THE URBAN GARDEN:
PORT ALLIANCE, TEXAS

BY

ISAAC HALL MANNING

MASTER OF ARCHITECTURE, 1985
VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY

BACHELOR OF ARTS, 1981
VANDERBILT UNIVERSITY

Submitted to the Department of Architecture
in partial fulfillment of the requirements for
the degree of

MASTER OF SCIENCE IN ARCHITECTURE STUDIES

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

June 1990

© Isaac Hall Manning, 1990
All rights reserved
The author hereby grants to M.I.T.
permission to reproduce and distribute publicly
copies of this thesis document in whole or in part.

Signature of Author

Isaac Hall Manning
Department of Architecture
May 11, 1990

Certified by

Julian Beinart
Professor of Architecture
Thesis Supervisor

Accepted by

Julian Beinart
Chairman
Departmental Committee for
Graduate Students

MASSACHUSETTS INSTITUTE
OF TECHNOLOGY
MAY 30 1990
DISCLAIMER OF QUALITY

Due to the condition of the original material, there are unavoidable flaws in this reproduction. We have made every effort possible to provide you with the best copy available. If you are dissatisfied with this product and find it unusable, please contact Document Services as soon as possible.

Thank you.

Both the Library and Archive versions of this thesis contain poor quality image reproductions. This is the best copy available.
THE URBAN GARDEN: 
PORT ALLIANCE, TEXAS

by

ISAAC HALL MANNING

Submitted to the Department of Architecture
on May 11, 1990
in partial fulfillment of the requirements
for the Degree of

Master of Science in Architecture Studies

ABSTRACT

This thesis focuses on of three urban parks; Central Park in New York, the Fens to Franklin Park in Boston, and Rock Creek Park in Washington, designed by Frederick Law Olmsted and the growth of the cities around them. Imbedded in the histories of the parks and their cities are strategies for the development of a new town on the plains of north Texas around an airport named Alliance.

A regional park system organized along the creek bottoms and flood plains surrounding Alliance can be a strong organizing element for growth in the last undeveloped quadrant of the Dallas-Fort Worth area. Not unlike the area around Alliance, Olmsted's parks were in the path of urban growth, yet each of the parks has been bounded by a diverse range of built responses from the cities that now surround them. This thesis examines the evolution of the urban edge where Olmsted's parks and their cities meet. The built domain that bounds the parks is called the Urban Garden. The Urban Garden is a metaphorical set of ideas about how the urban edge of the city and the park interact.

The variations in the Urban Gardens of New York, Boston, and Washington provide vivid examples of how cities build at the edge of urban parks. These variations of the urban edge suggest some possible futures for the parks and the city that will develop around Alliance.

Thesis Advisor: Julian Beinart
Title: Professor of Architecture
ACKNOWLEDGEMENTS

This thesis is dedicated to the memory of Henry L. Kamphoefner, Dean Emeritus, School of Design, North Carolina State University. Henry left us to join his wife Mabel on Valentines Day, 1990. He was a great educator, mentor and friend. He is missed.

I would also like to thank the following people: My advisor Julian Beinart for his interest, his insights and his guidance throughout the course of my MIT career; my readers Elizabeth Meyer and Peter Droege for keeping the thesis on track, focused, and for their expertise in their respective fields; my classmates, professors, and other members of the MIT community for making the time spent here challenging, and for broadening my perception of the world forever; my parents and family for their continual love, support and encouragement; Ross and the rest of the Texas contingent for giving me an opportunity to pursue the vision; and finally, Libby for her patience, love, and friendship, also for opening her mind to my world and wanting to share it wherever it leads us.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>3</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>5</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>7</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>9</td>
</tr>
<tr>
<td>CHAPTER I: ALLIANCE AND THE URBAN CONDITIONS</td>
<td>21</td>
</tr>
<tr>
<td>CHAPTER II: URBAN METAPHORS: THE URBAN GARDEN</td>
<td>41</td>
</tr>
<tr>
<td>CHAPTER III: OLMS TED AND THE URBAN GARDEN</td>
<td>55</td>
</tr>
<tr>
<td>CHAPTER IV: THE PARKS AND THEIR CITIES</td>
<td>65</td>
</tr>
<tr>
<td>CHAPTER V: THE WALLS OF THE URBAN GARDEN</td>
<td>85</td>
</tr>
<tr>
<td>CHAPTER VI: THE URBAN GARDEN FOR ALLIANCE</td>
<td>123</td>
</tr>
<tr>
<td>CONCLUSION</td>
<td>157</td>
</tr>
<tr>
<td>FOOTNOTES</td>
<td>159</td>
</tr>
<tr>
<td>LIST OF ILLUSTRATIONS</td>
<td>165</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>171</td>
</tr>
</tbody>
</table>
This thesis is like a novel; it has central characters and events. These characters and events are not portrayed in chronological order or in neat packages. They are the vehicle that provides an insight into ideas beyond themselves. Part of this insight explores the apparent void in the way that the growth of cities is documented. The historians portray the growth of cities through the stories of people, institutions, and events. On the other hand, architectural historians seem only to sift through the physical legacy of the buildings themselves. This thesis is searching for the characters and the forces that are in the netherland between the events and the buildings. This netherland is the urban edge. In this thesis the urban edge is defined as an area of study that lies between the specific architecture of buildings and realm of city planning.

This thesis is written from the perspective of the urban edge. The characters in this original story are very familiar. They are places and people that have all had an impact on our lives at some level. The story unfolds in discrete chapters. They begin and end with the new city of Alliance, on the plains of north Texas. The chapters in between are about the transformation of cities. It is through this metamorphosis that the characters are revealed. This transformation is examined through a framework called the urban conditions. The urban conditions reflect ideas about cities and the forces that
shape their urban edges. There is the patriarch of a family, Frederick Law Olmsted, who metaphorically conceived three very different urban parks that make up his family. These offspring live in three American cities. It is the lives of these children and their relationship to the cities around them that this thesis is interested in.

Olmsted's progeny, Central Park in New York, the Emerald Necklace (The Fens to Franklin Park) in Boston, and Rock Creek Park in Washington have left behind a physical legacy of existence, and a tenuous history of their lives in their respective cities. Extrapolated for use today, elements of their history and legacy can be applied at Alliance. Their past represents some of the most powerful aspects of the future for another generation of characters.

The father of the clan is Frederick Law Olmsted. He designed the parks and is often credited with fathering the profession of landscape architecture in the United States. His life was a continual journey that took him to China as a seaman, to Staten Island as a farmer, to England as a traveler studying agriculture and parks, across the south as a writer documenting the economic conditions of slavery, to Washington as a member of the Sanitary Commission during the Civil War, to California to manage mines in the Yosemite Valley, and then all over the United States and Europe as a landscape architect. This diversity of experience would evolve into his life's work, landscape architecture. (1) His progeny are all over the country, but
the three central characters that this story will address live today in New York, Boston, and Washington.

Central Park, the Emerald Necklace, and Rock Creek Park were all just parks at one time. The parks and their cities have each evolved over time. The parks have developed their own edges, as have the cities around them in response to park's presence. The built domains around them have not been amorphous masses. The parks themselves have become boundaries which have generated different building types, settlement patterns, and development strategies. The parks represent a range of responses by natural systems to adapt to their own unique ecosystems. As parks they serve a variety of functions from purifying the air, to controlling flood waters, to providing places of refuge for the inhabitants of the city, to preserving fragile ecosystems.

The parks each have their own boundaries and layers of spaces that have hierarchies differentiated by varying degrees of public and private spaces. The parks are both extensions and reflections of the cities around them. They have stood as nature's foils to the development of their cities. They have felt the physical pressures of the expanding cities and have dealt with man's threats to their very existence. Like the cities around them, they have elements which act as barriers and thresholds. As parks, they represent the natural elements in the urban form. The urban edge that develops in response to these natural elements inspired the metaphor of the Urban Garden.
The Urban Garden is one of four metaphors that make up the framework of the urban conditions. The urban conditions are a tool to describe the city at the scale that lies between the architecture of a building and maps of the city and regional planners. Each of the four urban conditions; the Urban Theatre, the Urban Oasis, the Urban Wall and the Urban Garden, is a metaphor for a conceptual arrangement of spaces within cities each with their own discernable characteristics. As a framework the metaphors of the urban conditions evolved from personal observations about cities. The urban conditions are a way of visualizing large pieces of cities with a great level of detail.

This level of detail is necessary to begin to comprehend the scale of the city that will develop around Alliance. On the plains of Texas north of Fort Worth, sixteen thousand acres of noncontiguous land have been assembled. The first airport devoted solely to industry in the United States is its center piece. That airport is appropriately named Alliance in honor of the public-private partnership that forged its development. On the land around Alliance the new extension of an existing city is expected to develop in the next twenty or thirty years. The planners have already designated the land-use patterns. They have drawn in the roads and have begun the future layering of the city. Intermixed with the colors of the planning maps there is a very real three dimensional landscape that has its own physical layers of boundaries. There are creeks and flood plains in the existing landscape
Figure 4.

Figure 5.
that have allowed trees to grow in the bottom lands. There are changes in the soil types that have allowed only certain types of grasses and trees to adapt themselves to the harshness of the Texas climate. There are differences in the salinity of water that determines what lives and dies in the landscape.

Nature has already given the first, dominant clues about the form of this new city. The natural systems to be set aside have already been laid out. The flood plains and creek bottoms which run throughout this region, and knit together the vast acreage are creating the first layers of this new town. The Urban Garden has already been schematically laid out by nature, but what does that mean to the form of the future city, and what does it have to do with Frederick Law Olmsted and his three urban parks? Creating a series of linear parks along the creek bottoms and flood plains only serves to create a possible park system. Once set aside, these parks will establish a boundary that will form an edge to be built to. What will be the relationship between the natural edge of the parks and the edge of the built domain that will eventually grow to it?

Olmsted's parks provide numerous design elements and strategies for the creation of Alliance's system of open spaces and parks, as well as for alternative forms for the built edge that will eventually surround them. Central Park, the Emerald Necklace, and Rock Creek Park have all become inseparable elements of the cities in which they exist. They have their own stories to tell, but they can
also help to tell the history of the cities around them. With vision their story will continue on the plains of Texas as a new generation of open spaces becomes the foundation for another generation of human settlement. Elements of Olmsted's parks will be carried forward: there are also new elements available today that will build upon his work. Where are the opportunities to merge the lessons from Olmsted and his progeny with the promise of the future at Alliance? That is question that this thesis will explore.
Figure 7.

Figure 8.
CHAPTER I: ALLIANCE AND THE URBAN CONDITIONS

Alliance, the airport, is only one piece of a regional development project. The physical boundaries of the airport exist on two hundred and forty acres owned by the city of Fort Worth, Texas, in conjunction with the Federal Aviation Administration. Surrounding the runways and apron is an additional thirty-eight hundred acres owned by a single landholder. Alliance is the foundation of a new industrial city that has been envisioned to take advantage of the reliance of manufacturing on air transportation for the distribution of goods and materials. The ninety-two hundred foot runway has the capacity to land everything that will fly today with the exception of the low earth orbiter and the space shuttle. In addition to land that has direct runway access, Alliance is also uniquely situated adjacent to Interstate I-35 and the main line of the Sante Fe Railroad. This location makes Alliance the potential focal point of an intermodal facility that can take full advantage of the three forms of transportation. Alliance has been characterized as the port of the future, but how far does the analogy go towards building a city around it?

Aside from its analogy as the port of the future, Alliance has been described as the engine that will drive the area's future economic development, but what impact will this economic development bring to the plains still under cultivation? The first tenant around the airport is the Santa Fe railroad which has built a car distribution
yard on the western edge of property. This facility will serve as a regional distribution point for Honda and Ford where new cars will be shipped in by rail and trucked to the dealerships across the region. The second tenant is American Airlines which is building a wide body maintenance facility on two hundred acres with runway access. The Drug Enforcement Agency will be building a facility to house the ninety planes of its southern air wing, also with runway access. And rounding out the list of initial tenants is the Ishida Corporation of Japan that will be developing the prototype for its tilt wing aircraft. These diverse uses will take advantage of the airport, the rail, air and interstate access; if these industries are indicative of the future tenants, what will be the resulting form of the airport and the town that will be built to support it?

Is Alliance the new industrial community of the future, based on clean non-polluting industries? Will Alliance be the key to "just in time inventory" demands of today and tomorrow's manufacturers? Will Alliance become a major food distribution hub that is the point of arrival and departure for food products from the United States in return for produce grown around the world? Will the new city that grows around Alliance set new standards for environmentally responsible development? Will there be a rural legacy left behind for the dwellers of this new environment that can explain man's relationship to the land? What efforts can be made in the planning stages to insure a proper environmental accounting that will enable the growth of this new city to be offset by programs that
replace the lost natural resources? The answers to these questions are many years off, but they represent an attitude about one possible future for Alliance. This future is the environmental city that understands that economic development and the environment are not mutually exclusive objectives.

In addition to the airport, along the thirty miles of the I-35 corridor between Fort Worth and Denton there are twelve thousand seven hundred acres spread across nine different parcels of land. Beginning with the parcels closest to Fort Worth are the first phases of the residential program at Park Glen and Hillwood thirty-five hundred acres. To the north of Park Glen and Hillwood are twenty-five hundred acres which are bisected by the new north beltway for Fort Worth, State Highway(SH) 170. Within sight from the future interchange of SH 170 and I-35 over the crest of a hill, the ninety-two hundred foot runway of Alliance comes into view, surrounded by its thirty-eight hundred acres. Above Alliance to the north of SH 114, are two parcels of sixteen hundred and seventeen hundred acres that abut the Town of Justin, Texas. The last parcel of land in the I-35 corridor is the thirty-four hundred acres of the old McHutcheon ranch, just to the south of Denton, Texas.

These noncontiguous land holdings present an interesting challenge at a regional scale. The properties have a direct impact on an area that consists of two counties, eight municipalities, three school districts, numerous watersheds, a range of geographical features, soil
Figure 12.
Figure 13.
Figure 15.
Figure 16.
types, water qualities, and a multitude of flora and fauna. What all of this diversity implies is that Alliance and its associated projects are not developments that exist in a vacuum. Each parcel impacts its respective communities at number of different levels, physically, socially, and economically. Because of the diversity in the region it is easy to become immersed in the minutia of details and special interests. This minutia distracts the public focus way from the long term issues that will seriously impact the regional development of the area.

As a region, this part of north Texas is not empowered by a single authority to make decisions that affect the entire region. There are, however, regional systems that can begin to become spatial organizers for growth on a regional scale. Infrastructure such as highways, mass transportation, sewer, and water would be a probable series of hierarchical elements that could organize the region. It is doubtful that there is a single element that can become a strong enough organizing element independent of the others. The land itself has provided strong clues for an element that can shape the future development of the area. Nature has created areas that are considered flood plains along creeks that permeate the region. Water is the common thread that runs throughout the area. It is also a life sustainer in a harsh natural environment. In the harshness of the Fort Worth climate, the natural systems were in place long before the political boundaries were established by man.
Figure 18.
Natural systems that transcend political and private property boundaries can begin to establish a hierarchy for the built environment around Alliance. But how effective are natural systems at influencing the growth of cities? Are the natural systems strong enough elements for urban form to grow to and around? The urban form is not an amorphous mass. It has layers of decisions that deal with a spectrum of issues outside the evolution of the urban form. To begin with, the environment is only one of the constraints on the growth of the city. By the time the concerns of the cities, school districts, water commissions, utilities, and State of Texas are addressed, the city becomes anything but amorphous. It also becomes more than a set of metaphors about the city. The city form is result of a dynamic set of decisions and actions made over time, with each decision having an impact on the future of the entire city. A casual line with a pen across a plan today will have an irrevocable impact on the part of the city that will develop around it in the coming years.

Because complete ownership of the region is financially and politically impractical and unfeasible, and because at this time there is no regional authority enabled with any power to see that the region develops as a coherent whole, an alternative strategy is to find organizing elements that can knit all of the diverse ownerships and interests together. The decision making power currently rests in the hands of so many different groups, from municipalities to school boards, that a consensus on any issue is difficult to achieve, especially relating to decisions affecting the
area surrounding Alliance. The North Texas Council of Governments has an overriding planning interest in the development of the region but it is not enabled with any power to carry out its planning decisions. In light of this lack of a coordinating agency, an alternative must be found for Alliance.

The northwest quadrant of the Dallas-Fort Worth Metroplex where Alliance is located is the last quadrant to undergo significant development in the region. One of the more interesting local explanations for the past lack of growth and interest in development in this area is due to the location of the stockyards on the north side of Fort Worth. In the days before cattle and hogs were slaughtered in package plants on, or near the ranches where they were raised, they used to be shipped to the Stockyards to be slaughtered and processed. Because of the predominant wind direction that blows from south to north ninety percent of the year, the land to the north of the Stockyards was virtually uninhabitable. The perception of the vile wind bringing the odors to north has lingered longer than the Stockyards themselves.

All local color aside, this area of the Dallas-Fort Worth Metroplex is an interesting case in the growth of cities, because it is not a new town in the sense of the British New Towns, or of the American New Towns of Columbia and Reston. The British New Towns developed with autonomous control over an entire land area. It is also not like Columbia or Reston in the United States where single developers controlled all of the land. The land
area that is controlled by a single owner is equivalent in total area, but as a regional project it warrants a different response and development strategy because the parcels are not contiguous spaces.

Because it is unlikely that a single governing agency will be created to assume the planning control of the land in the region, other alternatives must be explored. This absence of a coordinating entity forces the planning process for the region into smaller more discreet pieces that will impact a greater whole (the region). For instance, a regional system of parks instead of being under the auspices of one municipality becomes the thread that links a number of towns and counties together in a network of natural spaces, in much the same way Olmsted's Emerald Necklace connected a system of parks and parkways. These parks and parkways convey the image of a single element, when in fact they are a group of noncontiguous parks. This strategy could be applied so that the region around Alliance could be spatially linked in the same way.

Once the parks and parkways are established around Alliance their edges will begin to be bounded by development. As these boundaries continue to be introduced there will be certain responses on the edges of those boundaries over time. For example, if there is going to be a shopping center or village center surrounded by housing, then that area becomes a micro-neighborhood that applies all of the elements of the urban conditions. The urban conditions can become a form of development guidelines for growth at the scale of the neighborhood, and the region as
development occurs. The use of the urban conditions can help to explain and control what the area will look like in the future.

Because the land around Alliance is still under cultivation, anything urban seems to be a contradiction of terms. This is exactly the time, before the real onslaught of development begins, before the no growth movements form constituencies, to propose the possible regional systems. These systems are intended to provide a framework for the growth around Alliance that will bear some semblance of cohesiveness as the region eventually develops. Olmsted's parks provide clear examples of strategies for establishing natural spaces that can shape the path of development. The emphasis on the natural systems stems from their visual and environmental impact on the existing landscape. These larger systems provide a framework for development that will compensate for the lack of a physical plan like the ones imposed on New York and Washington.

On the plains of North Texas the vegetation on the creek bottoms and the occasional line of trees that form the hedge rows are the only real vertical relief on an otherwise horizontal landscape. The climate is not conducive to the lush eastern vegetation of Olmsted's parks even with irrigation. The soils have limiting characteristics, the rainfall is limited and seasonal, the temperature extremes are severe, and the saline ground water is hazardous to many types of trees and plants.(1) The creeks are also subject to flooding during various times of the year causing much of the bottom land to be
located in the FEMA (Federal Emergency Management Authority) designated flood plain. Because of the flood plain designation, building is limited or excluded entirely, rendering these areas perfect for park designation. (2) What these swaths of flood plain provide is a natural system of linear parks that weave their way through the countryside.

In the much the same way that Frederick Law Olmsted's east coast parks were on the urban fringes in their time, this system of parks will be considered rural today because of its relationship to the nearest towns and cities. An example describing the park’s and their proximity in Olmsted’s time follows: "Because of the high cost of urban land, Central Park was located far to the north of the built area of Manhattan... By the end of century, under the leadership of Olmsted and his colleague Charles Eliot, the park system became a comprehensive metropolitan solution to the recreational needs of the modern city. (3)

A park system for Alliance can serve more than just the recreational needs of this evolving city. By understanding the development patterns of the urban edge the parks can become even more powerful as organizing elements. In the absence of a formal plan there needs to be some framework to channel the growth in the region. Being able to conceptualize that growth is where metaphors of the urban conditions come in. The relationship of the parks to the built edge that surrounds them can be clarified by employing the metaphor of the Urban Garden.
CHAPTER II: URBAN METAPHORS: THE URBAN GARDEN

The development of the Urban Garden as a one of the four urban conditions came from observations about the mature eastern cities of Boston, New York, and Washington. The observations were glimpses of the relationship of the city's urban form to its natural areas. Central Park, with its canyon like enclosure is one image of the spatial boundary of the Urban Garden. The Back Bay Fens, Muddy River, Jamaica Pond, Olmsted Park, and the other parks and parkways that comprise the Emerald Necklace in Boston provide a different form. The jewels of the Emerald Necklace were designed as a functioning sanitary and storm water retention system, that takes on the added dimension as elements in a regional park system.\(^1\) Finally, Rock Creek Park in Washington, because of its unique topography, provides an all together different image. Rock Creek is stream valley with steep slopes that marks the geographic separation between the tidewater and the piedmont regions of the area surrounding Washington.\(^2\)

The fall line that marks the edge of two geographic regions is much like the edge that delineates the boundaries that define the limits of the urban conditions. The urban conditions are a way of looking at cities which help tell where one part of the city begins and another part ends. The Urban Garden is one of the four conditions that evolved from a desire to understand cities at a scale beyond the limits of the individual buildings.
The premise behind the four metaphors: the Urban Theatre, the Urban Oasis, the Urban Wall and the Urban Garden, which make up the urban conditions is that cities are made of elements that address a scale larger than an individual building. These elements are arrangements of places in cities that can be conceptualized so that their scale is not overwhelming. The key to the urban conditions is that they break the city down into discernable pieces that have characteristics which can be visualized.

For example, the architectural elements (walls, courtyards, corridors, thresholds) at the building scale can be applied to the urban scale of the block (as streets, sidewalks, alleys, parks), which begin to arrange the fabric of the city. The complexity of the city can be understood in terms that are applicable to the individual dwelling unit. The common link is the definition of space as being both bound and boundary at the same time. For example, a busy street is a boundary to pedestrians who wish to cross it, but the street is bounded by the sidewalks and the buildings that form on either side of it. The street is a bounded space, defined by the buildings around it, and it is also a boundary that helps to define where the building stops and starts. (3)

The concept of spaces defined by a number of boundaries is a way to bridge a conceptual gap between the spaces that are bound at the scale of a room or a house, and the spaces that are bound at the scale of the city. The idea of a room bounded by for walls may be easy for an architect to grasp, but it is a leap of understanding to realize that an
Figure 21.
open field could be bound by such diverse elements as a fence on one side, a creek on another, a hedgerow on another and a farm road as the final boundary. A stone fence can be a wall, just as easily as a chain link fence. Both are elements that define a space, they are merely different kinds of edges that create different perceptions about the bounding edge.

The urban conditions evolved from observations about buildings and elements in cities that have different boundary conditions. They are not a hard and fast set of rules about cities. They are instead a way using metaphors as organizing elements for types of urban places that have certain characteristics. These characteristics can be easily adapted to a particular situation or place. The urban conditions look at the city as a series of layers of boundaries, that form degrees of public and private spaces, in much the same way that areas of houses are defined. In a house there are public places for company and then private places for the family.

At the scale of the city the same ideas about what is public and what is private still apply. The Urban Garden is seen as types of different spaces that form the built edges around the natural areas within cities. Within the metaphor of the Urban Garden there are degrees and public and private spaces that are defined by the buildings that bound the parks. An example of the most densely built urban edge is the edge that defines the limits of Central Park in New York. Behind the idea of the Urban Garden is the realization that nature in the form of parks is bounded
by different degrees and densities of built domain. Whether it is a road across the plains, or a line of houses abutting a field, there is always some form of bounded edge. The range of density can vary by its location, like in Washington. The built edge around Rock Creek Park employs a less developed approach in comparison to the one surrounding Central Park. Because of topography the urban edge of Rock Creek Park is loosely defined by individual houses that back onto the park instead of having the park as a primary entrance and focus.

A key to understanding the idea behind all of the urban conditions is the relationship between the buildings, as positive spaces (in the sense of figure-ground) and the negative urban spaces made up of streets, sidewalks, or parks. At each scale there are different relationships of positive and negative spaces, but the nature of the relationship is never entirely black or white. Figure-ground diagrams are interesting because they ignore the finer grained areas of cities. They represent either all areas with buildings, or all areas without buildings.

There is a grey area of in between, that netherland between the architecture and the planning that has its own level of detail. Each of the urban conditions is comprised of finer levels of architectural detail that distinguish one condition from the next. Within the Urban Theatre blocks can bounded at their bases by arcades that allow the streets and the sidewalks to eclipse the area normally bounded by the buildings. The arcade allows the public spaces of the street and sidewalk to bleed over into the
Figure 21.

Figure - Ground

Figure - Ground
Grey
Figure 22.
domain of the individual building. Bologna, Italy's arcades that link a series of diverse buildings with the common element of the arcade is the genesis of the idea. (4)

The fine grained articulation of architectural elements sets up a range of transitions that one must make to get from the street to the building. The number thresholds that have to be crossed act as a series of filters and layers, that define a range of security. They also mark the transition from public to private space. In the densely urban areas that constitute the typical conditions of the Urban Theatre there is virtually no transition from street to building facade. The space is either public or private. The transition between public and private occurs once the threshold of the building has been crossed.

In the metaphor of the Urban Wall there are many variations that come to mind. In Boston, there are levels of articulation that vary from one part of the city to the next, each provides its own character. In the North End there is little or no transition from the buildings to street, yet in the Back Bay the range of thresholds has more elements; the sidewalk, a small front yard, steps, and then the building. For the Urban Oasis the thresholds are the buildings themselves. The interior courtyards provide an added dimension to the range of public and private space within the Urban Oasis. The courtyard buildings of Paris and other European cities where the views to the interiors of the blocks give the Urban Oasis another type of space and focus. In the conditions surrounding the Urban Garden
Figure 23.

CENTRAL PARK

THE FENS

DOCK CREEK

URBAN GARDEN
the range of transition and composition can be tremendous. There could be a front yard and a sidewalk, then a strip of land that is separated by a parkway like in certain areas of the Emerald Necklace or something as simple as a terrace and a garden that backs out into the landscape like in Washington.

The use of the urban conditions as metaphors for arrangements of spaces is one way to approach the vast scale around Alliance. The urban conditions are a way of imaging the potential of a new urban form that goes a step in scale beyond a preliminary land use mapping approach. By relying on the native landscape and its environmental features to introduce a regional structure of natural boundaries the region can begin to be broken down hierarchically into imaginable spaces. These boundaries will generate a built edge that will evolve into an Urban Garden for Alliance, but what form will that edge take?

At Alliance the natural progression of urban edge would be from rural to urban as the land is developed. Transportation corridors have traditionally been strong organizing elements creating growth corridors which transform the rural environment into an environment which can become progressively more dense and urban. New York, Boston, and Washington all developed along street car lines from the 1870's forward, but their settlement patterns have created very different urban edges. In the absence of mass transportation corridors and because the length of the I-35 corridor from Fort Worth to Denton, (thirty miles), encompasses such an expansive area, how can the pattern of
strip shopping centers and car dealerships be altered? Can a park system be a strong enough element to make better use of the land surrounding Alliance's Urban Garden?

One possible strategy has to do with having a clear direction from the beginning of a city's development when there are only natural boundaries imposed on the land (i.e., Boston). The natural boundaries can become strong organizing elements without the imposition of a grid. In traditional settlement patterns, built form adjusts itself to the natural environment even in the presence of the grid (i.e., San Francisco). From these physical and man-made boundaries the built form begins to evolve. Settlements develop, communities begin and eventually a town becomes a city. The city may even become a metropolis or a metroplex, with all the possible complexities and varieties of built forms. Man intervenes and places organizing forms over the natural landscape, just as L'Enfant overlaid the baroque grid over Washington D.C. and the Commissioners of New York laid the grid on Manhattan, urban growth adapts itself to patterns whether the patterns are natural or man made.

Yet, within that pattern of development there are no clues or assurances about the eventual form of the city, or the composition of its blocks. Understanding the final form of a city is like trying to guess the form of the human body from a footprint. Philadelphia and Raleigh, North Carolina were laid out with similar plans, yet each city has evolved differently.
A conceptual model for Alliance must address how the city can evolve, while avoiding the results of many of its neighbors to the east (e.g. the endless sprawl of North Dallas). In the absence of an endless grid structuring miles of amorphous built form, a regional network of parks can begin to introduce a structure for growth around Alliance. The form of that growth can look to the urban conditions for a range of its images in response to varying boundary conditions. In addition, the three Olmsted parks, Central Park, the Emerald Necklace, and Rock Creek Park, will provide ideas about what form the edge of the Urban Garden could generate.
CHAPTER III: OLMS TED AND THE URBAN GARDEN

The clues to the possible futures for Alliance lie in the work of Frederick Law Olmsted, Sr. The evolution of the urban edge around his parks has become an area of interest and study for me, particularly the conditions of the Urban Garden. Having lived in both Boston and Washington, I have been enriched the legacy of Olmsted's urban gardens. My appreciation of Olmsted's parks was and is exactly what he envisioned for the parks. They are a refuge from the city where the inhabitant of the city can go to feel completely engulfed by nature. These great urban parks have a history that is linked to the cities that developed around them. The initial commonality of the three parks is the fact that they were all linked directly to the work of Olmsted, but their similarities are much deeper.

Olmsted and subsequently his firm had a direct hand in shaping each of these great public parks. Central Park's design was a collaboration with the English architect Calvert Vaux who would eventually become his partner and with whom Olmsted would go on to do some of his greatest large urban parks. The Olmsted firm's plan for the Fens and the Emerald Necklace was conceived of by Olmsted and carried out by his firm. Rock Creek Park was one of Olmsted's many consultations during the later years of his practice, but its actual design and place in history as part of the great regional parks system of Washington was insured by Frederick Law Olmsted, Jr., after the retirement and eventual death of his father.(1)
Olmsted's conception of the urban parks was rooted in a strong democratic and transcendentalist tradition of bringing nature, in its purest form, into the life of all the citizenry of the growing urban cities. "It became in Frederick Law Olmsted's work, as completely as possible a naturalistic landscape, one consciously designed to shut out the urban environment, by subordinating all the necessary structures to the realization of broad reaches of scenery, and to provide the elements of a rural setting that, he felt, met the psychological and social needs of the residents of the city.(2) The parks themselves were outlets for the recreation of the urban residents of their generation, but at the inception of each of the parks it is doubtful that few members of the general public could have foreseen the use and the impact that the parks would have on the development of the cities the people who inhabited them. All of the three were perceived as parks on the fringes of the urban growth.(3) The growth of the individual cities changed the relationship of the parks to the community. Instead of being an outside limit to the growth of the cities, the parks became elements that were integral to the life of the cities. The parks may have been considered as outrageously remote are the time of their conception, but they have evolved into the last of the great, seemingly natural, urban refuges.

Few in Olmsted's day could have foreseen the onslaught of growth in the cities that set aside land for parks in the later half of the 1800's. When Central Park was created by an act of the New York Legislature in 1853, it
was a response to the overcrowding and congestion of the lower end of Manhattan. There was no real outlet for the people of the rapidly growing city of New York. Central Park was also a less than desirable site at the time the funds were appropriated for the park. Central Park's location was chosen because it was not on either of the rivers where land was more valuable for development and commerce. The Central Park site was riddled with swamps and rock outcroppings. Drawings and photographs of the era reveal the land around the park to be either still under cultivation, or inhabited by squatter settlements. When it was set aside for use as a park, Central Park appeared to be on the outer edges of civilized society.

Boston had long since grown around the Common and Public Gardens. The city had taxed the limits that the Common could bear as a public open space. From the 1870's forward there were discussions and plans drawn for the development of a regional park system for Boston. Not until the 1880's did the City Commissioners settle on the land area and the designer for the parks. When the time came to design the system Frederick Law Olmsted was the grand old man of landscape architecture. The problem before Olmsted was how to weave a series of disparate, noncontiguous elements together in a coherent form. The Back Bay Fens was an open sewer, the Muddy River and Jamaica Pond were the boundary between the villages of Roxbury, West Roxbury and Brookline, while Franklin Park was the outer fringe of the seam between Dorchester and West Roxbury. None of these smaller towns in those days
was urbanized. For Boston, the suburbanization was just beginning at the time of the park system's conception as the Emerald Necklace.

The site selection for Rock Creek Park began in the 1860's after the Civil War as a search for an alternative site for the new White House and a 300 acre park to surround it. The Potomac flats where the Mall exists today were unbearable in the summer months. The stench was further compounded by the open sewer that existed on the present day site of Constitution Avenue. Rock Creek was for the most part undevelopable on its edges because of the steepness of the slopes that surround the creek valley. (7) The creek had been primarily used for milling in the early 1800's. (8) After the Civil War, the area that is now Rock Creek was becoming bounded by paper subdivisions. Charles Dickens "characterized the city in terms of 'spacious avenues, that begin in nothing, and lead nowhere; streets, miles long, that only want houses, roads, and inhabitants; public buildings that need but a public to be complete, and ornaments to great thoroughfares, which lack only great thoroughfares to ornament'." (9) At the time of its funding by the Congress of the United States in 1890, the park was still outside the major developed portions of the city.

The development patterns of the urban edges that constitute the boundary of the Urban Garden around each of the three parks are equally fascinating as studies in their own right. Each has its own unique history, and yet each has been impacted by historical events that overlap the cities. New York and Washington grew out of structured
plans whereas Boston evolved on the drive of capitalism and the limits of the topography surrounding the city.

In New York the physical development around Central Park had been dictated almost fifty years before in 1811 by the Commissioners of the New York when they applied the grid to the entire island of Manhattan up to 150th street. Central Park began at 59th street and in its early years only went to 106th street to the north, 5th Avenue on the east side and 8th Avenue on the west. What evolved as the grid was built out was the creation of east and west side neighborhoods. The housing types that developed on either side of the park are as different in nature as neighborhoods themselves.

At the time of the creation of the park system, Boston had just added the Back Bay to its developable area. Boston was growing to its suburbs from the inside out. There was only so much land area that was available to Boston inside its city limits. Growth of the suburbs along transportation corridors to the west towards Brookline across the Fens from the Back Bay, to Dorchester to the south, Roxbury, and West Roxbury to the south and west. All of these suburban villages were natural extensions of the existing land mass of Boston. In the absence of a plan in the traditional sense of New York or Washington, Boston expanded along transportation lines that were dictated by the topography that would allow the easiest expansion of the street car lines. Boston continued to build around the strength of its topography as a regional organizing element. (10)
In contrast, Washington's growth was limited outside of the boundaries of L'Enfant's original plan well into the 1880's. The areas bounded on the north west by Florida Avenue (Boundary Street) and the west by the ravines of Rock Creek and Georgetown were the limits of the City. After the infrastructure building boom from Boss Shepherd's reign in the 1870's, Washington was growing into its grid. (11) In the areas to the north of Florida Avenue neighborhoods began to emerge on paper as speculators laid out subdivisions. Kalorama, Washington Heights, Adams Morgan, Mount Pleasant, Brightwood and Shepherd's Park, all to the east of the Rock Creek, and the western border formed by the neighborhoods of Georgetown, Cleveland Park, and Chevy Chase to the north, all emerged after Shepherd's tenure.

The three cities that surrounded Olmsted's parks developed around the parks' edges but not solely because of the parks themselves. Instead of the parks being the attraction for the new urban edge, transportation was a primary concern. The urban edge grew primarily along the transportation corridors, and not to the parks. The suburbanization of New York, Boston, and Washington was paralleling the creation of the parks in those cities. My hypothesis that the cities grew to the parks turns out to be naive; the parks were a secondary factor in the expansion of the cities at the time. The role of the parks is really one of being a mirror for the development of the cities around them. The parks formed a boundary to development that became an urbanized edge as the city grew around them.
It is also important to keep in mind that this urbanization of the cities was coming in the age where individual transportation meant horseback or on foot. Land that was as far from the city center, as all of the parks were at the time, was simply not that attractive as housing before the introduction of transit lines. The civilized boundaries of the metropolitan area before the advent of the transit lines were usually limited to a three mile area or the distance that could be walked in a hour. The primary problem for the inhabitant of the eastern metropolis' of the day was the range of housing options that existed in walking distance from home to the place of employment. Transportation advances allowed the cities to transform themselves from the walking city to the decentralized cities of the day.(12) Transportation innovation opened the flood gates of urban expansion and made the once remote extra-urban parks an organizing element in the growth of the city.
CHAPTER IV: THE PARKS AND THEIR CITIES

Understanding the evolution of the urban gardens in New York, Boston, and Washington requires an examination of the cities and their relationship to their parks both historically and spatially. The parks at the time of their conception were extra-urban by definition. The creation of these parks stemmed from health concerns, as well as the social, economic and political realities of the times that occurred in the face of the rapid rate of urbanization.

Acknowledgment of worsening urban conditions and the importance of open spaces in fostering public health and recreation, as well as concern for the nation's self-esteem as a republic and its intellectual and moral improvement, led Americans of various religions and occupations to advocate the establishment of public parks in their cities. ...Thus the reformulated agrarianism, an appreciation of the psychological and social benefits of natural scenery, and the need to address the realities of urban growth and change combined in the attempt to create a new urban form by bring the country into the city. ...The park, then, embodied the new urban symbolism -- the curvilineity of the natural landscape -- stood in sharp contrast to the straight lines and rigid angles of the gridiron, a pastoral counterpoint to the urban environment.(1)
From Olmsted's perspective there was an even more fundamental issue at work behind the creation of the urban parks. "Above all, Olmsted reasoned, the park must preserve within the urban environment a rural enclave, free from the tyranny of the inexorable gridiron, a place where the sights and sounds of nature might soothe the harried resident of the city."(2) David Schuyler's analysis of Olmsted's theory is apt: "Indeed the single most important aspect of Olmsted's theory of landscape design was a concern for creating pastoral scenery, and whenever possible in Central Park he and Vaux planted broad expanses of lawn to achieve 'the antithesis of the confined spaces of the town'. Olmsted believed that this type of park scenery would have an unconscious influence upon the mind of the visitor. The contemplation of such a sweeping lawn would induce in visitors an 'unbending of the faculties,' thereby providing healthful relief from the pressures of urban life". (3)

The creation of the parks in New York, Boston and Washington is an example of political will being expressed by the public. What began with the acquisition of Central Park in 1853 was carried out throughout the remainder of the century, culminating in the acquisition and design of the Emerald Necklace in Boston and Rock Creek in Washington. The creation of the parks is important because of the process and the perception by which they were created. Early in the creation of Central Park, the goals of the park were more humanitarian, and as the years passed the success of the urban parks changed the focus of the
parks to sources of recreation and as a component of capitalism. Each of the parks has had its own unique history of design and development since its creation, but the purpose of this paper is to set the parks aside as mirrors of the changes in the urban edge around them rather than to focus on the changes to the parks themselves.

Between 1845 and 1855 the population of New York doubled, the march of the city uptown was in full swing, and the parks movement experienced a new enthusiasm in the face of the unparalleled growth. (4) Schulyer sees the acquisition of the park as more than an escape from the city: "it was an integral part of the transformation of the urban space, an expression of urban optimism, and a means of raising the level of civilization in the city." (5) It was also a politically expedient solution because the creation of the park would enable the local politicians to give hundreds of patronage jobs.

The two sites for the New York's new park were Jones' Woods on the East River and Central Park. "Jones' Woods was closer to New York's population, had a river front and trees, and would offer immediate returns. The opposition included horticulturist Andrew Jackson Dowling, who challenged the feasibility of using this land for park purposes because it could be used for commercial docking and because a shore site was healthful and pleasurable without a planned park on it. The Central Park area was proposed as an alternative that would offer cross-ventilation, access from two sides, and easier conversion to a park than Jones' Woods, which had too many
Figure 27.
trees for open space."(6) In the end the selection of the park site came down to purely economic terms." In retrospect the argument that Jones' Woods did not offer enough space might seem farsighted, but the charges and countercharges in the New York State Senate minority and majority reports for 1853 suggest that it was financial interests, especially commercial docking operations, that won the day."(7)

Once the location of the park was selected, work began on surveying the land and creating a plan. The first plan was an extension of the topographic survey supplied by Egbert L. Viele who was to be Olmsted's first supervisor as manager of Central Park. "On June 3, 1856, the first Central Park commissioners,...adopted a plan of development prepared by Egbert L. Viele."(8) The political climate in New York was unstable at best, as the first Commissioners who were all politicians were fired and replaced. "In August of 1857, in one of their first official acts, the new Central Park Commissioners--a group of lawyers and businessmen rather than politicians---rejected Viele's design and announced a public competition for a plan."(9) Olmsted and Calvert Vaux won the competition with their collaborative "Greensward Plan" and Olmsted was sworn in as Architect-in-Chief and Superintendent of Central Park on May 18, 1858.

Olmsted and Vaux recognized the impact of urban growth on the park from the very beginning."In the 1850's the park was located so far to the north in the city's 'struggling suburbs' that the epithet 'central' was a misnomer, yet
Figure 28.
Olmsted and Vaux had grasped the reality of urban growth. Shrewdly, they recognized that 'twenty years hence, the town will have enclosed Central Park'... Practically they shaped their design to meet the requirements of a time 'when New York will be built up, when all the grading and filling will be done, and when the picturesquely-varied, rocky formations of the island will have been converted into foundations for rows of monotonous straight streets, and piles of erect angular buildings'. "(10)

Boston's park movement began early as the citizenry realized that the natural resources of the city were being completely taxed. "In October of 1869 City Council was petitioned by citizens for the establishment of public parks in Boston. Two public hearings were held in November of the same year. On May 27, 1870 the Massachusetts Legislature passed the Park Act of 1870, subject to acceptance by two thirds of the legal voters of Boston." (11) Attempts were made to introduce the park legislation in 1870 and again in 1873, but both attempts failed to garner the required votes. "The Park Act, which was passed in May of 1875, followed the amended order very closely. It required the approval of a simple majority rather than the two thirds plurality of the legal voters of Boston, and this approval was obtained at a special election held June 9, 1875." (12)

Frederick Law Olmsted was associated with the Park Commissioners who sought his advice as early as 1875. It took the commissioners until 1878 to acquire the land that would be the basis of the future park system. Instead of
hiring Olmsted immediately they held a public competition for the park design. (13) The results of the competition were less than adequate and within a few months after the prize was awarded, Olmsted was given the commission to begin work on the Emerald Necklace. (14)

Olmsted's design and construction of the Back Bay Fens which began in 1880 and was completed by the time of his retirement in 1895, was more than just a design solution for a park. "The rationale behind the plan was very far from what was commonly understood as a park, as Olmsted so painstakingly explained; the design was primarily a sanitary improvement, the main feature of which was a storage basin for the storm waters of Stony Brook. A second aim was to restore the salt marshes to its original condition." (15)

Olmsted undertook the remaining of the jewels in the Emerald Necklace as they were ready to be designed and implemented. In 1882 the Arnold Arboretum was added to the necklace when it was purchased by the City of Boston from Harvard University. (16) "Grading began on the main drive in the Spring of 1883. Road building, the major construction work in the Arboretum, took about ten years to complete." (17) Franklin Park was added still later, the appropriation for the five hundred acre park was approved in 1881, and Olmsted began his work in 1884, to be completed in 1885. (18)

The final two elements in the completion of the Emerald Necklace were the improvements to the Muddy River and the integration of Jamaica Pond into the necklace. The Muddy
River Plan was submitted in 1881, subsequently revised and approved in 1892. The plan for Jamaica Pond was accepted in 1892, and differed from plans for the Muddy River and the Back Bay Fens because little was done to the existing landscape in comparison to the other two. The string that linked the jewel like parks of the Emerald Necklace together was the parkway system designed and refined by Olmsted. "Although the first Board of Park Commissioners had sympathetically endorsed the concept of connecting parkways in their 1876 report, the superior refinement of Olmsted's design can easily be seen by comparing it to the pinched dimensions and awkward junctures of the commissioner's plan....With characteristic sensitivity, Olmsted adapted the design of the parkway to the varying natural and architectural surroundings along the route. ...the Boston parkway is one of Olmsted's grandest conceptions."(19)

When the legislation was finally signed into law in 1890, the idea for the creation of a park along Rock Creek had been in the forefront of the enlightened members of the community since 1867. It took the threat of development, the lobbying of Washington's most influential senators, political compromise on Capitol and Hill, and a champion to grind the legislation through the Congress. Legislation in 1890 set aside the land for a "public park and pleasure ground for the benefit and enjoyment of the people of the United States."(20) The push for the creation of Rock Creek Park "Emerged out a tradition of the late 1850's by social reformers, and was designed to counteract the urban growth
of the period. Open spaces were conceived of as alleviating the urban ills of the time that threatened the disease ridden neighborhoods. (22) As was the case with the majority of the urban parks of the era, Frederick Law Olmsted was the conceptual leader of the movement but the actual design and development of the park was carried on by Frederick Law Olmsted, Jr.. The younger Olmsted wrote the influential report on the scope of the city's park system for the McMillian Plan in 1901-1902 and a 1918 comprehensive study for the development of the park. (23)

The climate that prompted the renewal of interest in Rock Creek becoming a park grew out of concerns that the ills of the other major urban areas of the east coast were beginning to manifest themselves in Washington. (24) The success of movement to designate the land for Rock Creek Park originated in the private sector and was lobbied through Congress by the Washington's then powerful Board of Trade and other prominent members of the Washington community. "The renewal of interest in the creation of a major urban park in Washington in the 1880's was product of growing public health concerns. Eradication of waterborne diseases, especially typhoid, was a vigorous reform movement in all major American cities in this decade. In 1879 the sewers in Georgetown and Northwest Washington emptied into Rock Creek. By 1889 the pollution of Rock Creek was considered a serious threat to the public health." (25) The pollution threat continued to grow as the land developed up 14th street into Brightwood and into Washington County. "Conditions in Washington in the 1880's
reflected widespread urban public health problems. In 1881 only one third of the city's houses were connected to sewers. Wells and springs were still commonly in use and often became contaminated." (26)

The legislative background on the creation of the park stemmed back to the years immediately following the Civil War. "The Senate was concerned with the location of the White House near the odiferous Washington Canal that was an open sewerage ditch."(27) The 1867 Michler Report treated the park and the new executive mansion as separate reports. The report concerning the areas for the park had an impact on the public. "The engineer's romantic prose has often been quoted by succeeding generations of civic activists and historians attempting to establish, preserve, and foster public appreciation of the park."(28)

The next twenty years the focus of the government was on the public works projects in D.C., like the reclamation of the Potomac flats in 1882. The Corps of Engineers had essentially created a flood proof city by 1890. In the end, the legislation for the park was linked to the creation of the national zoo. Rock Creek would become a park if the national zoo was downscaled in size from its original plan."the establishment of the National Zoological Park proved vital to the Rock Creek Park campaign because it focused public attention on the beauty of the region and revealed the imminent threats of real estate development to the valley.(29)

The final version of the legislation was originated by John Sherman(R-OH) and passed the Senate on January 28,
1890. The House made amendments changing the designation of the park to the "Columbus Memorial" Park to honor the forthcoming anniversary of Columbus' Discovery of America, half the cost would be deferred from District of Columbia revenues, and also in an unusual turn of events, adjacent landholders that benefited financially would contribute to the cost. (30) The focus of the legislation aimed at forcing land holders adjacent to the new park had its origins in what would today be considered the glaring conflict of interest between the legislation's champion, Senator Sherman, and his sizable land ownership in subdivisions near or adjacent to the park. "Senator Sherman, while a long-term resident of Washington, had acquired extensive real estate holding near the periphery of Rock Creek Park. Sherman owned and subdivided several large tracts, such as Meridian Hill (1867), Sherman's Subdivision (1868), and Columbia Heights (1882). Sherman also acquired substantial development interests in Cleveland Park (1892). (31)

The bill establishing Rock Creek Park passed both houses of Congress and was signed into Law by President Benjamin Harrison on September 27, 1890. The law set the limits of the park at 2000 acres with equals fund up to $1,200,000. to be paid by the District of Columbia and the U.S. Treasury. The Rock Creek Park Commission was established to oversee the purchase of the land for the park. The final park was turned over to the Rock Creek Park Board of Control on January 1, 1895 and consisted of 1,605.976 acres and was purchased for $1,740,511.45. (32)
The part of the bill that was aimed at adjacent landholders did not fare as smoothly as the Commissioner's work had in acquiring the land, and the additional funds from Congress. The assessments to the adjacent park owners were litigated and ended up in the Supreme Court in 1898. "it was decided in subsequent hearings by the commission that assessments were unwarranted because the park in its unimproved state had caused no appreciable increases in adjoining land values.(33)

The planning and design process for Rock Creek Park has a fairly convoluted history. Rock Creek Park became not the focus but a component of Washington's regional park system as it had been proposed by Olmsted Jr. in the McMillan Report. Local sentiment about the parks for Washington is best summed up by resigning Board of Trade president, Noyes, in 1899: "There would not be in Vienna or Budapest, or anywhere in the world, a grander ring street or boulevard than that which should take its start on the westward grassy slopes of the capitol grounds, sweep the Mall and Potomac Park and up Rock Creek to the Zoo and Rock Creek National Park; thence by boulevard to the Soldiers Home, and finally by boulevards and Anacostia Park back to the eastern sward and shade trees and impressive dome of the Capitol.... The park system which thus permeates the original city is to pervade in like fashion the new Washington...Let us of the Washington to-day, in building up the nations city of the second century of its life, emulate the breadth and boldness in design and the
Figure 32.
vigor in execution which were displayed at the end of the last century and in 1800 by the founders of the capital."(34)

Washington finally got back around to the development of Rock Creek as a park, and in 1917 Board of Control commissioned the Olmsted Brothers to prepare a planning study for the future development of the park, completed in December in 1918. Rock Creek's role as an urban open space has not been as clearly defined as its other two Olmsted park predecessors. Changes in urban living patterns and the introduction of the car and the parkway have placed a different set of demands on Rock Creek as an urban pleasure ground and have clouded its course as a park.

The histories of Central Park, the Emerald Necklace, and Rock Creek Park all shed light on the concerns of the times in which they were created. The interest in the parks was brought about by the advent of rapid urbanization and its pressure on the populace of the cities. The parks were seen as refuges from that urbanization but they have evolved into much more than a place of refuge. They have become inseparable elements in the urban forms of New York, Boston, and Washington.
CHAPTER V: THE WALLS OF THE URBAN GARDEN

While the creation of the parks as Urban Gardens for their respective cities has been firmly tied to Olmsted's philosophies of natural spaces in urban areas, the development of the walls of the Urban Gardens has emerged in a range of varied development patterns. The patterns that led to the creation of the cities around the parks are not because of the parks as I had once imagined. The role of the parks as a generator of urban form is true only in the sense that once the parks had been designated and the boundaries clearly established, the built edge of the city does react to the park. However, the cities of New York, Boston, and Washington did not expand around the parks solely because of their existence. The growth of these cities and their edges around the parks is linked to a number of factors, only one of which was the creation of the parks. The growth of the cities is due to larger trends, such as the movement of people outside the bounds of the "walking city" to the suburbs, where the parks were located. Evident in the history of the expansion of the cities to the suburbs is the way that edge of the Urban Garden developed. Each of the three cities; New York, Boston, and Washington, have exhibited a different built response to the parks. Each has its history and its own unique relationship of the park to its surrounding edge.
New York:

In New York, the development of the urban edge around Central Park is a classic example of urban land economics at work. Land values at the center of the city continue to rise forcing land development further and further out until the land values and the demand becomes high enough to justify obliterating the buildings that already existed in order to make room for buildings which can accommodate more people and warrant a higher price. Looking at the urban edge around Central Park today I find it hard to imagine the built domain as anything other than the towering buildings serving as a backdrop and contrast to the natural scenery of the park. Walking Central Park is like walking back in time. There are areas in the park that are so isolated that the time period might well have been 1870 as 1990.

Central Park was on the fringe of the civilized city at the time of its conception. The development of its built edge has taken many years and has undergone a series of transformations that have paralleled the changes to the island of Manhattan. Historians, Harmon H. Goldstone and Martha Dalrymple, describe the growth of the East Side in the following terms:

The reasons for the later development of the Upper East Side are twofold. Until work was started in Central Park in 1857, everything north of 59th Street was open country except for scattered villages like Yorkville and Harlem on the east and Bloomingdale and Manhattanville on the west.
Pictures of the region of the future park in this period show scrubby farms, squatters shanties, and goats roaming along Upper Fifth Avenue. Even after the park was opened--and it was not extended to 110th Street until 1863--the open cut along Park Avenue, with its noisy and dirty steam trains, was a blighting barrier for any expansion of new building beyond the thin fringe west of Park Avenue. The explosive development of the Upper East Side as a fashionable residential neighborhood was the immediate consequence of the electrification of the New York Central Lines and the decking over of Park Avenue in 1907.(1)

The taming of Central Park was analogous to the taming of the urban edge around it. "Early in the nineteenth century, when New York became the largest city in the western hemisphere and when population pressure was forcing the built up area northward on Manhattan Island, it was the urban outcasts who led the way. On the site of Central Park, which was near the edge of the settlement in 1857, Frederick Law Olmsted and Calvert Vaux had to order the eviction of hundreds of ragpickers, junkmen, and drivers who had established squatter settlements there."(2) Olmsted and Vaux may have succeeded in moving the squatters out of the park proper, but the squatters relocated to the undeveloped areas to the east and west of the park. Photographs from the period of the urban edge on both Fifth Avenue, and Eighth Avenue(Central Park West) show squatter settlements on either side well into the 1890's. As
Figure 34.

Figure 35.
development pushed north the squatter's shanties were gradually replaced, and the land was reclaimed for residences on the Upper East Side and a mixture of residences and apartments on the Upper West Side.

In reconstructing the growth of the urban edge on either side of Central Park, the challenge is to look for some consistency in the reasons behind the development patterns and finding few similarities between the Upper East and West Sides. The Upper West Side faced topographical disadvantages, caused by the imposition of the grid in 1811, over sloping ground that was not conducive to development. Only after the Civil War in 1865, did the Legislature order the Central Park Commission to work on grading the land on the west side to make it developable. It would take Olmsted's adversary on the Park Commission, Andrew Haswell Green, Comptroller of Central Park more than a decade to "improve the west side grade."(3) In 1866 the West Side Association was formed to encourage residential development on the Upper West Side, north of 59th Street, "but few people even thought of putting up houses on the Upper West Side, which remained a remote bucolic region".(4)

Two urban events opened up the development of the Upper West Side and made it more attractive to development. One was the introduction of the El (the elevated railroad) in 1878 and the other was the socialization of the apartment house as a socially acceptable place for middle and upper income families to live. "Even in 1880 New Yorkers of means would scarcely consider living in an apartment, and
many considered apartment houses immoral. It was then that the idea of the co-operative apartment houses, or home club, was introduced to make apartment residences appear socially acceptable."(5) Philip Hubert, an architect, born in France, but who had lived in the United States, was the pioneer behind the co-operative apartment's popularity. "Hubert's first co-op, built for a club of artists, was the Rembrandt Studios in West 57th Street. Erected in 1880 on a site slightly to the left of what would later become Carnegie Hall, it was a great success, even though one bath served as many as four bedrooms"(6) Another pioneering figure in the development of the Upper West Side was Edward Severin Clark, the Singer Sewing Machine founder. Clark's vision of the West Side was one of economic diversity. "The new section of the city, he said, would combine apartment buildings with single family dwellings to house rich and poor, 'Some splendidly, many elegantly, and all comfortably... the architecture should be ornate, solid and permanent, and...the principle of economic combination should be employed to the greatest possible extent.'."(7)

When the El opened in 1878 two things happened. The Upper West Side became readily accessible, and Edward Clark bet on the El as future of the Upper West Side. In 1880 he commissioned Henry Janeway Hardenberg to build twenty-seven town houses on the "north side of 73rd Street running west from Eighth Avenue".(8) The Dakota was completed in 1884 and was New York's first true luxury apartment hotel. The Dakota had nine Otis elevators, each serving just two apartments per floor. The opening of the Dakota signaled
the beginning of the apartment house north of 59th street: yet the Dakota like the park itself is a mirror of the development of the Upper West Side. (9) "Vacant lots accounted for more than half the total on the Upper West Side in 1892. Between 59th and 96th Streets, where all but a few streets and thoroughfares remained unpaved, only a small majority of the lots were occupied, although 72nd, 86th, and other streets were heavily built up; between 96th and 110th nearly two out of three lots were vacant, but eight lots on the south side of 95th Street between Central Park West and Columbus Avenue were sold in 1892 for upward of $12,000 each—four times what they had cost in 1883." (10)

While development was occurring on the Upper West Side in the 1880 and 1890's, the neighborhood had a long way to go to reach an urbanized state. "Tenants of the Dakota facing Central Park look out on shacks, chicken coops, and pigsties of squatters, who were periodically handed eviction notices that they fed to their goats. But if the neighborhood was still largely a shantytown area of open cesspools, blacksmith shops, and saloons it was because the high price of lots discouraged developers." (11)

In 1904 the Upper West Side was opened up even further to development by the introduction of the Interborough Rapid Transit, the subway. Transportation was one of the keys to Manhattan's expansion. "In 1903, the year before the subway opened, New York's surface and elevated railroads carried more paying passengers than did all the steam railroads of North and South American combined." (12)
Figure 38.

Figure 39.
The subway changed the living patterns in Manhattan. Because the subway ran only on Manhattan and only on the West Side above 42nd street, the West Side became more accessible. (13)

The physical difference between the Upper East and West Sides seems to lie in the nature of their respective residents. The Upper West Side along Eighth Avenue (Central Park West) developed from the beginning as apartments and hotels, yet Fifth Avenue began as residential town houses which were later transformed into apartments. "There were few luxury apartment houses on the East Side until 1910, when the railroad lines running into Grand Central were electrified and some progress was made toward covering over the forty acres of railroad yards and track on Fourth Avenue (soon to be renamed Park Avenue)." (14) The first apartment building on Fifth Avenue was a McKim, Mead and White building constructed in 1910 on 81st Street across from the Metropolitan Museum of Art. (15) The photographs of the period reveal Fifth Avenue to be a seemingly endless corridor of mansions, well up into the 90's on Fifth Avenue.

As the development of an urban edge for the Urban Garden occurred, a first generation of build out would probably have been all that could be expected. The urban edge of Central Park was not capable of remaining a static element. On the East Side the second generation of urban edge began in 1910 and continued on through the 1930's and 40's. The Lexington Avenue Subway began service in 1918. (16) New York City experienced an onslaught of people
at the end of the First World War, several years later. The surplus of housing on the West Side that occurred after 1910 was quickly absorbed; but by 1921, the housing surplus had turned to shortage to such an extent that the Board of Estimate ruled that "all new buildings planned for dwelling purposes' and started or completed between May 1, 1920, and May 1, 1922, were to be exempted from nearly all taxes until January 1932." (17) On top of the shortage there was an attitudinal shift among New Yorkers who were staying in town. "But few New Yorkers wanted town houses in the 1920s, and those few that were built were soon turned into multiple-unit dwellings. The money was to be made in apartment buildings, and there was no lack of developers to put up more of them." (18)

Coupled with the increasing demand for apartments was boom in hotel construction. The boom of the 1920's had seen "New York land values increased by 75 percent in the decade between 1919 and 1929. Real estate taxes provided four-fifths of the city's revenue in 1928 and some of the most valuable real estate was on Manhattan's Upper West Side." (19) During the decade eight new apartment buildings were developed on Central Park West. Also the completion of the "new independent subway line, running beneath Central Park West to Columbus Circle, and then beneath Eighth Avenue past the western edge of the garment district to Chambers Street, would make the Central Park West Apartments far more conveniently located." (20)

By 1939 the era of the private house on Fifth Avenue was rapidly coming to a halt. Property taxes on Fifth
Figure 44.

Figure 45.
Avenue were running as high as $42 a square foot. "Mrs
Cornelius Vanderbilt, whose enormous house at the corner of
51st Street was assessed at $2.45 million. Mrs Vanderbilt,
according to Fortune, paid $197 per night in taxes for the
privilege of sleeping in that house."(21) The march of
demolition of the older mansions and fashionable homes on
the Upper East Side was gaining momentum as residential
demand increased. The post war period of the late 1940's
and 1950s saw the transformation of the urban edge along
Fifth Avenue from a residential scale to the scale of the
high-rise apartment block.

The development of New York's urban edge around
Central Park shows the full potential of the wall of the
Urban Garden. The settlement pattern made the
transformation from rural to urban, but it did not stop
with a first generation build out. The redevelopment of
Fifth Avenue, Central Park West and 59th Street have
produced a second generation urban edge which is
continually changing. As long as there is a demand for
the views and location adjacent to the park then the walls
of Central Park's urban edge will continue to be
transformed.

Boston:

If New York is a classic case of land economics at
work, then Boston is a case of development by individual
capitalism. In the absence of a structured plan for
Boston's growth in the period from 1870-1900, planning was
Figure 46.
replaced by topographical accessibility to the surrounding countryside. This accessibility along the valleys between Boston's hills led to street car routes, which in turn led to the development of the "streetcar suburbs". The built domain of Boston's Urban Garden, "the Emerald Necklace" (The Fens to Franklin Park) is difficult to understand in the same way that the development of Boston is difficult to reconstruct. Boston is land poor. There are too many people trying to live in the same place, vying for the same resources.

Boston's strongest urban design tool for the city has long been its natural environment. "Before 1850 Boston's geography had inhibited easy expansion. Marshes, rivers and the ocean restricted paths of pedestrian communication." (22) Bostonians have been starved for land to extent that they have filled marshes and leveled hills to create more buildable area for the city. The filling of the Back Bay was such a monumental endeavor that it was enabled by the Legislature in May 1857, and filling began in May of 1859. (23) The newly created land in the Back Bay was completely consumed by 1900.

The Emerald Necklace in Boston was much like Rock Creek Park in Washington in the sense that elements of it posed a natural barrier to development. While the slopes of the Muddy River are not in the form of gorges, the areas that Olmsted had to work with were the left over spaces in the seams between the new suburban towns, of Brookline to the west, and Roxbury, West Roxbury, and Dorchester to the east. Olmsted's design solution for the Back Bay Fens was
widely heralded for its sanitary engineering as much as for its artful creation of a park. The stench rising off the tidal flats in the Fens in the 1880s was said to be unbearable. The geographic boundaries notwithstanding, the urban edge of the Emerald Necklace was faced with the added difficulty of developing without any traditional plan. Yet Sam B. Warner, Jr., in his book Streetcar Suburbs, is quick to point out that the evolution of the Boston suburbs came with a great deal of thought and all the discipline of a masterplan. "The three towns of Roxbury, West Roxbury, and Dorchester were built by strict discipline, a discipline of nineteenth century conditions which organized the structures and their builders into patterns which in their way, were as rigid as any modern development statutes. The 22,500 new dwellings of Roxbury, West Roxbury and Dorchester were the product of separate decisions made by 9000 individual builders."(24)

Warner argues that transportation advances were the key to opening up the suburbs of Boston, just like their counterparts in New York and Washington. Where Boston differed is that the structure was missing, the structure in the traditional sense of the grid. "The suburbs of Boston grew along transportation routes, which took their direction from the topography of the landscape. Despite successive changes in land uses and transportation methods the contours of the land continued to shape the growth of towns. ...This branching of roads described at once the main valleys and uplands of West Roxbury, the principle north-south traffic movement, the location of most of the
Figure 49.

Figure 50.
eighteenth and nineteenth century farms and villages, the streetcar lines, the railroad route, and the main line of suburban development."(25)

The topography imposed a structure that was further defined by the real estate market necessity of the day, the creation of frontage lots. "Under the grid street and frontage lot system of land division natural contours were thrown away for the short term advantages of easy marketing and cheap utility and street construction."(26) "In simplest terms, both farmers and suburbanites began first where the land was handy and then worked out to back lots and high stony plots."(27)

This attitude, the practice of the individual parcels making the planning decisions, had a serious impact on the areas around the Emerald Necklace. It set the Emerald Necklace up as an urban organizer, to introduce some kind of hierarchy into an essentially chopped up development pattern. "The grid plan of the suburbs did not concern itself with public life. It was an economically efficient geometry which divided large parcels of land as they came on the market. The arrangement of the blocks of the grid depended largely upon what farm or estate came on the market at what time. The result was not integrated communities arranged about common centers, but a historical and accidental traffic pattern."(28)

The overall lack of continuity in the availability of the land adjacent to the Emerald Necklace begins to explain some of the architecture of the urban edge. In the Back Bay Fens, much of the architecture responds to the
curvilinear nature of the roads that follow the undulations of the Fens itself. It is almost as the Fens were a planned Royal Crescent. It is as if the built edge for the Fens was established, its frontage buildings that formed the Urban Garden were built, and then all the remaining buildings and blocks not adjacent to the park were designed to fit on their sites as best they could.

The Emerald Necklace is also a black hole in an urban design sense. Streets that dead end to the Necklace stop and never pick up again. Only on the major streets is there continuation. The smaller streets seem to go into the Necklace and never emerge on the other side. The parkways of the Emerald Necklace are like culverts collecting traffic from the feeder side streets. The side streets are like water seeking its lowest point as it drains off the land in route to the Charles River. This blackhole effect is the direct opposite of the majority of conditions in Washington. For example, before construction of the bridge, Connecticut Avenue stopped on one side of Rock Creek and started again on the other side of the gorge, as if the Avenue were naturally waiting for the bridge to be built so that it could complete itself. Sections of the Emerald Necklace have also become islands surrounded by a continuous undercurrent of traffic. The Fens, Olmsted Park, Jamaica Pond, and Franklin Park have all become parks isolated like jewels set aside from the rest of their urban context because of the way that traffic has defined their boundaries. If Central Park were intended to allow the visitor the opportunity to block out
Figure 51.
the distractions of the city, Franklin Park and the Arnold Arboretum allow the same feeling in certain places. In the remainder of the Emerald Necklace's jewels, their settings have been tarnished by overexposure to the city and traffic which surrounds them.

The Emerald Necklace is a barrier and a boundary of people and architecture created by the social and economic diversity of the neighborhoods which form the urban edges. Because much of the land on either side of the Necklace rests in Brookline, or Roxbury, there are physical, as well as social and economic differences in the sides of the Necklace. There are varying densities of development along the Necklace on the two sides, but there is also an interplay between the edges as the density increases in certain locations (The Fens, Olmsted Park) and subsides in others (Jamaica Pond, Franklin Park). The institutional buildings (museums, colleges, medical schools, hospitals) add an interesting density to the areas along the Necklace. The variation of the urban edge along the length of the Necklace exists because the buildings forming the edge address the roads that front the parks. The architecture of the edge comes from the parks and parkways, not from the formal structure of the city around it. In Boston the city grew and developed around the natural features of its topography, and the market necessity of frontage lots along main transportation routes.
Boston developed based on decisions made by individuals that led to a piecemeal settlement pattern. The land surrounding Rock Creek Park, in Washington, D.C., is best described as a close knit group of different neighborhood developments, each with its own architecture and distinct personalities that are all linked by a series of common urban events. The majority of the land surrounding Rock Creek was acquired and subdivided after the Civil War dating back to the 1870's. Transportation and infrastructure improvements outside the municipal boundaries, into what was then Washington county, the land north of Boundary Road (Florida Avenue), were the keys to opening up the suburban communities around Rock Creek. The gorges that border the southern edges of the park were themselves barrier to development in the early years.

Bridging the creek valley was an essential element in the development of the western neighborhoods. The P Street bridge connected the Dupont Circle neighborhood to the well established Georgetown in 1871, which began the onslaught of the neighborhoods north and west of Georgetown that were to follow. "The blossoming of the residential neighborhoods east of Rock Creek marked the major trend of development until the gorge was bridged—at Klingle Road in 1886 and at Calvert Street in 1891."(29) Kalorama, north and west of Dupont Circle, was further opened up when Massachusetts Avenue was extended from Florida Avenue over the Rock Creek gorge in 1887. The initial iron bridge
built in 1887 was replaced by a more substantial stone bridge in 1901. (30) In 1907 the Connecticut Avenue bridge was completed and allowed for direct passage from Dupont Circle north to Chevy Chase. Until the completion of the bridge, Connecticut Avenue stopped on the southern edge of the gorge and picked back up on the northern side.

The advent of public transportation opened up the neighborhoods on both sides of Rock Creek. The horse drawn trolleys of the early 1870's gave way to the electrified trolleys of the late 1880's and 1890's. The availability of transportation made the inner, eastern suburbs, beginning with Brightwood, 1861; Mount Pleasant, 1865; Dupont Circle, 1880; Kalorama 1887; Washington Heights, and Lanier Heights, 1880's; (present day Adams Morgan) a physical reality beyond their existence as platted suburbs. (31) With the construction of the bridges across the Rock Creek Valley came the western developments, Chevy Chase, 1890, and Cleveland Park 1894-1895. Senator Francis Newlands, the developer of Chevy Chase, made the development of both Chevy Chase and Cleveland Park possible by building the Calvert Street and Klingle Bridges, and by opening up street car service on Wisconsin Avenue in 1890 and on Connecticut Avenue in 1892. (32) Chevy Chase acted as a magnet that pulled people out to it over time. In its wake there was a vacuum along Connecticut Avenue that was eventually filled in as Cleveland Park developed.

The 1893 Highway Act and the revised 1898 version of the Highway Act that grandfathered subdivisions plated before 1893 were intended to correct the problems that the 1887
District Commissioners' Annual Report referred to as the streets that "go nowhere and connect with nothing." (33) The 1898 Highway Act was intended to extend the lines of L'Enfant's plan out into the rapidly developing areas of Washington County outside of the 1792 plan. The Highway Acts did two things: it insured that there would be some continuity between the L'Enfant's plan and the new subdivisions, and it put a virtual freeze on development during the period while the legislation was being finalized.

Each of the neighborhoods that border the park have had their own development patterns and have over the course of their histories evolved their own built urban edges. The neighborhoods as they relate to the park are physically limited by the changes in topography between the neighborhoods and the park itself. To this day the major development nodes where there has been a second generation of building, like in New York around Central Park, have been limited to areas where there are bridges or roads that cut across the park. An example of this type of pattern of development would be at the bridges at Connecticut Avenue and Calvert Street.

The primary corridors of development have been along transportation routes like out Connecticut Avenue along its entire length out to Chevy Chase Circle, and out Sixteenth Street, up to Piney Branch. Of all of the neighborhoods bordering Rock Creek Park, Kalorama has attracted the majority of the high-rise development, (remembering the 120'-0" building height limit in the District of Columbia).
The eastern edge of the park is more densely developed with row houses in Mount Pleasant, and Adams Morgan, with the majority of the larger apartment buildings and larger residences (many now embassies) in Kalorama. On the northern edge of Piney Branch on out to Silver Spring in Brightwood (on the west side of 16th Street) the park is bordered by single family residences which make up black Washington's affluent "gold coast." On the west side of Rock Creek the majority of the edge is a loose arrangement of single family residences and an occasional apartment building where there is a cross access from the east to the west side neighborhoods. Further north from the Connecticut Avenue Bridge, up through Cleveland Park and on into Chevy Chase, the density at the park's edge has remained loosely single family residential.

In summation, the walls of the Urban Gardens of New York, Boston, and Washington share a common element in their histories beyond their Olmsted parks. They were all walking cities that decentralized dramatically because of the transportation advances in the late 1880's; here their similarities end. New York has not remained a decentralized city, and its relationship to Central Park is one of extreme contrast, the park juxtaposed against the towering walls of the city surrounding it. The Fens to Franklin Park portion of Boston's Emerald Necklace has an urban edge as varied as the individual parks of the necklace. The parks reflect the neighborhoods which engulf them, each being a different response of a built edge to nature. Finally there is Washington's neighborhood
approach to the challenge of urbanizing on the steep slopes of a valley. Rock Creek has been bounded by a loose knit border of apartment buildings, row houses, and single family houses which run the gamut of possible densities which are rarely ever noticed from inside the park.
CHAPTER VI: AN URBAN GARDEN FOR ALLIANCE

Where are the opportunities to merge the lessons from Olmsted and his progeny with the promise of the future? After the introduction to Alliance, the metaphors of the urban conditions, the histories of the Olmsted progeny and their cities, some linkages and directions have already been suggested. There are many possible futures for Alliance and its surrounding region, but this thesis has led me to some specific thoughts, observations, and conclusions about the relationship of parks to Alliance.

The first of many is that the day of the great urban space has not passed. The great urban parks of New York, Boston, and Washington are not antiquated relics of a period when the only role of the park was as the "lungs" of the city. As their history has shown, the Olmsted parks are multidimensional characters that play many roles with only one of them being a park. Their ability to act as an organizing element of a plan, to create an edge for growth to occur along, and to build a public constituency of their own, will be put to the test on the plains of Texas. In Olmsted's day his parks became essential elements of the city as it expanded from the walking city to the decentralized city with suburbs. The real challenge of a park system around Alliance is that it must address the city at a regional scale and at the neighborhood scale simultaneously. The parks must also perform two primary functions. They must become an organizing element at both the regional and neighborhood scales as well as a regional
landmark and point of reference. This expanded role represents a tremendous challenge to a park system.

Around Alliance the possible futures can be broken down into three components: The Parks as Plan, The Parks as Boundary, and The Parks as Alliance. Each of the categories will explore elements of Olmsted's parks and their applications for the Alliance region.
THE PARKS AS PLAN

Can a park be a plan in itself? If the nature of a plan is to be a framework for structuring growth, like laying out streets and vistas in Washington or New York, then a park cannot be a plan by itself, but it can be a strong organizing element of a plan. Planning through parks is an open-ended process. In many ways the process resembles the children’s experiment where a piece of string is put into a jar of sugar water, and over time the sugar crystalizes around the string and makes rock candy. Going into the experiment the outcome is certain, but the resulting formations of crystals are never the same.

Introducing parks into the region surrounding Alliance is a similar process. It is a process that begins with the land and ends with it. It allows man to use nature's hierarchies of spaces as dictated by topography as the structuring elements of the plan for the extension of a new city. The city will grow around the parks in time, but how will its form crystalize? Boston effectively grew around a hierarchy of natural spaces dictated by its topography and physical features. It was an essentially unplanned city, unplanned in the sense that it did not grow into the structure of some preexisting grid or some precise physical blueprint for growth.

Parks as an urban antidote:

In the Texas landscape that surrounds Alliance there are few vertical elements to distract the eye. The land
and sky spread out across the horizon and seem never to end. Within this land of the horizontal plane, there are a few elements that add some relief to the landscape, and they are the groves of trees surrounding the creeks that criss-cross the region. These swaths of green are the equivalent of the baroque boulevards of the European city. They define and focus the view and organize the fabric of the landscape into more subtle areas. In short they provide an indelible image to the landscape by making it have limits and boundaries.

To the east of Alliance there are communities that spread across the landscape with the same amorphousness as the fields to the west. These are man made landscapes that have no relief. There is nothing to break up the view, nothing subtle about them that translates into an image. Where does Hurst begin and Euless end, or is that Bedford? On the open plains the fences provide the clues: and if the property has been around long enough, there is a hedgerow of trees that defines one field from the next. The parks, formed along the green creek bottoms that already exist, can be the image that this new area of the region builds around. The parks can provide an image and association that can relate man to his location in the world. Residents of New York speak of where they live in relation to Central Park. The future inhabitants of the land around Alliance could define themselves by where they lived in relation to Elizabeth Creek.

In the vastness of the plains of North Texas, both the natural landscape and the built landscape need an element
that provides a contrast. Contrast allows for what is there to be appreciated more. The power of New York's skyline is impressive, but it is more impressive because it can be contrasted to the natural areas of Central Park. Away from the Mall, Washington is just another city until one of the many bridges reveals the wooded areas of Rock Creek. The parks are the visual antidote to the city. They are critical to the older more well defined urban cities of New York, Boston, and Washington; but they are even more critical to developing regions like Alliance. These parks can preserve the image of the present and provide a glimpse of what the image of the future could be. The parks would insure that there would always be contrast on the horizon, whether that horizon holds plowed fields or new communities.

Transportation, parks as choices:

As we have seen in each of the cases of New York Boston, and Washington, transportation corridors are always strong influences on the growth of the city. The three cities around Olmsted's parks engulfed them because the parks were in the path of growth that was being extended by transportation. Transportation innovations created choices for the inhabitants of the walking cities. The trolleys extended the distances that the city dwellers could live from their places of employment. Transportation made it possible to live next to the parks as an alternative the urbanized areas of the walking city. In New York, along Fifth Avenue, it was the poor who lived next to the park because they had no other choice. Their shanties formed
the first urban edge. Then it was the rich who could afford to move out (to Central Park) and who had the financial means to live and build the homes of the second edge. Finally it was the choice of those who decided to stay in Manhattan and wanted to live next to the park that created the demand for the third generation urban edge.

Transportation has enabled the urban form to move beyond the walking city; transportation established the finely knit urban fabrics of New York, Boston and Washington. Unfortunately as the cities have grown beyond the bounds of the walking city, the urban fabric of the decentralized city has lost some of its special characteristics.

The car has afforded the ultimate personal freedom of movement. The city's inhabitants can live within any radius of the city as long as they are willing to pay the costs of commuting. Economists will say that cities expand to the edges because land prices are cheaper than in central cities. The distance people will travel is in relation to the amount that they have to pay for the land, in conjunction with the price they have to pay to commute.

Transportation corridors take on new roles as generators of city form in the decentralized city. The intersections of highways have become organizers of density. Nodes of urban events around off-ramps where major roads intersect each other have become the places where buildings are built. In Washington, mini-cities spring up where major routes intersect the beltway like at Tyson's Corner, Silver Spring, or Rockville. Areas of
commerce, trade, and housing duplicate the elements of the walking city but are only accessible by car.

At Alliance the reality is that the car will once again be the dominant form of transportation and with it the form of the new city will continue to be decentralized: here the parks will play a significant role. Juxtaposed to the concrete corridors of growth, there can be green swaths across the landscape that will give the decentralized mass form and a sense of direction. In New York, Boston, and Washington, growth occurred because of transportation corridors not because of the parks: but the parks became a secondary organizing element within the city. They provided another choice of how and where to live. In the area surrounding Alliance a system of parks and parkways dedicated before the real growth takes root can provide the future inhabitants choices up front about how and where they live. New York, Boston, and Washington could dictate the image of the bounded edge of the parks once they were set aside, as could the inhabitants of the land around Alliance.

**Parks as a section drawing of the city:**

The parks provide a sense of perspective about the city. They act as a way of seeing the city as a section drawing. A section cuts an object in half and allows the viewer to observe the inner workings of the object. In the same sense the parks allow the cities to be seen from a distance. Central Park affords the viewer a sense of distance that allows the skyline to be appreciated from inside the city. The parks allow for the introduction of
foreground into our ability to perceive the city. Ordinarily, on the street, pedestrians are too close to see anything beyond the buildings that are right on top of them, but the parks let them stand back and see the changes in the city. At Alliance the park system will also allow the section change of the landscape to be witnessed because of the changes in soil type, and vegetation that occur from east to west across the region.

In Boston, the progression from the Common out to Franklin Park shows the city from the seams out instead of the other way around, from the fabric to the seam. Even in New York, Central Park gives the city observer the opportunity to watch the density change from the mid-town image of 59th street to the southern walls of Harlem at 110th Street to the north. In Washington along Rock Creek Park, the section reveals different physical and social segments of the city. The section looking east sees the affluent edges of Kalorama and Adams Morgan fade to the lower middle class edge of Mount Pleasant, and then become the affluent "gold coast" of black Washington along Sixteenth Street. The section looking west shows the change from affluent white Georgetown, to middleclass Cleveland Park, and upper middleclass Chevy Chase. These changes in social composition of the edge are reflected in the built form as well.

At this point in Alliance's development it is hard to predict the possibility of such ranges of social and economic differentiation, and how they will affect the built edge bordering the parks. Because of the locations
of the transportation corridors, it is likely to assume that growth will be out from the areas where the green corridors cross the concrete ones. The urban centers are likely to begin in the middle of the corridors like I-35, SH(State Highway) 377 and SH 156. The parks will weave the transportation corridors together and then find their way out into the landscape to the east toward Grapevine Lake, and to the west up stream to the headwaters of the creeks.

Grapevine Lake will be one end of the system with the parks following the creeks off into the countryside to the head waters which divide the land into sections by their watersheds. The sections across the Alliance region will ultimately to be very different from those of Boston and Washington. The parks in Boston and Washington are anchored at one end by city centers which have densities that decrease towards the edges. Around Alliance where the airport will be the center, there could be a number of possible arrangements along the length of the section. There could be a possible residential anchor to the east and an industrial center to the west. The headwaters of the creeks to the north and west which make up the other ends may remain agricultural with one of the ends having a definite finishing point at Grapevine Lake and the others, going off to find their source in the landscape.

With an airport as its center, the region around Alliance will be following a different development strategy. Because of the FAA height restrictions and the overlay zoning district that surrounds the airport and limits the uses that can occur within the overlay district,
the future city center will remain low density and predominantly industrial. This changes the pattern of urban development in the region by forcing the denser "downtown" area and the housing into different places along the section. The section could look like this, residential along shores of Grapevine Lake and the creek deltas at the lake's headwaters, commercial, and institutional between SH 377 and I-35 and then industrial, or a range of alternatives in between. At Alliance the parks will not only be a way of seeing the region change across its section, but will also be a way of organizing the growth.

Off-ramp urbanism and the machine in the garden:

In the car oriented, decentralized city of today it is difficult to obtain a clear image of a city or place. What are the places that are memorable in the Dallas-Fort Worth metroplex? Certainly there are clear images of Downtown Dallas, and Fort Worth with their impressive skylines, but what about the skylines of Las Colinas and the Galleria? There are cities between Dallas and Fort Worth that have no clear public identities beyond their exit signs. Urbanism seems to be the activity that occurs at off-ramps. There are no longer cities with images, there are just photomontages of development, just malls and nodes of development like the Galleria, or Las Colinas, Solona, or Tyson's Corner. These are towns that used to be just exits off interstates. What distinguishes them from other off-ramps is that the cross roads created a better market area for development, better malls, better apartments, better housing.
GALLERIA  LAS COLINAS  DALLAS C.B.D.

DALLAS SKYLINE FROM DFW

Figure 60.
In a certain sense the linear parks of Alliance could also be a substitute for the lack of a town square, or the public part of the city. There are no longer any images of the public domain, but is having a clear sense of what is public and what is private still important? Certainly the runways at Alliance are an image of what is public at a very large scale, but where does the public airport begin and the private land around it begin? The parks would be an alternative element in the landscape and fabric of the city that would become the cohesive element in the city that defines the contrast between what is public and that which is private. That may be too ambitious, perhaps the best a system of linear parks could do would be to knit the nodes at the off-ramps together and give them a reference to something greater than their exit number. In Boston where the development was primarily made by individual acts of capitalism, the planned element that the community grew around and still links it are the parks and parkways of the Emerald Necklace. In Washington, there is no greater public space to find and lose the city than in the woods of Rock Creek: and finally if there is a single place in New York where there is the possibility for privacy, it is Central Park. The parks in the sense that they are public spaces have to carry the burden of contrast to the homogeneity of the decentralized, suburban city. There has to be an element that can give a greater sense of commonality to the wash of other type of parks in the landscape, i.e., industrial, office, trailer, amusement, etc.
The range of elements in the decentralized city that hides behind the park image is disturbing. This range of uses asks, what is the relationship of the inhabitant of the new age industrial city to the landscape? What happens when nature is no longer something that exists in contrast to the urban form of the city? The suburbanization of America marked the blurring of the lines between what was urban and rural. Suburbia meant a house and a lawn. The American dream was to be able to afford a piece of the countryside, individual agrarianism. Instead of the landscape as a shared public space, nature became an individual private place. What has been lost in the suburbanization is the sense of what is rural and natural as a contrast to what is urban. Suburbanization has reached a point where factories and office buildings are now put in parks. The most urban elements of cities, factories, and office buildings are all set out in their own parks. There are parks for houses, parks for factories, parks for shopping, parks for working, and parks for amusement. The park for the enjoyment of nature has almost disappeared along with any traces of the original rural landscape.

Olmsted was adamant about the his parks being natural areas within the city. Life is not so pure these days. But the opportunity for public parks and open spaces as a humanizing aspect of the city form still exists. Public parks are still the melting pots of society. In Central Park, the Emerald Necklace, and Rock Creek Park, the parks are still the great refuges of the urban public.
social spectrum is represented from the homeless to the pseudo chic in Gucci running suits. But these are eastern parks within cities with tremendous space constraints; why should there be lands set aside for parks in Texas? How can parks compete with the malls or sports stadiums as public spaces where the inhabitants of the region can gather?

Every major development in the Metroplex markets itself as having landscaped amenities. Space is provided for landscape at the scale of the building, or maybe even at the scale of the "park" development. The result is usually landscaped parkways, road frontages and the sidewalks that comprise the short jogging trails. Landscape as it relates to the suburbanized industrial city is a piecemeal, lip service response that exists only because it sells real estate. Dallas has a true system of parks and parkways along White Rock Creek, as does Fort Worth along many areas of the Trinity River flood plain. These areas are only two examples. There are more in the region, but they were post-development responses not pre-development planning tools.

Used as pre-development tools, the regional parks can make the "parks" that are likely to congregate on their boundaries more effective as built developments. A park enables a development to have a relationship to something public, that has a regional and local image. The private "park" developments can relate themselves to something beyond themselves for a change and can become part of larger system of places that is readily identifiable.
(2) THE PARKS AS BOUNDARY

The concept of the parks as a natural boundary for urban development should not be a revelation. What should be a revelation is how the idea of parks as boundaries can be used as the form generator of a new city. In New York, Boston, and Washington, the edges of the Urban Garden have taken on different images; what can the boundaries of Alliance's parks become? Boston and Washington have taken on the image of the first generation cities where development around the parks has occurred and has stopped. New York will continue to evolve as the most developed example of the three in terms of its urban edge as demand continues to drive the evolution of the edge overlooking Central Park. Beyond those broad categorizations there are many subtle design implications that can generated by looking at the development of an Urban Garden for Alliance.

The urban doughnut:

One of the first things that strikes the eye when looking at maps of New York City is the gaping whole in its center where Central Park is located. The fabric of this incredible city starts and stops at the edge of the park, and then picks up on the other side as if nothing had happened. From the development of the Upper East and West Side neighborhoods, it is apparent that the walled image has not always been the same, nor are the walls symmetrical images of each other. They are somewhat symmetrical in the
ways that they taper off from south to north, but they are hardly similar at 59th Street and 110th Street.

The important aspect of the bounding edge of development around Central Park is that it was allowed to happen. Density and a park are not mutually exclusive elements within reasonable limits. The urban edge around Central Park gives clues about the relationship of dense high-rise buildings and open natural area. The two elements feed off of each other. Central Park is made an even more spectacular park because of its contrast to the buildings around it. Nature in the city is fully appreciated by being so limited. In the suburban developments the landscape is everywhere. There is not enough density to make an arrangement of buildings urban, and there are too many buildings to make the landscape natural.

The idea that needs to emerge out of this example is to be dense and urban when the opportunity presents itself. Downtown Dallas and Fort Worth present respectable images of downtowns from an architectural perspective, but they have yet to create any real density of life that can carry the Downtown neighborhood past six o'clock in the evening. The stock of Downtown housing is limited or nonexistent, and there are still surface parking lots intermixed with the high-rise buildings. Las Colinas, Solona, and the Galleria are communities of buildings with little or no sense of place. These are examples of "off-ramp urbanism". They lack the capacity to be miniature replications of downtowns although they make the attempt. They are too
overwhelming in scale to provide the suburban town center feeling. They also lack the ability to provide for enough contrast to accentuate the nature around them. Nature is introduced in the form of an irrigated median or a strip of grass between the sidewalk and the building's edge.

If there is to be "off ramp urbanism" around Alliance which there inevitably will be, let it follow the New York model where the development occurs near one of the parks. Make the development as dense as the market will bear. Use the parks where they intersect the main transportation corridors and design them to take full advantage of their location. Design the parks to be juxtaposed to the dense building that will occur at the intersection of the two urban systems. Make them visually significant parts of the larger regional hierarchy. There will be immediate recognition that the "place" at the intersection is connected by the highways, but is also connected on a secondary level by the parks. At these development nodes make the park the central focus, and do not waste the time and money on the decorative attempts at "landscaping" the development. Build an urban place that has an identity and a density, not just the usual collection of Seven-Eleven's and McDonalds.

There can be varying degrees of development along the parks, but in the places that the density is going to occur, make it like Central Park, the Emerald Necklace, or Rock Creek Park and the cities around them, where both the city and the park are empowered and enriched by the presence of the other. It will be important to allow the
densities along the parks to change so that there will be enough contrasts along the built edge to create another spectrum of contrasts, that will further accentuate the relationship between the built and the natural edges.

The park as a topographic sculpture:

Olmsted believed that when the city dwellers went into one of his parks, the park would consume and cleanse them by obliterating the references to the city. Areas of Central Park and Franklin Park achieve that goal, but nowhere can city dwellers lose themselves like in Rock Creek Park. Topography is Rock Creek Park's most successful element. In Rock Creek Park one is either observing the park from one of the spectacular bridges, or one is in it. There is no real in between. In New York and Boston the pedestrian or the driver can transverse the park and see it without venturing into it. The boundary of New York, Boston, and Washington are such that the park can be constantly observed from its periphery. Because of its topography, the rim of Rock Creek is walled by houses or buildings that block the unobstructed views to the park. To paraphrase Tom Wolfe, you are either in the park or you're out of the park.

Washington and Rock Creek have a very coy relationship. In Washington the Mall and the other parks are for the tourists, but Rock Creek is for the residents. Its topography enables it to be seen, but impossible to approach unless one is aware of its secrets. Once inside, it is labyrinthine. Down in the valley there are few references to the city that is everywhere around you. The
bridges that cross over the gorges are the only real clues as to your location in the park. Rock Creek's topography allows it to be self-referential. There are always places outside the park to catch references back to another piece of the valley. The only people who really share the park are those on the edge, who have visual access.

The park as hide and go seek:

If Rock Creek Park is a park with many secrets, the Emerald Necklace is a traffic island with nothing to hide. The relationship of the built edge of the urban garden to the parks of Boston is constantly interrupted by a stream of traffic. The jewels of the necklace are well hidden. Following the necklace from the Fens to Franklin Park is like playing a game of hide and go seek. The park to park linkages by the parkways are difficult to follow. That is one reason that the built edge of the necklace is so varied. The Emerald Necklace is a group of neighborhood parks strung together on a regional system. Each of the individual parks has its own characteristics and elicits its own response from the buildings around it. The Fens with its institutions and blocks of apartments has a completely different feel from the large single family residences that surround Jamaica Pond.

Going forward at Alliance Boston's Emerald Necklace provides some strong potential similarities for the future urban edge. In Boston the individual parks themselves are strong elements at the neighborhood level but also as elements of regional system. Even as elements of a system, they remain a diverse set of parks that respond to the
Figure 61
neighborhoods around them. The strength of the Emerald Necklace is its ability as a concept to capture the imagination and to physically embody an idea about the linkage of diverse spaces across a region. Granted they reveal the evolution of the city from its downtown to its most suburban areas and show the cross section of the physical and economic strata of the city. At another level, Rock Creek and Central Park are successful because they are swaths of green in the city with definite boundaries, regardless of how their images vary. The Emerald Necklace is remarkable because of its lack of cohesion. Following it is like being on a continual search for its end. The parks at Alliance could have much the same quality. They could reveal the city, and be neighborhood jewels that have a place and focus beyond themselves; this focus would let the inhabitants know that they are part of something larger.

Parks or parkways?:

There are two ways of looking at the parks of New York, Boston, and Washington: think of the parks as bound and bounded. Central Park and the parks of the Emerald Necklace are really just big traffic islands because of the impact that circulation has on them. The are bounded by streams of traffic. This traffic sets them up to be elements that are carved out of the city form by the roads that circumvent them. It also creates a physical barrier that separates the people from the parks. The parks can be observed from the outside, but there are also physical thresholds that separate the pedestrian from the parks.
The concept of barriers and layers of separation brings up some interesting issues. For example, what are the necessary degrees of separation that a park needs to have to define itself as an element? Is the street and a sidewalk on the park side sufficient, like in the Fens, or does it need a continuous row of trees, and a wall like Central Park? The varying degrees of thresholds that have to be crossed from the surrounding buildings, opposite the parks, make up their own kind of Urban Garden. These subtle differences in the edge serve to set up the parks and give them a certain visual approach. The circulation around the parks then begins to define and to differentiate the edge condition. The relationships of the buildings and their layers of boundary and the number of thresholds could be applied to Alliance in places where parkways could eventually develop.

The opposite image of the park as an element that is defined by a parkway, is the park when it becomes a parkway like in Rock Creek Park. The parkway in Rock Creek is surrounded by nature to the extent that it obliterates any perception of the city. In Rock Creek the park becomes an enclosing edge that defines the view and makes the circulation corridor a unique experience in urban driving. It is almost possible to go from Downtown Washington to suburban Maryland without seeing a building or perceiving the boundaries of the park.

A combination of the two strategies of circulation can be used at Alliance. There will be areas that can be used to define the limits of the parks, and there will be
opportunities to surround the parkways in nature to obscure the limits of the parks. Both strategies will incorporate different responses from the built edge around it like in the different responses in New York and Boston and in Rock Creek in Washington.

Going against the grain:

All three of the parks that have been looked at have been boundaries to the cities around them, but interesting things begin to happen when there are access points in the boundary. Paths cut across the grain of the parks provide insights into the timing and the density of development where the parks are crossed. Central Park was designed with four major cross town connections at 65th, 81st, 86th and 97th Streets. The result was that, the corner edges at each of these points developed first. They became small islands of development before the rest of the edge formed around them. They are still several of the most active corners bordering the park.

In Washington the park crossings afford the most spectacular views of the park. The bridges that cross the gorges of Rock Creek seem like the top of the world. They also give the viewer the sense of luxury that comes from emerging from the city, and suddenly being suspended over a canopy of nature below, and then of reentering the city on the other side. The bridges are reference elements for Rock Creek Park. They define the inhabitant's relationship to where the inhabitant is in the city. At times they become reference points that are visible to each other, like the view from the Calvert Street Bridge looking south
across the Connecticut Avenue Bridge, to the Massachusetts Avenue Bridge. The bridges become even more vital as points of reference when they are seen from the valley floor. From the valley floor there are so few visual clues about the city that surrounds the park. The bridges hold some of the only references to the city beyond the valley's walls.

It is where the bridges connect with the land that the most significant development occurs on the edge of the park. The areas surrounding the bridges and other limited points across the park have received the most intense development. The area surrounding the P and R Street bridges are bordered by high-rise apartments. The Massachusetts Avenue Bridge reflects its position on Embassy Row, with the added attraction of the Washington Mosque and apartment buildings. At Connecticut Avenue and also at Calvert Street the views of the hotels and apartments along the rim of the park provide a postcard like backdrop to the park below.
Alliance was chosen as the name of the airport because of its meaning. Alliance has a metaphorical quality about it that can carry over into all aspects of development in the region. It could be an alliance of large landholders, public utilities, schools, cities, or even parks, but basically it is disparate groups that unite behind common goals and objectives. The connotation of the alliance can become the basis of a strategy that formulates the creation of a regional system of parks that transcends many political boundaries. Because of the diverse nature of the political interests in the region, it will take an alliance to designate, build, and maintain these parks if they are to accomplish the range of things that have been described in this thesis.

Grass roots parks:

Olmsted's era proved that public parks are the expression of the public will at work. In the cases of New York, Boston, and Washington, there were private champions who brought their influence to bear on the elected officials at the appropriate levels. Legislation at any level does not get passed without a constituency. Parks and the preservation of open space are currently a grass roots issue that transcends political boundaries. They become issues in themselves that go beyond the political parties. One of the keys to the creation of the park system around Alliance is to develop a grass roots constituency in each of the neighborhoods, communities,
school districts, counties, at the state level and then in Congress. Grass roots support takes a tremendous amount of effort and time to form opinions and positions and to organize the support in a direction that can get things done, but first the seed of the idea has to be planted.

Leadership and support can come from some strange places, like the Corps of Engineers who have a role in overseeing the flood plains in the region, or the Trinity River Authority which is responsible for the sewage treatment in the region. An additional source of leadership could come from TU Electric whose high tension lines that cross the region with easements at the bases of their towers which make great cross connections to the stream beds. Then there are the obvious open space and environmental groups who have been active in the region for years. The wild card in the past has been the development community which is working on landscape programs and amenities in each of their separate projects because the market is demanding it. Alliance would be truly unique if all of these groups joined together behind the common goal of creating a regional park system. The parks would have a power base in the region that could maintain a highly visible role in directing development in the area.

Introducing the reigns:

Once this grass roots constituency is heading in the same general direction there has to be a controlling mechanism at the regional level. This can take many forms. One approach might be an elected or appointed board that can oversee the development of the park system. As part of
the board's powers, it needs to be enabled to create, fund, and administer the system. This board will have to manage chaos to its fullest potential. In the Olmsted examples the process of park creation and administration was done in a clearly defined process of location, appropriation, design, construction, and maintenance. Unfortunately for Olmsted the process was worked out while he was working on Central Park. Boston's experience some twenty years later provides a good example of how to build a system over time. Boston knew ultimately what pieces were needed but acquired them in stages, then designed and built the system as parcels became available and funds could be appropriated.

The one tool that will have to be included to provide the board with an element of control is an overlay zoning district that encompasses the lands in the targeted areas. This zoning function is an important element in the region's development plans. This zoning district will have to oversee and plan for development along the park's edge. The purpose of the parks is to provide natural systems at the regional scale, to make sure that the development that occurs there is of a higher quality, not to exclude private development entirely. Because much of the targeted land lies in flood plain land anyway, control of these lands will provide another layer enforcement to insure the success of the regional system. Regional parks target the areas that are to be retained in their natural states, which will allow for other areas to be developed responsibly. Parks and development are not mutually exclusive elements. They serve to enrich the other.
Buying the necklace:

At Alliance there will have to be an additional step that goes beyond the challenge of parcel assembly that Boston had to endure. In light of the budgetary constraints of most local, state, and federal governments, funds for park appropriation will probably be in the form of private donations, of money or land that is leveraged by matching funds. The real point should be that there is a common vision of the eventual build out of the regional system that will guide the process. The process will then adapt itself to the realities of little or no budget. The idea is to see the necklace, and then to acquire it a pearl at a time.

Developing a regional park system one parcel at a time will require a different attitude towards the design and maintenance of the parks. To begin with the land that is donated or acquired will have to remain in its natural state, or an arrangement will have to be made with the adjacent user for its maintenance. Much of this strategy will evolve on a case by case basis. Another alternative is for the developer who will eventually build adjacent to the park, to work within a set of design guidelines similar to those suggested in "The Parks as Boundary." In this way the developer ties into an preexisting amenity that he would be inclined to provide because the market dictates it. Instead of the landscaping and the level of the amenity being piecemeal, the money could be applied to the regional system creating double the value. To create this opportunity for public-private sharing of
responsibility for maintenance and construction of the parks, a parks development authority could be established to insure that the edge is built out properly. The authority would have the ability to negotiate with developers and adjacent landholders to determine the final outcome of the built edge. This authority would be directly responsible to the regional board.

**A pearl at a time:**

The acquisition of the parks will be accomplished by assembling the necklace a piece at a time. The beauty of the pearls analogy that differs from the image of matched pearls is that the parks can vary in size and dimension along the route. There will be times when owners will not want to give up their land, but they will grant an easement to in order to continue the corridor. The important aspect to keep in mind is that all the pieces, regardless of their shape, are important in creating something of greater importance. Each one of the linkages in the form of an easement, or a parcel of land brings the system another step closer to completion. This method of acquisition will be drawn out but will continue to expand the imagability of the parks as a whole. By doubling as a natural valley storage area for the flood plain areas, as well as parks, these areas take on purpose beyond public recreation areas.

**Not a matched set:**

Another part of the strategy will be that the spaces along the necklace can have varying uses. There can be sections that remain in cultivation; there could be areas that are turned into environmental exhibits; there could be
areas for plane watching Alliance like the park at the end of the runway at National Airport in Washington; and still others that are actively forested to generate a cash flow for the system. Other pieces could be temporary exhibition areas for events like World's Fairs or the Olympic Games. For the parks to be successful the process must be extremely flexible and the interpretation of the park has to be broadened to encompass a wide range of uses which are dynamic, not static in their nature.

Olmsted would have expanded his interpretation of the use of the parks because he was a manager and political pragmatist as well as a designer. He understood what his project goals were and was politically astute enough make sure that he accomplished them. Olmsted was interested in social interaction by all classes of people, and parks were the places that he favored for the purpose. Faced with the mall culture of today and the continual suburbanization of more and more rural area, Olmsted would have changed and become more tolerant of placing built elements in his parks. Olmsted also worked on parks that are large in scale, but never on a scale that had to confront the accessibility of the car. The trolleys transformed Olmsted's world in his lifetime, and he adjusted to it, as he would have adjusted his thinking about parks and their relationship to the automobile.
CONCLUSION

The process of thinking about city building is not an exact science. Great cities are not recipes to be repeated with the same results. In the same way that the footprint of a site will not yield the same building with two different architects, cities are never the same. Their fascination is the fact that they are each unique, and that they have common differences at every level. New York, Boston, and Washington have each revealed their common differences when their relationship with their Olmsted parks was examined. The differences between Central Park, the Emerald Necklace and Rock Creek Park and their cities have provided a wealth of information to apply on the plains of north Texas, but this city on the plains will never duplicate any of the three cities of this thesis. The greatest goal that Alliance can have is to be held up because of its originality and innovation, and for the quality of its people and places. If some of those qualities are attributable to elements garnered from Olmsted's parks then this thesis has been worthwhile.
FOOTNOTES

INTRODUCTION


CHAPTER I: ALLIANCE AND THE URBAN CONDITIONS

(1) Interviews with F. M. Carroll ASLA, Albert Haalf Engineers and Planners.

(2) Interview with Lynn Lovell, P.E., Albert Haalf Engineers and Planners.


CHAPTER II: URBAN METAPHORS: THE URBAN GARDEN

(1) Interviews with Elizabeth Meyer, Associate Professor, Landscape Architecture, Graduate School of Design, Harvard University.

(2) Ibid.

(3) Manning, Isaac H.. *Cary-Cortona: A New Town as a Development Model for the Research Triangle*. Master's Thesis. Blacksburg, Va: VPI&SU, 1985. (Cary-Cortona was the project where the urban conditions were developed.)

CHAPTER III: OLMSTED AND THE URBAN GARDEN


(4) Ibid., p. 29-30.

(5) Photographs: Museum of the City of New York


(8) Ibid., pp. 29-71.


CHAPTER IV: THE PARKS AND THEIR CITIES


(2) Ibid., p 93.

(3) Ibid.

(4) Ibid., p. 79.

(5) Ibid., p. 80.


(7) Ibid., p. 31.


(9) Ibid.

(10) Ibid., p. 85.


(12) Ibid., p. 42.

(13) Ibid., pp. 43-47.
(14) Ibid., p. 54.
(15) Ibid., pp. 55-56.
(16) Ibid., p. 63.
(17) Ibid., p. 64.
(18) Ibid., p. 66.
(19) Ibid., pp. 93-94.
(21) Ibid., p. 84.
(22) Ibid., p. 85.
(23) Ibid., p. 86.
(24) Ibid., pp 86-90.
(25) Ibid., p. 90.
(26) Ibid., p. 92.
(27) Ibid., p. 50-72.
(28) Ibid., p. 87.
(29) Ibid., p. 97.
(30) Ibid.
(31) Ibid., p. 98.
(32) Ibid., p. 105.
(33) Ibid., p. 106.
(34) Ibid., p. 121.

CHAPTER V: THE WALLS OF THE URBAN GARDEN


(4) Ibid., p. 10.

(5) Ibid.

(6) Ibid., p. 11.

(7) Ibid., p. 13.

(8) Ibid., p. 16.

(9) Ibid., p. 17.

(10) Ibid., p. 23.

(11) Ibid.

(12) Ibid., p. 39.

(13) Ibid.

(14) Ibid., p. 61.

(15) Ibid.

(16) Ibid., p. 67.

(17) Ibid.

(18) Ibid., p. 70.

(19) Ibid., p. 75.

(20) Ibid., p. 81.

(21) Ibid., p. 87.


(26) Ibid., p. 158.

(27) Ibid., p. 39.

(28) Ibid., p. 158.


(32) Ibid., p. 194.

(33) Gutheim, **Worthy of a Nation**, p. 109
LIST OF ILLUSTRATIONS

Figure 1. Map of Alliance region with grid imposed. Grid is 3.1 miles on each side.


Figure 3. Map of Boston with grid overlaid. Ibid.

Figure 4. Map of Washington, D.C. with grid overlaid. Ibid.

Figure 5. Map of Alliance and surrounding parcels with grid overlaid to provide a sense of the scale at Alliance.

Figure 6. Map of Alliance region with flood plain/park areas in black.

Figure 7. Alliance Airport Development Plan.

Figure 8. Aerial view of Alliance from the South.

Figure 9. The Dallas-Fort Worth Metroplex showing Alliance region parcels.

Figure 10. Alliance from the future SH 170 interchange at I-35.

Figure 11. Alliance Region Parcel Map.

Figure 12. Parcel 1, Park Glen Aerial.

Figure 13. Parcel 2, Hillwood Aerial.

Figure 14. Parcel 3 and 4, SH 170 and Alliance Aerial. Alliance was still under construction when this aerial was taken. Alliance opened for air traffic on December 15, 1989.

Figure 15. Parcel 5, East Justin Aerial.

Figure 16. Parcel 6, West Justin Aerial.

Figure 17. Parcel 7, McHutcheon Ranch Aerial

Figure 18. Alliance Region School Districts

Figure 19. Alliance Region Flood Plain Area

Figure 20. Diagram showing the conditions of being bound and bounded.

Figure 21. Top sketch is of a typical figure-ground diagram showing only the buildings in black and the streets
and other non-building areas as white. The lower drawing shows the grey areas of the urban conditions.

Figure 22. (top) Urban Theatre: the left side shows the typical downtown streetscape with the building coming right to the edge of the sidewalk, the right side shows the introduction of the arcade as a unifying element. (Bottom) Urban Wall: the sketch on the left shows the transitions in the North End, and the right contrasts the transition elements in the Back Bay.

Figure 23. Edges of the Urban Garden.


Figure 27. Newspaper clipping of Central Park and Jones Park. Pre-1870, Found in the clippings file on Central Park from the Prints and Photographs Collection, Museum of the City of New York.

Figure 28. Central Park Precinct Community Council Map of Central Park.


Figure 33. New York, Passoneau, Urban Atlas.


Figure 35. Plate 168 "Up in Central Park, c 1880. Looking west from 95th Street and Park Avenue, the reservoir in Central Park appears in the background. The Jacob Rupert house is shown at the left, the major structure in an essentially rural area formerly divided into lots on which small farms were operated." Ibid., p. 198.

Figure 36. New York and Central Park. Passoneau, Urban Atlas.


Figure 38. Plate 353. "photograph taken from the Plaza Hotel. The Savoy Hotel at center; the Netherlands Hotel; and the Metropolitan Club at the northeast corner of 60th St., c 1902." Ibid., p. 216.


Figure 40. Plate 404. "Columbus Circle 58th to 60th Sts, at the junction of Broadway and Central Park West. Looking north along Central Park West, c 1906." Blom, New York Photographs, p. 236.

Figure 41. Plate 405. "Columbus Circle: Looking north along Broadway(left) and Central Park West(right), 1912." Ibid., p. 236.

Figure 42. Plate 421. "The Beresford, northwest corner of Central Park West and 81st St, 1920's." Ibid., p. 243.

Figure 43. Plate 430. "Looking north from 62nd St, late 1920's. Apartment buildings dominate the Avenue." Ibid., p. 249.

Figure 44. Plate 393. "Aerial view from west 55th St. and Sixth Avenue looking northeast, 1940's." Ibid., p. 234.
Figure 45. Plate 392. "Filling in the reservoir (now the great lawn area) between 79th and 86th Sts. Aerial view from Central Park West looking southeast, with Metropolitan Museum at left center, 1931." Ibid.

Figure 46. Map of Boston. Passoneau. Urban Atlas.

Figure 47. Map of Boston and the parks of the Emerald Necklace. Ibid.


Figure 49. "Fens before construction, from Parker Hill in Roxbury. Zaitzevsky, FLO and the Boston Park System, p. 185.

Figure 50. "The Fens From Parker Hill, 1910." Ibid.

Figure 51. The Fens in 1990.

Figure 52. Map of Washington. Passoneau, Urban Atlas

Figure 53. Map of Washington and Rock Creek. Ibid.

Figure 54. "Renowned railroad bridge architect George S. Morrison designed the massive concrete arches of the Taft Bridge, constructed in 1907 to carry Connecticut Avenue across Rock Creek. Smith, Washington at Home, p. 185.

Figure 55. "The Chevy Chase trolley rounds the treeless Chevy Chase Circle and passes Western Avenue on its route south to Washington, 1913." Ibid., p. 201.

Figure 56. "Sheridan Circle: The Kalorama neighborhood is to the right of Massachusetts Avenue. Cameron, Robert. Above Washington. San Francisco, California: Cameron and Company, 1980, p. 86.

Figure 57. c 1934 "At the lower left is the construction site for National Airport. At this great height we see the Y formed by the Potomac and the Anacostia in the fork of which the city is shaped. 16th Street is visible to the D.C. line. In the V formed by 16th Street and Connecticut Avenue, Rock Creek stretches into Maryland." Ibid., p. 80.

Figure 58. Alliance Region Parks.

Figure 59. Alliance Region Flood Plains Areas and parcels.

Figure 60. Diagram of the Dallas Skyline from Dallas-Fort Worth Airport showing the three separate development centers.

Figure 61. Diagram of the relationship of the parks to their parkways.
BIBLIOGRAPHY:

Texts:


Kelly, Bruce. Art of the Olmsted Landscape. New York: New York City Landmarks Preservation Commission Arts Publisher, 1981


King, Leroy O., Jr. 100 Years of Capital Traction: The Story of Street Cars in the Nation's Capital. College Park, Md.: Taylor Publishing Co., 1972


Mann, Roy. Rivers in the City. New York: Praeger, 1973


Olmsted, Frederick Law. Public Parks and the Enlargement of Towns. Cambridge, MA, 1870


Periodicals:


Proposed Central Park West Historic District. "Brownstoner" November, 1987

Central Park West Historic District. "Oculus" January, 1988.


A Mosaic of Parks. "Landscape Architecture" May, 1989

A Park of the People. "Natural History" Aug, 1983

Freight Goes First Class. "Time" July 24, 1989 p. 41


The New Urban Landscape: The Redefinition of City Form in Nineteenth-Century America. (Book Review) "American Quarterly" December, 1988
Finding Funding for Parks. "Sierra" May-June 1989

