Spatial Semantics:

Finding Landscape in New York City’s Comprehensive Waterfront Plans

Thesis

Presented in Partial Fulfillment of the Requirements for the Degree Master of Landscape Architecture in the Graduate School of The Ohio State University

By
Anne Cora Bergelin, B.A.
Graduate Program in Landscape Architecture

The Ohio State University
2013

Thesis Committee:
Jason Kentner, Advisor
Jonathan Kyle Ezell
Abstract

The fields of urban planning and landscape architecture share common theoretical backgrounds, but the relationship between these two fields in practice is often indeterminate. Comprehensive waterfront planning in New York City, a relatively recent endeavor within the history of the City, vividly demonstrates this uncertain relationship. One of the most direct ways to demonstrate the differences is through an analysis of the language that is used to describe physical spaces pertaining to both planning and landscape architecture.

This thesis presents an analysis of New York City's comprehensive waterfront planning over the last 20 years, demonstrating that the perceptions of the New York City's waterfront as a landscape have clearly evolved during that period of time. The extent of this change is demonstrated in part by the use of specific language and descriptions in the two Comprehensive Waterfront Plans, one in 1992 and 2011. This research shows how broad cultural trends at the city, state, and federal levels may have been a catalyst for this change, and finds that landscape theory and the practice of landscape architecture has played a role in affecting changes in NYC waterfront planning.
The intention of this thesis is to understand how 'landscape' as a concept or a paradigm is presented in the New York City Comprehensive Waterfront Plans and reveal how the conception of 'landscape' has changed between the two Plans. This research is presented in the standard thesis document format that is required by the Ohio State University.
Dedication

This work is dedicated with great debt and gratitude to my father, Vern Bergelin, who has always been my mentor, teacher, editor, and biggest critic.

This work is also dedicated to my mother, Mary Ellen Ross, who is the critical counterbalance as the voice of reason and assurance.
Acknowledgements

I would like to acknowledge the patient guidance of Jason Kentner, who helped synthesize my jumbled thoughts into a more cohesive idea and kept me from falling into too many rabbit holes (i.e. tangential subtopics).

Many thanks to Kyle Ezell for his pragmatic evaluation of my work, for providing critical feedback, and challenging me to question the objectives of my work.

I would also like to acknowledge the people who allowed me to interview them, in particular Wilbur Woods, Michael Marrella, Donna Walcavage, and all the friendly waterfront park users. The information that was obtained in these interviews was invaluable to this project.
Vita

June 1999.........................Midwood High School at Brooklyn College

December 2003..................B.A. Sociology, University of Massachusetts
                             Amherst

2012 to present............... Graduate Teaching Assistant, Department of
                             Landscape Architecture, The Ohio State University

Fields of Study

Major Field: Landscape Architecture
Table of Contents

Abstract...........................................................................................................ii

Dedication.........................................................................................................iv

Acknowledgements.............................................................................................v

Vita.........................................................................................................................vi

List of Figures........................................................................................................ix

List of Tables..........................................................................................................x

Chapter 1: Introduction.......................................................................................1
  Terminology.........................................................................................................6
  Expected Outcomes.............................................................................................7

Chapter 2: Methodologies ..................................................................................9

Chapter 3: Antecedents of NYC Waterfront Planning......................................18

Chapter 4: Emergence of the 1992 Comprehensive Waterfront Plan.............22
  The 1992 Comprehensive Waterfront Plan.......................................................29

Chapter 5: Development of the Second Comprehensive Waterfront Plan........32
  Vision 2020.........................................................................................................32
Chapter 6: The Spatial Semantics within the Waterfront Plans..........................35

Content Analysis.................................................................................................38

Chapter 7: Park User Interviews........................................................................50

Park User Interview Sites.....................................................................................53

Findings and Analysis.........................................................................................57

Chapter 8: Conclusions......................................................................................61

Bibliography.........................................................................................................66
List of Figures

Figure 1. Cover pages of the 1992 Comprehensive Waterfront Plan and the 2011 Comprehensive Waterfront Plan..................................................3

Figure 2. Timeline..................................................................................24

Figure 3. Comparison of Instances of the Word 'Landscape' Found in Both Plans ..................................................................................39

Figure 4. Comparison of the Frequency of Regulatory Language Found in the Plans.............................................................................41

Figure 5. Comparison of the Frequency of ‘Natural’ Language Found in the Plans..................................................................................44

Figure 6. Comparison of the Frequency of Natural Systems Language Found in Both Plans.........................................................................45

Figure 7. Comparison of the Frequency of ‘Buzz Words’ Found in Both Plans .........................................................................................46

Figure 8. Frequency of Borough Names Mentioned in the Waterfront Plans.................................................................................................51

Figure 9. Reach 14, highlighted in light gray, in the NYC region.............52

Figure 10. Reach 14 Park User Interview Sites........................................53
List of Tables

Table 1. List of Variables Searched in the Waterfront Plans.......................... 13

Table 2. Comparison of the Tables of Contents of the 1992 Plan and Vision 2020 Plan ................................................................. 37
Chapter 1: Introduction

Urban waterfronts are a popular topic of study and design practice in the field of landscape architecture because they provide a unique challenge that combines two of the most significant considerations for contemporary practice: ecological systems and urban design. Reflecting this situation, an increasing number of large-scale urban waterfront redevelopment projects in North America have master plans that are produced and managed by landscape architectural firms. Prominent examples include West 8’s Toronto Central Waterfront Master Plan and James Corner Field Operation’s Seattle Central Waterfront Concept Design and Framework Plan. The fact that landscape architectural firms are becoming generally recognized as leaders in waterfront redevelopment plans and projects indicates that municipal authorities are taking a new approach towards viewing the relationship of their cities to adjacent bodies of water.

Redevelopment efforts along the New York City (NYC) waterfront have been accomplished through a comprehensive planning approach under the guidance of the New York City Department of City Planning (DCP) over the past 20 years. The outcomes of the comprehensive planning approach are quite different from the designer-led master planning approaches used in many other urban areas. Many of the goals and objectives for the NYC waterfront are comparable to the proposals that are found in the design firms’ master plans
elsewhere, and sections of the NYC waterfront that have been planned and
designed by professional landscape architects as consultants, but the NYC
Comprehensive Waterfront Plans have been managed and documented by
officials who have varying degrees of education, awareness, and a range of
opinions on the significance of the waterfront as a landscape in its own right.

The planning documents in NYC have become not only opinion-
generators that ultimately guide decision-making, but are also the basis for firm
decisions on zoning and redevelopment projects. The way that the plans are
written, presented, and visualized through images with text are, as with any
plan, reflective of the attitudes and perceptions towards landscape at a
particular moment in time. “Although planning is properly categorized as a
rational process, emotional factors are involved because it is a human concept
and operates by human action” (Branch, 23). Therefore, political motivations
are inherent in the comprehensive planning process.

The DCP has produced two Comprehensive Waterfront Plans, the first
was published in 1992 and the second was published in 2011 (see Figure 1).
These Plans were intended to be framework documents that would guide
development, which is to say that they were not to be considered master plan
documents. In other words, the proposals and recommendations that are
presented in the Comprehensive Waterfront Plans provide broad
recommendations and visioning ideas for subsequent detailed local plans,
rather than a firm prescription for a definitive developmental future.

Figure 1. Cover pages of the 1992 Comprehensive Waterfront Plan (left) and the 2011 Comprehensive Waterfront Plan (right)

In 1992, new intentions for the NYC waterfront were communicated when the DCP decided to develop the first Comprehensive Waterfront Plan. The 1992 Plan was a conscious decision to acknowledge the waterfront as a space that is significant for the City in a new, complex, and varied way, most notably as a public civic space. It was apparent that the industrial uses along the waterfront were in decline therefore direct action would be needed to guide the future of the waterfront. The 2011 Plan, also known as Vision 2020, updated the redevelopment goals, accommodated changes that had been made to the
waterfront since the first Plan, and presented a broader framework and in effect, a more comprehensive plan, for waterfront redevelopment.

The landscape-related terminology used in the Comprehensive Waterfront Plans is representative of particular attitudes and opinions towards the waterfront landscape. A preliminary comparative review of the Plans revealed there are distinct differences in the way the waterfront landscape is presented and framed in the context of the City. Studying the use of specific words and phrases provided quantitative evidence that the conception of ‘landscape’ has indeed changed between the two Plans, which will be discussed further in the following chapters of this thesis paper.

The 1992 Plan is predominantly regulation-based and focused on establishing a new zoning framework for future development of the waterfront. The language referring to the status and quality of the waterfront is somewhat static and abeyant, referencing the water and shoreline more as an object than a functional ecological system. On the other hand, Vision 2020 is more representative of the changing attitudes towards any landscape as a dynamic natural system, even adopting some of the language that is found in landscape architectural theory and practice.

Tracing the history preceding the two Plans helped identify some of the sources and conditions that have influenced the language and terminology that is found in the Plans. However, determining the actual influence of landscape theory on the Plans underlies the subject of this thesis. Interviews with common
waterfront park users were done to find out if the terminology of landscape theory has become infused in the consciousness and common culture of people who are using the waterfront parks in NYC.

The topic for this thesis was chosen before Hurricane Sandy devastated New York City’s waterfront and extensive inland areas, but the fact that a storm like Sandy could occur had already been predicted by scientists many years prior to the actual event in October 2012. Scientists calculated scenarios for a potential storm that were remarkably similar to effects produced by Hurricane Sandy (Rosenzwieg et al, 2011). After the storm hit the northeast coast of the United States of America, the subject of the waterfront became exponentially more important as a topic in planning in NYC.

This thesis examines the two NYC Comprehensive Waterfront Plans through the lens of landscape architecture theory and terminology under the premise that the Plans are documents that impact the meaning and function of the NYC’s waterfront as a landscape. It is clear that the Plans reflect particular meanings and functions of the waterfront. But the waterfront is loaded with multiple uses and functions, all having important implications for the life of the City, which is why it is important to parse out the constructed meaning of landscape within the Waterfront Plans, and to explore areas where the plans may be deficient or could be improved.
Terminology

Spatial Semantics

When thinking about landscape, either when referencing aesthetics, theory, or any other dimension, it is difficult to say the word *landscape* and be certain that an audience perceives its intended meaning. But the word *space*, however, is a relatively neutral term that does not carry the same kind of loaded meaning that the word *landscape* has accumulated over time. Yet, *space* still implies physical properties that *landscape* seems to find elusive (Leo Marx in Wreke, 62-78).

According to The Merriam-Webster Dictionary, the study of semantics is the study of linguistics and the meaning of words (The Merriam-Webster Dictionary, 450). Moreover, semantics are the historical and psychological study of, as well as the classification of changes to, the significance of words or forms when viewed as factors in linguistic development (The Merriam-Webster Dictionary, 450). NYC’s Waterfront Plans are primarily written documents, and while there are images and diagrams in the plans, most of the intention of the plans comes from their texts, which employ deliberate language with regard to the meaning and significance of the waterfront.

Therefore, one can understand the concept of spatial semantics to mean the study of the descriptions of a place, and the inferred meaning that comes from the language that is being used to describe the place. This spatial semantics approach is used to study how the waterfront landscape has been
written into the plans. This is accomplished by documenting the language that portrays the vernacular meaning of the waterfront, which is a characterization that has changed over time.

While the study of semantics is the study of linguistics and the meaning of words, the Comprehensive Waterfront Plans are documents with written content that refers to specific locations and how they change over time. Time, however, also changes meanings, even though the places remain the same. The plan is a document that projects meaning and intention through language: while the estuary will always be present, the descriptive words that are assigned to it in the Plans will vary over time.

NYC’s Waterfront Plans contribute richly to the lexicon of landscape. There is a deliberate choice of words in the Plans that describe the waterfront landscape and its functions. While there has never been one true meaning of the word *landscape*, and there probably never will be, the plans present their own set of spatial semantics with regard to the waterfront in NYC.

**Expected Outcomes**

The major finding from the analysis in this thesis is that the spatial semantics in NYC’s Comprehensive Waterfront Plans have changed over time and can provide a basis for further beneficial changes in the future waterfront plans. One of these changes may be a better understanding of how the theoretical conception of landscape can influence NYC’s waterfront planning approach.
These conclusions may also lead to a more complete understanding by landscape architects of the City’s planning intentions for the NYC waterfront, and encourage landscape theorists and practitioners to establish positions and exert more of an influence on the NYC waterfront planning process. The methods used in this thesis may also be applicable for the analysis of sequential planning documents that have been developed for other urbanized regional waterfront systems.
Chapter 2: Methodologies

A preliminary reading of the two Comprehensive Waterfront Plans reveals a distinct difference in both the objectives of the Plans and the proposed implementation of the ideas expressed within the. This finding is obviously superficial and must be supported with a more in-depth and systematic analysis in order to be meaningful. A mixed methods approach for collecting and analyzing data was used for this thesis and the methodologies were designed specifically for a thorough interpretive and critical analysis of the two New York City Comprehensive Waterfront Plans.

Historiography

The first methodological approach was to develop and apply a historiography of the New York City waterfront and related subjects. “A historiography is the interpretation of the historical record of human actions and events, and this record’s representation as a recognizable narrative” (Deming and Swaffield, 165). The historiography identified significant events and legislation that influenced the 1992 Plan and Vision 2020. The method for determining the significance of events and legislation was based on the Plans themselves, interviews with public officials involved in the authorship and production of the Plans, and a review of historic, cataloged newspaper clippings and articles¹.

¹ Courtesy of the Municipal Arts Society of New York
The historical information and events were plotted on a timeline to illustrate the sequence of the relevant and significant points in time leading up to the Comprehensive Waterfront Plans. The timeline helped identify the cause and effect relationships between the events, relevant legislation and the Waterfront Plans. The timeline also created a foundation from which to speculate on the causal relationships between significant events and legislation – an interpretive research method based on a subjective analytical approach.

**Targeted Interviews**

The second methodological approach was the completion of targeted interviews. A select number of individuals, who were instrumental in completing the Comprehensive Waterfront Plans or who are knowledgeable about the process of developing the Plans were selected for interviews on the subject. The interviews proved to be valuable for the analysis because they supplemented the historiography with information that had not been previously found in the data collection phase. The interviewees also provided leads to other relevant information and subjects to be considered, such as certain historical events, legislation and reports. The interviews were approximately one hour each and the conversations were recorded with permission granted prior to commencing the interviews. The recording was done using a handheld RCA Digital Voice Recorder. The recorded interviews were then transcribed to facilitate the analysis.

Interviews with Michael Marrella, Director of Waterfront and Open Space Planning for the City of New York, and Donna Walcavage, Principal/Vice
President of Design + Planning at AECOM, were conducted in person during the month of December 2012. A list of questions based upon preparatory research was used, but the interviews were largely unstructured, using the natural flow of conversation to uncover pertinent information. An interview with Wilbur Woods, former Director of Waterfront and Open Space Planning for the City of New York, was conducted over the telephone in January 2013. Mr. Woods received a list of questions prior to the conversation, and this interview was primarily based upon questions, all of which were thoroughly answered by Mr. Woods.

Content Analysis

The third and most important methodological approach was a content analysis of the two Comprehensive Waterfront Plans. A content analysis is a research method that uses a set of procedures to make valid inferences from text (Weber, 1990). The goals for this method were to:

- Quantify the topics addressed within each plan
- Compare the results of the quantitative analysis to derive qualitative conclusions
- Find out if there are consistencies or inconsistencies in the language used in the plans
- Find out if portions of the language are related to landscape theory

Both the 1992 and the 2011 Waterfront Plans were obtained from the DCP website (New York City Department of City Planning) as Portable Document
Format (pdf) files and were analyzed using Adobe Acrobat X Pro version 10.1.5. A content analysis was done on both Plans to develop a dataset of words and phrases for the spatial semantics comparison. Individual words and phrases, or variables, were extracted from the Plans using the advanced search function of Adobe Acrobat. The advanced search produced collated instances of those variables within each Plan, which were then downloaded into a comma-separated values (csv) file format where the data could be further analyzed.

To perform the content analysis a glossary of variables that are representative of common themes, subjects and language that is used in landscape theory and practice discourse was prepared. The variables were intended to represent significant and prominent themes that are common among a range of written texts, as opposed to a singular written theory source. The variables (words and phrases) are listed in (see Table 1).
<table>
<thead>
<tr>
<th>Bay</th>
<th>Beach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle</td>
<td>Channels</td>
</tr>
<tr>
<td>Climate</td>
<td>Climate Change</td>
</tr>
<tr>
<td>Coast</td>
<td>Coastal</td>
</tr>
<tr>
<td>Currents</td>
<td>Design</td>
</tr>
<tr>
<td>Development</td>
<td>Dredge/Dredging</td>
</tr>
<tr>
<td>Dynamic</td>
<td>Ecology</td>
</tr>
<tr>
<td>Economic/Economy</td>
<td>Ecosystem</td>
</tr>
<tr>
<td>Erosion</td>
<td>Estuary</td>
</tr>
<tr>
<td>Flood</td>
<td>Flow</td>
</tr>
<tr>
<td>Habitat</td>
<td>Hydrology</td>
</tr>
<tr>
<td>Landscape</td>
<td>Law(s)</td>
</tr>
<tr>
<td>Marsh</td>
<td>Natural</td>
</tr>
<tr>
<td>Open Space</td>
<td>Park</td>
</tr>
<tr>
<td>Pollution</td>
<td>Public Access</td>
</tr>
<tr>
<td>Regulation(s)</td>
<td>Residential</td>
</tr>
<tr>
<td>Resilience</td>
<td>Restore</td>
</tr>
<tr>
<td>Sea Level</td>
<td>Shoreline</td>
</tr>
<tr>
<td>Storm</td>
<td>Sustainability</td>
</tr>
<tr>
<td>Tides</td>
<td>Water Quality</td>
</tr>
<tr>
<td>Waterfront</td>
<td>Waterfront Development</td>
</tr>
<tr>
<td>Waterfront Revitalization Program</td>
<td>Waterways</td>
</tr>
<tr>
<td>Wetland</td>
<td>Zoning</td>
</tr>
</tbody>
</table>

Table 1. List of Variables Searched in the Waterfront Plans

The content analysis was based on the method developed by Robert P. Weber and described in his book *Basic Content Analysis* (Weber, 1-95). Weber outlines the aspects of the approach that are necessary for the content analysis methodological process and those aspects were applied to this research.
The first aspect was to establish a means for measuring the meaning of the text, which was done by obtaining the csv files of the variables that were searched in the Plans. The csv files produced a tabulated spreadsheet of data on the number of instances that a variable appeared in each of the documents, including the sentence context and the page of its occurrence. This provided a consistent means for measuring the variables.

The next aspect was to indicate the quality or characteristic of the variables were measured, which accomplished by finding commonalities or differences among references and language used in landscape discourse. The next aspect was to establish a means of representation to describe semantic significance. This was done by developing charts based on the variables that were culled from the Plans to provide a graphical representation of the data.

The final aspect was to interpret the collected and arrayed data. A graphical representation of the data was prepared in the form of charts, using the variables that were culled from the Plans. The charts were intended to “create quantitative indicators that assess the degree of attention or concern devoted to issues” as they are related to the natural systems and dynamics of the waterfront, landscape architecture and landscape architectural theory, and other relevant subtopics (Weber, 1990). The charts provided a tangible reference for the data analysis and interpretation. By using these charts changes to the inferred meaning of the waterfront landscape over the time span between the two Plans were illustrated. According to Weber, “when reliable data of other kinds exist, culture indicators can be used to assess quantitatively
the relationships among economic, social, political, and cultural change,” (Weber, 10) and the charts allow for this type of analysis.

Questions of reliability arise when there is ambiguity in word meanings, category definitions, or other coding rules. This was found to be the case in this content analysis because there has not been, and perhaps cannot ever be, a definitive lexicon for landscape architecture. There are examples of written works by landscape theorists, such as Ann Whiston Spirn and John R. Stilgoe, which address the language and terminology that is used to describe the landscape and natural systems. Yet, there is no commonly accepted scientific or permanent lexicon pertaining to the subject of landscape interpretation.

Additionally, it was important to carefully consider what variables were being searched because the words involved can be situated in a written context that is not necessarily relevant to the pertinent subject. For example, intentional decisions were made to search for the word ‘currents,’ which refers to the cyclical nature of tidal waters, instead of the word ‘current,’ which can be found in unrelated contexts.

Only the fundamental text found in the body of the Comprehensive Waterfront Plan documents was included in the content analysis. Words found in the table of contents, lists of people working on the Plans, and lists of abbreviations and headers and footers that were found in the Plans were eliminated from the search.
Site-Specific Interviews

The final methodological approach was site-specific interviews, which were conducted in March 2012 to determine the extent to which the waterfront landscape is perceived and understood by residents of NYC. The site-specific interviews were conducted to obtain a data set for discourse analysis and an interpretation of the commentary of typical waterfront park users. By engaging people in conversations at specific locations on the NYC waterfront it was possible to extract interpretations of the places at those particular moments. This method was used to test how deeply the theories are understood by a sampling of the general population of NYC park users.

Three sites identified along the Brooklyn waterfront in NYC were focus areas for the site-specific interviews. The sites were chosen based upon their relevance to both the 1992 Plan and Vision 2020.

A person’s background is instrumental to their interpretation of the site and each person interviewed had a unique background and awareness, which shaped their responses to the interview questions (Nassauer, 1995). The site-specific interviews represented an opportunistic approach to gathering data, but the intention to learn what a typical layperson has to say about a particular place was successful. The descriptions solicited from waterfront park users were then compared with the content analysis of the Plans and the reviewed landscape theory. The site-specific interviews also revealed unexpected

---

2 The influence of this is beyond the realm of this thesis study.
information about the significance of the Comprehensive Waterfront Plans, which will be discussed in Chapter 7.
An Archipelago in an Estuary

New York City is comprised of islands and a peninsula that form extensive and diverse waterfront conditions. The geography of the city is an archipelago poised within various bodies of water, including the Hudson River, the East River\(^3\), the Atlantic Ocean, and various other inlets, channels and canals. Where the Hudson River, a large freshwater source, merges with the Atlantic Ocean, a body of salt water, they form an estuary that has gradients of brackish water that host a wide variety of flora and fauna. In 1600, before there were any European settlements, this estuary was once a verdant and healthy place (Sanderson, 136-169). It was because of this rich ecology and the prominent geographic location that the island, known at the time of first European settlement as “Mannahatta,” eventually came to be the center (Manhattan) of the City of New York (Sanderson, 66-101).

Waterfronts, by comparison with other landscape typologies, may be considered by some to be very small areas of land for the focused scrutiny they tend to attract. But waterfronts form edge conditions that have implications beyond just the adjacent landmasses themselves. With respect to landscape ecology principles “an edge is described as the outer portion of a patch where

\(^3\) The East River technically is not a river, rather it is a tidal inlet connecting the Long Island Sound and Upper New York Bay.
the environment differs significantly from the interior of the patch”"⁴ (Dramstad, Olson, and Forman, 27-33). Edges are dynamic and bountiful because they are a combination of two distinct ecosystems, which makes them important transition points for ecological systems.

The 520-mile shoreline in NYC (Vision 2020: New York City Comprehensive Waterfront Plan, 6), as an edge, is arguably one of the most influential landscapes in New York City, therefore further validating the importance of studying subjects that address the urban waterfront condition. People in NYC value that edge for its’ link between the interior land and the vast, open water. Despite the fact that many people do not recognize the significance of the waterfront in NYC, this area is still a part of the natural world. It is the regional and local ecology that has bestowed the great resource of the waterfront in NYC. As the old adage goes, “life begins at the water’s edge.”

The areas that are designated as NYC’s waterfront are characterized by a generous and diverse shoreline. The water that weaves around and through the archipelago has been used for many purposes at different points in history, such as a food resource, transportation, a catalyst for industry, and a place for the disposal of things. Understanding some of the history of the waterfront of the city can help explain its present-day condition.

⁴ The patch and edge typologies are part of Richard T.T. Forman’s landscape ecology principles, which are patches, edges and boundaries, corridors and connectivity, and mosaics. Generally speaking, patches are isolated and disconnected vegetated areas, which serve as fragments of habitat for flora and fauna.
Economic Importance of the Harbor

The primary stimulant of the economic growth of New York in the late-18th to early-19th centuries was the City’s port, which drove population, development, and economic activity (Ballon, 2012). It was the deep port of New York that gave rise to the modern metropolis that became the City. No other harbor along the East Coast had a port quite as deep, which allowed New York to become the primary port for shipping and transportation, with global connections (Ballon, 2012). The Port of New York became increasingly significant with the opening of the Erie Canal, and geographic location made NYC’s harbor a strategic and profitable shipping facility.

Modifications were made to the waterfront as early as the 17th century, when settlers began the practice of filling in wetlands and adding landmass to New York City’s edges. By the 19th century, as industrial and commercial developments grew along the New York City waterfront those areas came to be considered too valuable to be used for purposes other than those affiliated with the port and shipping operations.

“When the city sold waterfront lots, it required the proprietor to create landfill and build slips and streets. Thus the public infrastructure of the city along the waterfront was stitched together through privately funded initiatives, as directed by the municipal government” (Ballon, 17). However, NYC proper was never destined to be a 21st century world-class port, given that the early wharf and pier infrastructure was historically fragmented, uncoordinated and too small, and as international shipping became more prevalent, the isobathic
profile of the harbor was a constant challenge for large cargo ships (Buttenwieser, 1987; Desfor, 2011).

The changes to the NYC waterfront also were the result of changing technologies of transportation and cargo shipping, as well as the deindustrialization of the local and global economy into a more service-sector business industry. Heavy industry moved from the waterfront to other parts of the country and world, and the industrial waterfront increasingly became obsolete. Changes in port technologies, shipping methods, and global business models were the main reasons that the waterfront began to be transformed.

However, as port infrastructure in NYC became increasingly inconsequential, the City continued to grow into national and international prominence. It was only a matter of time before the City’s waterfront would be noticed as a multifaceted resource and considered for other uses and functions.

Considering that the port and shipping industry was no longer a profitable enterprise the waterfront could then be transformed and used in others profitable ways, such as for residential and commercial real estate developments, recreation and tourism. Given the appropriate approvals, profitable economic enterprises may always be the bottom line for waterfront redevelopment.
Chapter 4: Emergence of the 1992 Comprehensive Waterfront Plan

New York City is one of many North American cities that began waterfront revitalization in the late 20\textsuperscript{th} century. The trend toward waterfront revitalization can be traced back to a range of socio-political and economic changes that were happening, including global changes that had an influence on urban waterfronts. The prevailing changes in urban waterfronts were predominantly the result of changing technologies of transportation and cargo shipping and deindustrialization of the economy, resulting in an increasingly service-sector business industry (National Academy of Sciences, 1980, Sieber, 1991, Gordon, 1996, Bone et al., 1997, Desfor, 2011).

After many years of relatively unregulated growth and change, a seminal law was passed in NYC that reflected this trend and greatly affected the future development of the City’s waterfront – the 1961 Comprehensive Amendment to the New York City Zoning Resolution. This amendment was the first legislative adjustment to the zoning of the City since zoning had first been enacted as a policy mechanism for NYC in 1916. While the 1961 Amendment did not address the specific character and nature of the waterfront, it began a wave of zoning reform that eventually would come to influence how authorities developed the first Comprehensive Waterfront Plan (Bressi, 1993).

NYC was further compelled to have a more specific focus on the waterfront with the establishment of federal and state legislation pertaining to
water quality. In particular, the Federal Clean Water Act of 1972 brought new attention to the waterfront because the City was mandated to take care of its water bodies by eliminating sources of pollution. The Clean Water Act made people acknowledge that the water as more than just a utilitarian part of the City. If it wasn’t for Clean Water Act, there probably would not have been such an interest in the rivers and estuaries, let alone the shoreline and it's features. Furthermore, the Clean Water Act established significant regulations for the management and protection of wetlands.
Figure 2: Timeline
Numerous events, some legislative and others celebratory, environmental or political, lead to the eventual focus on the City’s waterfront resources. Subsequent to the 1961 zoning amendment, the most important of these were the Federal Coastal Zone Management Act of 1972 and the Waterfront Revitalization and Coastal Resources Act of 1981 (see Figure 2). A realization that waterfront land could be exploited for new economic and social programs played an equally important role. For example in NYC, following the lead of innovative waterfront developments in other cities such as Boston’s Faneuil Hall and Baltimore’s Inner Harbor, Lower Manhattan eventually became the location of the first large-scale, mixed use development on the City’s waterfront.

**Battery Park City**

“The history of urban waterfront development provides examples of the ways material forms of nature have been transformed by a wide range of sociopolitical decisions” (Bunce and Desfor, 254). Battery Park City (BPC) was the first large-scale redevelopment project on NYC’s waterfront. This project was located at a place in Lower Manhattan where industrial piers had become technologically obsolete, and landfill was placed between and over the old piers. The fill was obtained from the foundation excavation for the new World Trade Center development nearby. Because it became such a significant piece of vacant land, intense negotiations for involvement and investments in the project occurred at the State and City levels, and eventually resulted in the creation of the Battery Park City Authority as the implementing entity for the project. Design consultants were hired, and the urban design guidelines for the
site and the public spaces that were eventually built for BPC were acclaimed as being among the most influential achievements of the 1980’s in NYC.

BPC is well documented as the first major project on the post-industrial waterfront of New York City, when attitudes and opinions of the waterfront were beginning to change. David Gordon writes that the strategy for BPC was historic preservation and public access (Gordon, 1993). These two strategies were used to help bring an awareness of the waterfront site, which was, for many years after the landfill was created, deserted and derelict (Gordon, 265-269). “(They built) the public spaces before the private development was complete, so the public benefits – parks and waterfront access – were never in doubt” (Gordon, 53)

It took years for the necessary agreements to be made in order to proceed with an acceptable financial, political and design master plan. There was pushback from the Longshoreman’s Association and the New York City Department of Marine and Aviation, who were the previous owners of the piers, over which the landfill was created, but ultimately Mayor John Lindsay and Governor Nelson Rockefeller, who had been negotiating for the project to be developed all along, were more influential than any opposition (Gordon, 50). The Longshoremen saw the waterfront in a very different way from the local and state government leaders. This speaks to the idea that perceptions of the value and use of the waterfront as landscape were widely varied sentiments that still persist today.
The protracted process for developing BPC also served as an important lesson for the City and State government as well as for private developers: that “urban waterfront development cannot be justified as a straightforward real estate investment, …(rather) that huge capital costs for land acquisition, site clearance and infrastructure are incurred years before significant private investment begins” (Gordon, 53). With that in mind, it made sense that the City would want to produce a regional waterfront plan to address the growing interest in NYC’s waterfront and it’s future development.

Administrative Actions Related to the Waterfront

Considering that the water in and around NYC is the fundamental reason why the City was even established, it is perplexing to think that the City ever lost its connection to the waterfront. Yet, that did happen until the BPC project was first initiated and Mayor Edward Koch was elected into office in 1978. At the time Mayor Koch was quoted as saying, “if there is one thing I want my administration to be identified with, it is that we brought the harbor back to the City of New York, that we built on our greatest treasure, that we opened the waters to the people of the city” (Buttenwieser, 205). It was the Koch administration that set the groundwork for future comprehensive waterfront planning, which also demonstrates that BPC was actually a major precursor to the development that the 1992 Waterfront Plan would later promote.

The success of BPC and other waterfront redevelopments happening at about that time, such as the South Street Seaport on the other side (East River) of Lower Manhattan, along with the decline of water-oriented industrial activity,
created the conditions for the City to reevaluate the allocation of land along the waterfront.

Koch initiated the effort in 1984, when funding to develop the Waterfront Revitalization Program was secured, and the appointment of the City’s Public Development Corporation (PDC) to plan and redevelop the waterfront occurred. This was a major transition point. Even though the first Comprehensive Waterfront Plan wasn’t released until the subsequent mayor David Dinkens’ administration, the Koch administration can be credited for generating the initial momentum that led to eventual preparation of the Plan.

Comprehensive Planning as a Redevelopment Approach

Planning comprises methodologies and processes that allow authorities to adjust and prepare places to suit the needs of communities, reflects the conscious decision of people who want to establish and shape viable places for communities to develop. The true influence and effect of a planning document are the legal outcomes that facilitate the changes that are suggested in the plan (Branch, 1998). “Although planning is properly categorized as a rational process, emotional factors are involved because it is a human concept and operates by human action” (Branch, 23), therefore, political motivations also are inherent in the comprehensive planning process. A comprehensive planning document is designed to synthesize information, analyze that information, and offer recommendations. All these elements and attributes are reflected in NYC’s first Comprehensive Waterfront Plan.
The 1992 Comprehensive Waterfront Plan

As discussed above, Battery Park City, and a few other notable waterfront developments and festival celebrations on the water were pivotal to the momentum that led NYC’s Planning Department to acknowledge the waterfront as a distinct entity of the City that demanded special attention.

The 1992 Plan signaled a change in the way that the waterfront was regarded within the context of the City. This document took a firm grasp of the waterfront by imposing a calculated trajectory for future development and design along the waterfront, and by emphasizing zoning and regulatory measures. When the City chose to develop a plan for the waterfront, it was taking a particular stance on how the waterfront is to be conceived. The City was reclaiming the waterfront – just as the subtitle of the Plan states. It was the first time the City had an organized effort to think holistically about the waterfront. As Wilbur Woods in his interview said, the water connects all the edges and unifies the city. This plan sought to reappropriate the water’s edge.

The 1992 Plan had to reconcile with the grid of the City’s streets that was established under the Commissioners Plan of 1811, which laid out the first major urban design plan for Manhattan (Ballon, 2012). After that, for many long years, there was no distinct acknowledgement of the waterfront as a unique type of space in the City and the zoning for the waterfront simply was the same as the adjacent, upland zoning classifications.
The 1992 dramatically changed this regulatory structure, and as a result, the changes to waterfront zoning in NYC can be seen as the most important outcome of that Plan. The main objective of the Plan was to redefine the waterfront as a special place using public access as the metric for determining its value and success, although this was touted primarily through as a means to facilitate new real estate development. The Plan was very much about the redevelopment and finding ways to economically enhance the value of the vacant and underutilized waterfront. The 1992 Plan promoted broad goals that required further specific zoning code reforms to achieve. While the NYC Planning Commission passed the resulting zoning proposal unanimously, it was more challenging to get approvals for the zoning reform through the City Council (Greenwald, 1993, Dunlap, 1993). Nonetheless, the new Waterfront Zoning Text in the Zoning Resolution that was initiated by the Plan was adopted in 1993.

There were mixed reactions to the new zoning measures once they were passed. Tone of the more significant open space requirements that were being set for developers was that large private developments must set aside 15 to 20 percent of their land for public use. Developers were concerned about those open space requirements, but environmentalists and community activists hailed the plan because of its new public access opportunities. Rediscovering the waterfront in this manner, however, eventually became a way for real estate developers to capitalize on the public’s interest in obtaining the unique views of the harbor, rivers, and skylines. It opened up New York, literally and figuratively
– there was new waterfront property that looked out onto a longer horizon with an open space of watery landscape.

It is easy to criticize the 1992 Plan in retrospect, but decisions that were being made at the time were groundbreaking and well intended. The Plan reflected an eagerness, excitement, and readiness to bring new life to the waterfront. New York was rediscovering the waterfront as a way to capitalize on people’s interests to enjoy the unique views of the harbor, rivers, and skylines. The new waterfront property also enabled new development in a city that is constantly wrestling for new growth within the strict confines of its water boundaries.

Overall, the Comprehensive Waterfront Plan had laid out the rough guidelines for how various areas along the waterfront should be considered for future development, but the Plan did not guarantee any specific projects to be developed.
Chapter 5: Development of the Second Comprehensive Waterfront Plan

In 2005, after the 1992 Plan had laid the groundwork for waterfront zoning in NYC, a Greenpoint-Williamsburg Rezoning Plan was released, presenting an updated approach to rezoning waterfront lands along the northwestern edge of Brooklyn. The Greenpoint-Williamsburg Rezoning Plan, which preceded Vision 2020, helped to generate momentum toward developing a new comprehensive plan for the entire city. As had been recognized by planning professionals, the true influence and effect of a planning document are the legal outcomes that make the changes that are suggested in the plan (Branch, 1998).

By 2008 significant redevelopment had occurred along the City’s waterfront and it was clearly time to re-evaluate and update the 1992 Waterfront Plan. The economy and real estate development industry were in a lull at the time, so the DCP took the opportunity to take stock of the current conditions along the waterfront, using more advanced technologies to catalog features of the waterfront and to reassess the future redevelopment agendas. Furthermore, there were increasing tensions between industrial waterfront activities and the residential developments that were becoming more significant and pronounced nearby.

Vision 2020

It had been nearly 17 years since the first Waterfront Plan was prepared and the resultant rezoning of the waterfront was having a real impact on its waterfront redevelopment. New community functions were competing with
some of the older, more traditional maritime functions. When the DCP released Vision 2020, many of the objectives for the waterfront were updated, further defining the waterfront as a distinct social and economic space worthy of focused attention. Vision 2020 also looked beyond the edge and to the water itself; there was a renewed interest in using the city’s waterways as a resource for transportation, cultural opportunities, recreation, education, and the like.

The completed Vision 2020 Plan projects a different attitude towards the New York City waterfront. The color document is full of glossy photos and romantic descriptions of landscape, as opposed to the black and white and technically dull character of the 1992 Plan. It was developed to be more robust, promotional and comprehensive than the 1992 Plan. The DCP also incorporated a much broader group of people to work on the new Plan; in particular, the Metropolitan Waterfront Alliance (MWA) was a major contributor to the process of drafting Vision 2020. The MWA was a coalition that represented over 600 stakeholder groups with an interest in the waterfront and water-related issues when they were working with DCP on the Plan (Metropolitan Waterfront Alliance Staff).

Vision 2020 reflects some of the patterns that were emerging in landscape architectural theory and practice. With its implementation, it was apparent that there was a movement towards adjusting to the contemporary design approaches and trends. For example, the Waterfront Design Guidelines of the NYC DCP were updated in tandem with the Vision 2020 Plan. These updates were congruent with many of the landscape architectural design
features and styles that have become popularized for waterfront design in recent years. For example, rather than straight, angular pathways and aligned rows of trees, the new standards called for a more “naturalized” approach, in particular, curvy paths, clustered trees and impervious paving. That seems to be a general trend toward what can be called a “soft edge” approach at the waterfront, where landscape architects seek to allow more natural processes to weave into the designed waterfront open spaces.

The perception of the water and the waterfront in NYC has become so much more significant that a press release announcing Vision 2020 included a quote by Mayor Michael Bloomberg referring to the waterfront and waterways in and around NYC as the City’s sixth borough (Press Release – Department of City Planning). Amanda Burden, the Director of the DCP, also referred to the waterscape as the City’s sixth borough. This change in the political and institutional mindset represented a shift in the way that the DCP acknowledges the environmental context of the City, offering a dose of marketing with the use of a catchy term to help force the waterfront into the consciousness of all New Yorkers.

Mr. Marrella, one of the officials interviewed, said that Mayor Bloomberg’s public support and promotion of the Plan has made a difference in the projects that are emerging along the waterfront. Developers are referring to Vision 2020 when they bring their redevelopment project plans to City Council for review (Marrella).
Chapter 6: The Spatial Semantics Within the Waterfront Plans

The act of reclaiming and reusing space is inherent in the planning goals for the NYC waterfront, and the NYC DCP has found that the waterfront opens up a wide range of new opportunities for the City and its inhabitants. When the City initially chose to comprehensively plan the waterfront it was taking a particular stance on how the waterfront should be conceived. Conceptions of the waterfront are the product of social, economic, political, climatic and environmental forces, and the relative importance of these cultural and natural forces are evolving all the time. But it is the cultural forces that have the greatest influence in establishing the theoretical framework for how the waterfront is considered for uses within the Plans.

Now that the waterfront has become a specific site to plan for there are many specialized issues and interests needing to be addressed, which complicates the planning efforts for what was once considered a seemingly general use area. An analysis of the spatial semantics within the Plans is an valuable way to study "... the impact of human agency in altering the physical environment (which) serves to remind us that landscape is a social product, the consequence of a collective human transformation of nature." (Cosgrove, 14).

Both of the Waterfront Plans characterize the urban edge or shoreline as a distinct entity of the City. They both seek to guide redevelopment of the NYC waterfront, but they make differing assertions about the importance and role of water and the uses and functions along the waterfront. The fact that the City has
developed comprehensive plans for the waterfront is significant in it’s own right, but each Plan approaches that task very differently.

It is apparent that there are differences in how each document considers the waterfront landscape simply by looking at the tables of contents of both the Plans. The subtitle of the 1992 Plan, “Reclaiming the City’s Edge,” is a declaration of planning for a specific space in the City, whereas the Vision 2020 subtitle is simply “NYC Comprehensive Waterfront Plan.” This alone implies a more broad reaching intention of the second Plan (see Table 2). The title/subtitle relationship change was very much an intentional decision. As Michael Marrella explained during his interview, Vision 2020 was seeking to address the water as a whole system, not just the waterfront, but also the water itself.

Ian McHarg’s *Design with Nature* is a seminal work for the landscape architecture and planning professions. His work is the basis for understanding and approaching broad perspectives of natural systems at a regional scale. McHarg presented a method for surveying a regional system in a comprehensive way, to understand the ecological, social, and economic implications of the place. Essentially, McHarg championed the idea that a landscape should be considered for the different layers of function that exist within a particular place.
NYC Comprehensive Waterfront Plan: Reclaiming the City’s Edge

Chapters

1. The Natural Waterfront
2. The Public Waterfront
3. The Working Waterfront
4. The Redeveloping Waterfront

Vision 2020: NYC Comprehensive Waterfront Plan

Chapters

1. Expand public access
2. Enliven the waterfront
3. Support the working waterfront
4. Improve water quality
5. Restore the natural waterfront
6. Enhance the Blue Network
7. Improve government oversight
8. Increase climate resilience

Table 2. Comparison of the Tables of Contents of the 1992 Plan and Vision 2020 Plan

In essence, the chapters in the 1992 plan are reminiscent of the McHargian approach, in that the waterfront is broken down into four distinct layers of use that are found throughout the City. However, the approach in the 1992 Plan does not represent a means towards an ultimate ecological design. The table of contents of Vision 2020, on the other hand, approaches planning of the waterfront landscape in a much more dynamic way. Vision 2020 addresses relationships between nature and the City, and nature and culture, in a much more comprehensive way than the 1992 plan.
Content Analysis

To support this qualitative interpretation of the Waterfront Plans with a quantitative analysis, a content analysis, the results of which are summarized in a series of charts, was developed to demonstrate differences between the two Plans. Individual words were extracted from the Plans to find the number of uses of the words in each Plan. This was done to compare the terminology that was used in each Plan as a demonstration of the differences in the way that each Plan presents issues related to the waterfront, with regard to landscape. This method provided a way to quantify the different approaches to content, and hence intentions, within each Plan.

Written work by landscape architecture and urban design theorists provide precedents for the study of language as it relates to landscape. Authors such as Anne Whiston Spirn, John Stilgoe, and Kevin Lynch, whose work was seminal in this regard, and their conclusions will be discussed further below. All have written about the semantics that are used in landscape architecture study and practice. Building upon this idea of landscape language presented an opportunity to find out if there are substantive differences between the two Plans that are reflected in the terminology that is used in the text of the Plans. An obvious starting point for this spatial semantic approach was to search for usage of the word ‘landscape,’ using the spatial semantic methodology previously described in this thesis (see Figure 3).
Figure 3. Comparison of Instances of the Word 'Landscape' Found in Both Plans
The search for ‘landscape’ revealed that the notion of landscape was barely even touched upon in the initial Plan, but mentioned and discussed much more frequently in Vision 2020, which immediately implies a broader shift in not only the syntax, but also the content between the two Plans. A continuation of this semantic comparison using terminology in various categories proved to highlight even more of the core differences between the Plans.

**Regulatory Terminology**

The two Waterfront Plans become influential upon the realization and understanding of land use and its relationship to design in the City. The 1992 Plan is predominantly regulation-based, enforcing and encouraging new waterfront typologies through a top-down, regulatory approach. On the other hand, the 2011 Plan is mostly issue-based and visionary, predominantly influenced by bottom-up forces that represent the changing attitudes towards and of landscape, as a “shift from landscape as a product of culture to landscape as an agent producing and enriching culture” (Corner, 4). By this estimation, the NYC waterfront is now being portrayed as a productive landscape, not just in an environmental sense, but also in programmatic, economic, cultural, and other senses as well.

Because the 1992 Plan focuses more on zoning and regulatory measures, a search for regulatory semantics was an obvious next step in the analysis (see Figure 4). This analysis showed that it is very apparent that the regulatory terminology is much more prevalent in the 1992 Plan.
Figure 4. Comparison of the Frequency of Regulatory Language Found in the Plans
Natural Terminology

“The term space may remind us initially that a landscape is a physical entity whose meaning and value can be constructed and for which there are a variety of other names: land, topography, terrain, territory, environment, cityscape, countryside, scenery, place” (Leo Marx in Wreke, 62). The semantics of the waterfront landscape varies between the two Plans in the same way that Marx suggests that there can be multiple names for spaces.

Landscape features are challenging terms to classify. For instance, where does an estuary end? And, what exactly defines a creek? In the Shallow Water Dictionary, John Stilgoe has written a “dictionary” to remind readers of the forgotten language of the estuary. The vocabulary of the dictionary includes words that describe the physical, biological, and ecological characteristics of estuaries. He is recalls how to refer to places by their physical characteristics, but also finds that there are “…difficulties of explaining land that is sometimes under water” (Stilgoe, 32).

But trying to hone in on a precise definition of such fluid and nebulous things was found to be a challenge in the Waterfront Plans. Figure 5 shows that there is a huge variation in the way various environmental conditions are expressed in the Plans (see Figure 5). The prominence of naturalistic words that are found in Vision 2020 represents what James Corner describes as a “…shifting attention away from the object qualities of space (whether formal or scenic) to the systems that condition the distribution and density of urban form” (Corner, 28). Corner represents the new school of theory that uses a vocabulary...
to describe the natural and dynamic systems as an important part of landscape design.

Landscape theory and practice has addressed issues of natural systems in cities for quite some time. This was occurring before Vision 2020 was released. Figure 6 shows some of the differences in describing natural systems and other dynamic processes that are found in the Plans (see Figure 6). In general, there are more process-oriented words found in Vision 2020.
Figure 5: Comparison of the Frequency of ‘Natural’ Language Found in the Plans
It was decided to investigate the type of “buzz words” that are related to landscape or water in the Plans, and the results of this analysis can be seen in Figure 7.
This showed that the cultural influences of the different eras over the years between the Plans have led to new terminology that refers to the quality of
natural systems. The term ‘resilience’ reflects a cultural awareness of an issue, and in particular global warming. Resilience, as an environmental concept, relates to a complex system of ecology. It refers to the “capacity of a dynamic system to absorb shocks while maintaining its structure and functioning (which is different from the capacity of a system to return to a certain steady equilibrium state following a disturbance)” (van Slobbe et al., 2013). If people in NYC are talking about resilient infrastructure, then there are probably many different visions about what that looks like and where it is located.

The word resilience seems about as ambiguous as the word sustainability, yet it has become a measure for how the waterfront landscape is considered in NYC. The word ‘resilience’ or ‘resilient’ was not mentioned at all in 1992, yet it was mentioned 66 times in Vision 2020. It is not surprising that the subject of resilience would become prominent in Vision 2020 considering the cultural shifts that occurred during the 19 years between the two Plans, including the profound effects of Hurricane Katrina.

_Implications for the Future_

The waterfront in NYC has become, in two decades or so, an extremely important stimulus for urban development, which can be seen in the multitude of waterfront redevelopment projects that have occurred and are occurring as a result of the two Waterfront Plans. The redevelopment projects are establishing spaces that squarely embrace the waterfront as an important feature. When Battery Park City was developed, the site of this project was lined with a
concrete sea wall and the waterscape was seen as a commodity that added value to the real estate. More recent redevelopment projects address the water as a critical part of the place, more as an infrastructural feature or a productive programmatic feature.

In NYC there is a constant state of shifting and unpredictable activity that occurs within the rigid, orthogonal structure of the City’s grid and New Yorkers are generally accustomed a certain amount of unorganized chaos that happens within the grid. There is a potential for the waterfront landscape to be organized using same approach, to design a structured framework for the dynamic, fluid, and uncontrolled movement of the water, while still allowing for productive ecological functions to occur. This is in line with some of the common themes found in landscape architectural design today, which is a shift away from creating compositions based on notions of balance, regularity, and hierarchy, to working with systems, natural or man-made, and the various ways in which they can be organized.

The complex and misunderstood perceptions of landscape are thoroughly dissected in Spirn’s book, *The Language of Landscape*. Spirn writes that “...landscapes are a vast library of literature,” (Spirn, 21) and that there are stories and lessons that can be read in a landscape. The main problem today is that people are desensitized and illiterate to the language of the landscape. “Landscapes were the first human texts, read before the invention of other signs and symbols” (Spirn, 15).
James Corner proclaims that it would be absurd to think that exposing people to “nature” would predispose them to a more reverent relationship with the earth (Corner, 27). This raises a question about how significant the event of Hurricane Sandy was on the general public of NYC. Considering that the hurricane was such an impressionable event, one that was associated with the water and the waterfront in and around NYC, perhaps there is now an increased awareness of the dynamic systems that are often addressed in landscape architectural practice. The next chapter will explore this question.
Chapter 7: Park User Interviews

An evaluation of the public’s awareness and understanding of the NYC waterfront helped bring the analysis in this thesis into a present day context. Waterfront park user interviews were conducted during the second and third weeks of March 2013 to test the level of that awareness and to determine if the terminology of landscape theory and practice has become entered into the consciousness of at least a segment of the general public of the City.

Approach

The Comprehensive Waterfront Plans divide the entire NYC waterfront into areas called “reaches.” A reach is a nautical term for a continuous expanse of water, according to the 1992 Plan, and this term was adopted by the DCP staff to describe the areas of the waterfront that were divided for the sake of categorizing different sections of the waterfront. By dividing the waterfront into reaches the DCP was able to develop more detailed and specific plans for distinct areas along the waterfront. The reaches designations were based on land use, natural features, and physical and political boundaries (The New York City Comprehensive Waterfront Plan: Reclaiming the Edge, 190).
The reason for focusing the inquiry on one specific waterfront reach was to allow for a more defined and localized study of park users. The specific reach selected was determined by analyzing the most frequently referred to area of the waterfront in the Waterfront Plans. In searching for the names of each of the five borough in NYC, Brooklyn was mentioned over two times as
often in Vision 2020 than it was in the 1992 Plan (see Figure 8). The borough name search also showed that Brooklyn was the most referenced out of all the boroughs in both plans, which implies that it has always been a significant part of the NYC waterfront. Based on this information Reach 14 of the Brooklyn waterfront was selected to test the public perceptions. Reach 14 is on the northwestern side of Brooklyn, facing the East River and New York’s Upper Bay (see Figure 9).

Figure 9. Reach 14, highlighted in light gray, in the NYC region.
Park User Interview Sites

The sites chosen for the park user interviews were specifically discussed in both Waterfront Plans. Three parks out of all the potential waterfront parks within Reach 14 were chosen for the park user interviews – Transmitter Park, Brooklyn Bridge Park, and Erie Basin Park (see Figure 10).

Figure 10. Reach 14 Park User Interview Sites
Transmitter Park

Transmitter Park is a small, 1.6-acre park located in the Greenpoint neighborhood of Brooklyn. It is specifically mentioned in the 1992 Plan’s Reach 14 Summary of Recommendations under the sub-heading the Public Waterfront. The Plan recommends to “…develop WNYC transmitter site for public open space, linked to the Greenpoint community with signage and sidewalk improvements.” This site also sits within the bounds of the Greenpoint-Williamsburg Plan, which was a significant prior DCP rezoning plan that catalyzed changes leading up to and influencing the Vision 2020 Plan.

In Vision 2020, there is a distinct sub-heading under the “Reach 14 Neighborhood Strategies” that specifies the “…complete construction of 1.5-acre park including a playground, small pier, benches, and trees,” and to “…pursue funding for refurbishment of transmitter building as park amenity.”

The New York City office of the multidisciplinary consulting firm AECOM designed Transmitter Park, and it was completed and dedicated in summer 2012. According to Donna Walcavage, project manager for the Transmitter Park project, the shoreline of the park was partially excavated to create a ‘water garden’ where people could access the water, incorporating some of the dynamic processes of the water and creating a potential habitat for aquatic species and plants.
Brooklyn Bridge Park

The Brooklyn Bridge Park is a long-term redevelopment project that has transformed a 1.3-mile stretch of the shoreline adjacent to the Brooklyn Heights and Dumbo neighborhoods. The 1992 plan references this area under the “Redeveloping Waterfront” category by recommending that the “…redevelopment of Piers 1 – 5 (Brooklyn Harbor) should consider housing and commercial uses complying with the mapped view plan from Brooklyn Heights, recreational uses and substantial open space linked to the state park and upland residential and commercial uses.”

By the time Vision 2020 was published Brooklyn Bridge Park had already become a popular and successful project. Michael Van Valkenburgh Associates designed this park, and that firm’s office is located within half a mile of the park. The park is a juxtaposition of remnants of the old industrial uses on the site, in the form of the skeleton of the warehouses that covered the piers, old mooring cleats, old pier piles, and new social and recreational programmatic spaces. There is a diverse range of programmed spaces throughout the park, including beach volleyball courts, children’s playgrounds, barbeque stands, open lawns, and water taxi stops. This is all in addition to the ecologically oriented design features and extensive revegetated areas.
Vision 2020 has a small section dedicated to the discussion of ongoing improvements at Brooklyn Bridge Park, with specific mention of individual elements and features in the park.

*Erie Basin Park*

The Red Hook neighborhood of Brooklyn was given particular notice in the 1992 plan. This neighborhood is mentioned by name in the “Public Waterfront”, the “Working Waterfront”, and the “Redeveloping Waterfront” recommendations sections, which implies a certain level of importance that this area holds for the planned future of Brooklyn’s waterfront. The plan recommends to “…study the feasibility of commercial reuse of the Van Brunt warehouses...” and to “…rezone the area between Wolcott and Van Brunt streets and the waterfront from manufacturing to medium-density residential.” These two recommendations establish a clear intent to transform the area, which is more or less what has happened over the past 20 years.

The Erie Basin Park was designed by Lee Weintraub Landscape Architecture, a firm practicing in Yonkers, New York, which is located about 20 miles north of the park site. The site was designed within an area that is still active with maritime industry, and it was built in conjunction with a new Ikea Store that was developed within the industrial area. It is a publicly accessible hardscape esplanade that offers a place to walk along the waters edge. The design is representative of the heavy industrial uses that have historically been the primary function in the area. Some of the design features include old cleats
and bollards along the docks and piers, gantry cranes, and other various tools that were previously used at the site.

At present, this area is transformed and in the midst of change. It is what some would call “being gentrified.” This is also an area that saw a significant amount of flooding from Superstorm Sandy.

Findings and Analysis

A few hours were spent at each site for observations and interviews with random park users. The people who were interviewed were selectively chosen, although everyone who was approached for an interview was receptive and willing to talk and have the interview recorded. The people who were interviewed were a small sample set of park users who were willing to provide opinions. All but two people approached were willing to speak, one person was concerned about their professional reputation and the other person only spoke Polish.

The interviews were conversational and not statistically consistent. Each person was asked questions in different ways, based upon an assessment of their comprehension of the subject. It was found to be important to explain or discuss the waterfront sites with the park users in common speech and everyday speech in order to connect with people in such a way that they would understand the subject and also feel comfortable opening up and participating in the discussion.
The language of landscape is an obscure terminology and the interviews revealed that the park users had various levels of this terminology in their vocabulary when talking about the waterfront landscape. Often, the park users did not understand the more technical language in the questions and they responded better to more colloquial language. For example, people were confused when asked about the ecology of the waterfront sites, but they would be more responsive to a question about the environment, generally speaking. This revealed that the spatial semantics of typical, everyday park users was somewhat or totally limited.

In general, it is obvious that people just like parks and the interview responses bore that out. They like to go when parks are made available and they don’t necessarily think about why they like the parks. When the subject of ecology or the environment was raised, most of the people interviewed were confused about the questions. If the interviewees were provided with more information about the parks’ designs and their potential ecological functions, then they would generally be in agreement. Therefore, while the park users may not be aware of the significance of the waterfront park designs, they tend to support the ideas behind the concepts.

The interviews also revealed that people in NYC (or at least to the extent that this sample represents the people of New York) generally do not have a sense for the landscape systems that are present in and around the City. They may have an environmental consciousness about their daily behavior, but they
do not think much about the larger natural systems, i.e. the waterfront or the water.

The elements that the people saw in the waterfront sites predominantly had to do with aesthetic quality; knowing the details of the park design was extraneous information. But just talking to them created an awareness of the issues that landscape architects tend to think about. The interviewees sometimes responded by saying, ‘Oh, I never thought about it that way.’ Generally, people interviewed at the park sites were only aware of and interested in the aesthetic value of having the greenspace accessible to them.

Hurricane Sandy made it very clear that NYC was ill prepared for rising sea levels and an increase in severe weather patterns, which are some of the serious issues that are associated with global warming and the impacts upon coastal waterfront cities. Since the devastation of Hurricane Sandy there have been innumerable discussions and debates about the work that needs to be done to make NYC resilient in the face of the serious issues facing the City. Symposia, forums, academic institutions, various newspaper articles and blogs have been organizing conversations around the topic of resilience and the issues associated with global warming. These conversations were apparent and obvious to those who were interested in the subject, but it was found that it is not necessarily a subject of immediate concern to all the inhabitants of NYC.

The park user interviews tested the awareness and understanding of the relationship between the storm and the waterfront parks. The fact that Hurricane
Sandy had devastated the coastline of New York City a mere four months prior to these interviews was previously thought to be an event that would change people’s perceptions of the waterfront parks. Also, Hurricane Sandy did not seem to affect how people relate to the waterfront.

While storm surges overflowing into neighborhoods could have caused people to make some connections with waterfront park design and issues related to global warming, in general, the interview respondents did not seem to know how waterfront landscape design could be related to rising sea-levels or storm surges. Actually, none of the interviewees mentioned Sandy until it was mentioned to them in the conversations about the waterfront, which implies that many people in NYC don’t really have a sense for the landscape systems present in and around the City. Also, Hurricane Sandy did not seem to affect how people relate to the waterfront.

People still want the pictorial, static and iconic views that are often associated with the waterfront landscape, and that desire will probably always be present. The fact that designers will be using more progressive ideas for the urban landscape is inconsequential. People are just happy to have the chance to go to a park, and therefore if landscape design can produce waterfront parks that are both culturally functional and ecologically sound, they would be acceptable, and even supported by the general public.
Chapter 8: Conclusions

“A person literate in landscape sees significance where an illiterate person notes nothing.”
Anne Whiston Spirn, The Language of Landscape (22)

This thesis set out to reveal the extent and significance of the relatively nuanced references to the waterfront landscape in New York City’s Comprehensive Waterfront Plans, and how these references have evolved over time in reaction to myriad technical, cultural and political influences. The research and analysis has demonstrated that there is evidence of changing perceptions of waterfront landscape as a concept, as shown in part by the language and descriptions that are used in the plans. Differences in the representation of the waterfront landscape between the two documents have been found using a spatial semantics approach to analyze the plans. The spatial semantics approach provided a way to extract and examine the constructed representation of the waterfront landscape by looking at the differences in the words and phrases that are used in the two Plans. A study of the spatial semantics in the two Plans has therefore proven to be an effective way to detect the changes in the way that the documents communicate perceived notions of the meanings of landscape.

Both John Stilgoe and Ann Whiston Spirn lament the lost and forgotten language has been used to observe and understand landscapes. Stilgoe illuminates the language of an estuary by describing the physical, biological,
and ecological characteristics, while Spiri,n elegantly articulates the poetry, verbal structure, dialects, and patterns that she observes in various landscape settings. Yet, the technical and poetic language of landscape predominantly remains in the realm of those who are involved with the planning and design of landscapes, as has been demonstrated by the results of the interviews of the waterfront park users.

In general, producing comprehensive plans is an effective approach for guiding the management of the New York City waterfront on a broad-scale. The process of regularly renewing the Comprehensive Waterfront Plan prompts an updated overview of the metropolitan region, and establishes a framework plan within which design projects can be implemented in stages over a period of time. The NYC Council has mandated the Department of City Planning to produce a new Comprehensive Waterfront Plan every ten years, which indicates that a spatial semantics approach could effectively be used for future research during the preparation of the plans. When the Department of City Planning releases its next waterfront plan, the methodology of this thesis can be replicated and updated by comparing the Vision 2020 plan with its successor to further test the merits and benefits of the spatial semantics approach.

Based on the findings of this thesis, it is possible to make project contents, goals, and projects in the next NYC Comprehensive Waterfront Plan. It can be argued that the next waterfront plan will revert to a more policy-based approach, a conclusion that is partially indicated by legislative action that has already been taken towards redefining the waterfront. This has been particularly
demonstrated by New York Governor Andrew Cuomo’s proposal to buy properties in locations that are vulnerable to flooding on the waterfront, essentially paying people to move to more secure and safe places (insert citation).

As the research for this thesis shows, it is also evident that City government is using the Comprehensive Waterfront Plans as political tools. The comprehensive planning approach allows the Department of City Planning to bring various professional disciplines together to address the multifaceted issues associated with the waterfront. Landscape architecture has become increasingly important for this relationship between the City and its waterfront, and the practice is well situated to expand its involvement, working within the City’s planning system, which will always be the framework for design outcomes on the waterfront. The profession, and the City, can benefit from discussing theory and speculative approaches, but this will have limited impact on planning approaches unless it is understood how to integrate this thinking into the general cultural context. Therefore it is necessary to study how issues related to landscape architecture are presented and contrived outside of the academic and professional realm.

Landscape architects can also bring science and ecology to the policy-making realm through creative designs. This is to say that there are opportunities for political activism that promotes the advancement of the profession and improves the quality of the waterfront landscape. Challenges that scientists face can be resolved through appropriate design interventions, as
demonstrated by recent landscape architecture-driven projects such as the ne
Brooklyn Bridge Park. Although scientists may tend to focus on objective
information, rather than advocating for a particular position, their findings care
often interpreted subjectively. Using the tools of landscape architecture to
create visual reference materials could be an effective solution for the dilemma
of objective information or biased advocacy.

Such graphic representations of potential solutions and new ways of
thinking are a good way to translate ideas for the general public. The visual
allure of appealing graphics of landscape design will build interest and
enthusiasm for productive, ecologically based, socially viable urban waterfronts,
and will continue to shape how commentators talk about and write about the
waterfront landscape.

The methods and interpretation presented in this thesis demonstrate that
the NYC Plans have a cultural significance beyond their primary planning
mission. The spatial semantics approach has shown to be a valuable and
legitimate method for dissecting and understanding the cultural awareness of
the waterfront landscape in NYC. It is revealing to look at the spatial semantics
of the plans because these are the documents that will continue to control the
waterfront landscape. This is significant for landscape architects because an
understanding and awareness of the natural systems relating to the waterfront
have been avoided for so long in NYC. Landscape architects can become
proponents of an appropriate, functional, and beautiful NYC waterfront by
promoting approaches and design techniques in the ways that architects and planners do not necessarily instinctively appreciate.

In summary, the findings of this research open a conversation about the politics of the language of landscape that is being used in the NYC Comprehensive Waterfront Plans, suggesting that the comprehensive waterfront planning efforts could be made more effective by adopting the language, concepts, and proposals of landscape architecture theory and practice.
Bibliography


Marrella, Michael. Personal interview. 27 December 2012.


“Publications – New York City Department of City Planning.” *New York City Department of City Planning.*


Walcavage, Donna. Personal interview. 12 December 2012.


