and also encourages active uses of water. The open space is geared towards supporting diversity among users and programs including temporary programming for spontaneous group activities or annual festivals. The flexibility of the riverfront allows it to be organized as a venue for large events or a place for more passive and individual activities in the heart of the city. The City of Pittsburgh could benefit from a riverfront model with a similar capacity to serve as a regional attraction as well as a local amenity.

2.4 MINNEAPOLIS RIVERFRONT, MINNEAPOLIS MINNESOTA

While the previous cities occupied only one side of their respective river, The City of Minneapolis is different as it occupies both sides of the Mississippi River. Here the riverfront is lined with open spaces that create a continuous network-like park system that makes the waterfront highly accessible and a desirable place for all ages and abilities. However this was not always the case in
Minneapolis as the river was once dominated by flour and lumber mills that completely cut off the river from the city. When the industry evolved and moved away from the riverfront huge mills and warehouses were left vacant and slowly fell into disrepair. Today, the riverfront has been transformed into a public destination for outdoor recreation, nightlife, and historical interpretation (www.minneapolis-riverfront.com 2008). Some of the historic buildings have been repurposed as museums and other multi-use venues while some of the historical infrastructure has been excavated to become an urban archeological park (Fig. 2.8). New theaters and residential neighborhoods have been built adjacent to the park spaces and have become part of the riverfront network. Land values adjacent to the riverfront park system are now worth 13 times what it was in 1994. Throughout the reinvestment period over 1,500 jobs were created and over 1,000 housing units were built (Rybak 2008). Minneapolis has successfully reclaimed its image as a river city and continues to search for opportunities to acquire more land and expand upon the riverfront renaissance.

Figure 2.8 – Mill Ruins Park and the pedestrian bridge are part of the riverfront network in Minneapolis.

Minneapolis has created a networked park system that uses the riverfront as a public infrastructure to make strong connections to spaces throughout the city. This is significant for Pittsburgh because the riverfront lacks a strong connection to the city fabric, yet it could generate a relationship between the two. A more legible connection with the river would encourage residents and tourists to share the riverfront for various uses. The Minneapolis model also achieves a balance of historical preservation, which is also important for the rivers in the City of Pittsburgh. A historical connection preserves and celebrates the historical legacy of the river while using the space to satisfy the cultural demands of today.
2.5 SUMMARY OF SIGNIFICANT STRATEGIES

The table below (Table 2.1) is a list that summarizes the various strategies demonstrated by the precedent riverfront projects. These are the significant strategies considered by this thesis for the conceptual development of the selected study area in Pittsburgh.

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<th>Table 2.1 - Significant Strategies Employed by Precedent Projects.</th>
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<td>• Flexible and diverse programming</td>
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<tr>
<td>• Temporary programs/events</td>
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<tr>
<td>• Celebrate access / diverse access</td>
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<tr>
<td>• Historical connections</td>
</tr>
<tr>
<td>• Attract tourists and residents</td>
</tr>
<tr>
<td>• Encourage active use of water</td>
</tr>
<tr>
<td>• Define new image for riverfront</td>
</tr>
<tr>
<td>• Permeable boundary</td>
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<tr>
<td>• Open space as infrastructure</td>
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<tr>
<td>• Flood zone as productive space</td>
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</table>

“The amount and extent of downtown urban waterfront restoration projects are obvious illustrations of the growing appreciation for urban values. These may be characterized as: a diverse population; concentrated development and integration of land uses; a mix of old and new architecture; walkability; plentiful public transportation; and a distinct energy and strong sense of place” (Gaffen 2004, 30).

These projects represent an emerging trend to reclaim neglected riverfronts and reprogram the landscape in a way that rethinks the pastoral image of a city park. Providing access and introducing new programs to these neglected, isolated spaces requires an enormous investment which is primarily focused on public place making. These case studies and other projects have proven that once forgotten spaces can become destination gateways with the potential to fuel economic development, community health, commerce and tourism for the entire region (www.cityprojectca.org/blog/archives/752 May 2008).
CHAPTER 3: PITTSBURGH’S RIVERFRONT

The City of Pittsburgh has already begun providing public access to its riverfronts in the form of parks, landings, and trail systems. This thesis project approaches the condition of Pittsburgh’s riverfront by examining the historical roles played by the riverfront and by assuming the recent investments represent precedents that reflect Pittsburgh’s new attitude towards the river. The study area selected for this thesis is a stretch of underused riverfront adjacent to the South Side district of the city and will be described in detail in chapter 4. Strategies discussed in the previous chapter suggest possible concepts that may be important for the site however the projects within Pittsburgh also offer inspiration.

Projects recently completed in Pittsburgh are indicative of how the city intends to reconnect with the riverfront. Examining how these spaces approach access, program, and the image of the riverfront will help define the trajectory Pittsburgh plans to follow pertaining to its reconnection with the river. This chapter will introduce The City of Pittsburgh and present a brief narrative of how Pittsburgh’s riverfront has evolved and how the city has responded to these conditions.

3.1 HISTORY

Since the 1960s numerous cities have been emerging from an industrial culture and reconsidering the role that waterfronts play within the urban context. Pittsburgh epitomizes the very notion of this post industrial emergence. Throughout the 19th century, Pittsburgh was the world leader of steel, iron, and glass production mainly due to the great power of its river system. As the regional economy shifted away from a river-dependent industry long stretches of riverfront were left abandoned, underused, and environmentally compromised (Pittsburgh City Council, 1998).

Among the older cities in the United States Pittsburgh was established in 1758 and currently hosts a population around 370,000 (US Census Bureau 2000). The city is situated at the confluence of three rivers, where the Monongahela and Allegheny River converge to form the Ohio River Valley.

Figure 3.1 – Pittsburgh and the Ohio River Valley. (map: U.S. Fish and Wildlife Service)
Ohio River in south western Pennsylvania (Fig. 3.1). Pittsburgh occupies both sides of all three rivers, which flow directly through the heart of the city (Fig. 3.2). This unique geographic setting has made the rivers an integral part of the city’s infrastructural systems for over 250 years and it has always defined the image of Pittsburgh.

Today, Pittsburgh’s identity remains overwhelmingly defined by its industrial heritage and the smoky images of the massive steel mills and factories that once dominated the riverfronts (Fig. 3.3). Only 50 years ago, there were days the sun wasn’t visible because of the smoke (Boehmig 2006). Historian James Pauton recorded “Pittsburgh is smoke, smoke, smoke – everywhere smoke – by night it was Hell with the lid off” (Boehmig 2006, 23).

3.2 PITTSBURGH TODAY

Through the 1980s and ‘90s, despite losing most of its industrial base, Pittsburgh has remained resilient, economically retooling to become a center for finance, health care, technology, and education.
There are over 100,000 students attending 10 universities in the city (www.Nytimes.com 2009). Also, eight of the Fortune 500 companies are headquartered in Pittsburgh (http://money.cnn.com 2009). As part of this recent renaissance, Pittsburgh has displayed a commitment to improving the riverfront and redefining the identity of the city. As a long term goal, Pittsburgh hopes to revive its image as a “river city”, by creating new opportunities for recreation and developing aspects of a river life for residents and tourists (Pittsburgh City Council 1998).

The City of Pittsburgh also hosts several regional events and is active throughout the year. Some events take place on the rivers. However, outside of the larger events, the riverfronts and the water are not intensively used on a daily basis. Figure 3.4 shows a timeline of major events and activities that attract users to the city, while figure 3.5 exhibits the main uses for the rivers themselves.

Figure 3.4 – Timeline of attractions and events that draw people to Pittsburgh.
With the understanding that renewed riverfronts will generate a promising return on investment, Pittsburgh has become one of many cities determined to transform its neglected waterfront from marginal uses into “the mainstream of public activity” (Pittsburgh City Council 1998). In 1999 the Pittsburgh City Council appointed The River Life Task Force to envision a master plan to guide future riverfront development. The ultimate vision consisted of an initiative to link over ten miles of riverfront and create a continuous, accessible riverfront park system entitled “Three Rivers Park” (Riverlife Task Force 2007) (Fig. 3.6). As part of this city wide “greening” initiative, Pittsburgh has completed some riverfront projects and committed to proposals for others; still many other pieces of the plan remain as visions.
3.3 PITTSBURGH’S RIVERFRONT TRAJECTORY

Collectively the completed and proposed projects in Pittsburgh represent how the city is responding to and transforming its riverfront. While each of these recent projects is unique they share some similar aspects and had similar challenges to overcome. The following section will evaluate these projects in order to formulate a potential trajectory for the future of Pittsburgh’s waterfront as the city continues make these investments. Five projects will be briefly discussed including: Allegheny Riverfront Park, North Shore Park, The Mon Warf, Point State Park, and The South Side Riverfront Park (Figure 3.7). These projects are intended to serve as precedents that will influence the forthcoming theory and urban design strategies employed by this thesis.

![Figure 3.7 – Locations of the riverfront precedent studies in Pittsburgh.](image)

3.3.1 POINT STATE PARK

Point State Park, Pittsburgh’s most iconic park, sits on 37 acres at the confluence of the three rivers (Fig. 3.8). The land was occupied by industrial enterprises until it was acquired through eminent domain in 1950 and opened to the public in 1974. It is intended to celebrate the Pittsburgh’s role in the nation’s westward expansion, and is designated as a National Historic Landmark because it contains remnants of the French Fort Duquesne (1754) and the English Fort Pitt (1784). Much of the park has been under used since its opening and in 2006 the park received $25 million for renovations to be completed by 2010. The restoration of the park was intended to reestablish The Point as a recreational destination (Hopey 2006).
Today the Point provides space for recreation and leisure, but it is primarily used for cultural events such as festivals and the annual regatta. The space has become a popular event venue and tourist attraction however it fails to serve everyday demands of residents. The park is located adjacent to the downtown business district in Pittsburgh, where very few people live. There is little public parking and limited public transportation options making it an inconvenient option as a recreational venue for tourists and even most residents. Also, the park’s current situation does not experience daily flows of activity moving through the space. It is simply a formal destination rather than a space with a multitude of programmatic interest. Point State Park is nonetheless a beautiful landmark that seems best experienced from a vantage point outside of the park itself.

3.3.2 ALLEGHENY RIVERFRONT PARK

Flanking the north side of The Point is the Allegheny Riverfront Park, designed by Michael Van Valkenburgh Associates and completed in 2001. The park is situated adjacent to the city’s cultural district on a very thin stretch of land along the south bank of the Allegheny River (Fig. 3.9). It is considered a piece of the Three Rivers Park grand vision (mentioned above), and future plans intend to
expand this park to connect with The Point, to the west, and with the Convention Center, to the east. The space consists of two levels, one at the level of the city and one at water level (Fig. 3.10). Previously the lower level was an inaccessible parking lot subject to seasonal flooding and the upper level was part of a major arterial roadway with a narrow sidewalk (Gleeson 2009). Dealing with the highway infrastructure and providing sufficient access were the major challenges to transforming these hostile spaces into public assets.

![Figure 3.10 – Section of Allegheny Riverfront Park.](image)

Allegheny Riverfront Park has created a welcoming public space that offers various vantage points of the river however its program is as narrow as the park itself. Realistically the park can only accommodate a few forms of passive recreation such as jogging and site seeing. The upper level serves as an outdoor retreat for people working in the city to enjoy lunch or a stroll however the lower

![Figure 3.11 – View from bridge of access ramp leading to narrow river walk below.](image)
level still feels isolated from the city. Currently the narrow lower level is only accessible via two 350 foot long ramps descending from each side of the Seventh Street Bridge to bring visitors to the level of the water (Fig. 3.11). Although beautifully designed, the slender river walk is not heavily used and is often temporarily used by the homeless. Overall the park has successfully made a visual connection to the river while creating a new public space from the derelict riverfront. The narrow program however will limit the parks use to specific times and uses.

3.3.3 NORTH SHORE RIVERFRONT PARK

Figure 3.12 – North Shore Riverfront Park is located between Pittsburgh’s two new sports stadiums. It is primarily used during events at these venues. (original image: Google Earth)

Almost directly across the Allegheny River from the previous two projects, The North Shore Riverfront Park (NSRP) stretches for about one mile, connecting The Carnegie Science Center, Heinz Field, and PNC Park (Figure 3.11). Once a massive paved parking lot, the park was established in 2001. Although it provides for a wider program for recreation than the previous park, current use of NSRP is primarily driven by events and the adjacent venues. There is however a growing list of amenities that attract users to the park including kayak rentals and a functional wharf that encourage public use of the water. While the park offers an unobstructed view of the city skyline, it remains remote to residents of the city. It is cut off from the nearest residential neighborhood by half a mile of parking lots and highway infrastructure. For this reason the area serves as a destination rather than an integral part of residents and employees daily routines. Future plans to improve public transportation have attracted new development to this area that will eventually increase activity in the park.
3.3.4 MON WHARF LANDING

Figure 3.13 – Proposal for Mon Wharf Landing intends to transform a thin parking lot into a park, the space is disconnected from the downtown by several lanes of tiered expressways. (original image: Hargreaves Associates)

Stretching along north bank of the Monongahela River and flanking Point State Park is the “Mon Parking Wharf”. Currently used as a 5-acre parking lot the “Mon Wharf Landing” is considered an important piece of the Three Rivers Park plan. Construction has not yet begun on the narrow space squeezed between the river and a major highway. A proposal by Hargreaves Associates includes pedestrian and bicycle trails that will link other existing trials, scenic vantage points of the river, and a landing for small watercraft (Figure 3.13). Access points to the newly created park area will no doubt be limited by the highway infrastructure, but the will provide intermodal means of transportation to downtown for residents and workers. Much like the Allegheny Riverfront Park, the situation and narrow program of the Mon Wharf Landing will limit the activity of the space. When completed the result will also be similar; a green strip with a multi-use trail will provide an enhanced view of the river’s edge.
3.3.5 SOUTH SIDE RIVERFRONT PARK

Figure 3.14 – South Side Riverfront Park suffers from a lack of adequate access because of the tracts of neglected space, the space was once occupied by the region’s largest steel mill. (original image: Google Earth)

The final project discussed in this section will ultimately become part of the study area for the proposal produced by this thesis. The South Side Riverfront Park is located along the southern bank of the Monongahela River, adjacent to a thriving historic community (Fig. 3.14). Situated atop an old industrial rail yard this park has the potential to serve the local community and the entire city of Pittsburgh. Yet it suffers from a lack of sufficient physical and visual access. Also, it has a limited range of program consisting primarily of a multi-use trail and a public boat launch for small water craft. When compared to the previous projects this park has had significantly much less capital investment despite its potential to be intensively used on a daily basis and reconnect a popular city district to the river. Specific issues and a further analysis of the park and surrounding neighborhood will be presented in chapter 4 when describing the project site.

Each project mentioned above has successfully created an opportunity for the public to access and experience the river in a way that was not previously possible in Pittsburgh. They indicate that the city is determined to retake the riverfront and overcome the barriers that have isolated the riverfronts from the city. Through these projects, the city exhibits the willingness to invest a massive amount of capital on complex projects that may even include altering the existing infrastructure of the city. In every case mentioned above the emphasis of the project was on public space making with the goal of changing the image of the riverfront.

3.3.6 SYNTHESIS

All of these projects created new public spaces at the riverfront; each one is unique but they share many similar attributes. With the exception of Point State Park, these spaces are rather narrow and exhibit a parallel relationship to the river. This has created an explicit connection to the river but
less of a connection with the city fabric, which is amplified by the limited access and programmatic options. This is not to say the projects have failed to use the space effectively as the size and shape of each site was imposed by the existing situations. They are however only a treatment of the rivers’ edge and act more as beautification treatments than active spaces.

The edge treatment is not sufficient to create a dialogue between the river and the city. One of the city’s goals is to generate aspects of a “river life”, but to do so the riverfront must become more integrated with the lives of residents and office workers. The narrow public program establishes a constituency for the space that is limited to specific uses, as well as specific times of the day and year. Figure 3.15 shows the range of programs offered by each respective built riverfront park mentioned above. A more successful connection between the river and the city can be established by offering a more diverse range of options for recreation and leisure and encouraging residents to take ownership of the riverfront spaces. The spaces should address or create a perpendicular flow that allows an exchange of activity between the river and city.

The boundary between the city and the river is important for establishing sufficient access and making a more cohesive riverfront. These projects are associated with strong boundaries that make them more distinct and separate from the context of the city. Addressing the boundary condition puts more focus on increased access and stronger connections to the context. More porous boundaries encourage, rather than inhibit, the activity of the city to extend to the river. Utilizing the marginal spaces, which create the boundary, as a connective tissue can mitigate or even eliminate the fragmented and isolated uses of the riverfront. These spaces can be used to expand the program of the riverfront but they also create opportunities for new programs or relationships that were not previously possible to colonize the space.

If Pittsburgh continues the trend set by these recent projects the trajectory will generate a green veneer that offers the city little more than 10 miles of jogging trails isolated at

![Figure 3.15 – Range of programs provided by existing riverfront parks.](image-url)
the edge. Long green strips with only minor differences will create a generic riverfront because it will feel “as if they were rolled out from a die stamper” (Jacobs 1961, 105). The experience offered by this approach is much “like a trudge on a treadmill.” Jane Jacobs contends this is a common and almost unavoidable failure of riverfront park designs, because they are “essentially die-stamped design for die-stamped functions” (Jacobs 1961, 105).

This project draws inspiration and strategies from the several case studies and precedents discussed above. Ultimately it creates a new vision for the South Side Riverfront Park that intends to point out the missed opportunities of the current treatment. Unlike the previous projects in Pittsburgh, the focus of this redesign is focused on diversifying the program of the riverfront and creating a more explicit connection to the adjacent city fabric.
CHAPTER 4 – SITE DESCRIPTION

This project focuses on the South Side district of Pittsburgh because the riverfront here remains mostly neglected despite its proximity to a popular mixed use community. Most of the riverfront is inaccessible, cut off by warehouses, railroad lines, and other under used or vacant parcels. Historically, the river has always played a role in the lives of everyone that lived in or visited the South Side, but today the presence of the river is hardly noticed. This chapter will describe the South Side, the adjacent riverfront, and the disconnection between them.

Figure 4.1 – The South Side District of The City of Pittsburgh is located across the Monongahela River from the downtown business district, however it is home to over 10,000 residents that work or attend college in the city.

4.1 LOCATION/GEOGRAPHY

The South Side stretches for approximately three miles along the southern banks of the Monongahela River. Two popular regional destinations act as bookends for the South Side; “The South Side Works” (a newly established mixed use development) and “Station Square” (an entertainment/cultural district) (Figure 4.1). It is located across the river from the city’s downtown high
rise business core and 3 of the region’s largest universities. Geographically the “South Side Flats” sit on a narrow flood plain that is only a half mile at its widest section. Directly south of the flats, the “South Side Slopes” rise steeply to over 500 feet above the riverfront. The north side of the river reflects a similar topographic condition, but it is primarily congested with tiers of elevated expressways that serve as the main artery into and through the city. Figures 4.2 and 4.3 show the topographic characteristics of the area. There are also 7 major bridges that cross over or into the South Side. The bridges and topography combine to make the South Side an extremely visible piece of the city (Fig. 4.4). Every person that comes into or through the city will have one of several vantage points of this high profile area. Because it is so visible, the riverfront of the South Side could effectively serve as the poster child of Pittsburgh’s renewed image.

Figure 4.2 – Topography of the South Side shows over 500 feet of steep elevation change from the South Side to the ridge of the Monongahela River Valley, section lines correlate with sections provided in figure 4.3. (data provided by Pittsburgh City Planning Dept.)
Figure 4.3 – Sections of the city going through the South Side exhibit the steep topographic change and deviations in the urban fabric along each transect.
Figure 4.4 – This series of images shows several vantage points of the South Side from various highways and bridges. The geographic setting makes this area a very visible section of riverfront; it is seen or intersected by every person who drives into or through Pittsburgh, but it does appear to be a friendly or attractive area for people to visit.

4.2 HISTORY

Although small, this piece of land in the Mon Valley was a very powerful force throughout American history. In the early 1800s the Monongahela was declared “a public Highway” by the Virginia State Legislature and tens of thousands of western travelers passed through Pittsburgh every year. Fueled by its riverfront boat-building yards, the South Side became the staging ground for America’s
westward expansion (Parker 1999). Into the mid 1800s, the South Side was the center of America’s glass industry and had nearly 80 glass factories at its peak. By 1900 many factories began to relocate as a result of Pittsburgh’s limited space and high taxes (Boehmig 2006). Today, the industry has moved out of this area, yet several of the old factory shells remain standing and some have been repurposed to fit new uses.

As the glass industry faded, the South Side was becoming known worldwide as the global center of the steel industry (Boehmig 2006). Most notable for its contribution to the industrial revolution, from the early 1900s through 1960 no place on earth made more iron and steel than the South Side (Fig. 4.5). However, by the 1960s America’s steel industry fell into economic trouble and by the mid ‘70s the last blast furnaces in the South Side were shutdown. The vacant factories dominated the landscape for over a decade, until they were demolished in the late ‘80s, marking the end of steel industry in the South Side (Boehmig 2006).

Along with the rivers, the rough topography of the Pittsburgh region caused a sort of natural zoning within the city. Only the flat river bottoms offered enough space for the giant factories and mills to spread out (Mumford 1961) (Fig. 4.5). These areas became heavily developed by the industrial enterprises while the left over spaces and surrounding hills were densely populated by the families of the factory workers. Founded by European immigrants, the South Side was home to over 40,000 people at its peak. For these people the river was essential to their lives, because it enabled the industries that employed their families.

Figure 4.5 – The Jones and Laughlin Steel Corporation in the South Side in 1951. The entire district was once dominated by steel mills and iron works. The riverfront was solely considered for utilitarian purposes until the mills were shutdown in the 1970s. (Images: Carnegie Library of Pittsburgh)
It was the river that allowed industry to prosper in the South Side but today the presence of the river has faded with the smoke that once billowed from its banks. The Monongahela was once the hardest working river in the United States, transporting more tonnage per mile than any other river (Parker 1999). Barges brought coal and other raw materials to the factories and they carried away millions of tons of steel to be shipped across the country (Fig. 4.6). However, shifts in technology and transportation made the river obsolete for producing steel and too slow for transporting people. The heavy infrastructure required by the steel industry created such a rigid boundary along the riverfront that most of the land is yet to be occupied with new uses beneficial to the community. Since the industrial collapse the South Side has become oriented away from the river, and a practically impervious barrier has formed between the people and the river.

Figure 4.6 – Coal barges lined up on the Monongahela in the South Side in 1900. The river provided direct access to massive coal deposits through the Monongahela River Valley. Coal and ores were brought to the South Side steel mills making Pittsburgh the largest inland port in the United States. (Image: Carnegie Library of Pittsburgh)
4.3 SOUTH SIDE 2008

The South Side however, did not die along with the industries that built it. The area has been resilient. Buildings have been repurposed and the area has attracted new residents. Some new development has taken place but it ignores the river and does not attempt to reintegrate the riverfront into the city fabric. The riverfront still has much to offer residents and visitors of the city, but its potential has not yet been tapped. This project targets these missed opportunities and in the process, demonstrates that river could become part of the city’s infrastructure again. A softer infrastructure that is more flexible to changing demands could play a new role in the 21st century city and the riverfront provides that space.

With the new commercial developments serving as bookends, the heart of the South Side is predominantly residential with a main street axis of local neighborhood commercial uses. The housing fabric consists mainly of small row homes, but there are several multi-family dwellings and mixed use units as well (Fig. 4.7). There are dozens of commercial and civic buildings scattered throughout the neighborhood, but East Carson Street is the main commercial area. Running parallel to the river, the axis of the community is composed of many locally owned retail shops, but it is dominated by restaurants and bars (Fig. 4.8). A variety of ethnic restaurants and over 80 bars provide East Carson Street with a diverse crowd and a non-stop flow of activity, making it a popular destination for nightlife and tourism.

Figure 4.7 - Row homes and apartments are the primary housing typologies in the dense South Side.

The South Side is concentrated with 19th century homes and other original buildings but there has been some recent development as well. The buildings along East Carson Street were deemed part of a historic district by the National Register of Historic Places in 1983. Once the commercial core of Pittsburgh’s industrial and transportation center, these high-quality, low rise commercial buildings
characterize East Carson Street as a 19th-century Main Street (Gombach Group 2008). Throughout the South Side many buildings, including some factories, have been renovated and adaptively reused, a characteristic apparent throughout the neighborhood. Some of the most recent development in the area includes the addition of some low rise apartment buildings and condos units. Even the recent construction reflects the image of the South Side because it is densely built and provides little or no open space for residents.

![Image: www.city-data.com](Image: www.pps.org)

Figure 4.8 - East Carson Street is the heart of the South Side and has been deemed a historic district due to the well preserved collection of Victorian Architecture. Many unique shops, ethnic restaurants, and bars collectively attract a wide diversity of people of all ages.

The demographic makeup of the South Side is reflects both the old and new generations of Pittsburgh. Over the past three decades the city has transformed into a center for business, health care, and education. In turn the South Side has become a diverse neighborhood ranging from college students to young professionals and senior citizens. Today, the South Side is one of the most popular districts in the city. It is a dense community of over 10,000 people, but despite its close proximity, they do not share much of a relationship with the river.

Options for outdoor recreation and leisure are not nearly as diverse as the people and businesses of the South Side. It is actually very limited because the buildings are so tightly compacted. Outdoor life in the South Side is primarily limited to the streets and sidewalks. There are no private yards and only very little public green space. The only two small green spaces are fenced off and mainly programmed for active recreational activities such as tennis, basketball, and baseball. The river could potentially play a new role in the lives of the residents by offering more recreational options and open space.
The current riverfront offers some public use, but doesn’t come close to meeting its full potential. A portion of the riverfront is occupied by the South Side Riverfront Park, but it offers limited recreational options and is not adequately accessible to the community. The park is primarily a means for launching small water craft and provides access to the water for anglers and boaters. A multi-use trail runs near the river’s edge but there are only a few access points and no spaces that encourage other activities. In general, the riverfront is isolated from the rest of the community because it is not highly visible nor is it attractive to a wide range of users.

4.4 PROBLEMS AND POTENTIAL

The disconnection between the South Side and the riverfront is primarily due to inadequate public access and the lack of programmatic options. Although it is a narrow space, there are many underutilized parcels that could be used to extend the riverfront into the community. In its current condition, the space is not attractive to many user groups despite its great potential to be integrated into the daily lives of residents and visitors.

When the steel industry abandoned the South Side it left behind large parcels of neglected land along the river that became a barrier between the water and the community. Decades later, most of the land retains its industrial zoning classification (Fig. 4.10). However, a study of actual land uses reveals institutional, civic, and other uses of the once industrial zoned parcels. This analysis also exposes vacant or ambiguous fragments of land that are not being currently utilized (Fig. 4.11). Figure 4.9 shows the historical industrial enterprise while figures 4.10 and 4.11 show the differences between the current zoning classifications and the actual land uses in the south side. Some parcels have been filled with warehouses and light industrial uses while other spaces are still vacant. Although the industry severed the public connection with the riverfront it has also preserved these large tracts of land along the river. Figure 4.12 shows the buildings that border the riverfront space and it highlights the areas of vacant or underutilized land. These marginal spaces could be used effectively to improve access to the riverfront while providing space for the public to recreate. Figure 4.13 catalogs some of the vacant and underutilized tracts of land along the river.
Figure 4.9 - Industrial enterprises during the early 1900s occupied the entire riverfront. Public access was completely cut off by the heavy infrastructure associated with the steel industry.

Figure 4.10 – Map showing the Zoning regulations in 2008. There are no longer any steel mills in the South Side, but some lighter industrial uses occupy some of the space. (data provided by Pittsburgh City Planning Dept.)
Figure 4.11 - Actual land use as witnessed and cataloged in 2008. Despite the zoning regulations much of the area zoned industrial is occupied by other uses.

Figure 4.12 - Vacant land and industrial parcels with no public access or right-of-ways. This map shows the neglected tracts of land that separate the community from the riverfront. These are the spaces that have the potential to provide new connections to the river.
Public access is a problem for this area both physically and visually. Currently there is one public entrance point to the park and only three access points to the trail, none of which are explicit. Figure 4.14 shows a view of the main entrance to the park and a view of the multi-use trail. Physical access to the riverfront is not possible in any other places because there are no public right of ways. Figure 4.15 highlights the park and trail and shows the only points of access; there is no public access from the water to the park or trail other than a small boat launching point. An active railroad also runs through the site, but it doesn’t have to prevent the public from having better access to more spaces along the river. Even vacant parcels act as barriers because they are not safe and/or surrounded by fences. Visually one cannot see the river through the thick brush that has colonized the land along the railroad and throughout the much of the other lots (Fig. 4.16).

![Figure 4.13 - Underutilized land fragments along the riverfront are common in the South Side. These spaces are mostly vacant or used as temporary parking lots. Many of these spaces are small or oddly shaped however they are capable of providing several means of public program.](image1)

![Figure 4.14 - Entrance to South Side Riverfront Park (left) and condition of existing trail (right). The existing park and trail are isolated from the neighborhood because there is a lack of explicit public access. These spaces also offer only a limited range of potential uses.](image2)
Figure 4.15 – Diagram of existing park and trail access points. Every access point is located in an industrial area or requires visitors to cross vacant areas in order to access the public space. This diagram also shows the perimeter of the existing park is completely surrounded by vacant land.

Figure 4.16 – Fences and neglected vacant land blocks physical and visual access to riverfront. These conditions discourage and deny public access to the riverfront.

The lack of adequate access also limits the diversity of users because most people are not willing to walk more than a few blocks. Some people are not physically capable, others may be afraid of crossing certain boundaries, and many feel that they don’t have the time (Harnik and Simms 2003). These conditions are further limiting for seniors and children. Figure 4.17 shows the limited area serviced by the existing park within a quarter of a mile, or five minute, walking distance of the only access points. However a more porous boundary will achieve a service area that stretches further into the community serving many more residents. A wider range of programs and a more friendly appearance may also increase the distance people are willing to walk in order to come to the riverfront.
Fig 4.17 – Area within one-quarter mile walking distance to park entrances. This diagram shows that only a limited portion of the neighborhood is served by the only two access points of the existing park.

Transforming the neglected land into public space can secure better access to the riverfront while also solving the problem of the South Sides limited open space. Homes in the dense community do not have private yards and there is very little public open space for residents. Converting the neglected spaces along the river would give residents the much needed open space that is not offered by the current community fabric. Potentially the river could offer some breathing space for residents, where they can experience a more vast open space than any such spaces that exist in the community. The space could act as a front yard for every resident of the area, however, it must be accessible and meet the demands of a diverse public.

In its current form the riverfront suffers from a lack of programmatic diversity, and the existing public spaces are an unattractive option for many people because it offers little that they want. The limited recreational options produce a narrow user group and static atmosphere. An expanded and flexible program will give people more options and allow them to bring their own activities, making the space much more dynamic. Given the opportunity, the energy and activity of the South Side’s sidewalk life could extend to the river, possibly even creating new commercial and retail opportunities.

The location of this site is a strong indication of its potential. Across the river is the main business core of the city, three major universities and seven smaller universities (Fig. 4.1). As previously mentioned, over 10,000 people live in the South Side, however recent riverfront improvements have focused on areas adjacent to the downtown business district, where less than 2,000 live. Everyday many residents of the South Side walk or bike across the river to go to work and attend class. In its current condition the riverfront is rough and uninviting, but it could be part of the daily commute of thousands
of people. Also as previously discussed, the riverfront is an extremely visible piece of the city and could make an impression on everyone that comes to Pittsburgh, while also becoming part of the city’s new image.

The riverfront can also create a local and regional connection to the South Side. Located across the river from the downtown core of high rise buildings, this site presents a unique opportunity to frame the city skyline (Fig 4.18). This section of the river could be an important piece of the inner city multi-use pedestrian trail, connecting it to other open spaces in various sections of the city. It is also positioned along the Great Allegheny Passage - a 318 mile biking trail which connects Washington D.C. and Pittsburgh, terminating in Pittsburgh’s Point State Park at the confluence of three rivers. In the near future, the water itself may also prove to be useful for transportation. Modern ferry boats are capable of traveling at speeds over 35 mph, making the rivers an attractive option for public transportation in a compact city.

Overall the site is a dense yet lively section of the city that suffers from a lack of open space and recreational options. The existing park infrastructure does not address the opportunity to engage the community fabric with the riverfront as it remains isolated and inaccessible. There is no public connection with the riverfront despite the potential number of diverse users that pass through, around, and over the space every day. The marginal spaces that act as a barrier could potentially be acquired by the city, as Point State Park was acquired via eminent domain. Establishing a new relationship with this section of the riverfront can provide opportunities for leisure and the enjoyment of open space in the city.
CHAPTER 5 – THEORETICAL FRAMEWORK

As mentioned, the purpose of this project is to envision a more cohesive riverfront, such that by reprogramming the marginal boundary between them a connection may be established with the community fabric. Rather than following Pittsburgh’s recent trend of treating only the edge of the river, this project approaches the site differently. As Michael Michalko writes; “Genius often comes from finding a new perspective” (2001, 19). It is possible to avoid repeating the same treatment and creating a monotonous riverfront by applying a new methodology to the riverfront based on a different set of values and ideas.

This chapter outlines the theoretical framework that influences the strategies developed in this thesis. The ideas presented here and the strategies discussed in the precedent studies have both influenced the design process and vision projected on the study area.

5.1 INFRASTRUCTURE

According to Alex Wall the proliferation of ambiguous urban sites is an unintended effect of urbanization. He believes these emerging conditions require designers and planners to approach urban projects with a renewed concern for infrastructure, services, mobility, and multifunctional spaces (Wall, 1999). To Wall the term landscape “invokes the functioning matrix of connective tissue that organizes not only objects and spaces but also the dynamic processes and events that move through them” (1999, 233). Treating the marginal urban riverfront as an infrastructure allows a greater potential to connect the disparate fragments found between the river and the neighborhood.

The Oxford English Dictionary defines infrastructure as “the basic physical and organizational structures needed for the operation of a society or enterprise” (www.AskOxford.com 2009). By this definition, an open space infrastructure derived from the riverfront would also enable the landscape to structure and organize the things that it supports. In the case of the South Side the marginal spaces can act as an armature that functions to provide opportunities for new relationships and interactions among everything it supports. The neglected voids have the capacity to assume active roles of connecting and supporting a diverse range of people and programs.

Creating an infrastructure that encourages interaction would create a thicker, and yet more porous boundary between the riverfront and the community, thus establishing more opportunistic options to access to the riverfront. James Corner suggests a similar concept in which the boundary creates relationships by acting as a connector rather than a divider; “rather than separating boundaries, borders are dynamic membranes through which interactions and diverse transformations occur. . . the
edge is always the most lively and rich place because it is where the occupants and forces of one system meet and interact with those from another” (Corner 1999, 54). Not only does this concept result in increased access to the riverfront, it also suggests the boundary will become a more active space that allows diversity to thrive.

The permeable border and active riverfront can also potentially play roles as social catalysts. A scheme based on an infrastructure of access and interdependence “promises contact and exchange for people in otherwise disjointed urban environments through an array of spaces, activities, and circulation systems” (Czerniak 2007, 241). A multitude of activities and land uses already exists in the South Side. Connecting them to the riverfront allows them to meet and interact with each other in new ways on a common ground. This approach broadens what Galen Cranz considers a tendency of some urban park design to reduce the range of social functions performed by the park space (Cranz 1982).

5.2 PACKAGING

“Packaging is a method of gathering together objects to enhance their distinctness” (Berman 2006, 21). It is often considered an important part of marketing products. In the case of the riverfront, the product is the image and experience created by tying together the disparate pieces. Creating a network of sites groups them together so that they can be understood as an organized unit. Potential users will be able to understand and navigate a cohesive riverfront thus they will be more attracted to using the space.

Julia Czerniak refers to the legibility of the landscape as having the capability to be easily understood. In the context of the riverfront, the organizational strategy of the design should have the capacity “to be understood in its intentions (its evolution and goals), identity (its distinguishing character and organization), and image (both its appearance, whether pastoral or post-industrial, and its marketing strategies)” (2007, 215). Although legibility is a simple concept, she admits that it is challenging to build into a project through design. Considering legibility in the design process is however critical for the success of any public space as parks must be legible to everyone who will use and support them (Czerniak 2007). Packaging the fragmented and neglected spaces along the riverfront can help users reconcile these spaces with the surrounding context and understand the role of the riverfront.

Packaging the public riverfront also frames it as an object and puts it on display. Given the highly visible nature of the South Side’s riverfront, packaging it would heighten the anticipation and desire to experience what is inside the package (Berman 2006). As Richard Berman explains, “the act of packaging
... can serve to attract consumers, visitors to a site, building anticipation, creating desire in people to visit and experience these sites” (2006, 33)

Filling in the available fragments of space does not alone establish a cohesive riverfront. Finding ways to package or assemble them transforms the spaces into a meaningful composition. This strategy is visible in Minneapolis’s riverfront network and it has successfully developed constituency of tourists and everyday users. Eventually this ideology could be part of a larger goal for networking all of Pittsburgh’s riverfront spaces, creating the “river city” image.

5.3 PROGRAM

When describing the city sidewalk, Jane Jacobs declares that it is nothing by itself. “It is an abstraction. It means something only in conjunction with the buildings and other uses that border it . . .” (Jacobs, 1961, 29). Like sidewalks, the riverfront is also nothing by itself. It is sandwiched between the neighborhood, the water, and their respective uses. It exists in relation to its surrounding and its success depends on how well it can support the contextual programs. She also states that successful urban parks will never serve as a barrier or interrupt the functioning of the surroundings. “Rather, they help to knit together diverse surrounding functions by giving them a pleasant joint facility; in the process they add another appreciated element to the diversity and give back to their surroundings” (1961, 101).

Although much of the marginal riverfront is vacant space, it still retains cultural residues from the industrial era. Defined by its industrial heritage, the riverfront in the South Side is mentally constructed as a utilitarian space, uninhabitable by the public. Generating a public constituency for these spaces will require shedding the mental barriers and evoking the presence of new cultural values. Rather than “scaping the land into a formal composition of meaning and presence” James Corner suggests an alternative approach of “scraping the land of its various residues: symbolic, political, and material” (2001, 123). The result is a deterritorialized space capable of accommodating multiple interpretations and possibilities (Corner 2001).

A method of “scraping” may be necessary along the riverfront in order to clear the mentally and socially constructed barriers that have been fortified for over 200 years. Drastically transforming the riverfront may allow it to be viewed in a new light that shakes off the stigma instilled in the land by the industrial processes that created it. Corner does not suggest that the space should then be completely left alone. Introducing particular structures can serve as a framework that supports the deterritorialized land as it is socially reintegrated. Scraping the land creates the conduit that allows the surrounding
programs to extend to the river, colonizing the space and setting the stage for new relationships to emerge.

Utilizing the fragments of the riverfront can create new programmatic connections between otherwise separated programs. Clemens Steenbergen explains that new, experimental combinations can be generated by reorganizing the existing urban and landscape programs. “Here, the landscape architect is choreographing activities which unite the city and landscape. . . . Not by sticking (the fragments) together so that they still look good to some extent, but by breathing life into them and by forming from opposites an alliance which has not yet been shown”’ (1993, 126).

Ian McHarg suggests that the conception of complementary land uses is a valuable innovation that conflicts with the principle of zoning, which tends to enforce segregation among land uses (McHarg, 1969). Areas that are capable of supporting more than one use “. . . can be seen either as a conflict or as the opportunity to combine uses in a way that is socially desirable. . . . It is possible to combine land uses but this requires some discretion and even art.” (McHarg, 1969). According to Alex Wall, successful multifunctional surfaces are the product of a strategic urban design aimed at using program to tie spaces together. “The grafting of new instruments and equipment onto strategically staged surfaces allows for a transformation of the ground-plane into a living, connective tissue between increasingly disparate fragments and unforeseen programs” (1999, 235).

The South Side has a diverse population and a variety of uses are already taking place within the built fabric. Allowing the context to dictate the program is important to creating a new meaning and image for the riverfront. As Galen Cranz contends, if elements are put together without reference to their surrounding, “the entire composition loses an inner tension and vitality; it becomes banal” (1982, 244). She advocates that this is done too often in standard “bread and butter solutions”. Rather than simply plugging new programs into the various spaces, the suggested approach can create a landscape that the surrounding community can plug into.

This thesis focuses on allowing the surrounding context to influence the re-programming of the riverfront. In order for the neighborhood to make a connection with the riverfront, the landscape must be able to support the existing programs. Thus, the riverfront is not approached as an isolated moment in the city but as part of a more dynamic field of moments. This thesis sets up stages for some of the existing land use programs to expand to and mingle at the riverfront. It attempts to further diversify the range of uses by allowing, or even forcing, opportunities to propagate new unforeseen programs or hybrids of the existing programs.
5.4 NON-PROGRAMMED SPACE

To encourage a programmatically diverse riverfront it is critical that the strategy avoids over-programming the spaces. Defining strict programs will inhibit people from using the space in new ways. Flexible open spaces are better suited for the unforeseen recreational and social demands that may arise. “Such landscapes can respond to the emerging social values, pleasures, and tastes of a more pluralistic society” (Hester 2006, 259). Each of the case studies previously presented takes advantage of large non-programmed spaces. They are intentionally designed without an explicit program to allow the space to be manipulated by the users.

It is unnecessary to design spaces that obligate people to do something. Adriaan Geuze is in favor of emptiness rather than over-programming. He explains that by supporting the creativity of the user they will make the place their own, bringing their own activities to the space. Not all activities will be immediately predictable. However, they can be “designed for” by diversifying the range of possibilities supported by the landscape. A primary design strategy employed by this thesis, as well as the previous case studies, is to reserve non-programmed space so that the riverfront can be used by a wider range of people 24 hours a day and 7 days a week.

Non-programmed spaces are essential because they are adaptable and incomplete. The industrial waterfront was so vulnerable because it could only support one use. When the industries vacated, the space was not able to adapt and fell into its neglected state. Alex Wall explains that rather than “comprising elements serving only one function, a design that can accommodate many functions is both economical and enriching of social space” (1999, 245). In agreement, James Corner suggests that a good strategy will be well organized but will also remain flexible and open to assure its own longevity. “Too rigid a strategy will succumb to a surprise or to a logic other than that for which it was designed, and too loose a strategy will succumb to anything more complex or to anything more highly organized and better coordinated” (2004, 1).

Because the landscape can be strategically non-programmed it is an important medium for the phenomena of urbanization. It can be successfully incomplete. The flexible landscape is contextually responsive and remains open-ended rather than striving for completeness. The urban fabric exhibits a contingent patterning of incremental changes. Non-programmed spaces are able to absorb the perpetual incomplete growth associated with urbanization. These spaces can set up the conditions for urban life to play itself out (Corner, 2004). Instead of specifically programming the entire riverfront, an open ended approach can preserve the large tracts of land for unforeseeable cultural demands.
The previously discussed case studies all include large expanses of non-programmed areas. With easy access to the urban fabric and the waterfront these spaces can fulfill any number of cultural demands. Currently these spaces are used as recreational fields and event spaces but their capacity is not limited to these programs. The South Side riverfront begs for this kind of approach because the context is so diverse and dynamic, constantly changing and evolving. A successful strategy here will support the wide range of residents, tourists, and civic venues along with their respective ways of connecting with and using the riverfront.

5.5 IMPERMANENCE

An impermanent landscape is one that is easily adaptable. Ignasi de Solá-Morales’s concept of the *Terrain Vague* can also be used to reference the indeterminate an-programming of the riverfront voids; the “absence of limits precisely contains the expectations of mobility, vagrant roving, free time, liberty” (1995, 120). This absence of limits allows the landscape to remain flexible rather than permanent. It is the only medium with the capacity to simultaneously deal with the changing densities and indeterminate futures that are a typical process of urbanization (Waldheim and Santos-Munné 2001).

“Program and function are, perhaps, the most changeable aspects of any city” (Wall 1999, 245). Demands and desires can change incrementally or overnight. Replacing the ideology of permanent design with that of a temporal and dynamic approach will accommodate these changes (Wall 1999). Developing the riverfront with buildings, permanent programs, and other rigid infrastructures may satisfy a present situation, but the space is placed in jeopardy of being lost again to a future era. The built fabric forms a rigid infrastructure which is expensive and normally responds slowly to the rapidly transforming conditions of today’s urban culture (Waldheim 2006).

Architect Rem Koolhaas suggests that a strategically organized space can support an unpredictable range of activities and uses over time (as quoted by Waldheim).

It is safe to predict that during the life of the park, the program will undergo constant change and adjustment. The more the park works, the more it will be in a perpetual state of revision. . . . The underlying principle of programmatic indeterminacy as a basis of the formal concept allows any shift, modification, replacement, or substitution to occur without damaging the initial hypothesis (Koolhaas 1999, 921).
Impermanent open spaces provide a sense of flexibility which can more quickly respond to changing urban conditions and preserve the riverfront as a public resource. Some of the best examples of impermanence are displayed by the case study projects. Temporal programs can be introduced into the space for short periods of time. Festivals take place in these spaces to meet the desire to host organized city events. However the festival space is not a permanent venue, it becomes occupied with other uses as soon as the event has ended.

Temporary programs demonstrate how the land can be easily and quickly re-programmed to meet present demands without reducing its capability to serve future needs. The marginal spaces in the South Side can be transformed into functional assets for the city. Not necessarily because they can change the city, but because they can facilitate the changing city.

5.6 LANDSCAPE AS THE MEDIUM

When approaching the marginal spaces near the riverfront, perhaps the first question raised is – What makes public open space a suitable medium for developing the riverfront? This is a fair question, especially when even some landscape architects like Adriaan Geuze deny the need for parks. He insists that “all of the 19th-century problems have been solved and a new type of city has been created. The park and greenery have become worn-out clichés. Our parks will never have the beauty and power of those in the 19th century” (1993, 38). Given the ease and availability of transportation, people can easily escape the ills of the city anytime they want. However there is no need to escape the city anymore. “Contemporary life is a continuous escape, it is a series of . . . possibilities and experiences, and . . . a contemporary city, the new city we are living in, creates its own escape” (Geuze 1993, 39).

This doesn’t dismiss the importance of open space in the city, it does however suggest a different approach to what open space means to the city and how it functions in the urban context. The role of the urban park has evolved with the changing cultural and social value of the space. Today the role of urban open space is important for providing an experience of the urban life, rather than reserving space to escape the city. Geuze contends that the landscape should provide people with the tools for their behavior. Insisting that open space can “give them the equipment” necessary to create an urban life (Geuze, 1993 39).

In reports regarding the revitalization of its neglected riverfronts, Pittsburgh City Council has made reference to developing aspects of a “river life” (Pittsburgh City Council 1998). There is an opportunity to do so in the South Side, by making the riverfront landscape available for the public to experience as a part of the city. This approach aims to integrate the marginal riverfront spaces with the
community rather than thinking about them as isolated units. It will also provide the strong connection between the river and the neighborhood required to propagate aspects of a “river life.”

Architect Stan Allen suggests that “Increasingly, landscape is emerging as a model for urbanism” (2001, 124). Other authors such as Charles Waldheim believe that the landscape is capable of making up for the inability of architecture and urban design to produce coherent and convincing urban situations. He and Allen agree that the designer is capable of using the landscape to activate spaces and generate urban effects that were traditionally attained by erecting buildings (Waldheim, 2006). These ideas build an argument towards preserving and creating a public landscape along the riverfront rather than allowing it to be redeveloped with buildings. In the South Side, the riverfront offers an adaptable medium capable of organizing future urban development.

Integrating the landscape into the community fabric allows it to be more adaptable than the green veneer afterthoughts that were recently introduced to portions of Pittsburgh’s riverfront. Larger, open spaces can accommodate more uses than the smaller enclosed parks. According to landscape architect Randolph Hester, spaces are more flexible when they are surrounded by permeable boundaries rather hard fortified edges. He also contends that “an open space that is paired with its complementary and opposite space is more adaptable than either alone. A nodal landscape is more flexible than a linear one” (Hester 2006, 257).

5.7 RESEARCH OBJECTIVES

The body of literature presented above suggests that the marginal riverfront landscape can be used much more effectively than it is currently. Based on these concepts, this thesis engages an exploratory process of developing a new riverfront model for Pittsburgh’s South Side district. As the city strives to reclaim its rivers and create aspects of a river life, the abundance of marginal spaces here can play a vital role. Using the landscape the medium, this study employs variations of these concepts to re-program the riverfront in a way that it can be perpetually influenced by the surrounding context. By connecting this dense, diverse community to the riverfront, this process demonstrates how the forgotten landscape can be transformed into potential assets for the city and region.

Overall, the approach of this thesis emphasizes new perpendicular connections between the riverfront and the community rather than the isolated spaces parallel to the river. The design process focuses on creating a new vision for the riverfront. Table 5.1 displays a matrix that outlines the goals of the project as they relate to the ideas discussed in this and earlier chapters.
Table 5.1 – Matrix outlining the theoretical goals of the project.

<table>
<thead>
<tr>
<th>Theory / Parameter</th>
<th>Value</th>
<th>Criteria / Goal</th>
<th>Spatial Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porous not rigid boundaries</td>
<td>Adequate access</td>
<td>Integrate riverfront with community fabric</td>
<td>Direct explicit access to riverfront</td>
</tr>
<tr>
<td>Cohesiveness not fragmentation</td>
<td>Legibility</td>
<td>Connection of disparate land parcels</td>
<td>Connected nodal landscape network</td>
</tr>
<tr>
<td>Influence and relationships not isolation</td>
<td>New interactions</td>
<td>Generate opportunity for new unforeseen programs</td>
<td>Interconnected multi-use spaces</td>
</tr>
<tr>
<td>Flexible program not permanence</td>
<td>Respond to change</td>
<td>Support wide range of activities and people</td>
<td>Open spaces with temporal program</td>
</tr>
<tr>
<td>Framework/armature</td>
<td>Organization</td>
<td>Assemble a meaningful composition</td>
<td>Riverfront network</td>
</tr>
</tbody>
</table>

Ultimately the research objective of this process is to demonstrate how the marginal fragments along the urban riverfront can be reprogrammed to create a more cohesive riverfront that is better integrated with the community and reflects positively on the city’s image.
CHAPTER 6 – DESIGN PROCESS

This chapter presents the design process and concepts based on the theoretical framework. The approach is to develop an open space framework at an urban scale that provides a more cohesive riverfront for the South Side. The exploratory process intends to create stronger connections to the neighborhood by increasing access and facilitating an expansion in the range potential programs. The design proposal is divided into four sections. The first section describes the process used to re-program and negotiate the form of the space. After establishing a framework for the riverfront, the following two sections identify the public access points and a potential phasing strategy that will generate a public constituency along the riverfront. The last section presents the urban plan and illustrates potential visions for the newly programmed riverfront.

6.1 SHIFTING PROGRAMS

The underutilized spaces along the riverfront were identified and presented previously in figure 4.12. The process of re-programming those spaces takes into account Jane Jacobs’s ideology that “parks are directly and drastically affected by the way the neighborhood acts upon them” (1961, 95). The physical arrangement of the community fabric affects the mixture of people and programs that enter and leave the park at various times (Jacobs 1961). This process is intended to allow the existing programs of the neighborhood to influence the new use of the riverfront, thus establishing a connection between the two.

The entire riverfront is approached by examining the neighborhood for strong existing programmatic elements. Using an aerial photograph, the study area is cut into 27 slices coordinating with marked changes in program either within the fabric or at the riverfront. The slices are made perpendicular to the riverfront in order to break up the parallel conditions and highlight the existing programs that could extend their presence to the waterfront. Figure 6.1 shows the 27 slices and the respective elements that influenced the cut.

After creating the various slices the next step shuffles and reorganizes the existing programs. The riverfront is used as a common datum where these elements are recombined to create new programs and new relationships by gathering the existing programs. Many times in riverfront design, the boundaries between the land and the water are shifted by pushing or pulling the edge of the water through digging or land filling (Berman 2006). This project uses a similar approach to shifting the boundary between the community and the marginal riverfront spaces.
Figure 6.1 – Creating the 27 perpendicular slices of program. Each slice is made in correlation to a distinct programmatic feature located in the existing neighborhood fabric.

A pre-established set of rules dictates the direction and distance each slice is shifted perpendicular to the river. On each slice with a strong neighborhood program, it will slide towards the river until the marginal gap is filled. In the case where a slice lacks a strong programmatic element, it will be pulled inland, allowing river activities to influence the programming. Figure 6.2 shows the direction and distance each slice is moved while figure 6.3 shows the newly arranged aerial photograph.

Figure 6.2 – Direction and distance each slice will be pushed or pulled. The strong neighborhood programs will move towards the riverfront while slices with a weak public program are moved to pull the activity of the river inland.
Figure 6.3 – Aerial photograph after the rearrangement and shifting of the slices based on program. This shows the potential for new adjacencies and relationships among the various land uses and programs that currently exist in the South Side.
The intended result creates spaces along the riverfront that have been programmed or influenced by the movement of each slice. Historically the entire riverfront was reserved for industrial practices and today only a fraction remains. Figure 6.4 shows how the riverfront is programmatically reorganized with a mixture of elements that are not clumped together and segregated. The once ambiguous spaces now allow for a sampling of community and river related activities to co-exist and activate the riverfront with a wider range of programs than previously achieved (Fig. 6.4).

![Diagram showing different programmatic spaces along the riverfront](image)

Figure 6.4 – Concept of increasing the range of the riverfront program. This diagram illustrates how new programs may be taken from the surrounding fabric and grafted onto the riverfront. The result is a more diverse program that will meet the demands of more people and offer users a wider variety of options.

After shifting the slices, the forms for the riverfront are generated by analyzing the newly formed features and program of the site. The new form is given to the space by taking into account the existing buildings, the available property, and the new arrangements superimposed upon them. Figure 6.5 shows the newly created open space armature which was derived from and will support the programs that are inserted into it.
Figure 6.5 – The form of the proposed public space is negotiated from result of the shift (above) while taking into account and existing streets, railroads, and building footprints.
The topography of the area is also influential on the programming of areas along the riverfront. Figure 6.6 shows the three largest watersheds that flow down the steep slopes, across the community, and into the river. These discharge points are programmed as wetland areas to control and clean the water as it enters the river. Areas like this are susceptible to a type of cross programming that allows people to interact and move through these spaces as well. Figure 6.7, on the next page, shows the major influences that for each section along the riverfront. These spaces are not intended to be heavily programmed. Instead they give way to a more flexible and open-ended form of programming as discussed in the previous chapter. They are equipped with elements that allow and encourage the surrounding community to influence and bring program to the space.

Figure 6.6 – Diagram of three large watersheds that run down the steep slopes and across the site. The watershed influences the program of the site where it intersects the riverfront. These spaces can be used to slow and collect runoff with wetlands that can treat the stormwater before it enters the river.
6.2 PUBLIC ACCESS

Establishing an adequate amount of public access to the riverfront ensures a strong relationship between the adjacent community and the river, thus allowing people and program to activate the space. It is necessary to provide more explicit points of access to the riverfront than what currently exists. Figure 6.8 diagrams the notion of a more porous boundary as discussed previously. While the new open space framework for the riverfront increases the contact area with the neighborhood, there are also areas where public right of ways may need to be established or preserved.

Figure 6.8 – This diagram illustrates the concept of a porous boundary that creates more access points and opportunities for the riverfront to extend its presence and create relationships with the community.
Historically all of the buildings along the riverfront were connected by a series of railroad tracks. The main tracks ran parallel to the river; however there were many spurs that provided a perpendicular connection to the main tracks as well. Figure 6.9 (above) shows the historical rail road structure for the South Side. Sections of these tracks still exist, while others have been removed or paved over, but most of the right-of-ways are still free of obstacles. These long spurs are the inspiration for locating the public right of ways to the riverfront. As they did historically, they now become conduits for perpendicular circulation to the riverfront. Specific spurs are located and their right-of-ways become transformed into access points for the new park, providing a means for local programs to reach the river. Figure 6.10 shows a diagram of the public right of ways which are planned to be celebrated and preserved connections to the new open space framework.
6.3 PHASING

Transforming the entire three mile riverfront is not a task that can be accomplished overnight. It may actually take several years for the full scope of this project to be realized. First of all, the land is not all currently owned by the city. Thus, some parcels may be acquired, subdivided, and ready for development much sooner than others. Also, some of the proposed elements are much more costly than others. The most expensive earthworks may have to wait until sufficient funding is available, which might also include using the first phases of the project to leverage the later phases. This section will describe the four main phases foreseen for this project. On the next page, Figure 6.11 illustrates how the proposed open space network along the riverfront may evolve through the phases as further progress is attained.
Figure 6.11 – Phasing diagram illustrates how the site may potentially evolve through various phases as the land is acquired and public access is established.
6.3.1 PHASE 1 – ACCUPUNCTURE

The first phase is to establish the access points and secure public right-of-ways to the riverfront. It is important to create a porous boundary that will encourage subsequent relationships. These are the points that will energize the entire riverfront. They must be established in order to allow the surrounding context and users to inoculate the spaces and begin the distribution of new programming.

6.3.2 PHASE 2 – INOCULATION

The next phase begins to develop the areas around the access points, introducing the first expansion of programmatic elements. This phase is where the community and the public stake claim of the riverfront. Grafting new programs onto the riverfront at these points establishes a strong public constituency and sets the stage for a further expansion of programs. The use of the riverfront during this time can help build the energy and anticipation that will dictate and possibly leverage the more costly infrastructural additions to the riverfront.

6.3.3 PHASE 3 – INFRASTRUCTURE

The third phase included both physical and programmatic changes for the riverfront. For political and economic reasons, it will most likely take longer to acquire the larger parcels and receive permission to intensively engage the river. This phase begins the process of building public and private boating docks as well as developing forms of public transportation on the water. Adding these structures provides even more access points, from the water side, allowing the river programs to further influence the space. Programmatically, event spaces and temporal programs can be scheduled, which will attract even more visitors. As this phase reaches completion the riverfront will function as a network that connects the various spaces, the river, and the South Side. The expanded program will now be a regional attraction as well as a local amenity.

6.3.4 PHASE N – FLUX

The final phase actually starts at the beginning of the project, and continues well after the project has been “completed”. This phase encompasses the ongoing fluctuation of temporal and seasonal programs. It also includes the potential for the open space to change and respond to changing social, cultural, and ecological influences as well as the evolving built fabric. The riverfront spaces may also influence the built fabric to respond to the changed landscape, thus future built developments will almost certainly be affected by the open space armature.
This phase highlights the importance of impermanence. The space will be in a constant state of revision. Possibly expanding and contracting both spatially and programmatically over time as it confronts new and dynamic demands. Throughout the entire process the riverfront facilitates the changing city and unforeseeable effects of urbanization.

6.4 A NEW VISION

A major goal of this thesis is re-programming the riverfront with an emphasis on public place making. These spaces are intended to – provide the community with much needed open space, serve as a regional attraction for visitors, establish new connections to the river, and create a new image associated with Pittsburgh’s post-industrial riverfront. This section presents a new vision of the riverfront as developed from the exploratory process discussed previously.

The initial master plan is a product of shifting and negotiating the various slices. It is intended to act more as an organizational framework for the public occupation of the riverfront rather than a final plan. The land is laid out and equipped to encourage and accept the anticipated influences from its surroundings. The proposed riverfront plan consists of several spaces with unique personalities. Each space offers a range of options and the spaces are all explicitly networked together. Collectively the riverfront encompasses a wide range of programs and activities that is as diverse as the people’s preferences and demands.

Figure 6.12 – Proposed riverfront framework. Sections A through F highlight areas that are discussed in further detail on following pages.
The following sections will describe five specific sections of the riverfront including the influence upon the space and its anticipated programming. Each section is depicted with an illustrative scenario and cross sectional drawing. The images provide a vision of the anticipated personality of each respective section. Figure 6.12 (above) shows the proposed framework and labels the specific areas that will be described in more detail. Figure 6.13 on page 66 (pull out) shows a larger image of the plan within the current context of the South Side.

6.4.1 SECTION A: INDUSTRY AND INSTITUTIONS

In section A the main contextual influences are the existing industries and the new institutional uses recently established. Heavy industries were once active in this area, but only some light industries remain. Some of the industrial buildings have been converted to office buildings and other uses as well. The site was once occupied by a lock and before the steel industry it was the area’s largest steam boat building yard. The industrial influence may result in the form of a heritage / archeological park that tells the story of the riverfront.

Nearby institutions include local schools, churches, and a large Salvation Army facility. There are also two riverfront facilities that provide comprehensive services and support for children and adults with intellectual disabilities. These institutions can benefit from and provide support for programming the open space riverfront. Potential programs include playground areas, small gathering spaces, gardens, and other flexible civic space. Figure 6.14 illustrates one possible scenario of providing access to the water, while figure 6.15 provides a sectional view.

6.4.2 SECTION B: WETLANDS

Section B is one of the three areas that is planned to serve as a wetland area. Influenced by the major watersheds in the South Side, the main function is to slow and clean run off before it enters the river, but they also serve other functions as well. These spaces are located as part of or between other sections of the riverfront, therefore they are important circulation routes for people along the riverfront. Passive recreational options braided through the wetlands will connect the other more active areas. They also provide an urban niche for diverse plant and wild life unique to these areas. People traveling on the trail system will be given the opportunity to witness and learn from the micro ecologies formed by the wetlands. Figure 6.16 illustrates a possible scenario for the wetlands, while figure 6.17 provides a sectional view.
6.4.3 SECTION C: CONSERVATION

In sections where the riverfront and existing open spaces were the main influences, the program will include conservation areas and other activities. Much of this section is susceptible to seasonal flooding and already has mature trees and other plant life tolerable of such conditions. Because of the potential for flooding this area is less than ideal for promenades and a manicured landscape. Instead it is well suited for outdoor activities such as fishing, biking, camping, and boating. Some events can also be held in this space, such as fishing tournaments and day camp activities. The existing boat launch and trails can be preserved, however issues of access must be addressed. Using the marginal land under and near the Birmingham Bridge allows this space to expand into the neighborhood. This creates a more porous boundary and increases access. Figure 6.18 illustrates one possible scenario, while figure 6.19 provides a sectional view.

6.4.4 SECTION D: RESIDENTIAL RIVERFRONT

A riverfront section influenced by local residents is important to creating aspects of a river life and making strong ties to the community. The dense neighborhood already has some housing that has been recently developed near the riverfront. However, the only recreational option available is the use of the isolated trail. The proposed vision for this section expands the program to encompass a wider range of options for residents. New programs would include flexible lawn and patio spaces overlooking the riverfront. A new boat dock allows residents the option of owning boats, possibly even driving them to work if a parking dock is established near the business district. This would encourage residents and the public alike to actively use the water and the riverfront. Figure 6.20 illustrates one possible scenario, while figure 6.21 provides a sectional view.

6.4.5 SECTION E: PROMENADE AND EVENT SPACE

The South Side is a popular regional attraction because of its diverse mix of bars and restaurants. Live music can be heard every night of the week and larger festivals are often organized. The section of the riverfront most heavily influenced by the commercial activity provides space for such events. As proposed, the largest open lawn space along the riverfront can accommodate organized cultural events while remaining flexible enough for the public to use on a daily basis. Public boat landings also provide options for an intermodal transportation system that can be connected to other destinations throughout the city. Figure 6.22 illustrates a scenario where the space is filled with event goers, while figure 6.23 provides a sectional view.
Figure 6.13 – The proposed open space framework superimposed over the existing context shows how the new public riverfront is extended deep into the neighborhood in specific areas.
Figure 6.14 - Section A: Industry and Institutions. A projected vision of how the water can be made accessible to the nearby institutions, while the upper level becomes an interpretive landscape that helps dictate the heritage embodied in the site.
Figure 6.15 - Section A represents a landscape shared by light industries and local institutions. It provides the opportunity for employees, students, patients, clients, and visitors to interact in a shared common space.
Figure 6.16 - Section B: Wetlands. Located at the mouth of each large watershed, the wetland areas serve as ecological hot spots of biodiversity while also slowing and cleansing the runoff from the site. These areas also serve as circulation routes between other sections of the riverfront and allow users to experience the rich ecological riverfront.
Figure 6.17 - Section B is a narrow section of the riverfront but it is an important piece of the proposed framework that connects adjacent riverfront typologies with multiuse trails and diverse plant and animal species.
Figure 6.18 - Section C: Conservation. This area was influenced by the existing park and river activities. It is envisioned as an area for activities with a strong connection to the natural riverfront conditions such as fishing, boating, camping, picnicking and other passive forms of recreation.
Figure 6.19 - Section C is located where the existing park is currently, however it has been expanded to include the vacant lands that surrounded it and cut off public access to the perimeter of the park. Because this area is subject to seasonal flooding a network of trails and spaces allows people to experience the river at various water levels.
Figure 6.20 - Section D: Residential Boat Docks. This area was influenced by the residential district close to the riverfront. It is intended as an extension of the neighborhood and provides an open space common area for residents to treat as their back yard. The boat dock and wharf provides direct access to the water and encourages residents to dock their boats, thus creating the atmosphere of a river life.
Figure 6.21 - Section D provides space for the nearby residents to recreate. The lower level makes the river accessible while the upper level offers plenty of space for active and passive activities including space for group gatherings and small cultural events.
Figure 6.22 - Section E: Large Event Space. This area is strongly influenced by the commercial presence in the South Side. A strong connection to East Carson Street makes this area attractive for public events and activities. A functional wharf also allows for intermodal transportation and also encourages the public to make use of the water for recreation.
Figure 6.23 - Section E is one of the widest sections of the proposed riverfront framework. It has a strong connection to the active community and provides a wide open view of the riverfront and the activities taking place there.
CHAPTER 7 – EVALUATION AND CONCLUSION

The primary goal of this project is to demonstrate that Pittsburgh’s post industrial riverfront has the potential to offer more than just a narrow strip of green with trees and a jogging trail. Rather, when integrated with the surrounding context, it can offer a much wider range of programs and be used by a more diverse user group. The riverfront does not have to exist in isolation. It should be an extension of the city that creates a connection with the river and activates the riverfront with the life of the city. The theoretical framework, discussed in chapter 5, provides several influential concepts for the new riverfront proposal. Based on these concepts, improving access and strategically reprogramming the riverfront can lead to a more cohesive and legible riverfront landscape. The result of doing so creates a riverfront that supports residents, visitors, and the city as a whole. Encouraging people to creatively use the space allows them to establish new relationships with the riverfront and develop aspects of a river life. The city itself also benefits as the old dirty image of the industrial riverfront is lifted and replaced with a new image that reflects the city’s emphasis on public space and quality of life.

7.1 EVALUATION

The framework proposed by this thesis was developed by testing an exploratory process. The process was performed only once before coaxing a solution from the result. Thus, the framework is not intended to be the best or only solution for the study area, but the process of generating the framework may be valuable if repeated via different variations. The process enabled the idea of cross-programming and grafting of programs into otherwise unused spaces. Because the process does not explicitly generate form for the riverfront, the form was translated from the result of the programmatic shift. This may not be the best, and certainly is not the only way of giving form to the space. If this process were to be repeated, it may be useful to determine a new supplementary process of form-giving because, in this process, the “shift” of the slices was lost in the translation from the re-arrangement of the riverfront to the programmatic framework.

More focus should be placed on the new adjacencies created by the shift. This process is intended to generate new programs and new relationships. For this reason, placing more emphasis on developing opportunities for new hybrid programs would better inform the new vision for the riverfront. The resulting framework seems to be more compartmentalized versus being more blended as it was initially intended to be. Despite the result, it does however set the stage for new programs and has the potential to make the riverfront more cohesive and successful as a public space.
7.1.1 IMPROVED ACCESS

Establishing a more accessible riverfront is undoubtedly achieved by the proposed framework. The marginal spaces that once acted as barriers have been utilized as part of the open space armature. New access points have been established almost every block, and in some areas the boundary is uninterrupted. Visual access has not been explicitly addressed by the framework, but it is implied through envisioning clear unobstructed views of the riverfront. The increased access alone will help create a stronger public presence at the riverfront. As the literature review suggests, the boundary is where interactions and exchanges will take place; allowing the South Side to develop a relationship with the riverfront. When combined with a wide range of activities the riverfront can become a very active piece of the urban fabric. Figure 7.1 shows the potentially increased area of the South Side that lies within a quarter-mile walking distance of the new public riverfront open space.

Figure 7.1 – Providing a more porous boundary will allow more people to easily access the riverfront while creating a stronger connection to the river. This diagram illustrates the area serviced by the proposed design, within one-quarter mile walking distance.

7.1.2 DIVERSIFY PROGRAM

While the range of programs is not exactly foreseeable, the theoretical framework explains that design is capable of influencing the activities that will ultimately occupy the riverfront. The case studies presented in chapter 2 represent empirical evidence that supports an open ended approach to programming the riverfront. Large flexible spaces are much more adaptable to changing social and cultural demands and can help ensure the longevity of the park space. The more structured portions of the framework act as insertions of specific programs that can catalyze new programs and uses for the
surrounding un-programmed spaces. This thesis achieves a balance between the non-programmed and the programmed portions of the framework.

The range of recreational options has been considerably increased from the previously existing condition, which basically consisted of a jogging trail. The proposed framework encourages people to creatively occupy the space and provide their own new, temporal programming. It results in not only a diverse program, but also a diverse range of uses throughout the day and year. This is significant because, unlike the other riverfront parks in Pittsburgh, activities are no longer limited by the design of the space. In fact, programs that cannot possibly be supported by the other parks are promoted by the proposed spaces.

7.2 BEYOND THE SCOPE OF STUDY

The scope of this study is primarily at the urban scale and focuses on creating a new vision for the riverfront. Throughout the process of this thesis, other design challenges were generated but not fully addressed. First, while this thesis argues for a permeable boundary and flexible programming, it is important to point out that further site specific design will play a vital role in realizing this concept. Also, the public right-of-ways were simply located and proposed rather than designed. An extension of this project could address the physical character and processes of celebrating these access points. Another issue for further consideration is tying this project into the greater context of Pittsburgh’s existing greenways. Because the concept of infrastructure is important to this project it is necessary to extend beyond the site and consider its effect on the other urban systems.

There are also several factors that are not addressed as part of this project’s scope. These factors are very important and would by all means play a vital role if this project were to continue. Cost, funding, and budgeting issues were not addressed. While a project of this scope would require a massive capital investment, there are also economic benefits that would need to be considered. Further studies relating to types of marketing / branding campaigns may be important to raise awareness and possibly begin to leverage the initial phases of the project. When dealing with waterfront alterations there are several regulatory agencies to consult such as the Army Corps of Engineers. This project does not address obtaining permission to alter the river’s edge nor has it consulted the standard regulations that are involved. Environmental and stormwater implications are other topics not considered within the scope of this thesis. While wetlands were considered as part of the new program scheme, they will require more research and studies to evaluate the ecological implications of such a drastic transformation. Considering the history of this site, there is also good chance that the soil may be
contaminated with heavy metals and other chemical residues. The development of a remediation plan is not part of this thesis however such studies would be necessary before pursing such a project. Some of these land parcels along the riverfront are not be currently owned by the city. Acquisition of the land is not addressed by this study, but it will ultimately influence the phasing and perhaps form of the final space. An acquisition plan would be an important addition to such a project in order to guide city officials to prioritize the pursuit of specific land parcels. Other studies pertaining to traffic analysis, micro ecologies, and economics may also be useful if this project were to move forward.

7.3 BY-PRODUCTS

Completing this project in Pittsburgh can potentially make an impact beyond the riverfront itself. As discussed, it can generate a renewed image for the city’s riverfront. This can change the way the public perceives the entire city. Doing so can help attract new businesses and jobs to the city. For instance, Louisville’s new riverfront park brought a 28% increase in business development to the city and added over 5,000 new jobs.

As America moves towards a mixed economy, businesses are no longer dependent on traditional industrial centers. Instead they are free to find more appealing locations, and they prefer areas with a high quality of life, including sufficient access to open space, recreation, and walkable neighborhoods (Rogers 1999). John L. Crompton et al. presents research showing that owners of small companies rate parks/recreation/open space as the highest priority when they choose new locations for their business.

Evidence of this is already visible in the South Side as American Eagle Outfitters recently located their corporate headquarters in the newly developed South Side Works (see figure 4.1). Pittsburgh has begun to experience a “renaissance” which has seen over $400 million in commercial development and the riverfront should reflect the new image of the city. “Nationwide, easy access to parks and open space has become a new measure of community wealth – an important way to attract businesses and residents by guaranteeing both quality of life and economic health” (Rogers 1999, 15).

7.4 CONCLUSION

Part of the intentions of this thesis is to challenge the City of Pittsburgh to question its current trajectory of riverfront greening projects. While several other cities are making huge investments to create world-class riverfront experiences for residents and visitors alike, Pittsburgh is yet to take such a bold step. This by no means suggests that the completed projects in Pittsburgh should not have been
pursued. It does however suggest that Pittsburgh should explore new models of riverfront open space, rather than adding it on after the development is complete. The form of such a new model may be uncertain, but it is certain that the banks of the urban riverfront are changing to fit a new era.

The literature reviewed in this thesis demonstrates that some theoretical concepts written almost 50 years ago are not only still relevant but they are closely tied to some of the most recent theories. While it may require further and more detailed design to fully understand the ideas presented here, each is relevant when undertaking a project of this scope. Authors such as Jane Jacobs and Lewis Mumford were trying to raise awareness about these issues and even suggesting solutions in the early 1960s. Most recently designers such as James Corner and Rem Koolhaas are writing about similar issues that have resulted from the rigid design and planning schemes previously implemented. Their recent works even exhibit some ideas that are conceptually similar to the writings of Jacobs and Mumford. Both Jacobs and Corner understand that the design of a space will not dictate how the space is used. Rather, it is a product of its surrounding. They also both agree that design is capable of both creating and limiting potential opportunities embedded in spaces like the urban riverfront.

Corner’s approach to such projects does not focus on master planning and completed designs, but rather on strategic design that understands the project site as an intelligent system. He contends that strategic design intelligence will generate a more effective and powerful form of urban design that supports and promotes future emergent forms and novel effects (Corner, 2004). This thesis is an attempt to apply these tactics and while the success of which is debatable, it has led to a better understanding of the idea of a strategic landscape practice. As Corner states, “both strategy and design are crucial for evolving new forms, new programs, new publics, new natures, and new urbanisms” (2004, 3).

A great opportunity has been missed in Pittsburgh’s South Side District. While other projects in the city are located near the business district, this area is located adjacent to a popular diverse neighborhood. The South Side’s riverfront begs for a different approach that is capable of supporting a wider range of activities and people than the other parks. The fundamentals are intact in the South Side but it has failed to connect with the river. The neighborhood sits directly on the waterfront, but has no relationship with the river. It has a rich history, but does not celebrate its heritage. The community has an active vibe, but it does not translate to the riverfront.

The collapse of Pittsburgh’s industrial riverfront has given the city an opportunity to reclaim the riverfront as a public asset. Reprogramming the marginal spaces that plague the South Side can integrate the community with the river while creating a more cohesive riverfront. It benefits not only
the residents of the South Side, but also visitors, businesses, and the entire Pittsburgh region. An initiative to develop an open space framework will capture and preserve neglected riverfront parcels for public use. This approach will ensure that the open spaces are integrated with the city fabric rather than taking an ad hoc approach and attaching the green veneer as an afterthought. The river is the life blood of Pittsburgh, and the riverfront provides the means for Pittsburgh to reclaim and fortify its image as a 21st century river city.
REFERENCES


