AN INQUIRY ON
CONTEMPORARY PARKS AND DESIGN STRATEGIES

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ABSTRACT

AN INQUIRY ON
CONTEMPORARY PARKS AND DESIGN STRATEGIES

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There has been a notable interest in landscape design in the recent years. Growing environmental consciousness and the deindustrialization process in cities have resulted in the new park design projects which have been created through recovery of waste lands. The thesis examines a number of selected park projects with two frameworks which are the reclamation methods and the design strategies. The reclamation methods constitute the ways of recovering wastelands; while, the design strategies constitute the design approaches and methods used in these projects at urban scale. The contemporary approaches to park design are studied in the thesis, in three parts which are "the strategic design", "the place-based design" and "the ecological design". Two proposals of the Parc de la Villette competition, Parc André Citroën, Bercy, Invaliden, Downsview, Fresh Kills and High Line parks are the cases studied. A categorization of the approaches was done according to the design concepts of the projects. Strategic design comprises the projects conceived in a way that would adapt to future conditions; place-based design covers the projects designed by referring to the meanings derived from their sites with the aim to maintain or create a sense of place; and finally ecological design cover

projects which were designed to sustain and diversify the ecological values of their sites. The examination of three types of park design approaches does not propose a strict categorization; but rather it displays continuities in the evolution of park designs. The design concepts, strategies and tools, besides the working principles and innovative aspects of these approaches are studied in a comparative way. The thesis is concluded with an evaluation of the new significances of landscape design.

Keywords: park design, strategic design, place-based design, ecological design, design strategies.

ÖZ

GÜNÜMÜZ PARKLARI VE TASARIM STRATEJİLERİ ÜZERİNE BİR ARAŞTIRMA

Uludağ, Seda
Yüksek Lisans, Mimarlık Bölümü
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Son yıllarda peyzaj tasarımında dikkate değer bir ilgi oluşmuş bulunuyor. Artan çevrecilik bilinci ve şehirlerdeki sanayisizleşme süreçleri, artık alanların dönüşümüyle oluşturulan yeni park tasarımlarına yol açmakta. Bu tez, kentsel bağlamda park projelerini, artık alanları yeniden kazanma yöntemleri ve tasarım stratejileri olmak üzere iki çerçeve yardımıyla inceler. Yeniden kullanma metotları bu alanların iyileştirilmesi yollarını kapsar; tasarım stratejileri ise kentsel bağlamda projelerin tasarım yaklaşımları ve yöntemlerini kapsar. Bu tez, günümüz park tasarım yaklaşımlarını "stratejik tasarım", "yer odaklı tasarım" ve "ekolojik tasarım" olmak üzere üç bölümde inceler. Bu yaklaşımlar, Parc de la Villette yarışmasının iki öneri projesi, Park André Citroën, Bercy, Invaliden, Downsview, Fresh Kills ve High Line parkları üzerinde çalışılmış; projelerin dayandığı tasarım kavramlarına göre bir sınıflama yapılmıştır. Stratejik tasarım gelecek koşullara uyarlanabilecek şekilde tasarlanmış projeleri içerir; yer odaklı tasarım arazinin bulunduğu yere özgü anlamlarla tasarlanmış projeleri kapsar; ekolojik tasarım ise arazinin ekolojik değerlerini koruyarak çeşitlendiren projeleri içerir. Son dönem park tasarımlarında izlenen bu üç ana yaklaşım üzerinde yapılan bu araştırma,

sadece bir sınıflama çalışması değildir, aynı zamanda park tasarımlarının gelişimini ve bu gelişimde gözlemlenen sürekliliği ortaya koymaktadır. Bu yaklaşımlar çalışma ilkeleri ve yenilikçi yönleri yanında, tasarım kavramları, stratejileri ve araçlarıyla karşılaştırmalı bir biçimde çalışılmıştır. Tez peyzaj tasarımının yeni anlamları ve öneminin bir değerlendirmesiyle sonuçlanır.

Anahtar Kelimeler: park tasarımı, stratejik tasarım, yer odaklı tasarım, ekolojik tasarım, tasarım stratejileri.

To My Father Salih Uludağ

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INTRODUCTION

There has been a notable interest in landscape practices in the recent years. There are some reasons for this interest such as the growing environmental consciousness among the public and the emergence of vacant areas in cities because of the deindustrialization processes. These have resulted in new design approaches and concepts which appear at a point where architecture, landscape architecture and urbanism meet. In the recent years, ''landscape'' has gained a new significance enlarging its historical scope which was usually restrained with garden planting or greenery. In this context, landscape architect and urban designer James Corner states that:

> ''The significance of the landscape context for the architectural and environmental arts lies not only in the deeply sensuous and experiential dimensions of the land but also its semiotic, ecological, and political content. Thus, as Marc Treib's essay, ''Nature Recalled,'' argues, landscape can no longer be considered solely as decoration around the base of buildings; rather, it has come to assume deeper roles of contextualization, heightening experiences, and embedding time and nature in the built world. It is increasingly recognized that landscape harbors a profound environmental and existential promise for architecture and urbanism, provoking new forms of experience, meaning, and value. The still-emerging architectural conception of landscape, then, is less that of scenery, greenery, wilderness, and arcadia and more that of a pervasive milieu, a rich imbroglio of ecological, experiential, poetic, and expressively *living* dimensions.''[1]

[1] James Corner, ''Recovering Landscape as a Critical Cultural Practice,'' in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner,16 (New York: Princeton Architectural Press, 1999).

The present thesis aims to highlight the new significances of landscape and, in relation to this, the recent design approaches through the analysis of contemporary park projects. Among various subjects of landscape design, park design is taken as an extension of urbanism which has the potential of framing the topics of city, ecology, value and site history. The study examines the contemporary design approaches to urban parks in relation with the theoretical approaches to architectural, landscape and urban design.

The focus of the thesis is neither the formal or geometrical characteristics of the projects nor the aesthetic qualities of the parks. The contemporary park projects are designed with diverse aesthetic approaches, surface articulation approaches and garden art approaches. However, the thesis is not a typological study of contemporary park designs which contains all the design concepts produced in this field (Figure 1). The focus of the thesis is the concepts behind the park design approaches and the design strategies that oriented the projects.

Figure 1. Views of the park at Schönbrunn Palace in Vienna which shows garden art. Photographs are taken by the author.

The new significance of landscape design has been discussed in many symposiums and they are published in contemporary books. The triple series of Princeton Architectural Press which consists of the books "Recovering Landscape: Essays in Contemporary Landscape Architecture", "The Landscape Urbanism Reader" and "Large Parks" are some of them. These

three books, which were edited by people who have interdisciplinary studies, are the main sources of the survey of this study.

The first book is ''Recovering Landscape: Essays in Contemporary Landscape Architecture'' edited in 1999 by James Corner who is a landscape architect and an urban designer practicing in ''Field Operations'' and an associate professor of landscape architecture in the Graduate School of Fine Arts at the University of Pennysylvania. The book consists of the essays collected from two main symposiums. One of them is ''Constructing Landscape'' held at the University of Pennysylvania in 1993. The idea of ''landscape'' was questioned as being an idea, a cultural way of seeing ''open to interpretation, design and transformation.''[2] The second symposium is the ''The Recovery of Landscape'' held at the Architectural Association in London in 1994 which was based on the discussions of the formation of new landscapes concerning the conservation and preservation.[3]

The second book of the series is ''The Landscape Urbanism Reader'' edited in 2006 by Charles Waldheim who is a practicing architect and chair of landscape architecture at the Graduate School of Design at Harvard University where he teaches design studios at the intersection of landscape and contemporary urbanism. The original source of the book is the conference ''Landscape Urbanism'' held in 1997 at the Graham Foundation in Chicago. Ian McHarg, James Corner, Mohsen Mostafavi, Linda Pollak, Brigitte Shim and Adriaan Geuze presented papers in the conference.[4] The conference was the first occasion to publicly name and frame the ''landscape urbanism'' introduced by Charles Waldheim to discuss some contemporary approaches to urbanism. He is one of the theoreticians of landscape urbanism and he clarifies it as:

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[2] James Corner, ''Preface,'' in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, ix,x (New York: Princeton Architectural Press, 1999).

[3] Ibid, x.

[4] Charles Waldheim, *The Landscape Urbanism Reader*, ed. Charles Waldheim, 8 (New York: Princeton Architectural Press, 2006).

> "Landscape Urbanism describes a disciplinary realignment currently underway in which landscape replaces architecture as the basic building block of contemporary urbanism. For many, across a range of disciplines, landscape has become both the lens through which the contemporary city is represented and the medium through which it is constructed."[5]

The last book of the series is "Large Parks" edited by Julia Czerniak and George Hargreaves in 2007 in association with the Harvard University Graduate School of Design. Julia Czerniak is an architect, a practicing landscape architect and an associate professor of architecture teaching architecture studios and studies landscape theory and criticism. George Hargreaves is a landscape architect who taught at the Graduate School of Design at the Harvard University for 20 years and practicing in the fields of landscape architecture, planning and urban design. The main source of the book is the conference held at the Harvard University Graduate School of Design in 2003. "The topics of the city, ecology, process and place, the public, and site history" were studied in the design of parks in relation with their sizes.[6] Anita Berrizbeitia, James Corner, Adriaan Geuze, Nina-Marie Lister, Sébastien Marot, Elisabeth Mossop, Linda Pollak, Alan Tate and Mark Treib were among the participants.[7]

1.1 The Scope of the Thesis

Based on the discussions of these three books, the thesis focuses on the contemporary park design concepts. Urban parks which used to be designed in the voids of cities have recently been created especially through recycling of waste lands such as closed military bases, post-industrial sites, garbage, junk yards and left-over lands. The production of parks in such areas of the post-

[5] Charles Waldheim, *The Landscape Urbanism Reader*, ed. Charles Waldheim, 11 (New York: Princeton Architectural Press, 2006).

[6] Julia Czerniak and George Hargreaves, *Large Parks,* ed. Julia Czerniak and George Hargreaves, 7 (New York: Princeton Architectural Press, 2007).

[7] Ibid, 8.

industrial cities is perceived both as a means of economical and cultural development. Rehabilitating the industrial heritage sites by creating parks is a recent trend in the World. Peter Latz's landscape design in a park at Duisburg Nord in Germany was one of the projects of the International Building Exhibition Emsher Park (IBA). It constitutes an exemplary case for the social, environmental and the economic transformation of postindustrial sites.

The scope of the study is the parks created through recycling of waste lands. Alan Berger explains the two primary processes of the emergence of waste landscapes as "...first, from rapid horizontal urbanization (urban "sprawl"), and second, from leaving behind of land and detritus after economic and production regimes have ended."[8] Therefore, the reasons of waste landscapes are accepted as deindustrialization, rapid urbanization and political changes. The transformation of waste landscapes into urban parks is a new issue in park construction which has developed especially since 1980s. This resulted in the emergence of many parks in cities which they had not before. These conditions can be accepted as one of the main reasons of the emergence of recent ideas and concepts in the field of landscape.[9]

James Corner, who is one of the leading figures of the research for a new type of landscape, states that, during 1980s, the landscape practice gained an interest in architectural schools especially in Architectural Association School of Architecture in London; because, a different interest in large scale projects which reminded landscape themes were developed by people in this school such as Rem Koolhaas, Bernard Tschumi and Zaha Hadid.[10] This development can be seen in park competitions especially in the proposals of

[8] Alan Berger, "Drosscape," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 199 (New York: Princeton Architectural Press, 2006).

[9] For further information on left over spaces, please see the Ph.D thesis of Ela Alanyalı Aral "Leftover Space as a Value and Potentiality for the Public Realm in the City" and her book "Redefining Leftover Space: Value and Potentiality for the City."

[10] James Corner, "Recovering Landscape as a Critical Cultural Practice," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner,16 (New York: Princeton Architectural Press, 1999).

the competition of Parc de la Villette. About this, Charles Waldheim in his essay "Landscape as Urbanism" claims:

> "The competition for La Villette began a trajectory of postmodern urban park, in which landscape was itself conceived as a complex medium capable of articulating relations between urban infrastructure, public events, and indeterminate urban futures for large post-industrial sites, rather than simply as healthful exceptions to the unhealthy city that surround them."[11]

He clarifies this as: "Among the first projects to orchestrate urban program as a landscape process was the 1982 Competition for Parc de la Villette."[12] He regards Bernard Tschumi's and Rem Koolhaas's proposals as the first examples and pioneers of the landscape urbanism theory. Because according to him, the majority of the entries to the competition "traced familiar profiles for public parks and typologies for the recovery of the traditional city, while these two submissions clearly signaled a paradigm shift still underway in the reconception of contemporary urbanism."[13] Both of the projects used the landscape as a medium through which to articulate a postmodern urbanism.

Therefore, the thesis study accepts the competition and especially these two proposals as a turning point for the contemporary park design approaches and examines the period of time that starts with that competition. The survey of park projects is based on the architecture and landscape architecture journals and embodies a time period started with 1980s up to the recent years. The park projects have been frequently obtained by competitions; therefore, the thesis focuses not only on the projects but also their competitions. All the selected projects; which are studied in the thesis, are competition projects and

[11] Charles Waldheim, "Landscape as Urbanism," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 40 (New York : Princeton Architectural Press, 2006).

[12] Ibid.

[13] Ibid.

most of them were the search of the park model for the 21st century. Julia Czerniak states:

> ''Designing a ''park for the twenty-first century'' began at least by 1983, with the competition for La Villette in Paris. Almost twenty-five years later, this preoccupation continues in North America through such venues as Downsview Park in Toronto (640 acres, 1999), Fresh Kills Landfill in Staten Island, New York (2,200 acres,2001)...''[14]

The thesis will deal with these park competitions and analyze their approaches to the park model for the 21st century.

1.2 The Frameworks of the Thesis

The analysis of the park projects is conducted by the use of two frameworks. The first one is the reclamation methods of wastelands defined by James Corner. The second one is the design strategies introduced by Bernard Tschumi. The two frameworks are not limited with park design. However, the thesis accepts them as the directives of the analysis and they are evaluated through the park projects.

The waste landscapes are rehabilitated by creating parks; in other words, they are recovered lands. James Corner explains the meaning of recovery as ''something once lost, devalued, forgotten, or misplaced has been found again, retrieved, and brought forward with renewed vitality.''[15] An important topic of landscape is the recovery of the site. One main framework of the thesis is the recovery of sites by landscape design. Recent landscape design projects make use of certain design approaches to recover the waste lands in three main ways which are: bringing new cultural activities and uses to lands developed in

[14] Julia Czerniak, ''Legibility and Resilience,'' in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 215 (New York: Princeton Architectural Press, 2007).

[15] James Corner, ''Recovering Landscape as a Critical Cultural Practice,'' in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner,10 (New York: Princeton Architectural Press, 1999).

programs, respecting the history of the site with reviving the memories of the public and developing and protecting the biological values of the site under the ecological rules. James Corner argues that the reclamation of sites might be measured in three ways:

> "...first, in terms of the retrieval of memory and the cultural enrichment of place and time; second, in terms of social program and utility, as new uses and activities are developed; and, third, in terms of ecological diversification and succession."[16]

The first way of reclamation of sites in landscape design projects is based on the historical roots of the site. The attention paid to the site has increased in the recent years; as a result, previously ignored local characteristics, values and the sense of place are given importance.[17] The design focuses on representing the memory of the site and exhibiting a time. As a result, the cultural enrichment of the site is achieved by refreshing the history. About this issue, Sébastien Marot in his essay "The Reclaiming of Sites" states that:

> "...landscape design became more and more focused on the primary victim of this situation: the site itself... In so doing, landscape architects soon learned to take instant advantage of any opportunity to repair the damage done and to restore something of memory and a sense of place to these otherwise razed sites."[18]

The second way of reclamation of sites considers the program, the development of the activities and new uses brought to sites. The reclamation of a site with entertainment, cultural and sports activities is preferred in the recent years rather than designing a park with mere aesthetic values. In the past years, the 19th century pastoral parks designed with aesthetical considerations

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[16] Ibid, 13.

[17] Ibid.

[18] Sébastien Marot, "The Reclaiming of Sites," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 48 (New York: Princeton Architectural Press, 1999).

became inadequate and a new park concept was searched for the city which contains new activities and uses to respond to the needs of cities (Figure 2).

Figure 2. Views of the Stadtpark in Vienna designed with aesthetical considerations. Photographs are taken by the author.

Therefore, the concept of "cultural park" has gained an importance in the recent years, although the cultural park is not a new type of park; it takes its roots from the beginnings of the 20th Century (Figure 3). The concept re-emerged in 1980s with a number of activities added to park programs aiming to fulfill the needs of the cities.

Figure 3. View from Gorky Park which is a culture park built in 1928 in Moscow showing the activities in the park. *Midwinter*, "Moscow: around town," http://www.midwinter.com/~koreth/russia/moscow/gorky-ferris.jpg (accessed December 5, 2010).

The third way of reclamation of sites pays attention to the ecological value of the sites. This was resulted from the growing environmental consciousness which began to emerge all over the world after the World War II. There is an increased public awareness of and concern for environmental issues since 1960s which can be regarded as a result of the development of the science of ecology. As a result of the energy crisis and environmental changes in the recent years, ecology and environment have become important issues in site reclamation which results in new approaches to landscape design. These methods of reclamation of sites constitute one of the frameworks of the thesis which are related with the transformation aspects of the projects.

The second framework of the thesis is based on classification of design strategies which was defined by Bernard Tschumi. In his book *"Cinegram folie: le Parc de la Villette"*, Bernard Tschumi defines the 4 strategies for the design of an urban land as "the composition", "the complement", "the palimpsest" and "the mediation." He introduced this classification for urban programs before explaining the design strategy of his Parc de la Villette project; however, the present thesis regards the classification as a framework of landscape design and studies through the examples. He states that when confronted with an urbanistic program, the designer may either:

> "a. design a masterly construction, an inspired architectural gesture (a composition);
> b. take what exists, fill in the gaps, complete the text, scribble in the margins (a complement);
> c. deconstruct what exists by critically analyzing the historical layers that precede it, even adding other layers derived from elsewhere - from other cities, other parks (a palimpsest);
> d. search for an intermediary - an abstract system to mediate between the site (as well as all given constraints) and some other concept, beyond city or program (a mediation)."[19]

[19] Bernard Tschumi, *Cinegram folie: le Parc de la Villette* (Princeton, NJ: Princeton Architectural Press, 1987), IV.

These strategies can be evaluated in the field of park design. The first one, composition consists of the design achieved by the placement and arrangement of elements in a hierarchical way with aesthetic concerns. It is putting elements together on the site in a logical way under autonomous design rules. In the composition, the lines, forms, shapes and sizes of the elements and the relations between them are the first concerns and tools of the design. This approach can be seen in Baroque parks clearly (Figure 4). A baroque garden forms in a geometrical approach. Regularity and symmetry are the main values of the design.

Figure 4. An example of a Baroque Park: the Park at Schönbrunn Palace in Vienna. Photograph is taken by the author.

Complement is the second design strategy of Bernard Tschumi's classification. It comprises the design of the gaps of an urban land in a contextual way by the intervention of the surroundings of the site. The design of a place in the city such as a square and its borders can be an example of this type. In the field of park design, the park renovation projects respecting the existing elements on the site can be examples. Protecting the existing elements or buildings of the park and designing the voids of the site will exemplify the complement.

The third design strategy ''palimpsest'' takes references from the history of the site with a sense of place and the design starts with the analysis of the historical layers of the site. It comprises the deconstruction of the existing layers

and sometimes addition of other layers to the existing ones. The design is achieved by the superposition of abstract layers edited from other parks or other cities. Therefore, this type of design can be regarded as place-based design considering the historical layers of the site.

Mediation, which is the fourth design strategy, requires an abstract system as a design tool which is called a mediator. This abstract system mediates the site with a concept such as the interchangeability of the program. The design is achieved by superimposing a layer or layers on the site. This type is the most suitable one for the complex park programs because it can contain different systems.

This classification of design strategies is the second directive and forms the frameworks of the thesis with the site reclamation methods. In the light of these two frameworks, the thesis does its own classification. Before presenting the classification of recent design approaches, the meaning of strategy will be defined first, because the thesis studies the projects with a special emphasis on their design strategies. Oxford Dictionaries list the definitions of ''strategy'' as:

> ''1. a plan of action designed to achieve a long-term or overall aim,
> 2. the art of planning and directing overall military operations and movements in a war or battle.''[20]

Strategy is a term borrowed from military vocabulary which involves the overall approach or ways used to combat the enemy such as using deployments of air, sea or land forces or defending enclaves or large areas of countryside. Then, specific ways to carry the strategy are determined such as how to defend the enclaves, how to carry out the land or how many planes to employ.[21] Strategy is frequently used in business today. In the field of business, a strategy is ''the

[20] *Oxford Dictionaries*, ''Strategy,'' http://oxforddictionaries.com/definition/strategy (accessed March 01, 2011).

[21] Lester A. Digman, *Strategic Management: Concepts, Processes, Decisions* (Houston: Dame Publications, 1995), 2-6.

pattern or plan that integrates an organization's major goals, policies and action sequences into a cohesive whole."[22] Strategies should be related to the other strategies hierarchically and support the former and the latter among them; finally, they build a strong position so that the organization may achieve its goals.

Strategy is also a term which is frequently used in the field of design. ''Design strategy'' is the plan of actions in design to achieve the overall objectives and goals of a project. In other words, it is the systematic planning of a project to achieve an aim. A design strategy, as being the plan of design, frames the design tools and actions and involves the overall approach and methods of the design. A design project may have more than one strategy, which are distinct from each other and used in the project in a hierarchical way. The strategies support each other and the designers achieve an organization for the design. Then, smaller decisions, plans and procedures are taken to carry the strategy, which are the implementation of strategies. The order of design can be arranged as the decision of goals and objectives, defining the strategy and implementing the tools and actions. The goals and objectives of the design are defined at first which are the aim(s) of the project. To achieve them, design strategy or strategies are defined which can respond the goals. Finally, design tools and actions are implemented which are the smaller acts of design.

Each type of Bernard Tschumi's classification which are the composition, the complement, the palimpsest and the mediation are design strategies because they are the plan of actions or methods used in design projects to achieve the aims of the projects. The thesis will study these strategies in cases. ''Strategic design'' is also an important term for the thesis which will be dealt with. It is an approach to design which will have the flexibility and adaptability of changes and it frames the future oriented design solutions responding to time. It will be defined in detail and exemplified through the thesis.

[22] *Gale Encyclopedia of Small Business*, cited from James Brian Quinn, ''Strategy,'' http://www.answers.com/topic/strategy (accessed September 20, 2010).

1.3 The Classification of Recent Design Approaches in the Thesis

The thesis, which aims to analyze design strategies of the park projects, categorizes the contemporary design approaches into groups. The park projects are examined in three parts in this study which are "the strategic design", "the place-based design'' and "the ecological design" (Table 1).

Table 1. The classification of recent design approaches in the thesis. Prepared by the author.

RECLAMATION METHOD	DESIGN APPROACH	DESIGN STRATEGY
NEW ACTIVITY & USE →	STRATEGIC	← COMPOSITION
HISTORY & MEMORY →	PLACE - BASED	← COMPLEMENT ← PALIMPSEST
ECOLOGY & BIOLOGY →	ECOLOGICAL	← MEDIATION

Strategic design refers to a flexible design approach which adapts to changing conditions and demands. The aim of the strategic design is to get a resilient design solution which enables rapid adaptation while protecting the quality and value over time. In the strategic design, the designer introduces an organizational method of design by making use of design tools, so that the project can adapt to changes. Strategic decisions are taken to respond to the predictable and the unpredictable changes that may occur in the future.[23] Özay Özkan in his thesis ''Strategic Way of Design in Rem Koolhaas' Parc de la Villette Project'' states that the success and lifespan of a project depends on its ability to respond to changes in program according to political, financial, technological and cultural demands. He claims that the approach should be

[23] For further information of the strategic approach to design, please see the Ph.D thesis of Kerem Yazgan "Designography of Architecture'', where he investigates ''the art and process of making design'' and ''designing the design act'' and master's thesis of Özay Özkan "Strategic Way of Design in Rem Koolhaas' Parc de la Villette Project'' where he analyzes the strategic design approach in the Parc de la Villette project of Rem Koolhaas/OMA.

strategic in order to deal with the programmatic indeterminacy.[24] Quinn states that "strategic decisions are those that determine the overall direction of an enterprise and its ultimate viability in light of predictable, the unpredictable and the unknowable changes that may occur in its most important surrounding environments."[25] In the present thesis, strategic design is accepted as one of the three approaches to the design of parks. Strategic design takes into account new types of activities and uses added to the programs which are indeterminate for future needs.

Place-based design refers to the design approach which is achieved by the meanings and values derived from the site to preserve or create a sense of place. As previously stated by Sébastien Marot, designers have begun to look more deeply at sites and landscape design more focused on the site.[26] This results in a design approach based on the meaning and history of the site rather than the program. In this approach, the designer analyzes the site with all of its aspects and sometimes programs the park according to this. The aim of design is to restore memory and sense of place. Therefore, the design is based on the history and memory of the site.

Ecological design refers to the design approach which is achieved by developing the biological values of the site by the science of ecology. Although it is not a new concept, "ecology" has gained an importance in contemporary design. Environmentally conscious, ecologically designed projects have been developed in the recent years; ecology has become a crucial subject in park designs. Ecological design is the third approach studied in the thesis which comprises the reclamation of the sites by developing the ecological values by paying attention to biological diversity.

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[24] Özay Özkan, "Strategic Way of Design in Rem Kollhaas' Parc de la Villette Project" (Master's thesis, Middle East Technical University, 2008), 1-2.

[25] *Gale Encyclopedia of Small Business*, cited from James Brian Quinn, "Strategy," http://www.answers.com/topic/strategy (accessed September 20, 2010).

[26] Sébastien Marot, "The Reclaiming of Sites," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 48 (New York: Princeton Architectural Press, 1999).

The thesis does not claim that the three parts are independent from each other, but on the contrary, this categorization can be regarded as issues to be considered in park design. In each issue, how the approaches studied have benefited from the previous ones and how the park design has evolved from landscape design into a subject integrated with urban design will be discussed.

1.4 The Structure of the Thesis

In this introductory chapter, the aim and theoretical framework of the thesis are introduced. The two main frameworks on which the thesis is based are presented. Finally, the classification of the contemporary park designs done in this study is presented in three parts which are the strategic design, the place-based design and the ecological design. They will be studied in three chapters in the thesis.

The second chapter addresses "the strategic design" approach and exemplifies it with Bernard Tschumi's and Rem Koolhaas' project proposals to the Parc de la Villette competition. Both of them are layered, non-hierarchical and strategic projects. They used abstract systems to place the program into the site; in other words, they are products of mediation. In both of the projects, the changes in time are taken into consideration which makes them "strategic". The thesis examines the competition and these two projects under the title of "strategic design" because they are future-oriented design solutions responding to the rapidly changing conditions without disturbing their architectural values. With an overloaded program, the competition embodied many activities as the aim was to recover the old slaughter house site by developing new uses and activities, which is the second type of reclaiming sites in James Corner's classification.

The third chapter addresses the "place-based design" approach and analyzes three park projects. Parc André Citroën in Paris, which was designed by the French landscape designers Alain Provost and Gilles Clément, designed as a composition and reminds the architectural history of the site. Bercy Park in Paris, which was designed by the French architect and city planner Bernard

Huet, was conceived as a palimpsest keeping the old traces of the site. Also, symbols which refer to the industrial period of the site were used as design elements. Invaliden Park in Berlin, which was designed by the French landscape designer Christophe Girot, was exhibited at the MOMA in New York for the Groundswell Exhibition in 2005. The project used a symbol directly referring to a period and an architectural element of the history of Berlin. In other words, the thesis will highlight the first type of site reclamation way in James Corner's classification which is "the retrieval of memory and the cultural enrichment of place and time" in this chapter.

The fourth chapter addresses the "ecological design" approach and exemplifies the reclamation of sites by ecological repair and succession. Downsview Park in Toronto designed by Rem Koolhaas and the graphic designer Bruce Mau from OMA, Fresh Kills Park in Staten Island in New York designed by James Corner/Field Operations and High Line Park designed by James Corner/Field Operations in collaboration with Diller Scofidio+Renfro will be analyzed in this part. The two parks of this chapter which are the Fresh Kills and the Downsview are regarded as adaptive design solutions which are resulted from making ecological processes operational in design and mature examples of landscape urbanism. About this, Charles Waldheim states:

> "Several recent international design competitions for the reuse of enormously scaled industrial sites in North American cities have used landscape as their primary medium. Downsview Park, located on the site of an underutilized military airbase in Toronto, and Fresh Kills, on the site of the world's largest landfill on Staten Island, New York, are representative of these trends and offer the most fully formed examples of landscape urbanism practices to date applied to the detritus of the industrial city."[27]

Therefore, the theory of landscape urbanism will be defined and evaluated through these examples in this chapter. Although landscape urbanism is a comprehensive subject involving diverse fields, the thesis will study it in a

[27] Charles Waldheim, "Landscape as Urbanism," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 46-48 (New York: Princeton Architectural Press, 2006).

limited way, as an approach proposing the landscape as an infrastructure to the city, under the scope of parks. The Downsview Park is a landscape urbanism project which exemplifies the growth and diffusion of a design element to the city. The Fresh Kills Park is also a landscape urbanism project which is ecologically designed having detailed diagrams of animal habitats and planting. These two parks are large scale urban parks. The third park High Line is chosen for proving that the ecological design is not related with the scale of the site, as it can also be achieved in a small piece of land.

In the fifth part, that is the concluding chapter, the results of the thesis will be presented by a diagram of the parks studied. The new significances of landscape gained in recent years will be recapitulated. By doing this, the comparison of the parks and the development of park design of the whole period will be explained by studying the relations and connections of the three design approaches with one another. Moreover, the park programs developed for the 21st century will be evaluated. In light of these, the study is completed with an evaluation of the park designs in Turkey, most of which have been developed through design competitions.

CHAPTER 2

STRATEGIC DESIGN

2.1 Parc de la Villette Competition as a Turning Point in Contemporary Park Design

Figure 5. Aerial photograph of Paris showing Parc de la Villette, Parc André Citroën and Bercy Park. Edited by the author. Google Earth.

The French Government organized the competition for the Parc de la Villette in 1982 which was one of the President Mitterand's *Grands Projets.*[28] The site of the Parc de la Villette is a 50.5 hectares large site situated on the north east of Paris which used to be occupied by slaughter houses (Figure 5). The site of

[28] *Grands Projets* were projects organized by the French Government for the cultural and economic development of the center of Paris. The Louvre Pyramid, the Opera at Bastille and the Arch at Tête de la Défense are other grands projects. For further information on *Grands Projets*, please see the essay "Paris'te Büyük Projeler" by Cânâ Bilsel and Namık G. Erkal published in *XXI* in 2000.

the park had two existing structures which were the Museum of Science and Technology built on the foundations of the old slaughter building and the *Grand Halle* which was part of the old market buildings (figure 6-7).[29]

Figure 6. Parc de la Villette within its context. Edited by the author. Google Earth.

Figure 7. The two existing structures of the site: the *Grand Halle* and the Museum of Science and Technology. *Hôtel de Paris*, "District of the Park of the Villette," http://hotel-de-paris.org/grande_halle.jpg (accessed December 6, 2010), and *Viator*, "#4 Paris with Kids: Science, Industry, Cinema," http://travelblog.viator.com/wp-content/uploads/2008/09/paris-kids-cite-museum.jpg (accessed December 6, 2010).

[29] Tsukui Noriko, "Parc de la Villette," OMA@work. a+u, *Architecture and Urbanism* (May 2000): 246.

The idea of park was an enclosed piece of land maintained in a natural condition, a reserved green area distinct from the city in which it was located. However, the idea moved away from this definition.[30] The parks began to be preferred as focuses of activity rather than being green areas having merely aesthetical values. The concept of "cultural park" dates back to the beginning of the 20th century. About this, Bernard Tschumi states that "during the 20th century we have witnessed a shift in the concept of the park, which can no longer be separated from the concept of the city."[31] One of the most significant park which illustrates the concept of "cultural park", at the end of the century is the Parc de la Villette. The initiators of the competition rejected the 19th century Parisian park as a model, seeing it irrelevant to the city life. The program of the park was intended to be "the center of activity, shows and experimentation."[32] The competition was a search for "the urban park for the 21st century" and its requirement list was very crowded.[33] Bernard Tschumi elaborates this as:

> "The competition for the Parc de La Villette is the first in recent architectural history to set forth a new program_that of "Urban Park,"

[30] Betsy Cann, "The Park of La Villette: Urban Park as Building," *Design Observer,* http://www.places.designobserver.com/medai/pdf/The_Park_of_La_1190.pdf (accessed April 10, 2010).

[31] Bernard Tschumi, *Cinegram folie: le Parc de la Villette* (Princeton, NJ: Princeton Architectural Press, 1987), 1.

[32] Betsy Cann, "The Park of La Villette: Urban Park as Building," *Design Observer,* http://www.places.designobserver.com/medai/pdf/The_Park_of_La_1190.pdf (accessed April 10, 2010).

[33] The program consisted of 7,500 m2 entertainment facilities; 300 m2 cultural information center; 1,200 m2 kiosks for small shows, games, temporary exhibits; 1,200 m2 temporary exhibits; 7,100 m2 discovery work-shops; 20,500 m2 discovery gardens; 10,000 m2 greenhouses; 11,200 m2 children's discovery spaces; 3,200 m2 space for permanent exhibits; 30,500 m2 theme gardens; 1,200 m2 outdoor ice-skating rink; 60,000 m2 playgrounds; 10,000 m2 outdoor hard-surface sport facilities; 16,000 m2 children's play areas; 10,250 m2 bathing/water elements; 5,000 m2 restaurants; 3,300 m2 catering; 2,000 m2 snack bars; 2,750 m2 picnic areas; 2,200 m2 reception zones; 2,500 m2 day-care facilities; 500 m2 urban services; 300 m2 shops; 300 m2 accessory rental; 6,000 m2 market; 500 m2 offices; 35,000 m2 circulation; 4,200 m2 maintenance; 1,000 m2 fire, police and technical services; 200 m2 first aid; 200 m2 lavatories; 17,800 m2 parking.

proposing that the juxtaposition and combination of a variety of activities will encourage new attitudes and perspectives."[34]

The park was concieved as an "open-air cultural center", because the program not only contained landscape areas but also cultural and entertainment facilities such as open-air theatres, restaurants, art galleries, music and painting workshops, playgrounds, gymnasium and bath facilities, exhibitions, concerts, video and computer displays in addition to a rock concert hall and the *Cité de la Musique* (Figure 8).[35]

Figure 8. Photographs showing some of the activities in Parc de la Villette. *Linternaute*, "Plein de jeux pour les enfants," http://www.linternaute.com/sortir/sorties/nature/jardins-villette/diaporama/images/6.jpg (accessed December 6, 2010), and *Structurae*, "Parc de la Villette," http://en.structurae.de/files/photos/64/villette01.jpg (accessed December 6, 2010).

470 projects from 70 countries were submitted to the competition. Jean Nouvel, Michel Corajoud, Team Zoo, Pascale Bas, Gaetano Pesce, Zaha Hadid were among the designers who submitted projects to the competition (Figure 9).[36] La Villette competition was a one-stage competition but the jury could not decide on the first prize project; so, they selected 9 projects for the first-prize. They were M. Van Gessel (Pays-Bas); A. Arriola (Spain); J.

[34] Bernard Tschumi, *Cinegram folie: le Parc de la Villette* (Princeton, NJ: Princeton Architectural Press, 1987), 1.

[35] Ibid.

[36] Patrice Goulet, "Concours International pour le Parc de la Villette, Paris," *Architecture D'Aujourd'hui,* Vol: 225 (1983): 76-83 and Zaha Hadid, "Aménagement du Parc de la Villette, Paris," *Architecture D'Aujourd'hui,* Vol: 233 (1983): 64-80.

Gourvennec (France); R. Koolhaas (Grande-Bretagne); G. Verlard (France); S. Andersson (Danemark); B. Lassus (France); A. Chemetoff (France); B. Tschumi (U.S.A.).[37] Therefore, a second phase was organized to select one of the project among 9 winners of the first phase (Figure 10).

The competition of Parc de la Villette is significant for the thesis not only because it gave way to a shift in the concept of park but also inspiring a paradigm shift in the contemporary urbanism. As mentioned in the introductory chapter, Charles Waldheim states that unlike the vast majority of the submissions of the competition, the two submissions ''clearly signaled a paradigm shift still underway in the reconception of contemporary urbanism'' which are Bernard Tschumi's and Rem Koolhaas/OMA's proposal which received the first and second prizes respectively.[38]

According to Charles Waldheim, Bernard Tschumi's proposal "represented a conceptual leap in the development of landscape urbanism; it formulated landscape as the most suitable medium through which to order programmatic and social change over time, especially complex evolving arrangements of urban activities."[39] Considering the program of the competition, Bernard Tschumi in his book ''Cinegram folie: le Parc de la Villette'' states that:

> ''The '70s witnessed a period of renewed interest in the formal constitution of the city, its typologies and its morphologies. While developing analysis focused on the history of the city, this attention was largely devoid of programmatic justification. No analysis address the fact that the organization of functions and events was as much an architectural concern as the elaboration of forms or styles.''[40]

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[37] Robert Kœnig, "Concours: Parc de la Villette," *Techniques et Architecture,* Vol: 345 (1982-1983): 160.

[38] Charles Waldheim, "Landscape as Urbanism," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 40 (New York: Princeton Architectural Press, 2006).

[39] Ibid.

[40] Bernard Tschumi, *Cinegram folie: le Parc de la Villette* (Princeton, NJ: Princeton Architectural Press,1987), 1.

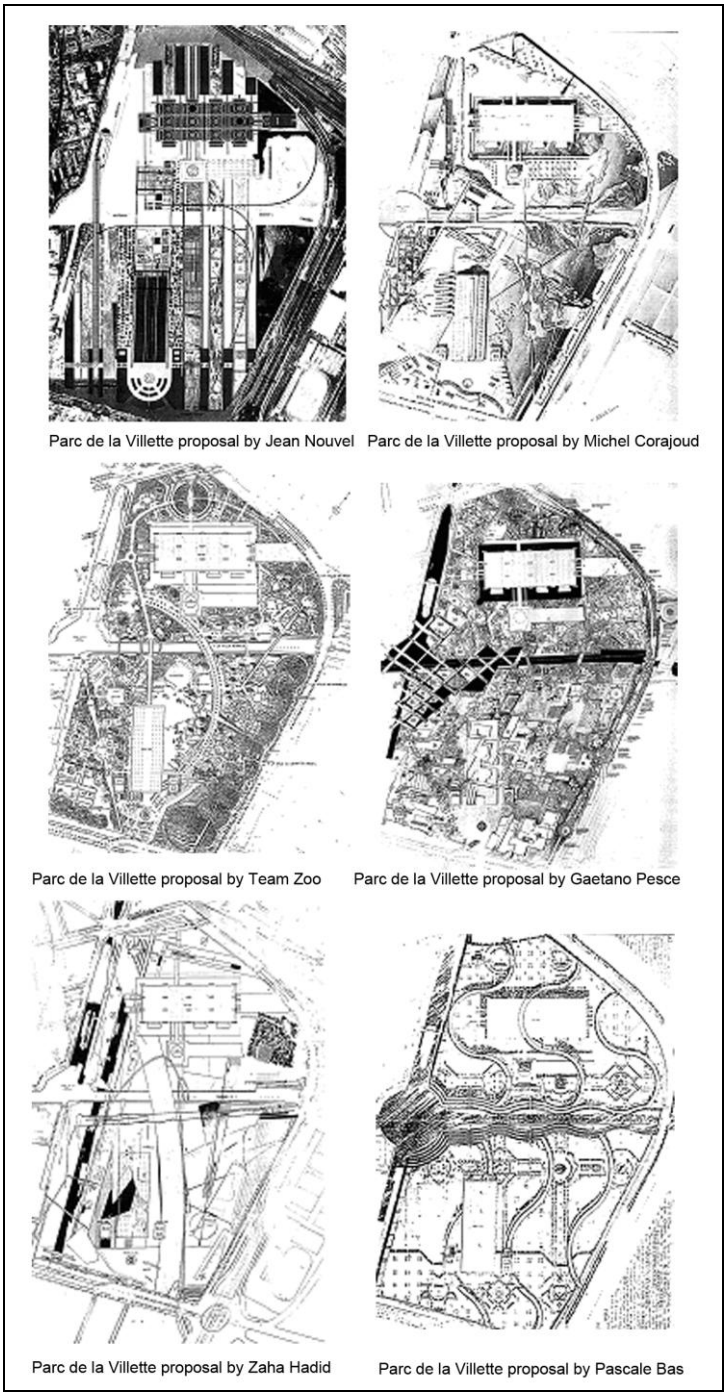

Figure 9. Six of the submitted projects for Parc de la Villette competition which were not selected for the second phase. Comparative drawing edited by the author. Patrice Goulet, "Concours International pour le Parc de la Villette, Paris," *Architecture D'Aujourd'hui,* Vol: 225 (1983): 76-83 and Zaha Hadid, "Aménagement du Parc de la Villette, Paris," *Architecture D'Aujourd'hui,* Vol: 233 (1983): 76.

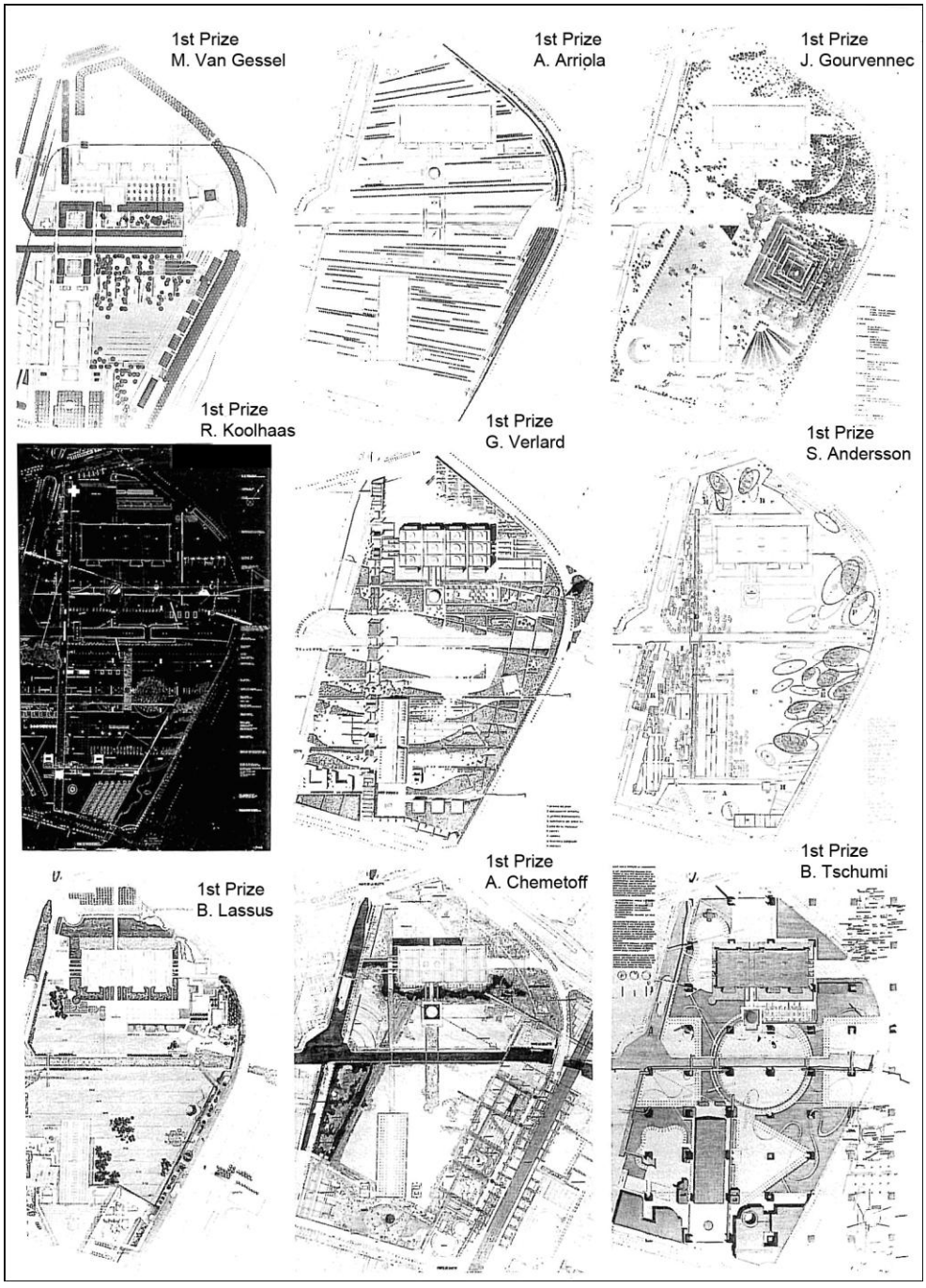

Figure 10. Nine winners of the Parc de la Villette competition. Robert Kœnig, "Concours: Parc de la Villette," *Techniques et Architecture,* Vol: 345 (1982-1983): 161.

Bernard Tschumi projected his ideas on ''event'' and ''program'' which he had elaborated and regarded as prior concerns in the field of architecture than forms and styles. Therefore, he designed the project based on the idea of interchangeability of events and programs. He was not the only architect who emphasized the role of program in the making of a project; Rem Koolhaas/OMA had been studying projects responding to the changing demands of a society since 1970s.[41] Sharing similar ideas on the changing conditions of metropolises, the second proposal which was designed by Rem Koolhaas/OMA offered a framework ''to support an indeterminate and unknowable range of future uses over time''.[42] Alex Wall states about the project of OMA that ''rather than a fixed design, the project offered a framework for developing flexible uses as needs and desires change.''[43] Not only their program examinations, but also the competition requirements led to the strategic approach of the two proposals because the aim of the competition was to achieve innovative projects which could adapt to future conditions. Therefore, the projects responded to the competition requirement which was a determining factor in their approach. Allowing changes without loss of organizational structure and the capacity to adapt to changes made these projects a precedent in later formulations of urbanism.

Charles Waldheim evaluates the ideas introduced by these two projects stating that ''...Tschumi's and Koolhaas's projects for Parc de la Villette signaled the role that landscape would come to play as a medium through which to articulate a postmodern urbanism: layered, non-hierarchical, flexible, and strategic.''[44] In other words, in the awake of La Villette's influence,

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[41] Alex Wall, ''Programming The Urban Surface,'' in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 237 (New York: Princeton Architectural Press, 1999).

[42] Charles Waldheim, ''Landscape as Urbanism,'' in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 41 (New York : Princeton Architectural Press, 2006).

[43] Alex Wall, ''Programming The Urban Surface,'' in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 238 (New York: Princeton Architectural Press, 1999).

[44] Charles Waldheim, ''Landscape as Urbanism,'' in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 40-41 (New York: Princeton Architectural Press, 2006).

landscape has become a viable framework for the contemporary city.[45] Therefore, the thesis examines the design strategies of the two projects in order to highlight the reasons of their being pioneers of a new urban model.

2.2 Parc de la Villette Project by Bernard Tschumi

2.2.1 Project Description

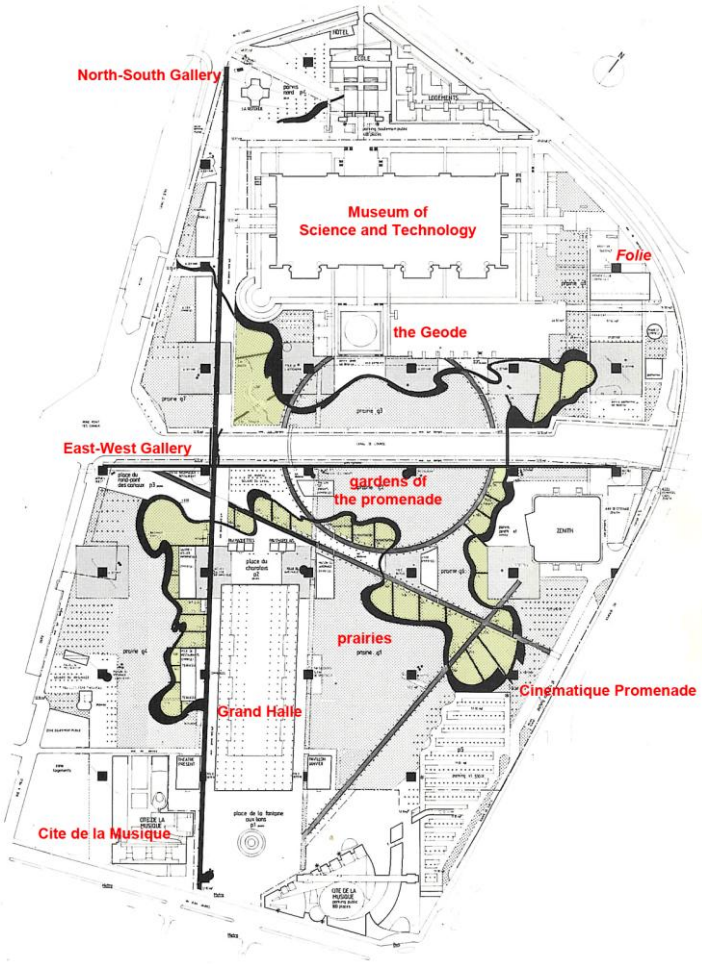

Figure 11. Plan of Bernard Tschumi's Parc de la Villette project. Edited by the author. Bernard Tschumi, *Cinegram folie: le Parc de la Villette* (Princeton, NJ: Princeton Architectural Press,1987), 9.

[45] Ibid.

After the second submission of the competition, Bernard Tschumi's project won the first prize and was selected to be implemented (Figure 11).[46] The main idea of the project was to respond to the programmatic and social change over time so it was designed as a strategic urban design project which has been evoked in later urbanism discussions. Considering the urban dimensions of the project, Bernard Tschumi states:

> "The park could be conceived as one of the largest *buildings* ever constructed –a discontinuous building, but nevertheless a single structure, overlapping in certain areas with the city and existing suburbs. It forms an embryonic model of what the new programs for the 21st century will be."[47]

2.2.2 Design Strategies

2.2.2.1 Mediation of Point Grid

As stated in the introductory chapter, Bernard Tschumi states that there are four strategies when confronted with an urbanistic program which are the composition, the complement, the palimpsest and the mediation. In la Villette competition, he insisted on the palimpsest and the mediation; however, he did not choose palimpsest because he found it incompatible to the complexity of the competition. Because the aim of the competition was to select a chief architect who would prepare the master plan and coordinate and supervise other contributions to the design of the park, it was clear that the elements of the program should be interchangeable. About this, Tschumi states:

> "The general circumstances of the project, then, were to find an organizing structure that could exist independent of use, a structure without center or hierarchy, a structure that would negate the simplistic

[46] The competition team was composed of Bernard Tschumi, assisted by Luca Merlini with Alexandra Villegas, Luca Pagnamenta, And Galen Cranz, Phoebe Cutler, William Wallis, Jon Olsen, Thomas Balsley.

[47] Bernard Tschumi, *Cinegram folie: le Parc de la Villette* (Princeton, NJ: Princeton Architectural Press, 1987), 1.

> assumption of a casual relationship between a program and the resulting architecture."[48]

Therefore, the mediation was chosen to respond to the complexities of the program. In addition to that, the chosen abstract system was the point grid "only for strategic, rather than conceptual reasons" as Bernard Tschumi explained.[49] Point grid fulfilled the desired characteristics of the organizing structure, i.e. being without a center or hierarchy. About this, he argued: "Through its regular and repetitive markings, the grid defined a potentially infinite field of points of intensity: an incomplete, infinite extension, lacking center or hierarchy."[50] The aim was to find a mediation system which provided the changing needs; but also the point grid became a political tool to prove that a new design type was possible as Tschumi stated:

> "The point grid is the strategic tool of the La Villette project. It both articulates space and activates it. While refusing all hierarchies and "compositions," it plays a political role, rejecting the ideological *a priori* of the master plans of the past." [51]

The challenge of the competition did not only require strategies at urban scale, but also there was the possibility of programmatic changes at the building scale. This brought the "*folies*" that made up the point grid. In Bernard Tschumi's words, "one part could replace another, or a building's program be revised, changing (to use an actual example) from restaurant to gardening center to arts workshop."[52] To achieve the flexibility to respond to changes in the program, the project deconstructed the idea of cause-effect relationships between form and function, form and program. It has been argued that there

[48] Ibid, IV.

[49] Ibid, VI.

[50] Ibid.

[51] Ibid, 24.

[52] Ibid, IV.

should not be any relationship between architecture and the program it fulfills. Bernard Tschumi argues:

> "...it could be said that there must be no identification between architecture and program: a bank must not look like a bank, nor an opera house like an opera house, nor a park like a park. This distanciation can be produced either through calculated shifts in programmatic expectations, or through the use of some mediating agent - an abstract parameter that acts as a distancing agent between the built realm and the user's demands (at La Villette, this agent was the grid of Folies)."[53]

Therefore, the *folies* were designed in a similar way which had ''self-referential meaning that is initially independent of park, program and the site.''[54] They are 10.8x10.8x10.8 meter cubes which were divided into three in each direction (3.6 meters in each direction). Then, they were decomposed into fragments or extended by adding elements such as cylindirical or triangular volumes, stairs, ramps, etc. The structure of the folies is composed of a steel or concrete frame; then red enameled steel surfaces covered all of them.[55] This has been operating since the construction of the park, because as Tschumi stated, one folly was first designed as a gardening center, then it was reorganized as a restaurant by the time the concrete framework was completed, and finally used as children's painting and sculpture workshops.[56]

Bernard Tschumi gave the name of ''*folie*'' to the buildings in the park which constitute the point grid because *folie* has two meanings which are the built sense ''folly'' and the psychoanalytical sense ''madness''. Folly refers to small constructions in gardens hidden by dense foliage. Madness was used to illustrate a characteristic situation at the end of the 20th century which referred

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[53] Ibid, 49.

[54] Ibid, 4-5.

[55] Ibid, 27.

[56] Bernard Tschumi, *Architecture and Disjunction* (Cambridge, London: The MIT Press, 1996), 21.

to the disjunction between use, form and social values. About this, Tschumi states:

> "We aim to free the built *Folie* from its historical connotations and to place it on a broader, more abstract plane, as an autonomous object which, in the future, will be able to receive new meanings".[57]

Each folie was bare and unique but they created a unity in the total system (Figure 12). The aim was to achieve an architecture without a meaning; however, they also aimed to create a symbol for the park such as "The British telephone booth or the Paris Metro gates."[58]

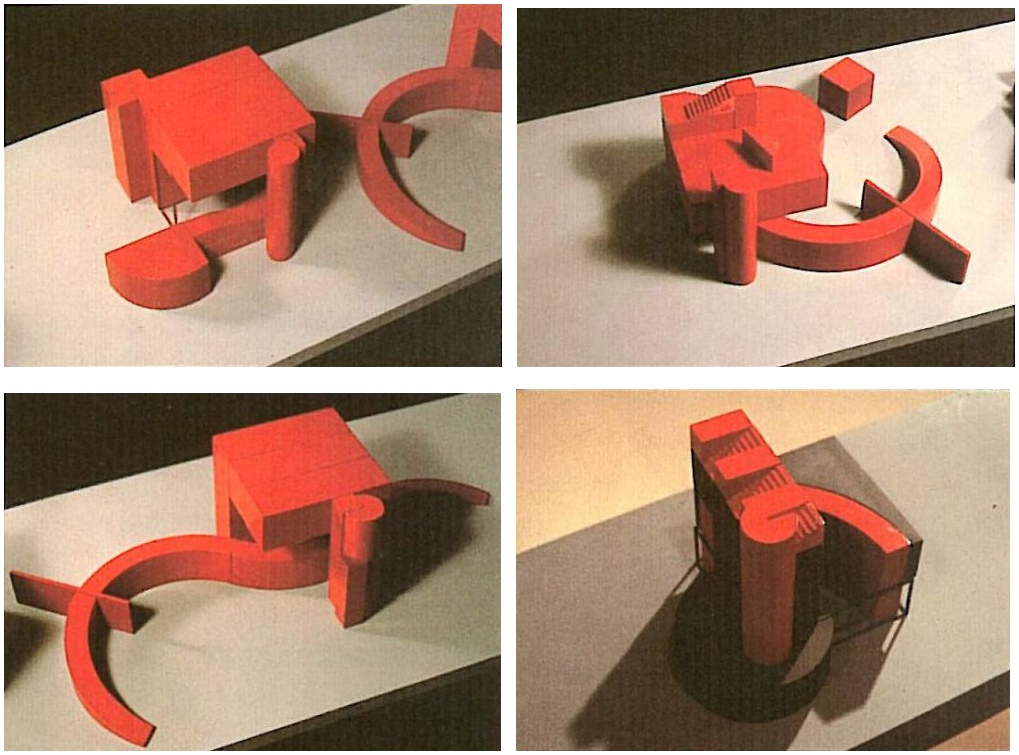

Figure 12. Models of folies in Bernard Tschumi's Parc de la Villette project. Bernard Tschumi, *Cinegram folie: le Parc de la Villette* (Princeton, NJ: Princeton Architectural Press,1987), 19-29.

[57] Bernard Tschumi, *Cinegram folie: le Parc de la Villette* (Princeton, NJ: Princeton Architectural Press, 1987), 16.

[58] Ibid, 7.

2.2.2.2 Superimposition

The point grid system of the design, is accompanied by two other abstract systems. Bernard Tschumi developed his project around a system of points (objects), a system of surfaces (spaces) and a system of lines (movements). They form the three autonomous and abstract systems of the park which are superimposed on each other (Figure 13).

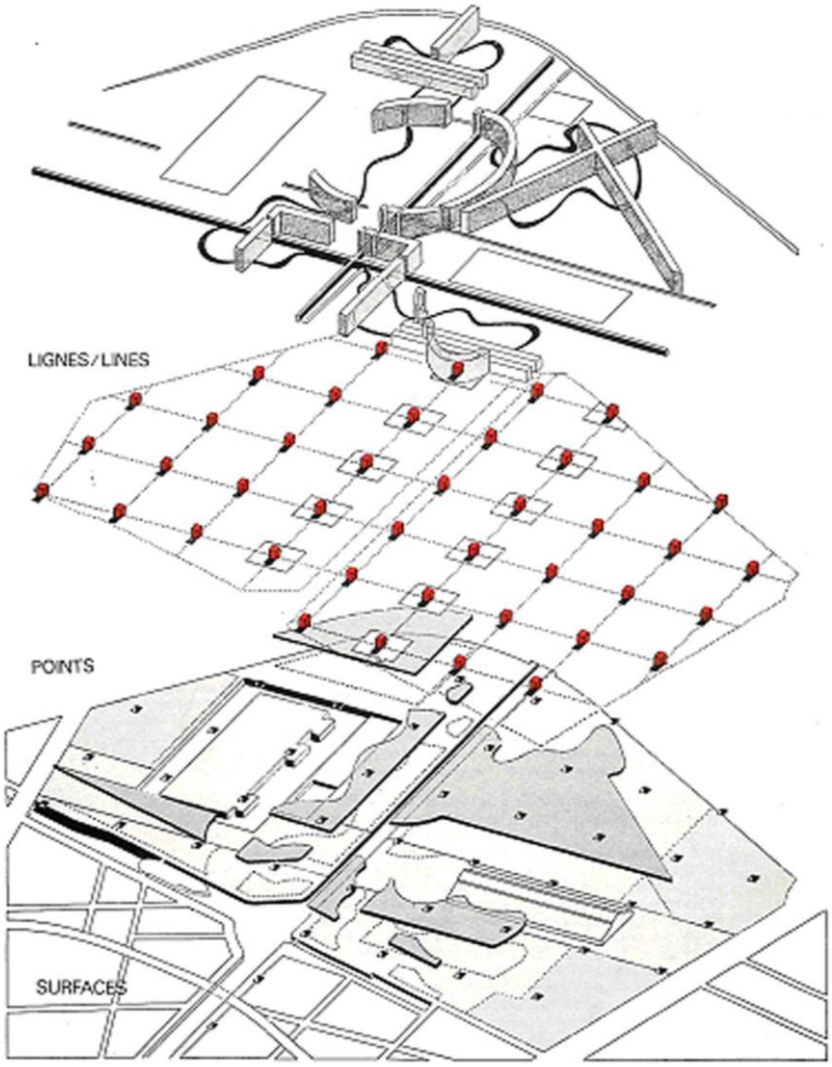

Figure 13. Superimposition of systems in Bernard Tschumi's Parc de la Villette project. Bernard Tschumi, *Cinegram folie: le Parc de la Villette* (Princeton, NJ: Princeton Architectural Press,1987), 3.

Superimposition creates an organizing structure and it refuses any privileged system or element, or idea of "composition". The project using the principle of superimposition of three autonomous systems proved that "it was possible to construct a complex architectural organization without resorting to traditional rules of composition, hierarchy, and order".[59] The competition requirements necessitated other professionals to intervene on the master plan. Therefore, according to Tschumi, the elements of the program should be open to change. The strategy of superimposition was used to enable any other system to be added later on the existing three ones.

The system of points or objects, as stated before, is the first layer of the project. Instead of introducing a building -there were two existing structures- to fulfill the requirements of the program, the designers preferred to distribute the program to the whole site by using a regular grid system. Small activities of the park that could be arranged are placed in *folies* which are distributed on a point-grid coordinate system at 120 meter intervals.[60]

The system of surfaces or spaces is the second layer in the project. It contains all sort of activities that require large areas such as plays, games, body exercises, mass entertainments and the other spaces left for programmatic freedom.[61]

The system of lines or movements is the third layer which is characterized by the Cinematic Promenade, the alleys of trees, the linkage elements and in particular by the North-South and East-West galleries which can be regarded as the coordinate axes of the site (Figure 14). On both of them a 5 meter wide structure was placed. The North-South Gallery links two Paris gates and subway stations while connecting the urban functions of the park: the Museum of Science and Technology, Cinema-*Folies*, Restaurant-*Folies*, Video-*Folies*,

[59] Ibid, VII.

[60] Ibid, 7-8.

[61] Ibid, 8.

the 19th century *Grand Halle*, a theatre and the *Cité de la Musique*. The East-West Gallery extends through the monumental route that connects Ledoux's Rotunda to suburbs while linking Paris to its suburbs. It goes along the *Canal de l'Ourcq* and acts as a balcony overlooking the Park and the Museum of Science and Technology while giving access to the second floor of the folies along the Canal (Figure 15). There is another line, the Path of Thematic Gardens or the Cinematic Promenade, which seems randomly curving while linking the various parts of the park.[62]

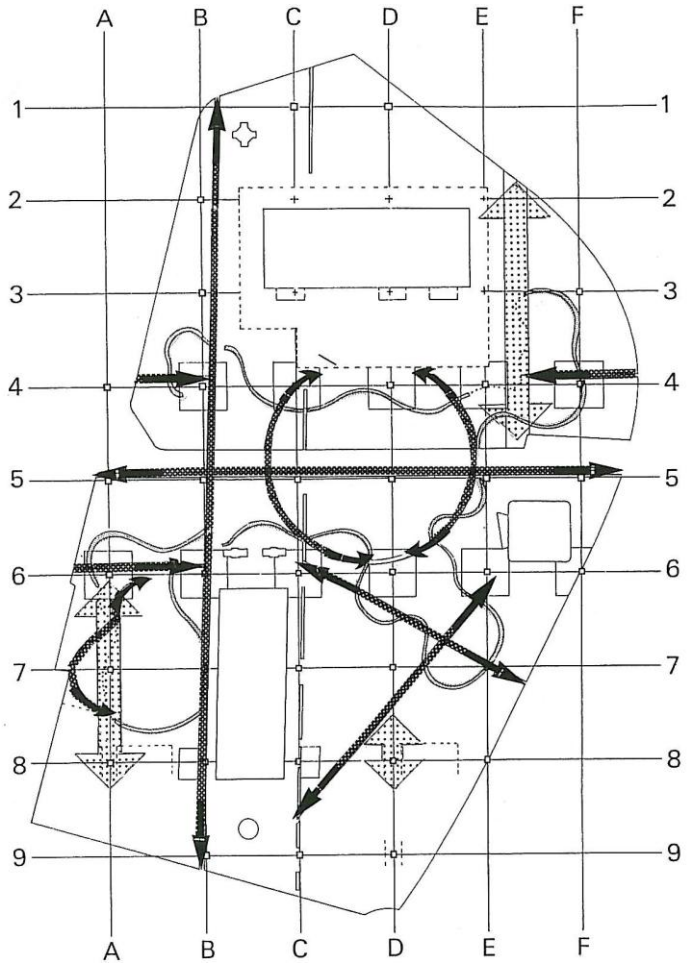

Figure 14. System of lines in Bernard Tschumi's Parc de la Villette project. Bernard Tschumi, *Event-Cities 2* (Massachusetts: The MIT Press, 2000), 80.

[62] Ibid.

Figure 15. View of Parc de la Villette showing the gallery and the folies. *Per Wahlin*, "Cable-stayed Bridges of Europe," http://www.pwpeics.se/images/pw%20cs/france%20p-z/Paris_La_Villette2.JPG (accessed December 6, 2010).

Cinematic Promenade was designed in a way similar to cinegram. Cinegram is similar to the concept of *folie* and serves for programmatic changeability of the gardens of the park because they were to be designed by other participants. About the concept of cinegram, Bernard Tschumi states:

> "To the notion of composition, which implies a reading of urbanism on the basis of the plan, the La Villette project substitutes an idea comparable to montage (which presupposes autonomous parts or fragments). Film analogies are convenient, since the world of the cinema was the first to introduce discontinuity-a segmented world in which each fragment maintains its own independence, thereby permitting a multiplicity combinations. In film, each frame (or photogram) is placed in continuous movement. Inscribing movement through the rapid succession of photograms constitutes the cinegram.
>
> The park is a series of cinegrams, each of which is based on a precise set of architectonic, spatial or programmatic transformations. Contiguity and superimposition of cinegrams are two aspects of montage. Montage as a technique, includes such other devices as repetition, inversion,

substitution and insertion. These devices suggest an art of rupture, whereby invention resides in contrast –even in contradiction."[63]

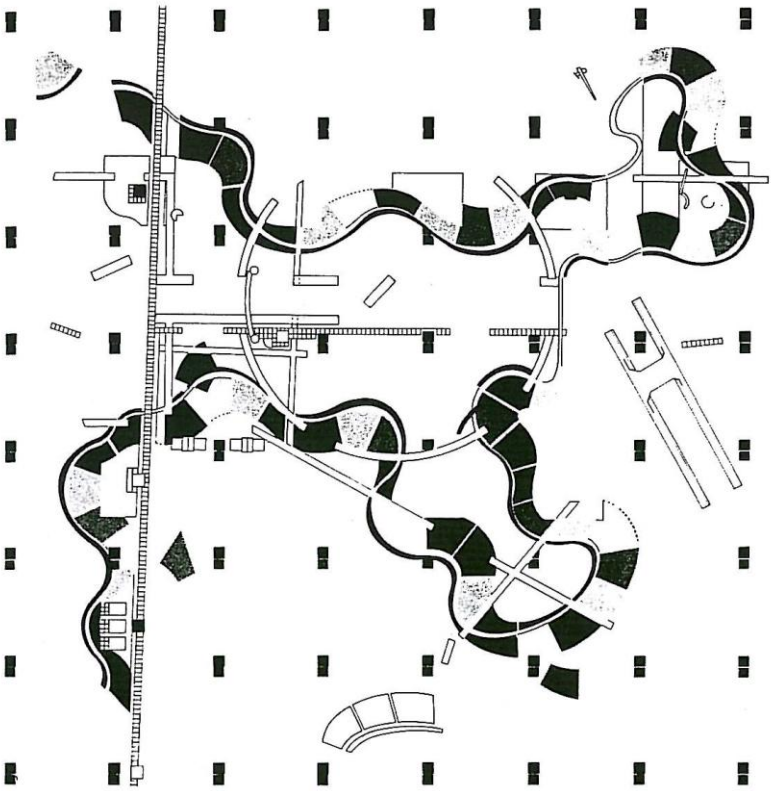

Figure 16. Cinematic Promenade of gardens in Bernard Tschumi's Parc de la Villette project. Bernard Tschumi, *Cinegram folie: le Parc de la Villette* (Princeton, NJ: Princeton Architectural Press,1987), 8.

The Cinematic Promenade is one of the most significant features of the project's system of lines (Figure 16). It was designed as a montage of frames which were created by the interventions of other designers. It was conceived of parts and frames which were cut in a line of trees from each other (Figure 17). Each frame defines a garden having an autonomous character so it can be changed without disturbing its environment. Also, it is strongly related with the parts that precede and follow it. Therefore, this can lead to a single piece of work in the future. Tschumi explains the Cinematic Promenade as:

[63] Ibid, VI.

Figure 17. Montage used in the Cinematic Promenade in Bernard Tschumi's Parc de la Villette project. Edited by the author. Bernard Tschumi, *Event-Cities 2* (Massachusetts: The MIT Press, 2000), 74.

" It is conceived along the analogy of a film strip in which the sound-track corresponds to the general walkway for visitors and the image-track corresponds to the successive frames of individual gardens. The linearity of sequences orders events, movements and spaces in a progression that either combines or parallels divergent concerns. Each part, each frame of a sequence qualifies, reinforces or alters the parts that precede and follow it. The associations thus formed allow for a plurality of interpretations rather than a singular fact. Each part is thus both complete and incomplete."[64]

2.3 Parc de la Villette Project by OMA/Rem Koolhaas

2.3.1 Project Description

The second prize project of Parc de la Villette competition was Rem Koolhaas/OMA's proposal (Figure 18).[65] Rather than proposing formal and aestheticized design solutions, OMA put forward strategies for the projects. As stated before, Koolhaas worked on the role of program in the making of a project since 1970s. Their projects are oriented around programs rather than forms. Alex Wall highlights this, stating that in their practices, "program is viewed as the engine of a project, driving the logic of form and organization while responding to the changing demands of society."[66] Bart Lootsma about the same issue argues: "...Rem Koolhaas's goal has always been to project an architecture that is physically absent which dissolves itself through channeling and supporting the processes of social group formation."[67] These ideas came

[64] Ibid, 12.

[65] The architects of the project team was Rem Koolhaas, Elia Zenghelis, with Kees Christiaanse, Stefano de Martino, Ruurd Roorda, Ron Steiner, Jan Voorberg, Alex Wall. The designers who worked on the landscape of the project were Claire and Michel Corajoud. The model was prepared by Chiel van der Stelt and Hans Werlemann.

[66] Alex Wall, "Programming The Urban Surface," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 237 (New York: Princeton Architectural Press, 1999).

[67] Bart Lootsma, "Synthetic Regionalization: The Dutch Landscape Toward a Second Modernity," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 262 (New York: Princeton Architectural Press, 1999).

into existence in 1982, during the competition for Parc de la Villette, with a proposal the formulations of which were directed towards multilayered design strategy.[68]

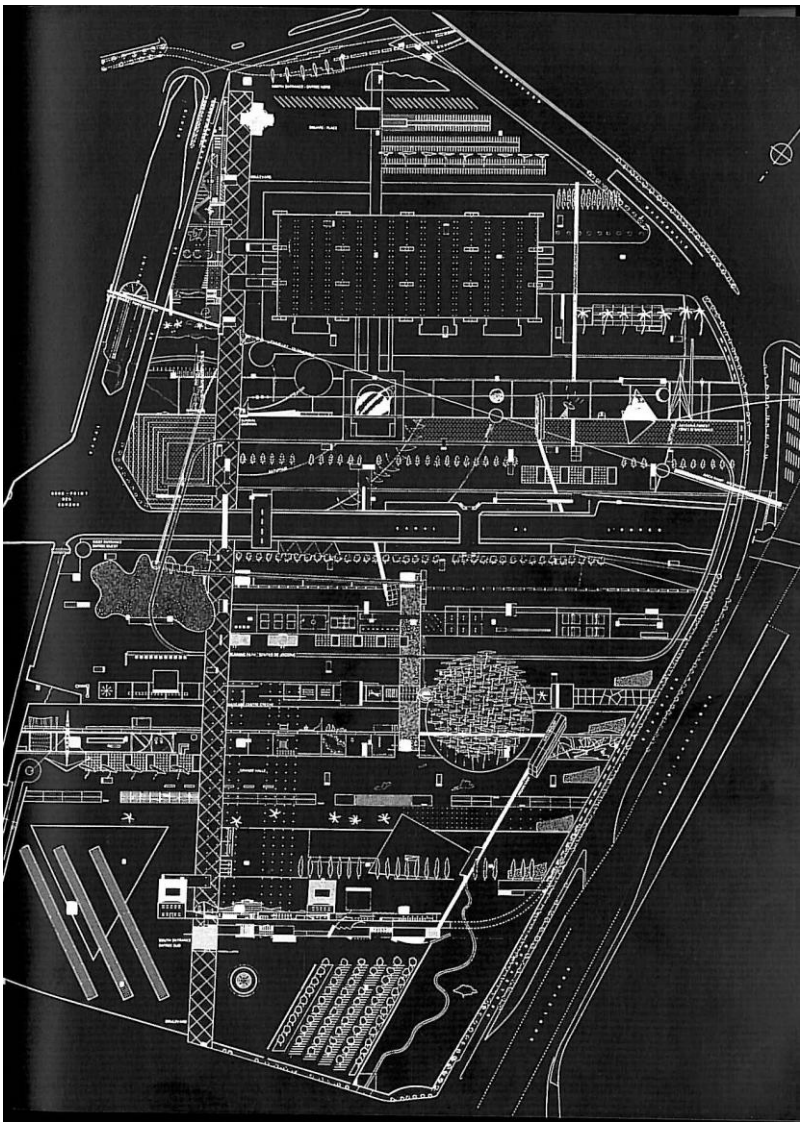

Figure 18. Plan of OMA's Parc de la Villette project. Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 933 (New York: The Monacelli Press, 1995).

[68] Ibid.

The program of the park was complicated because of "a sense of uncertainty about what, how and when different parts of this program would be developed."[69] Alex Wall states that "the problem, then, was less one of design in terms of styling identity, representation, or formal composition, and much more one of strategic organization."[70] The park had to be equipped in such a way that meets changing demands and programs. As a result, OMA proposed the superimposition of strategic layers for the organization of the program.

OMA presented the ideas of Parc de la Villette competition proposal with 7 diagrams (Figure 19). They are initial hypothesis, the strips or the bands, point grids or confetti, access and circulation, the final layer, connections and elaborations and the landscape layer.[71] The diagram of the initial hypothesis defines the aim of the project; the diagram of the strips fulfills the program of the competition; the diagram of point grids, or confetti fulfills the small-scale requirements of the program; the diagram of access and circulation shows the flows in the site; the diagram of the final layer consists of elements of the park which are unique or too large; the diagram of connections and elaborations shows the relationship of the park with its periphery and the landscape diagram consists of landscape elements of the park.

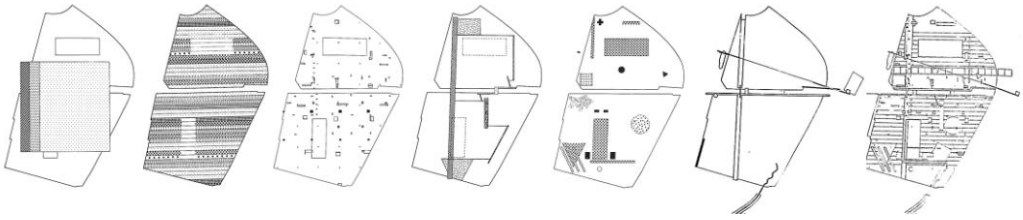

Figure 19. 7 diagrams of OMA's Parc de La Villette project. Edited by the author. Patrice Goulet, "Concours International pour le Parc de la Villette, Paris," *Architecture D'Aujourd'hui,* Vol: 225 (1983): 73-74.

[69] Alex Wall, "Programming The Urban Surface," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 237 (New York: Princeton Architectural Press, 1999).

[70] Ibid.

[71] Patrice Goulet, "Concours International pour le Parc de la Villette, Paris," *Architecture D'Aujourd'hui,* Vol: 225 (1983): 76-83.

2.3.2 Design Strategies

2.3.2.1 Mediation of Strip

The program of the park consists of both landscape elements and social instruments. Yet, there was an uncertainty about the program of the park because during its life there could be modifications. Koolhaas and Mau state that "the site of La Villette is too small, and the program too large, to create a park in the recognizable sense of the word."[72] (Figure 20) They did not prefer to design a detailed park, but rather they took the program as a suggestion because the program of the park would change during its life. Therefore, they offered a proposal which would have a stable aesthetic appearance during the modifications which the park would face. Koolhaas and Mau argue that "its 'design' should therefore be the proposal of a method that combines architectural specificity with programmatic indeterminacy."[73] According to this hypothesis, the scheme should allow "any shift, modification, replacement, or substitution to occur without damaging the initial hypothesis."[74] After defining the complexity of the competition and the aim of their project, the designers explain:

> "The essence of the competition therefore becomes: how to orchestrate on a metropolitan field the most dynamic coexistence of activities *x,y,* and *z* and to generate through their mutual interference a chain reaction of new, unprecedented events; or, how to design a *social condenser*, based on horizontal congestion, the size of a park."[75]

[72] Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 921 (New York: The Monacelli Press, 1995).

[73] Ibid.

[74] Ibid.

[75] Ibid.

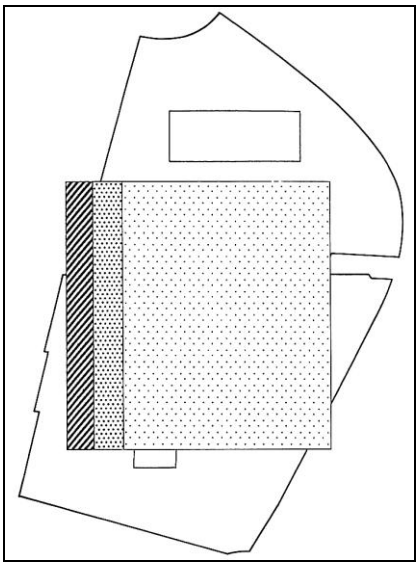

Figure 20. Initial hypothesis of OMA's Parc de la Villette project. Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 921 (New York: The Monacelli Press, 1995).

As described before, in order to overcome the complexity of the competition, Bernard Tschumi chose the mediation system of point grid because of its being without a center or hierarchy and adaptability to the changing conditions of the program. OMA shared similar ideas with Tschumi about the programmatic changes which the park would face during its life and avoided to state a center to the project in Rem Koolhaas' words "the concentration or clustering of any particular programmatic component".[76] They defined another problem which is the largeness of the program in comparison with the site. To overcome these, OMA presented the strips system that constitutes the mediation strategy of the project.

The strips of the park are like the superimposed floors of a high-rise building which supports different programmatic components in different floors. In S,M,L,XL a section of the Downtown Athletic Club Skyscraper is used to visualize this (Figure 21). Rem Koolhaas in his book "Delirious New York" claims that the building is used as a "constructivist social condenser: a

[76] Ibid, 923.

machine to generate and intensify desirable forms of human intercourse."[77] The building is composed of 38 superimposed floors all equipped with different activities for the club such as swimming pool, gymnasium, golf, dining, lockers. The Parc de la Villette is designed in a similar way to this but this time horizontally not vertically.

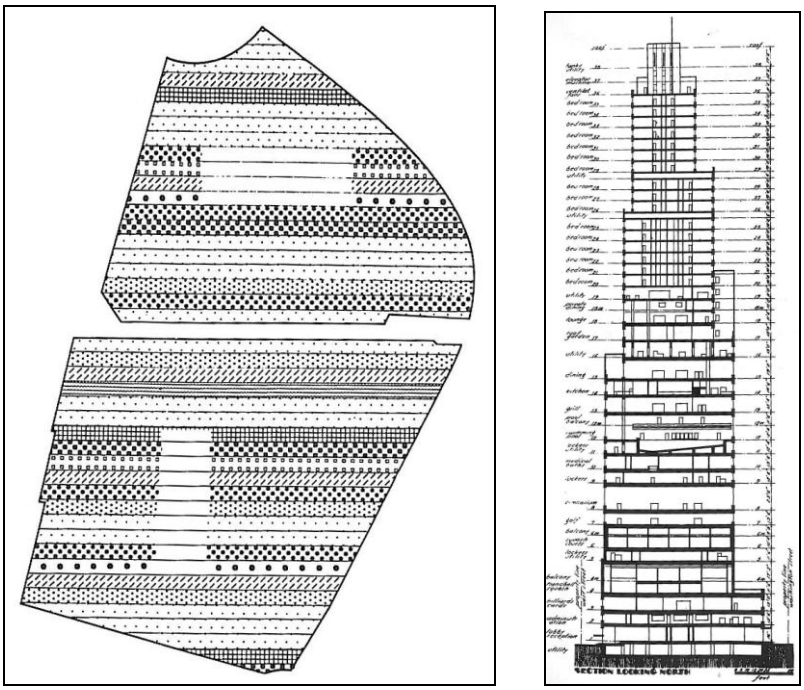

Figure 21. The strips of OMA's Parc de la Villette project and the section of Downtown Athletic Club. Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 923 (New York: The Monacelli Press, 1995) and Rem Koolhaas, "Definitive Instability: The Downtown Athletic Club," in *Delirious New York: a Retroactive Manifesto for Manhattan*, 154 (New York: The Monacelli Press, 1994).

The whole site is divided into parallel bands running east-west which accommodate the major programmatic categories such as theme gardens, playgrounds and discovery gardens. OMA states that strips "creates the maximum length of borders between the maximum number of programmatic components and will there by guarantee the maximum permeability of each programmatic band and -through this interference- the maximum number of

[77] Rem Koolhaas, "Definitive Instability: The Downtown Athletic Club," in *Delirious New York: a Retroactive Manifesto for Manhattan*, 152 (New York: The Monacelli Press, 1994).

programmatic mutations."[78] Nature is treated as a program here, whether it is a landscape garden or a real nature such as a forest. The strips distributed across the site whether randomly or according to a logic derived from the characteristics of the site. The strips have a width of 50 meters which can be divided into 5, 10, 25 or 40 meters to be open to change and mutations in time.[79]

2.3.2.2 Superimposition

In his project, Bernard Tschumi proposed the "point grid" to fulfill the program and other two systems superimposed on it. OMA's proposal is similar to this because they proposed "strips" and 5 other systems superimposed on it which are the point grids or confetti, the access and circulation, the final layer, the connections and elaborations, and the landscape layer.[80]

The Strips, as stated before, constitute the first system of the project, formed by the bands running through east-west and constitutes the major components of the program including natural elements. Moreover, it is the mediator of the project open to change and mutations.

Point Grids, or Confetti is the second system of the project which is formed by the small-scale elements which are kiosks, playgrounds, sales kiosks, refreshment bars, small picnic areas and large picnic areas. They are placed across the site on six grids with a certain frequency: kiosks (11), playgrounds (the 50% are in bands, 50% are divided into 15 units), sales kiosks (30), refreshment bars (15), picnic areas (50% is supplied in 5 large one, 50% is

[78] Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 923 (New York: The Monacelli Press, 1995).

[79] Ibid.

[80] For further information on a detailed strategy-tactic analysis for the Parc de la Villette project of Rem Koolhaas/OMA, please see the master's thesis of Özay Özkan: "Strategic Way of Design in Rem Koolhaas' Parc de la Villette Project".

divided into 25 smaller ones). The distribution of these elements is established mathematically according to the desirable frequency.[81] (Figure 22)

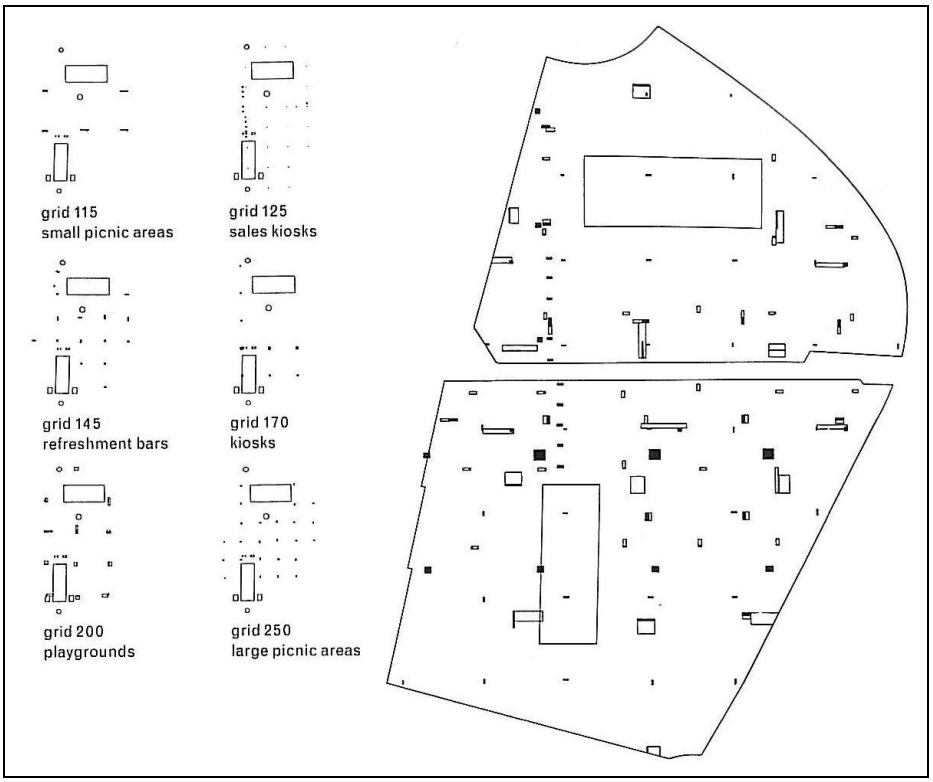

Figure 22. Point grids, or confetti of OMA's Parc de la Villette project. Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 925 (New York: The Monacelli Press, 1995).

> "The frequency calculation is relative to the available area, the total area per service asked for in the program, an assessment of the optimum number of points required across either part of the site or the whole. The formula for determining the dimensions of each point grid then becomes: $\sqrt{(A-a)/x}$ where A is the available area, a is the area of the facility required; and x is the number of points to be distributed."[82]

[81] Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 925 (New York: The Monacelli Press, 1995).

[82] Ibid.

The elements belong to the same grid have different characters because of the difference of strips on which they take place. A sale kiosk will be distinct from another one because they will be on a different strip. Therefore, the elements have unique configurations and different characters. However, besides their autonomous identity, their projection on the site creates a unity.[83]

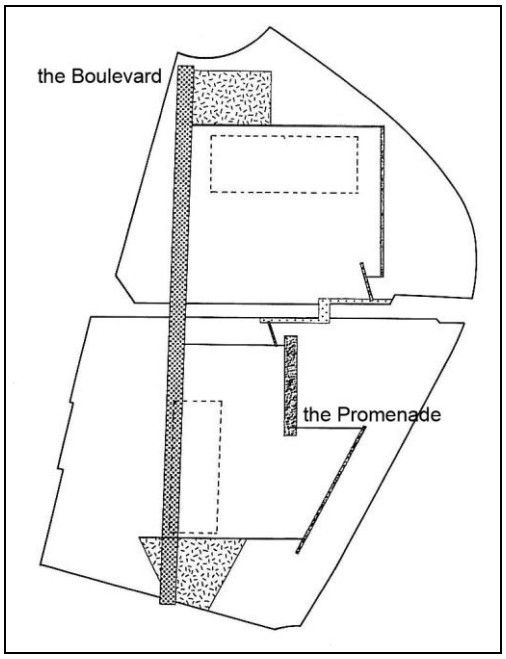

Figure 23. Access and circulation in OMA's Parc de la Villette project. Edited by the author. Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 927 (New York: The Monacelli Press, 1995).

Access and circulation is the third system of the project and is formed by the connection elements of the park. It consists of two major elements: the Boulevard and the Promenade (Figure 23). The Boulevard which is running north-south, intersects all the bands and connects the major architectural elements of the park which are the Technology and Science Museum, the Baths in the north, the *Cité de la Musique* and the *Grand Halle* in the south. It has a width of 25 meters having a 5 meters of sheltered part. All night facilities are located on the Boulevard so it accommodates the 24-hour part of the

[83] Ibid.

program. The Promenade is complementary to the Boulevard and formed of plaza-like elements which make certain cross sections of the bands. The journey along the promenade accommodates activities because the plazas equipped with "small amphitheaters, seating, chess tables, tribunes, puppet theaters roller skating surfaces, etc."[84] Each also accommodates a green house.

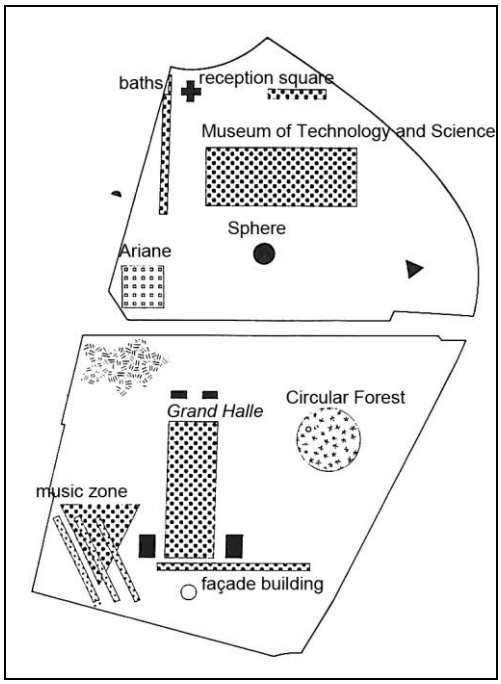

Figure 24. The final layer of OMA's Parc de la Villette project. Edited by the author. Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 929 (New York: The Monacelli Press, 1995).

The final layer is the fourth system of the project which is a composition of the major elements which are unique or too large to be located in one of the other layers (Figure 24). The strip system, the system of point grids or confetti, and the system of access and circulation act as the background of these elements. Some of the elements are intermediate-size and unique such as the sphere of the museum, the Ariane and the *Rotonde des Vétérinaires* which

[84] Ibid, 927.

are placed "according to organizing lines extrapolated from the context".[85] Some others are the large scale elements which are Circular Forest and the existing buildings in the site which are Technology and Science Museum and the *Grand Halle*. Some are placed "to help to define the boundaries of the park without necessarily coinciding with its perimeter" which are a reception square and the Baths in the north, the Music Zone and a façade building in the south.[86]

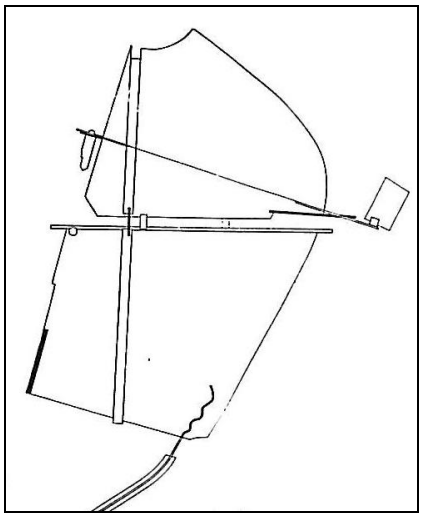

Figure 25. Connections and elaborations of OMA's Parc de la Villette project. Patrice Goulet, "Concours International pour le Parc de la Villette, Paris," *Architecture D'Aujourd'hui,* Vol: 225 (1983): 72.

Connections and elaborations is the fifth system of the project and defines the contact points between the park and the streets of Paris and the communication points between the elements of the park (Figure 25). The park has a north entrance from the Corentin Cariou Avenue and an entrance square of the Museum of Science and Technology at the east. The City of Music and the façade building connect the park to the city at the south. The Butte railway line coming from the south of the park is transformed into a botanical connection in the park. The entertainment strip, which is behind the façade building, ends with an amphitheatre on the mouth of the railway line.

[85] Ibid, 929.

[86] Ibid.

Finally, the astronomical garden strip also extended through Canal St. Denis to the west and Paris suburban to the east.[87]

Landscape is the last system of the project which is developed at the second phase of the competition. It comprises three different categories of nature which are gardens, screens of trees and major vegetal elements (Figure 26). The first category is "the regions in which the program itself is nature" such as thematic gardens, didactic gardens, play-prairies.[88] The second category consists of screens of trees parallel to the bands, which define the zones between bands. These trees act like screens differing in height, species, density, homogeneity and transparency. This arrangement is thought to generate two modes of perception. One of them is seen in the north-south perspective as screens which suggest the presence of a mass about 6000 trees. The other one is the east-west perspective where the screens frame open zones. The third category consists of vegetal elements conceived at the scale of the major architectural elements on the site which are the Linear Forest running along the canal and the Circular Forest. They have "a dialectic correspondence: from natural to the artificial, solid to hollow, evergreen to deciduous".[89] Possible variations on "image of the forest" were provided by these oppositions. The Linear Forest is planted in a free pattern like a wild forest. Its solid mass was cut occasionally to give visual connections with important elements on the other side of the canal. The forest acts as a buffer and filter to the Science Museum. The Circular Forest represents the forest as program in contrast to the Linear Forest and it is called a "Forest Machine" or a "Forest Building". It is an artificial approach to nature because it is raised on a platform and illuminated at night. Independent of these three systems of

[87] Patrice Goulet, "Concours International pour le Parc de la Villette, Paris," *Architecture D'Aujourd'hui,* Vol: 225 (1983): 72.

[88] Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 930-931 (New York: The Monacelli Press, 1995).

[89] Ibid.

nature, landscape systems consist of natural islands scattered on the site. They constitute single trees or small groups like in romantic gardens.[90]

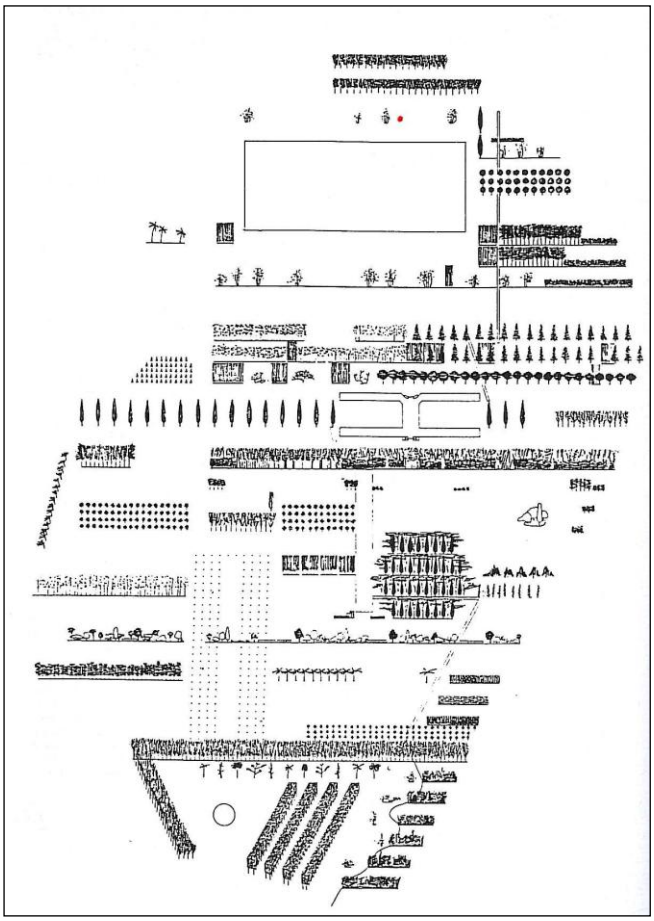

Figure 26. Landscape of OMA's Parc de la Villette project. Rem Koolhaas and Bruce Mau, "Congestion Without Matter," in *S,M,L,XL: Office for Metropolitan Architecture*, ed. Jennifer Sigler, 935 (New York: The Monacelli Press, 1995).

2.4 The Evaluation of the Competition

The Parc de la Villette competition was the first search for the urban park model of the 21st century, a model that embodied many activities; as stated before its program was too large for its site. It was a new type of program which began to be set forth for the urban park competitions. In fact, parks with

[90] Ibid.

social instruments dates earlier but Parc de la Villette developed the concept of cultural park. Although it was criticized at first, this concept has been followed later by other parks. Julia Czerniak states that ''Bernard Tschumi set up his park concept for La Villette as inseparable from the concept of the city, opposing Olmsted's position, or his understanding of it, that 'in the park, the city is not supposed to exist'.''[91] Also, James Corner states that:

> ''Perhaps the single most significant project in terms of forging a new architecture of the landscape was Bernard Tschumi's Parc de la Villette in Paris, 1983-1990. While still highly controversial, his park reversed the traditional role of nature in the city, bringing the density, congestion, and richness of the city to the park.''[92]

In other words, the competition has brought to landscape a significance of embodying the activities of the city. Not only the problem of multiplicity of the program but also that of the programmatic indeterminacies constituted the complexity of the competition. This led Bernard Tschumi and Rem Koolhaas to propose strategic design solutions. Bernard Tschumi developed his scheme with ''the point grid'' and Rem Koolhaas on ''the strip''. As stated before, strategy is the organizational plan of design. The two proposals both of which aim the same goals used the same strategy of ''mediation'' but with different organizational tools. The former one proposed ''point grid'' as a system without a center or hierarchy which has the capacity of overwhelming the complexities of the competition; also, the *folies* were designed accordingly; they have the capacity of responding programmatic changes which the park will face during its life. The latter proposed ''the strip'' because of its adaptability of a change in program and size without damaging the architectural quality of the project.

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[91] Julia Czerniak, cited from Bernard Tschumi, ''Introduction: Speculating on Size,'' in *Large Parks*, ed. Julia Czerniak and George Hargreaves, 29 (New York: Princeton Architectural Press, 2007).

[92] James Corner, ''Recovering Landscape as a Critical Cultural Practice,'' in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner,17 (New York: Princeton Architectural Press, 1999).

Moreover, both of them used the strategy of superimposition consisting of layers imposed on each other on the site. The intention of this strategy is to give the project flexibility so that another system could be added on the existing ones later without damaging the initial hypothesis and the aesthetic values of the project. Therefore, landscape has gained a significance of being strategic which could respond to changing conditions. Layering, which is a requirement of superimposition, was used as a design method in both of the projects. Anita Berrizbeitia states that:

> "Layering multiple forms of organization on the site is a strategy that acknowledges complexity, history, and the often contradictory programs that must be accommodated in large parks, without subsuming them under a single language of design. The various modes of organization are conceptualized as independent of each other, superimposed on the site so that although they may intersect, they do not add up to a unified aesthetic whole. Typically, they remain distributed in a non hierarchical way through the surface of the site...
>
> Whether to integrate an existing landscape into the expansion of a city or to generate a plan for an isolated and unarticulated site, proposing networks as a series of independent superimposed layers is a strategy that, while giving the site logic and cohesion at a large scale, also facilitates the introduction of variety of spatial conditions and programs at a local scale. Layering diverse modes of organization has been a well-known design operation since Bernard Tschumi's and OMA/Rem Koolhaas's proposals for Parc de la Villette in 1984, which have received extensive coverage in design literature."[93]

Although layering was used before, it became a preferrable method in park designs after the two proposals of la Villette. The thesis will point out that layering has been used in later park designs in different examples.

[93] Anita Berrizbeitia, "Re-placing Process," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 179-180 (New York: Princeton Architectural Press, 2007).

The points in Bernard Tschumi's and the strips in Rem Koolhaas's projects can be regarded as the modules of the design which fulfill the main programmatic elements of the park. Although it is not a new issue in design, the idea of modularity in urban sphere gains an importance in the recent years. Modularity took its roots from the mat building phenomenon. The mat building, as defined by Alison Smithson's 1974 article ''How to Recognize and Read Mat-Building'', refers to the building type that is modular, open to grow and mutations.[94] Mats were the modules of this idea which were joined together and as a result constitute the buildings. Le Corbusier's Venice Hospital was pointed out as an example for mat-building. Stan Allen in his article ''Mat Urbanism: The Thick 2-D'' states that it is still relevant today and rename the phenomenon in the urban sphere as ''mat urbanism''.[95] Also, he presented Tschumi's project as an example. Considering the two projects, the units ''point'' and ''strip'' can be regarded as mats because of being ''modular, open to grow and mutations.''

The points and the strips are the modules of the projects which have the capacity to grow throughout the city. The two proposals brought landscape a significance of consisting modules as diffusing units through the city. As a result of the ability to enlarge of the modules, the two projects have been seen as presenting exemplary urban design strategies and tools in the future. Grahame Shane states that:

> ''Corner saw Tschumi's Parc de la Villette project (1982) as a 'prepared ground' for Paris, with pavilions and exceptional park regulations allowing

[94] Alison Smithson, ''How to Recognize and Read Mat-Building: Mainstream Architecture as It Has Developed towards the Mat-Building,'' in *Case: Le Corbusier's Venice Hopital and the Mat Building Revival,* ed. Hashim Sarkis, Pablo Allard and Timothy Hyde, 91-103 (Munich; New York: Prestel, 2001).

[95] Stan Allen, ''Mat Urbanism: The Thick 2-D,'' in *Case: Le Corbusier's Venice Hopital and the Mat Building Revival,* ed. Hashim Sarkis, Pablo Allard and Timothy Hyde, 118-126 (Munich; New York: Prestel, 2001).

walking on the grass, football, bicycling, kite-flying, picnicking, and even equestrian events."[96]

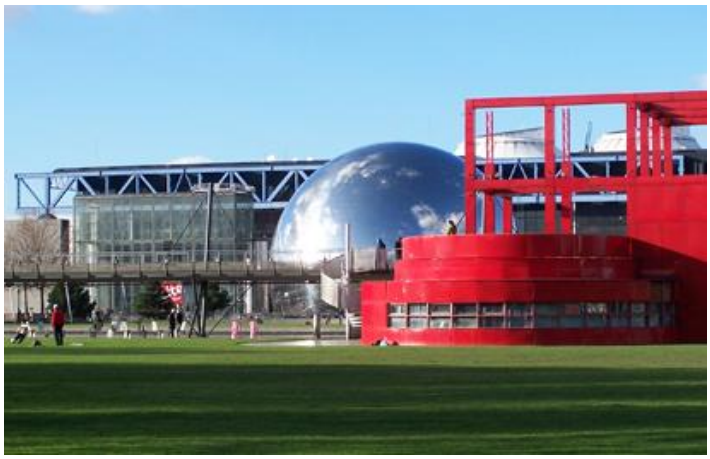

Figure.27 View showing the landscape in la Villette as an infrastructure of the buildings. *Green Design: From Theory to Practice*, "Previous Conferences // 2000: Reinventing Space," http://www.jersemar.org.il/images/image_2000_big.jpg (accessed December 6, 2010).

In light of the two projects, an urbanism theory "landscape urbanism" has come into existence later arguing that the cities can be constructed as landscapes because the two projects have been regarded as urban models to respond to the changing conditions. Also, when the Pac de la Villette was constructed, it was criticized because of the existence of too many buildings on it (Figure 27). James Corner states:

> "...the design of Parc de la Villette, in which many landscape architects initially decried the lack of 'landscape' in the park's design, seeing only the buildings or 'follies'. More recently, landscape architects have revised this sentiment, suggesting that upon further inspection, the still maturing landscape has come to prevail over the buildings...the follies at la Villette are somehow not recognized as being part of the landscape..."[97]

[96] Grahame Shane, "The Emergence of Landscape Urbanism" in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 60 (New York: Princeton Architectural Press, 2006).

[97] James Corner, "Terra Fluxus," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 26,27 (New York: Princeton Architectural Press, 2006).

However, the folies proved that landscape can be an infrastructure of the city. As a result of the competition and the two proposals in particular, landscape has gained a new significance beyond constituting the greenery in cities, but that it could be the ground of the city and its activities.

CHAPTER 3

PLACE-BASED DESIGN

3.1 Place Theories in Urban Design

There is a particular interest in the ''meaning of the place'' which arose with the postmodern movement. The criticism on the loss of identity of places in modernism resulted in a search of the ''meaning'' of a place. Therefore, a number of people began to investigate the concepts of ''space'' and ''place'' because of the increasing homogeneity of urban design projects.[98]

The geographer Edward Relph in his essay ''Prospects for Places'' identifies and analyzes the growing placelessness which was spread throughout the world. He remarks the important qualities of place as ''meaningful experience, a sense of belonging, human scale, fit with local physical and cultural contexts, and local significance.''[99] In other words, the places are meaningful with their identities. Therefore, the design projects have to suit to the identities of places. Nairn states that ''each place is different, that each case must be decided on its own merits, that completely different solutions may be needed for apparently similar cases.''[100] Therefore, the design should be specific to the site and place. This approach highlights the existing significances of the place and orients the design accordingly. About this, Edward Relph states:

> ''What is needed is not a precisely mathematical procedure that treats the environments we live in like some great machine that we do not yet quite

[98] Michael Larice, Elizabeth Macdonald, ''Place Theories in Urban Design,'' in *The Urban Design Reader*, ed. Michael Larice and Elizabeth Macdonald, 117 (New York: Routledge, 2006).

[99] Ibid, 119.

[100] Edward Relph, cited from Nairn, ''Prospects for Places,'' in *The Urban Design Reader*, ed. Michael Larice and Elizabeth Macdonald, 123 (New York: Routledge, 2006).

> understand, but an approach to the design of the lived-world of both everyday and exceptional experiences-an approach that is wholly self-conscious yet does seek to create wholly designed environments into which people must be fitted, an approach that is responsive to local structures of meaning and experience, to particular situations and to the variety of levels of meaning of place; an approach that takes its inspiration from the existential significance of place..."[101]

Christian Norberg-Schulz in his essay "The Phenomenon of Place" defines the place-based design. He explains the Roman concept *Genius Loci* as:

> "according to ancient Roman belief every 'independent' being has its *genius*, its guardian spirit. This spirit gives life to people and places, accompanies them from birth to death, and determines their character or essence...to protect and conserve the *genius loci* in fact means to concretize its essence in ever new historical contexts. We might also say that the history of a place ought to be its 'self-realization.' What was there as possibilities at the outset, is uncovered through human action, illuminated and 'kept' in works of architecture which are simultaneously 'old and new'."[102]

In other words, the design projects respect the *genius loci* of the place and while the designers designing the "new" should preserve the "old" or history of the place. He also states: "...*place* is the point of departure as well as the goal of our structural investigation; at the outset place is presented as a given, spontaneously experienced totality, at the end it appears as a structured world, illuminated by the analysis of the aspects of space and character."[103]
A crucial concept of the place theory is "memory". Michael Larice and Elizabeth Macdonald claim that urban designers have a tendency to design places as a form-making practice, while place-making is "as much about the

[101] Edward Relph, "Prospects for Places," in The *Urban Design Reader*, ed. Michael Larice and Elizabeth Macdonald, 123 (New York: Routledge, 2006).

[102] Christian Norberg-Schulz, "The Phenomenon of Place," in The *Urban Design Reader*, ed. Michael Larice and Elizabeth Macdonald, 132-133 (New York: Routledge, 2006).

[103] Ibid, 132.

meaningfulness to local people as it is about unique and memorable form."[104] Social history is preserved in public landscapes. Therefore, landscape design projects nurture public memory, so the projects have the ability of making a connection to the past. Therefore, the concept of "place memory" arises. Philosopher Edward S. Casey defines it as:

> "It is the stabilizing persistence of place as a container of experiences that contributes so powerfully to its intrinsic memorability. An alert and alive memory connects spontaneously with place, finding in it features that favor and parallel its own activities. We might even say that memory is naturally place-oriented or at least place-supported."[105]

Places trigger people's memories because they have shared a common past. The park projects, as being public spaces, can trigger memories of people. Dolores Hayden defines the public art as the "art that is accessible to the public because it is permanently sited in public places" and adds that "the kind of public art that truly contributes to a sense of place needs to start with a new kind of relationship to the people whose history is being represented."[106]

3.2 Reading and Writing the Site

Aiming to achieve memorable design projects which have a sense of place, there rises an interest of the designers in the meaning and value derived from the historical roots of the site. They concern the social, cultural and archeological history of the sites. Sébastien Marot claims that the discipline of landscape design became more focused on site values since late 70s. Designers began to look closer to the sites and their unique specificities have gained importance which were neglected in the past. By doing this, the

[104] Michael Larice, Elizabeth Macdonald, "Editors' Introduction," in The *Urban Design Reader*, ed. Michael Larice and Elizabeth Macdonald, 194 (New York: Routledge, 2006).

[105] Dolores Hayden, cited from Edward S. Casey, "Place Memory and Urban Preservation," in The *Urban Design Reader*, ed. Michael Larice and Elizabeth Macdonald, 194 (New York: Routledge, 2006).

[106] Dolores Hayden, "Place Memory and Urban Preservation," in The *Urban Design Reader*, ed. Michael Larice and Elizabeth Macdonald, 194 (New York: Routledge, 2006).

designers learned "to repair the damage done and to restore something of memory and a sense of place" to sites.[107] He uses the phrase of "reading and writing" of the site and states that "such a view is less focused on the program of a proposed building project than exploring the possibilities of site characteristics and hidden phenomena."[108] He also states that:

> "Provinces, regions, and townships won back an impressive amount of influence in the fields of urban studies and land management and became promoters of design approaches that took into account an evaluation of sites and their local history. There was thus a sense in which landscape could be taken as a value in and of itself, presented as emblematic of what makes a given area special and unique."[109]

Marot defines the key principle of this process as "careful survey, identification, criticism, and inventive analysis."[110] Therefore, design starts with the site analysis. Although site analysis contains diverse fields such as the environment, the seasons, weathering, geography, the thesis focuses on the historical analysis of the site. For landscape investigation and design, Christophe Girot proposed four operating concepts which are "landing," "grounding," "finding" and "founding". Girot calls them "trace concepts" because "they cluster around issues of memory: marking, impressing, and founding."[111] Each of them focuses on particular gradients of "discovery, inquiry, and resolution" and follow each other sequentially.[112]

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[107] Sébastien Marot, "The Reclaiming of Sites," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 48 (New York: Princeton Architectural Press, 1999).

[108] Ibid.

[109] Ibid.

[110] Ibid.

[111] Christophe Girot, "Four Trace Concepts in Landscape Architecture," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 60 (New York: Princeton Architectural Press, 1999).

[112] Ibid.

Landing is the first act of site acknowledgement and the beginning of the project. The concept consists of the first arrival to the site, "touching the ground and reaching for the confines of an unknown world."[113] It is the specific moment before the designer knows the site. It is the step of feeling, and requires "a particular state of mind, one where intuitions and impressions prevail."[114] Landing refutes the idea that "nothing can be learned or retained from a given site and where everything can be resolved by detached conceptual thinking."[115] It provokes "impressions and insights that often last through the entire design process."[116]

Grounding is the second step in site discovery. The difference between landing and grounding is linked to time. Landing happens once at the beginning of the discovery and it is immediate, whereas grounding is repeated indefinitely. Grounding is "reading and understanding a site through repeated visits and studies."[117] The site is analyzed with its unique history, soil, climate, ecology and water. Therefore this step is more related with careful research and analysis than imagination.

Finding is the third process of searching. He states that "it is rather difficult to speak of a method of finding because different activities yield different discoveries."[118] The findings can be a relic, a significant stone or the death of a significant person. What is found should convey a quality to the place. Findings should be "unique (through hidden) that definitely belongs to a place and contributes durably to its identity."[119] It is "not limited to the discovery of objects; it also conveys the experience of relating and associating ideas, places and

[113] Ibid, 61.

[114] Ibid.

[115] Ibid, 62.

[116] Ibid.

[117] Ibid.

[118] Ibid, 63.

[119] Ibid.

themes."[120] The discovery of a thing in a site is of chance so few projects can use the process of finding.

Founding is the fourth step of landscape discovery and refers to "a past event or circumstance" or "importing something new to a place."[121] It can be understood as "bringing something new to a place, something that may change and redirect a particular site."[122] Founding happens each time something new occurs so it is continuous.

Girot explains the purpose of his design method as "to draw as much as possible from the potential of any given place and to assess which existing landscape elements might be of real significance for the design yet to come."[123] Therefore the aim is to find a landscape element which will be used to design the place with the memory. Also, he claims that a site element may refer to "something imperceptible but nonetheless significant (a past event, a local story, or chronology, for instance). This inclusive approach enables a designer to blend direct physical experience and intuition with local research. The important thing is that attention is always focused on what already exists in situ. In this way, the designer may carefully and knowledgeably assess what really needs to be recovered (anew) from the relentless erosion of time."[124]

Parc André Citroën and Parc de Bercy in Paris and Invaliden Park in Berlin are the studied parks for this approach the designs of which are based on the meanings derived from their sites. They focuses on a site element which is derived from the history and achieve their design projects by protecting the meaning of the place.

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[120] Ibid, 64.

[121] Ibid.

[122] Ibid.

[123] Ibid, 60.

[124] Ibid, 60-61.

3.3 Parc André Citroën Project by Alain Provost & Gilles Clément

3.3.1 Project Description

Figure 28. Parc André Citroën within its context. Edited by the author. Google Earth.

The park took its name from the car manufacturer André Citroën whose factory used to occupy the site. The park is located on a 14 hectares area on the left bank of River Seine in the south-western corner of central Paris (Figure 28). The competition is a result of ZAC (*Zone d'Aménagement Concerté*- special area to be developed by consultation) Citroën-Cévennes which was set up in 1979.[125] The competition of Parc André Citroën was a

[125] Parc André Citroën was intended to be the focus of the ZAC Citroën-Cévennes which also includes a hospital, offices and 2500 new apartments in addition to the park.

Europe-wide competition which was launched by the Ministry of Paris in July 1985. 63 proposals, 45 from outside France, were submitted for the competition. The aim was to select an "urban park for the 21st century" as in the Parc de la Villette competition; but, the teams were required to be formed of architects and landscape architects and 10 teams were shortlisted. Alan Tate states that at the second stage "competitors were called on to enrich their proposals with original spaces, programmes and themes, and to address the treatment of new buildings bordering the park. It was not to be a neo-constructivist fairground, nor an 'English-style' or 'French-style' park - the new park could only find its legitimacy through its own poetry."[126]

The winning design of the park is a result of a two-team collaboration. The first team was constituted of the landscape architect Alain Provost and architects Jean-Paul Viguier and Jean-François Jordy; and the second team was formed of the landscape architect Gilles Clément and architect Patrick Berger. Two finalist teams' projects had similarities in form; a canal bordering a central rectangular open space was present in both of the projects. Also, they both had a series of rectangular gardens from north to south along the northern edge. The two teams were asked to combine their ideas into a new design. Therefore, the park was decided to come into existence on the basis of two different plans. In the combined proposal, Provost-Viguier&Jordy designed the southern area of the park including the central lawn and surrounding canals and the Black Garden in the south-eastern part of the park; the overall landform, the railway viaduct and the riverfront plaza were designed by them. The second team Clément-Berger was responsible for the northern area of the park including conservatories, the White Garden, play area, Serial Gardens, water channels between the gardens, Garden in Movement, park lighting and site furniture.[127]

[126] Alan Tate, "Parc André-Citroën, Paris," in *Great City Parks,* 42-43 (New York: Spon Press, 2001).

[127] Ibid.

The design was characterized by the emptiness of the park; they preferred not to construct buildings. Provost, as a criticism to Parc de la Villette, suggested that "the choice made was not to present a dense forest of social instruments fitted out with a minimum of natural elements, but to create a Park with a maximum of natural elements, but sufficiently equipped for innovative use."[128] However, the geometrical park is "equipped with many hard, built elements that seem to predominate over the natural features, which, where they occur, are forced into the strict order of the gardens."[129]

3.3.2 Design Strategies

3.3.2.1 Central Lawn: Reminding the Architectural History

The main element of the design is a lawn which is placed in the middle of the park. It is a slightly sloping rectangular green space which forms the center of the park. Alan Tate states that "the central lawn has a distinct and imposing presence. It has been compared to Notre Dame Cathedral - a monumental symbol of the bustling city center...yet at the same time it is a place for tranquility and contemplation."[130]

The central lawn is surrounded by a canal. The idea of a central lawn surrounded by a canal reminds the Renaissance chateau-palaces of Loire River in France. Therefore it is a reference to the French history of architecture and landscape architecture of the 16th Century (Figure 29). The central lawn reminds chateau-palaces of Loire River and the canal around the lawn reminds the ditches around the chateaus.

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[128] Alan Tate, cited from Alain Provost, "Parc André-Citroën, Paris," in *Great City Parks,* 43 (New York: Spon Press, 2001).

[129] Patrick Berger, "Parc André-Citroën, Paris," *TOPOS,* Vol: 2 (1993): 79.

[130] Alan Tate, "Parc André-Citroën, Paris," in *Great City Parks,* 43 (New York: Spon Press, 2001).

Figure 29. The largest chateau in Loire Valley Chambord Castle located on a flat lawn with the ditch around it built in 16th Century and the central lawn of Parc André Citroën with the canal around it. *Wikipedia the free encyclopedia*, "Château de Chambord," http://upload.wikimedia.org/wikipedia/commons/9/9b/Chambord_castle%2C_aerial_view.jpg (accessed January 27, 2010) and *Archiguide,* "Parc André-Citroën," http://archiguide.free.fr/PH/FRA/Par/P15jadinACitroenCle.jpg (accessed December 25, 2010).

3.3.2.2 The Composition

The park was designed as a composition and as stated before the main element of the composition is the central lawn. A 850 meter long diagonal path cuts the lawn which is enclosed by the six theme gardens, water chutes between them, blocks of pleached trees (Figure 30). Six symbolic, color-

themed gardens or "Serial Gardens" are placed toward the edges of the park. Above theme gardens six glasshouses are placed and two conservatories at the head of the central lawn (Figure 31). The two conservatories are 15 meters high and 45 meters long green houses which sit on a raised platform. Garden in Movement took its name from its location at the northeastern main entrance of the site. It is in contrast to the other parts of the park because it is designed to be a garden in constant change under the influence of nature.[131]

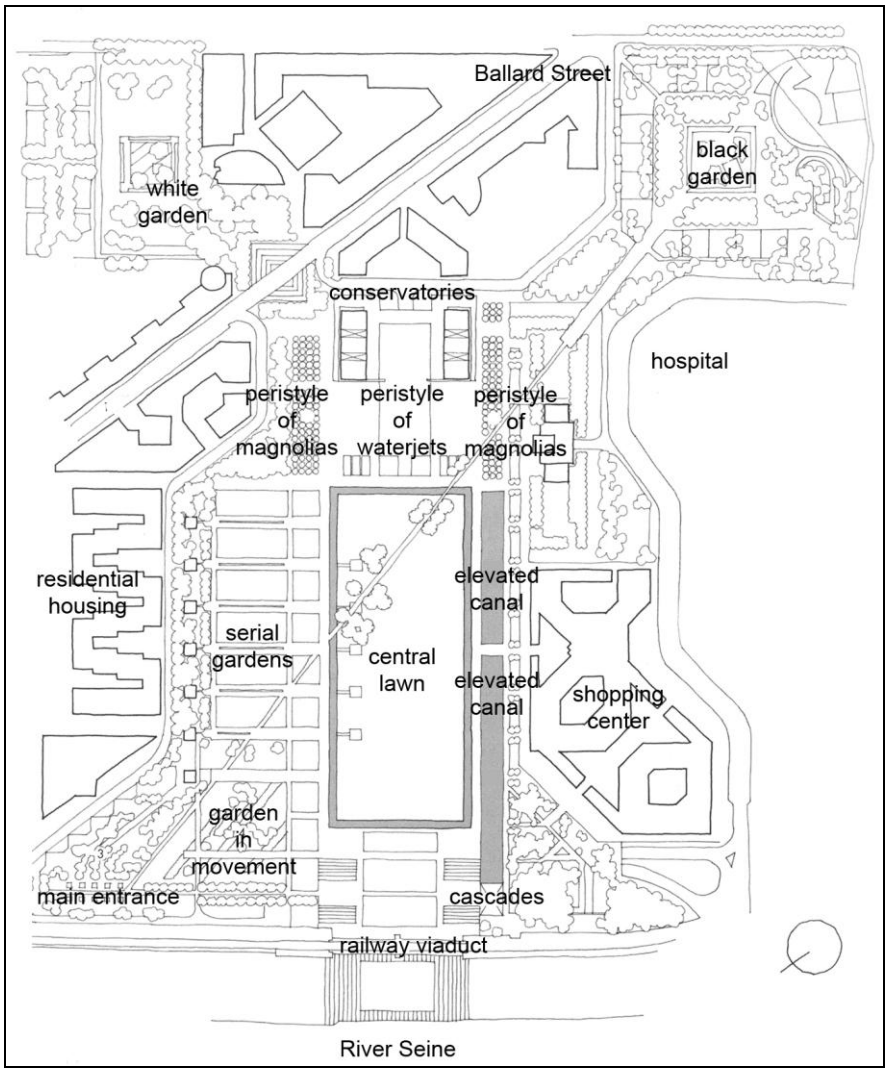

Figure 30. Plan of Parc André Citroën. Edited by the author. Alan Tate, "Parc André-Citroën, Paris," in *Great City Parks,* 40 (New York: Spon Press, 2001).

[131] Ibid, 45-46.

Figure 31. the conservatories and eastern side of Parc André Citroën. Alan Tate, "Parc André-Citroën, Paris," in *Great City Parks,* 40 (New York: Spon Press, 2001).

In the design of the park, a conceptual garden art has been created.[132] Each of the six serial gardens which are placed next to the central lawn is devoted to a metal which expresses the transformation of lead into gold according to alchemical belief (Figure 32). They took their name from the color or that metal and they also represent the senses.[133] The copper (blue) garden represents the sense of smell; the tin (green) garden represents the sense of hearing; the mercury (orange) garden represent the sense of touch; the iron (red) garden represents the taste; the silver garden represents the sense of sight and the gold garden represents the 6th sense.

[132] Patrick Berger, "Parc André-Citroën, Paris," *TOPOS,* Vol: 2 (1993): 79.

[133] Alan Tate, "Parc André-Citroën, Paris," in *Great City Parks,* 45 (New York: Spon Press, 2001).

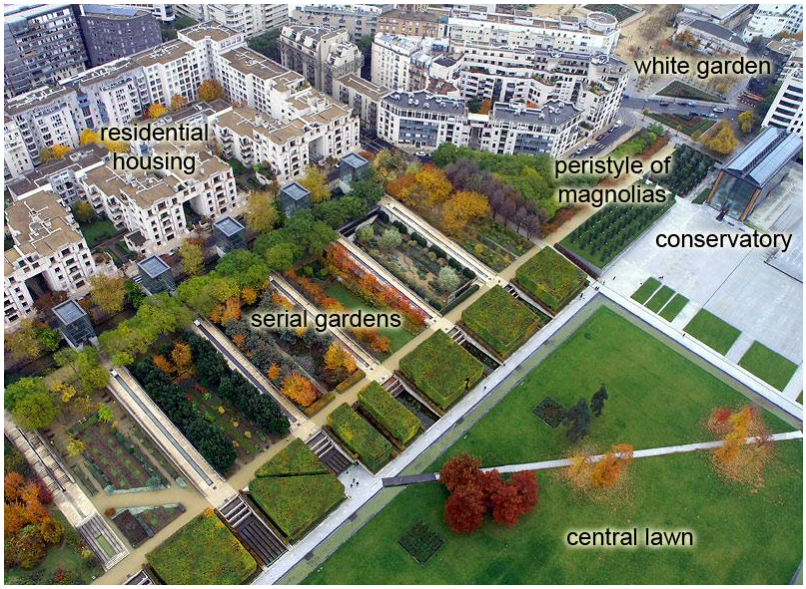

Figure 32. Serial gardens of Parc André Citroën. Edited by the author. *Gardener*, "Parc Andre Citroen," http://www.gardener.ru/gallery/parki/sitroen/3.jpg (accessed December 25, 2010).

3.4 Bercy Park Project by Bernard Huet

3.4.1 Project Description

Bercy Park, implemented between 1992 and 1997, is the third major park built on former industrial sites in Paris after Parc de la Villette and Parc André Citroën. The 13.5 hectares rectangle-shaped site is parallel to the Seine River (Figure 33). In 1979, the competition for the Parc Omnisports of Bercy, which is an octagonal sports hall, was placed on the south side of Boulevard of Bercy. After this in 1983, the construction of the Ministry of Finance building on the north side of the Boulevard gave Bercy a new identity.[134] The site, in the past, was occupied by warehouses and buildings of the wine trade. At the beginning of the seventies, the market conditions of wine storage and delivery changed and trading in Bercy was brought to a standstill. Then wine trade companies left the site. At the end of the seventies, large scale projects were prepared for the area. One of them was a park on Bercy site with a mixed-use

[134] Ibid, 32-34.

area and public institutions. From 1974 to 1978, the Parisian urban development office-APUR worked out the broad lines of the park.[135] They decided to take the history of Bercy into consideration and link the park to the city by creating a mixture of homes, commerce and green.[136] The competition for Bercy Park was announced in 1987. 106 entries -60 from France- were submitted to the competition. 10 teams were shortlisted and were asked to elaborate proposals in the second stage.[137] After this stage, architect Bernard Huet and his team received the first prize.[138]

Figure 33. Bercy Park within its context. Edited by the author. Google Earth.

[135] APUR is the Paris Urban Planning Agency. It was founded in 1967 by the Paris City Council. It is responsible for the urban planning documentation and projects, urban evolution and development objectives of Paris.

[136] Lisa Diedrich, "Out of budget,out of mind?," *TOPOS,* Vol: 8 (1994): 76-78.

[137] Alan Tate, "Parc de Bercy, Paris," in *Great City Parks,* 35 (New York: Spon Press, 2001).

[138] The team who won the competition was Bernard Huet and architects Marylne Ferrand, Jean-Pierre Feugas, Bernard Le Roy and the landscape planner Ian Le Caisne. After Le Caisne's death in 1991, Philippe Raguin joined the team. The park construction began in 1992, five years after Huet won the competition. Park construction began from north-west to south-east. The final construction was the Romantic Garden which was opened in September 1997.

3.4.2 Design Strategies

3.4.2.1 Palimpsest: Keeping the Old Traces of the Site

The designers gave their proposal the name *"Jardin de la Mémorie"*_Garden of Remembrance because they preserved and integrated elements of the old village in their entry.[139] They designed the park as "a piece of urban archeology" and "a mediation between memory and modernity."[140] Alan Tate states that "Parc de Bercy respects the 'genius of the place'; it feeds from the history of the area..."[141] The design combines "historic traces with a classicizing re-interpretation of garden art."[142] The design team stated that:

> "At the beginning we took a good look at what was still there: the trees, the warehouses, the layout of the trees, the paving. Then we imagined what it would be like if we kept some of the buildings and sowed grass between them, and lo and behold, we would have a park, an unusual one, even for Paris. It isn't often that you get the experience nature in such a romantic and rural way in the capital."[143]

Therefore, the design was based on palimpsest: "writing over writing."[144] It consisted of the history and morphology of the place. It is the superimposition of a new layer on the existing layers. They designed the park through the combination of two orthogonal grids (Figure 34). These grids protected the original street pattern, existing mature trees, the 19th century roads with trees aligned and 1980s' buildings. The network of paths which dates back to the 18th and 19th century was integrated to the design. The oblique paths ran

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[139] Lisa Diedrich, "Out of budget,out of mind?," *TOPOS,* Vol: 8 (1994): 78.

[140] Alan Tate, "Parc de Bercy, Paris," in *Great City Parks,* 38 (New York: Spon Press, 2001).

[141] Ibid, 36.

[142] Françoise Arnold, "Parc de Bercy in Paris," *TOPOS,* Vol: 22 (1998): 87.

[143] Lisa Diedrich "Out of budget,out of mind?," *TOPOS,* Vol: 8 (1994): 78-79.

[144] Alan Tate, "Parc de Bercy, Paris," in *Great City Parks,* 35 (New York: Spon Press, 2001).

diagonally to the Seine date back to the 18th century and the new paths, which occured after the river was straightened in the 19th century. The old winery village had a geography of "its own, streets set out on an alignment parallel to the Seine, its own rail-road tracks and its own architecture."[145] A new grid system which is composed of gridded gardens, projected on the existing grid system which have "existing mature trees as well as the network of rails, tanks, casks, warehouse foundations and piles of stone from the gardens of eighteenth-century mansions."[146]

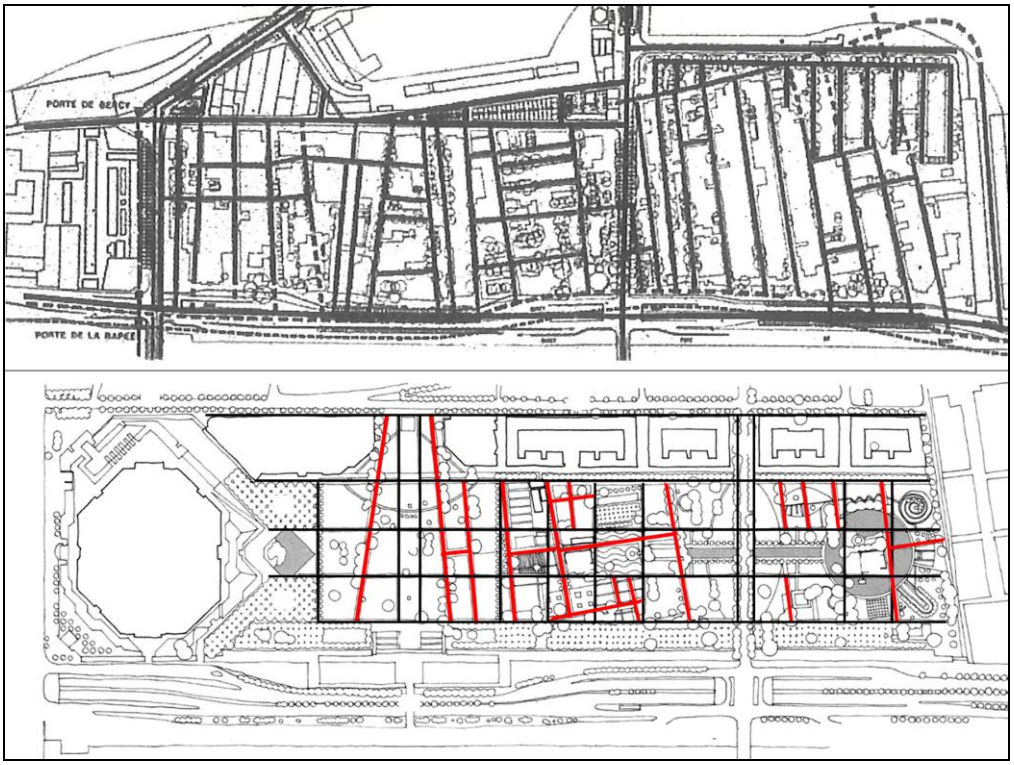

Figure 34. The old grid system of the site of Bercy Park and the palimpsest of the new grid to the existing one. Lisa Diedrich,"Out of budget,out of mind?," *TOPOS,* Vol: 8 (1994): 76-77 and Alan Tate, "Parc de Bercy, Paris," in *Great City Parks,* 33 (New York: Spon Press, 2001).

[145] Lisa Diedrich,"Out of budget, out of mind?," *TOPOS,* Vol: 8 (1994): 76.

[146] Alan Tate, "Parc de Bercy, Paris," in *Great City Parks,* 36 (New York: Spon Press, 2001).

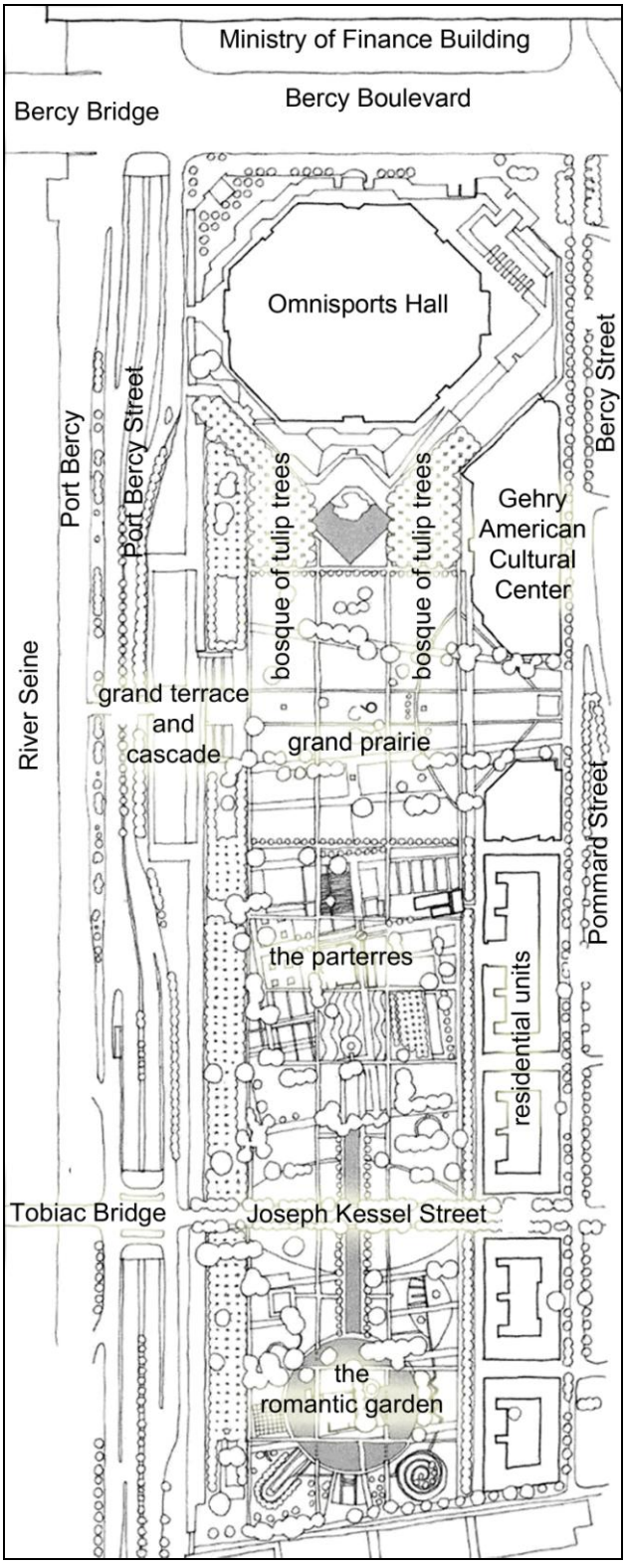

Figure 35. Plan of Bercy Park. Edited by the author. Alan Tate, "Parc de Bercy, Paris," in *Great City Parks,* 33 (New York: Spon Press, 2001).

The new grid system is composed of five parts (Figure 35). The first part is an arrangement of tulip trees which are placed around the diamond-shaped fountain next to the Omnisports Hall. The second part consists of the Grand Prairie which locates between the Omnisports Hall, the Parterres, the entrance from Bercy Street and the cascade down the Grand Terrace. The Grand Prairie is a flat accessible lawn with irregular lines of trees.The third part is the Parterres located at the hearth of the park (Figure 36). They are nine gardens, eight of which are theme gardens having names of "kitchen, orchard, perfume, rose and four colour-coded seasonal gardens."[147] The ninth square, which is in the middle of the other gardens, is occupied by the Gardening House which is an eighteenth-century mansion. It is now used as a garden display and instruction center.

Figure 36. Views of Bercy Park showing the Parterre. Photographs are taken from the personal archieve of Cânâ Bilsel.

[147] Ibid.

The fourth part is the link between Parterres and the Romantic Garden. There are embankments and two foot-bridges over the Joseph Kessel Street. There is another symbolic link which is a canal between them. The canal opens into a circular pool in Romantic Garden. The fifth part is the Grand Terrace which runs the entire length of the park (Figure 37). It is 7.5 meters above the level of the park and 8.5 meters above the Bercy Street. It is planted with double lines of lime trees and used as a barrier to the noise of the expressway while relating the park to the city and contains parking, storage and security facilities.[148]

Figure 37. View of Bercy Park showing the connection stairs to the Grand Terrace. Photograph is taken from the personal archieve of Cânâ Bilsel.

3.4.2.2 Vineyard: Reviving the Memory of the Industrial Date

Using palimpsest is not the only strategy to make a reference to the history of the site. As stated before, the site of the Bercy Park was one of the largest market for wine trade in Europe in 19th century. At the beginning of the 70s it began to lose its identity and became an abandoned site. A vineyard is planted in the park to preserve the memory of the industrial date of the site and its wine storage identity. They used planting as a symbol to retrieve public memory (Figure 38).

[148] Ibid.

Figure 38. Vineyard used as a landscape element to remind the wine trade period of the site of Bercy Park. Photograph is taken from the personal archieve of Cânâ Bilsel.

3.5 Invaliden Park Project by Christophe Girot

3.5.1 Project Description

The site of the Invaliden Park is a 3 hectares old military park in Berlin Mitte, the historical center of Berlin, in Germany. The site, which was housing the East German police guarding the check point in *Invalidenstrasse*, is placed next to the Berlin Wall (Figure 39). After the wall was demolished in 1989, the competition for Invalidenplatz was held in 1992. It is the competition for the first public open space designed between East and West Berlin.[149]

The French landscape architect Christophe Girot won the competition.[150] The park was constructed between 1993 and 1997 and it was officially opened in 1997. In the competition, most of the entries overloaded with expressions of

[149] Christophe Girot, "Invaliden Park," *Atelier Girot,* http://www.girot.ch/projects/invalidenpark/invalidenpark.html (accessed January 31, 2010).

[150] The design team is Christophe Girot, Jean Marc L'Anton, Marc Claramunt, Frank Neau, Dusapin et Leclerq, Marc Mimram and PALA AG.

the German history. However, Girot did not recreate "a time-honored design that ignored recent events"; he took a certain point in history for the site.[151]

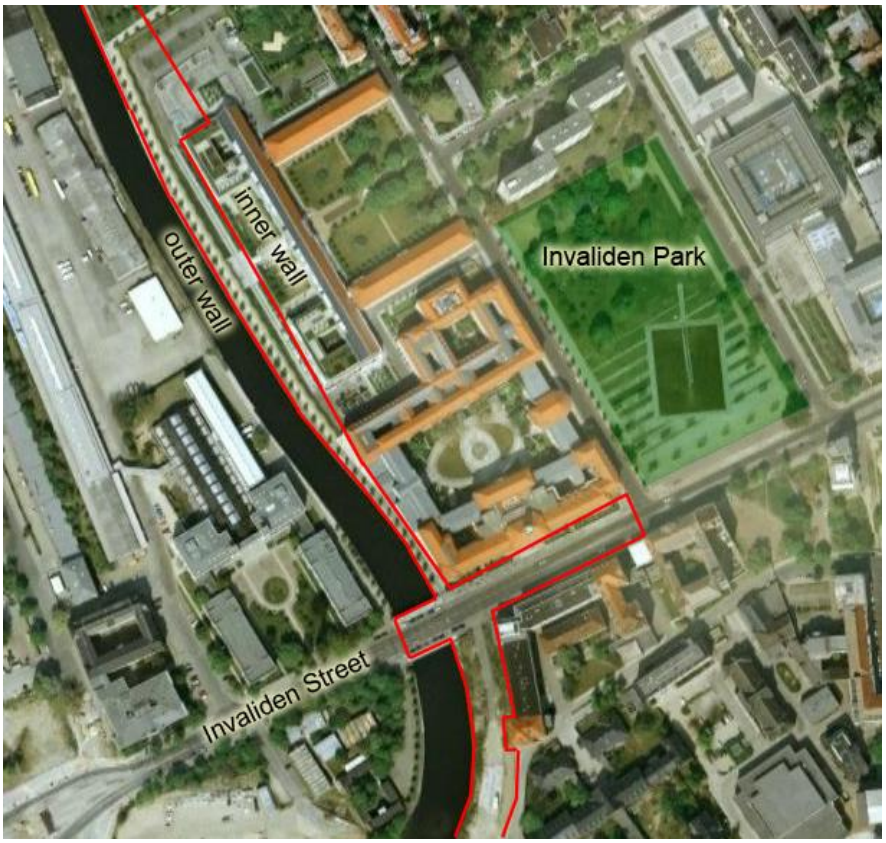

Figure 39. Invaliden Park within its context and the tracks of Berlin Wall. Edited by the author. Google Earth.

3.5.2 Design Strategies

3.5.2.1 The Composition

The park was designed as a composition in two parts (Figure 40). The first part is a mineral and civic part with a large basin and a plaza to the South. The second part is a forested part with a lawn, old oaks and play area in the

[151] Lisa Diedrich, "Invaliden Park, Berlin," *TOPOS,* Vol: 22 (1998): 70-72.

north.[152] A gravel path runs around the square. It creates a feeling of intimacy. Organic forms of the trees are in contrast with the formal rectangle of the basin. The granite paving strips, which are getting broader, created a transition from paved square to the park.[153]

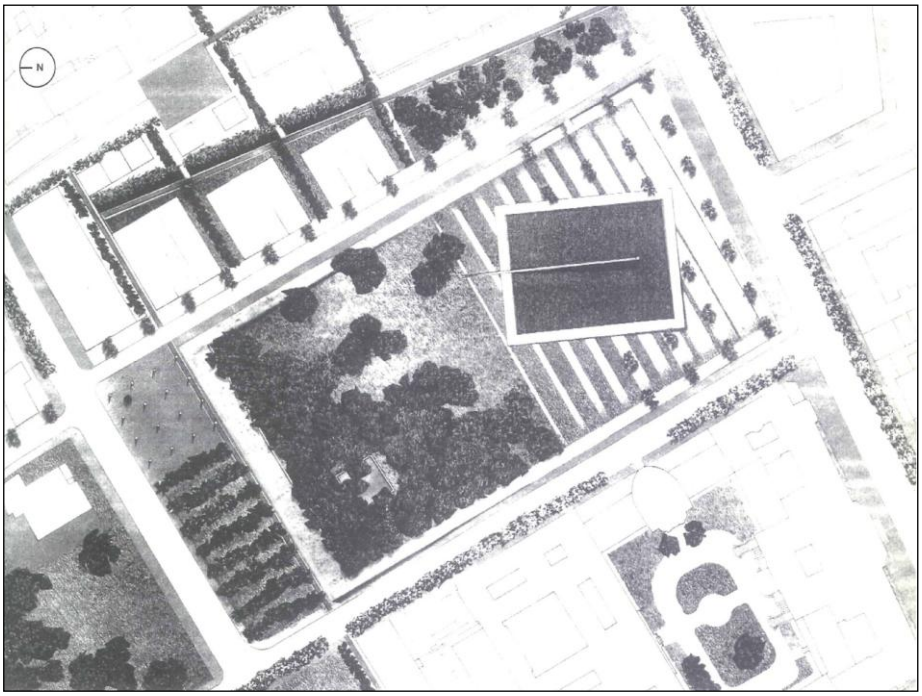

Figure 40. Plan of the Invaliden Park. Lisa Diedrich, "Invaliden Park, Berlin," *TOPOS,* Vol: 22 (1998): 73.

3.5.2.2 Reviving the Memory of the Berlin Wall

A large granite wall was placed at the hearth of the basin. "The wall is an allegory of twentieth-century Berlin."[154] The wall is a monument for reminding that the Berlin wall ran just beyond this location (Figure 41). Christophe Girot states that "at the heart of the basin, a large granite wall seems to be sinking,

[152] Christophe Girot, "Invaliden Park," *Atelier Girot,* http://www.girot.ch/projects/invalidenpark/invalidenpark.html (accessed January 31, 2010).

[153] Lisa Diedrich, "Invaliden Park, Berlin," *TOPOS,* Vol: 22 (1998): 74.

[154] Christophe Girot, "Four Trace Concepts in Landscape Architecture," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 64 (New York: Princeton Architectural Press,1999).

it reminds us that for decades the site hosted the barracks of the Vopos guarding the Check point at Invalidenstrasse and the Berlin Wall which ran just beyond this location along the Spandauer Kanal."[155] The inclined wall joins the divided city when going down into the ground. Girot states:

> "On looking back, I realize that this problem was only able to come about at a time when memory of the wall was still fresh in every minds. Like all memories, it will disappear. I did not want to recreate the Wall but rather unscore a certain moment in Berlin's history." [156]

The wall is not the only meaning of the site. During the construction of the park, they found unexploded bombs, old contorted trees, huge slabs of concrete from defunct vopos barracks at the old military park site. However, Girot defines the most important meaning of the site as the buried foundations of the bombed-out military church in the trench axis of the wall.[157]

Figure 41. The Berlin Wall sinking in 1989 and the inclined wall sinking at the hearth of Invaliden Park. *Young American's Foundation*, "Morning Again: A New Era for Conservative Activism," http://www.yaf.org/uploadedImages/Blogs/BerlinWall.jpg?n=1103 (accessed December 10, 2010) and Christophe Girot, "Invaliden Park," *Atelier Girot,* http://www.girot.ch/ projects/invalidenpark/invalidenpark.html (accessed January 31, 2010).

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[155] Christophe Girot, "Invaliden Park," *Atelier Girot,* http://www.girot.ch/projects/invalidenpark/invalidenpark.html (accessed January 31, 2010).

[156] Lisa Diedrich, cited from Christophe Girot, "Invaliden Park, Berlin," *TOPOS,* Vol: 22 (1998): 72.

[157] Christophe Girot, "Four Trace Concepts in Landscape Architecture," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 64 (New York: Princeton Architectural Press, 1999).

3.6 Evaluation of Place-Based Approach

The postmodern movement resulted in the implementation of the place and memory theories in urbanism. Also, designers have begun to read and write the site as expressed by Sébastien Marot and given weight to site examination. As a result of these approaches to park design, landscape has gained a significance of being capable of exhibiting the memory and history of the site. The thesis study has pointed out this significance in Parc André Citroën and Bercy Park in Paris and Invaliden Park in Berlin. They put forth the characteristics, history and potential of the sites on which they are. The designers of the projects found the meaning of the site and by protecting objects or using symbols, they determined design elements and retrieve the memory of the places.

The main element of the design of Parc André Citroën was a lawn surrounded by a canal and located at the center of the composition. It reminds the 16th Century French architecture and landscape architecture because the main elements of the design remind the character of French chateaus. Bercy Park was also based on the meanings derived from its site. The design was based on a palimpsest formed by superimposing the new layers on the existing layers of the site. A vineyard was also planted on the park to represent the history of the site where wine trade had been held. Invaliden Park was the last example which was designed on the history of the site. The most significant element of the composition was a wall which reminded the Berlin Wall. This approach was later used in some design competitions which the thesis will deal with.

The place based design has also pointed another approach. Parc André Citroën in Paris was designed as a conceptual garden art. The gardens of the park were based on meanings such as senses, metals, colors. One garden of the park ''Garden in Movement'' is in contrast to the other gardens of the park because it has a flexible design in constant change under the influence of nature. The garden can also be regarded as an ecological landscape design.

The ecological approach was later used in park designs which the thesis will deal with.

CHAPTER 4

ECOLOGICAL DESIGN

4.1 Precendents of Ecological Landscape Design

Ecology comes from the Greek word *oikos* meaning "home" and the word *logos* meaning "study". Thus, ecology is "the study of living organisms within their home environments."[158] It could also be defined as "the study of interactions between organisms and their environments."[159]

Ecology is an old science; however, the use of ecology in design is relatively new. Nina-Marie Lister defines the ecological design as an "emerging interdisciplinary field of study and practice."[160] Translating ecological principles into practical principles of design has not been easy for designers. Ecological studies are conducted on large areas. Besides, visual thinking and aesthetic considerations are not issues included in ecological principles. Later, a field in ecology has dealt with these issues: landscape ecology. It provides "a conceptual framework within which planners and designers can explore how the structure of land that evolves along with relevant ecological processes."[161] It particularly focuses on the medium in which the dialogue between human and natural processes occurs. The ecological view of landscape has been

[158] Ian H. Thompson, "Environmental Ethics," in *Ecology,Community and Delight: Sources of Values in Landscape Architecture*, 137 (London; New York: E&FN Spon Press, 2000).

[159] Bart R. Johnson and Kristina Hill, "Introduction: Toward Landscape Realism," in *Ecology and Design: Frameworks for Learning*, ed. Bart R. Johnson and Kristina Hill, 1 (Washington, DC: Island Press, 2002).

[160] Nina-Marie Lister, "Sustainable Large Parks: Ecological Design or Designer Ecology?," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 38 (New York: Princeton Architectural Press, 2007).

[161] Forster Ndubisi, "Landscape Ecological Planning," in *Ecological Design and Planning*, ed. George F. Thompson and Frederick R. Steiner, 32 (New York: John Wiley, 1997).

developed by Ian McHarg since 1960s. His understanding of landscape involved ecological processes and natural systems to human settlements. Ian McHarg states:

> "It is my investigation into a design with nature: the place of nature in man's world, my search for a way of looking and a way of doing – a simple plan for man in nature...I chose the city as my place of work, my professional challenge. If we can create the humane city, rather than the city of bandage to toil, then the choice of city or countryside will be between two excellences, each indispensable, each different, both complementary, both life-enchancing. Man in Nature."[162]

He used science as a base of design. In his method design began with the study of the natural parameters. He represented physical, biological and social processes as values to study a piece of land such as slope, surface drainage, soil drainage, susceptibility to erosion, historic values, scenic values, recreation values, residential values, wildlife values, forest values. They were proposed on transparent sheets where the darkest tone represented the most valuable places. Then, the sheets were superimposed on each other and used as a design guide tool. According to his method for decision making, the lighter tones showed the suitable places for design.[163]

Ian McHarg, in his book Design With Nature, cited the natural world as "the only viable model for landscape architecture."[164] He emphasized the evolving study of natural ecology and provided an analytical method which avoided formalistic design. Instead, he proposed an analytical method which avoids

[162] Ian McHarg, *Design with Nature*,1-2 (Garden City,Ny.,Published for the American museum of National History by the Natural History Press, 1969).

[163] Ibid, 34.

[164] Marc Treib, cited from Ian McHarg, "Nature Recalled," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 30-31 (New York: Princeton Architectural Press, 1999).

subjective decisions of form and design. According to that, if the process were correct, the form would be good.[165]

Ian McHarg's unique approach influenced the entire discipline of landscape architecture.[166] Since that time, ecological techniques for the planning and design of sites have been developing. Ecology has become an important theme for the discipline of landscape design in recent years. Ecological guidelines were adopted in professions and the science of ecology was placed to the foreground of design. Today, ecological science is regarded as an important source for the principles of landscape design.[167]

4.2 Principles of Ecological Landscape Design

Nina-Marie Lister defines the ecological design as "a critical approach to navigating the interface between culture and nature."[168] Sym Van der Ryn and Stuart Cowan described it as "a hinge that connects culture and nature, allowing humans to adapt and integrate nature's processes with human creations."[169] Ecological design is achieved by the collaboration of different disciplines of design and science. These are urban design, landscape architecture, architecture, planning and sub-disciplines of ecology such as conservation biology, ecosystem management, restoration ecology and

[165] Marc Treib, "Nature Recalled," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 30-31 (New York: Princeton Architectural Press, 1999).

[166] Elisabeth Mossop, "Landscapes of Infrastructure," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 166 (New York: Princeton Architectural Press, 2006).

[167] Bart R. Johnson and Kristina Hill, "Introduction: Toward Landscape Realism," in *Ecology and Design: Frameworks for Learning*, ed. Bart R. Johnson and Kristina Hill, 1 (Washington, DC: Island Press, 2002).

[168] Nina-Marie Lister, "Sustainable Large Parks: Ecological Design or Designer Ecology?," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 39 (New York: Princeton Architectural Press, 2007).

[169] Ibid.

landscape ecology.[170] By this collaboration, they get sufficient knowledge to address the complexities of cultural and ecological issues.The aim for this collaboration of designers and ecologists is to achieve an understanding of landscape both ecological and cultural.

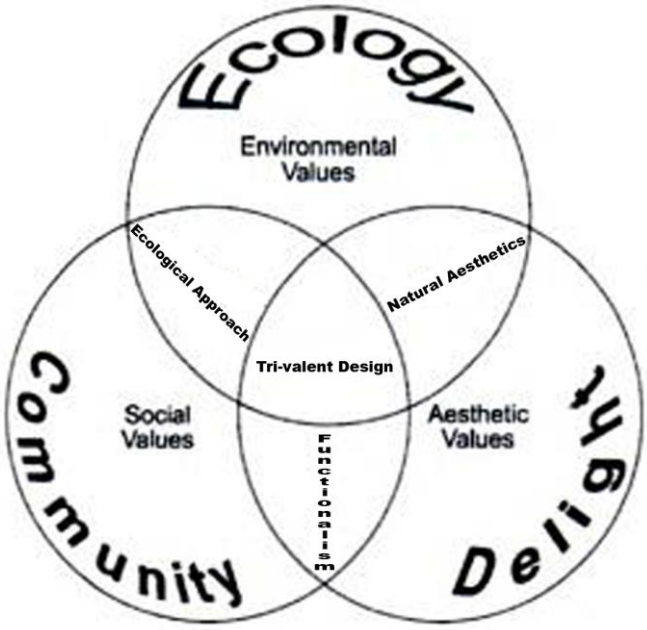

Figure 42. Overlapping value fields in landscape architecture. Ian H. Thompson, *Ecology, Community and Delight: Sources of Values in Landscape Architecture*, 7 (London; New York: E&FN Spon Press, 2000).

Ian Thompson defines the three values of landscape as environmental, social and aesthetic values which represent the ecology, community and delight aspects of landscape architecture (Figure 42). If the landscape design project has three of the values, Thompson called them the ''tri-valent design''.[171] The contemporary projects have these values because they are all designed in an ecological way in addition to their cultural aspects. The important issue for the

[170] Bart R. Johnson and Kristina Hill, ''Introduction: Toward Landscape Realism,'' in *Ecology and Design: Frameworks for Learning*, ed. Bart R. Johnson and Kristina Hill, 2-7 (Washington, DC: Island Press, 2002).

[171] Ian H. Thompson, *Ecology, Community and Delight: Sources of Values in Landscape Architecture*, 7 (London; New York: E&FN Spon Press, 2000).

contemporary organic approach is not to achieve a natural-looking park, but to achieve a real organic, living park with its habitats. The examples of this approach are all aesthetic and ecological parks with cultural activities for people. Ecological park design constitutes some aspects such as using native species in planting design, using low-maintenance, preserving the habitat and bringing new species to the place. Characteristic plants and animals specific to sites are preserved in the public parks created with this approach.

In the recent years, larger parks have been created with ecological principles in their design. In the past, the physical, cultural and experiential delights of the parks were the focus of design; however, their creation, the ecological, operational and programmatic aspects have increasingly become of primary importance. They are important not only because for their experiential and cultural aspects but also for their ecological functions. James Corner calls large parks "green lungs" for "cleaning, refreshing, and enriching life in the metropolis" because of helping "to store and process storm water, to channel and cool air temperature in the urban core, and to provide habitat for a rich ecology of plant, animal, bird, aquatic, and microbial life."[172]

Large parks are complex systems. The behavior of complex systems is described as "nonlinear, unpredictable, dynamic, and adaptive and is characterized by the regular emergence of new phenomena and the ability to self-organize."[173] Therefore, they demand a different approach in design, planning and management which should have the capacity of long-term adaptation to change in order to provide ecological, cultural and economic viability. Therefore, the designers must develop "complex, layered, flexible, and adaptive design responses."[174] These parks require a "process-driven

[172] James Corner, Foreword to *Large Parks*, ed. Julia Czerniak and George Hargreaves, 11-12 (New York: Princeton Architectural Press, 2007).

[173] Nina-Marie Lister, "Sustainable Large Parks: Ecological Design or Designer Ecology?," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 55 (New York: Princeton Architectural Press, 2007).

[174] Ibid, 35-38.

design approach that does not intend to provide a definitive plan."[175] Designers focus on frameworks which adapt to changing conditions rather than forms and try to achieve designs which are open-ended and incorporate diverse approaches. All the ecological processes occur in a certain period of time and they are in continuous transformation.[176] Therefore research and design should be done in a long period of time. Designers have developed strategies which attempt to make ecological processes operational in design.

4.3 Ecological Landscape Design and Landscape Urbanism

Ecological landscape projects are not results of mechanistic design thinking. They require a flexible and open understanding on the base of design. Ecologically designed large parks, which embody the cultural as well as environmental aspects are pointed out as landscape urbanism examples because there is a relationship between ecology and landscape urbanism. Elisabeth Mossop when describing the recent ecological design proposals, claims that "the landscape of infrastructure has become an effective means to explore the relationship between natural processes and the city, which is the integral factor in a truly synthetic landscape urbanism."[177] James Corner also defines the relationship between ecology and landscape urbanism:

> "In conceptualizing a more organic, fluid urbanism, ecology itself becomes an extremely useful lens through which to analyze and project alternative urban futures. The lessons of ecology have aimed to show how all life on the planet is deeply bound into dynamic relationships. Moreover, the complexity of interaction between elements within ecologic systems is such that linear, mechanistic models prove to be markedly inadequate to

[175] Anita Berrizbeitia, "Re-placing Process," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 175 (New York: Princeton Architectural Press, 2007).

[176] Jala Makhzoumi and Gloria Pungetti, "The Analytical Aspect of Landscape," in *Ecological Landscape Design and Planning: The Mediterranean Context*, 62 (Newyork: E&FN Spon Press, 1998).

[177] Elisabeth Mossop, "Landscapes of Infrastructure," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 164 (New York: Princeton Architectural Press, 2006).

> describe them. Rather, the discipline of ecology suggests that individual agents acting across a broad field of operation produce incremental and cumulative effects that continually evolve the shape of an environment over time. Thus, dynamic relationships and agencies of process become highlighted in ecological thinking, accounting for a particular spatial form as merely a provisional state of matter, on its way to becoming something else. Consequently, apparently incoherent or complex conditions that one might initially mistake as random or chaotic can, in fact, be shown to be highly structured entities that comprise a particular set of geometrical and spatial orders. In this sense, cities and infrastructures are just as 'ecological' as forests and rivers."[178]

Landscape urbanism is based on the idea that the contemporary metropolis can be constructed as a landscape. According to the theory, landscape is more capable of organizing the city than architecture. It is a model for decentralized urbanization in the context of complex natural environments.[179] As stated before landscape urbanism is a complex theory having connections with diverse fields such as design, economy, process, operation and representation. James Corner explains the four provisional themes of landscape urbanism as ''processes over time'', ''the staging of surfaces'', ''the operational or the working method'' and ''the imaginery'' which provide a schematic outline for such a practice. Processes over time refers to the processes of urbanization which will shape urban relationships such as ''capital accumulation, deregulation, globalization, environmental protection.''[180] This theme is based on the idea that these processes are more capable of shaping the urban texture rather than the spatial forms. The operation or working method refers to the representation and beyond that operation of the theory. The imaginary refers to the identity of landscape

[178] James Corner, "Terra Fluxus," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 29 (New York: Princeton Architectural Press, 2006).

[179] Charles Waldheim, "Landscape as Urbanism," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 37 (New York : Princeton Architectural Press, 2006).

[180] James Corner, "Terra Fluxus," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 28-32 (New York: Princeton Architectural Press, 2006).

urbanism as being "an imaginative project, a speculative thickening of the world of possibilities."[181] These themes are not the focuses of the thesis; however, the staging of surfaces is the theme which the thesis will deal with. It refers to the phenomenon of "the horizontal surface, the ground plane, the 'field' of action."[182] It is the "surface understood as urban infrastructure" which "sows the seeds of future possibility, staging the ground for both uncertainty and promise."[183] This gives way to stage the site in different ways for various programmatic events. This understanding requires that urbanism should be strategic. Urban infrastructure should be suitable for future possibility. James Corner explains this as follows:

> "This understanding of surface highlights the trajectories of shifting populations, demographics, and interest groups upon the urban surface; traces of people provisionally stage a site in different ways at different times for various programmatic events, while connecting a variety of such events temporally around the larger territory. This attempts to create an environment that is not so much an object that has been 'designed' as it is an ecology of various systems and elements that set in motion a diverse network of interaction. Landscape urbanism is here both instigator and accelerator, working across vast surfaces of potential."[184]

Therefore, landscape urbanism requires a different understanding of 'design' which has free forms. This will be studied in park examples which are regarded as both strategic and flexible. To achieve this, Alex Wall describes the surface strategies of landscape urbanism as thickening, folding, new materials, nonprogrammed use, impermanence and movement.[185]

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[181] Ibid, 32.

[182] Ibid, 30.

[183] Ibid.

[184] Ibid, 31.

[185] Alex Wall, "Programming The Urban Surface," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 244 (New York: Princeton Architectural Press, 1999).

Landscape has emerged as a model for contemporary urbanism over the past decades. Charles Waldheim binds the origins of the theory to the postmodern critiques of modernist architecture and planning.[186] Firstly, a conference was held on March 1997 and used the term ''landscape urbanism'' to describe the practices of many designers ''for whom landscape replaced architectural form as the primary medium of citymaking.''[187] Because for a while, designers ''developed techniques to design complete urban schemes as landscapes.''[188]

Alex Wall is an architect who has worked at the Parc de la Villette project with OMA and he is one of the pioneers who search for a ''new urbanism''. He states that ''the function of design is not only to make cities attractive but also to make them more adaptive, more fluid, more capable of accommodating changing demands and unforeseen circumstances.''[189] Therefore, Parc de la Villette proposals by Rem Koolhaas/OMA and Bernard Tschumi are regarded as first examples which led the emergence of the theory. They were strategic projects which have formed for changing demands and uncertain circumstances of the future. Wall states about this:

> "...the term landscape no longer refers to prospects of pastoral innocence but rather invokes the functioning matrix of connective tissue that organizes not only objects and spaces but also the dynamic processes and events that move through them...Landscape is the extensive and inclusive ground-plane of the city, to the 'field' that accommodates buildings, roads, utilities, open spaces, neighbourhoods, and natural

[186] Charles Waldheim, cited from Rem Koolhaas, ''Landscape as Urbanism,'' in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 38 (New York : Princeton Architectural Press, 2006).

[187] Grahame Shane, ''The Emergence of Landscape Urbanism,'' in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 58 (New York: Princeton Architectural Press, 2006).

[188] Bart Lootsma, ''Synthetic Regionalization: The Dutch Landscape Toward a Second Modernity,'' in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 259 (New York: Princeton Architectural Press, 1999).

[189] Alex Wall, ''Programming The Urban Surface,'' in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 246 (New York: Princeton Architectural Press, 1999).

> habitats. This is the ground structure that organizes and supports a broad range of fixed and changing activities in the city."[190]

The theorists of landscape urbanism argue that landscape has replaced the role of architecture in urbanism. Rem Koolhaas in 1998 states that ''architecture is no longer the primary element of urban order, increasingly urban order is given by a thin horizontal vegetal plane, increasingly landscape is the primary element of urban order."[191] Traditional space making with architectural elements is seen as inadequate for future urbanisms. Stan Allen who is an American architect who develops urbanistic strategies, states that ''landscape is not a formal model for urbanism today, but perhaps more importantly, a model for process'' because landscape is a medium which is capable of responding to temporal change, transformation, adaptation and succession.[192] He argues:

> ''Increasingly, landscape is emerging as a model for urbanism. Landscape has traditionally been defined as the art of organizing horizontal surfaces.... By paying close attention to these surface conditions-not only configuration, but also materiality and performance-designers can activate space and produce urban effects without the weighty apparatus of traditional space making."[193]

Downsview Park in Canada and Fresh Kills and High Line Parks in New York are studied to exemplify the ecological landscape design. Both Downsview and Fresh Kills are large size parks and regarded as landscape urbanism projects. They are adaptive and ecological projects which took the landscape

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[190] Alex Wall, "Programming The Urban Surface," in *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. James Corner, 233 (New York: Princeton Architectural Press, 1999).

[191] Charles Waldheim, cited from Rem Koolhaas, "Landscape as Urbanism," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 42 (New York : Princeton Architectural Press, 2006).

[192] Charles Waldheim, cited form Stan Allen, "Landscape as Urbanism," in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 39-40 (New York : Princeton Architectural Press, 2006).

[193] Ibid, 37.

to the foreground of their design and propose design strategies which have the capacity to adapt and grow through the city. High Line Park in New York exemplifies a small ecological park.

4.4 Downsview Park Project by Bruce Mau and Rem Koolhaas/OMA

4.4.1 Project Description

Figure 43. Downsview Park within its context. Edited by the author. Google Earth.

The international design competition for Downsview Park was held in 1999. The park is Canada's first national urban park on the site of the former Canadian Forces Base Toronto.[194] The air force base was established in 1947 on the edge of the city. Today, the site is a 4.4 million populated area which is

[194] Parc Downsview Park Inc., "International Design Competition." *Downsview Park,* http://www.downsviewpark.ca/eng/competition.shtml (accessed December 10, 2010).

located in the middle of the emerging post-metropolitan land "the Greater Toronto Area" (Figure 43). The site is a 259 hectares redevelopment site which is framed by housing and industry. The site is in the middle of the city's "suburban intensification areas" and occupies the airstrip, the highway and the transportation hub. But at the same time, the park should be a model of "ecological and economic sustainability." Also, the site is on a topographic high point between two rivers and it is close to ravines and watersheds. Therefore, the site has a possibility for connecting and enhancing flows of water, habitat and wildlife.[195]

Nina-Marie Lister regards the competition as a "prototype of adaptive design" in the context of large parks. The brief of the competition was the search of an "adaptive, self-organizing, open system" and an interpretation of ecology.[196] In the competition website, the objective of the competition is described as:

> "...to promote innovative design proposals that would respond to the social and natural histories of the site, while developing its potential as a new landscape - one capable of sustaining new ecologies and an evolving array of public uses and events, including ones of national and international distinction. The design was intended to structure the transformation of the site while remaining open to change and grow over time."[197]

The competition was conducted in two stages of which the first stage was an invitation for expression of interests. 179 submissions were received from 22 countries for the first stage. Five teams were invited for the second stage of the competition in 1999. In the second stage, competitors were asked for "a

[195] Julia Czerniak, "Legibility and Resilience," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 230-232 (New York: Princeton Architectural Press, 2007).

[196] Nina-Marie Lister, "Sustainable Large Parks: Ecological Design or Designer Ecology?," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 37 (New York: Princeton Architectural Press, 2007).

[197] Parc Downsview Park Inc., "International Design Competition." *Downsview Park,* http://www.downsviewpark.ca/eng/competition.shtml (accessed December 10, 2010).

design proposal covering the entire site, a proposal for a three-phased implementation strategy and a detailed design for the first phase."[198]

The five finalists were "Tree City" designed by Bruce Mau and Rem Koolhaas, "The Digital and The Coyote" designed by Bernard Tschumi, "Emergent Landscapes" designed by Brown and Storey Architects, "Emergent Ecologies" designed by James Corner/Field Operations and Stan Allen and "A New Synthetic Landscape" designed by Foreign Office Architects.[199] In 2000, Tree City was announced as the winning park design concept. It is designed by a team led by Bruce Mau and Rem Koolhaas.[200] The jury members selected Tree City seeing it as a project of "incomparable vision and promise" and "a design concept that links current living conditions to the reality of an urban park for the 21st century."[201] According to the jury report:

> "TREE CITY fully respects existing site conditions and indeed exceeds the requirements of the competition. Thanks to its strategy, the project creates a new rapport between contemporary urban experience and the value of nature, as both are actively transformed within the Downsview area. Achieving decisive changes with a minimum of intervention in the topography, the project anticipates a gradual, carefully orchestrated improvement of the Downsview lands. The degraded soil will be improved by means of the right succession of natural plantings. The layout of a differentiated network of paths and the gradual introduction of various activities will engage the interest and energy of different community groups while securing a long-term future for the entire site."[202]

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[198] Ibid.

[199] Parc Downsview Park Inc., "The Finalists." *Downsview Park,* http://www.downsviewpark.ca/eng/finalists.shtml (accessed December 10, 2010).

[200] The design team is Bruce Mau, Rem Koolhaas, Oleson Worland Architect, Inside/Outside, Ove Arup, Arup Environmental, RWDI, BA Consulting, Moonstone Landscape, Coldwater, Noel Harding and Helyar&Associates.

[201] Parc Downsview Park Inc., "Park Design Concept." *Downsview Park,* http://www.downsviewpark.ca/eng/park_design_concept.shtml (accessed December 10, 2010).

[202] Parc Downsview Park Inc., "Jury Report." *Downsview Park,* http://www.downsviewpark.ca/eng/jury_report.shtml (accessed December 10, 2010).

4.4.2 Design Strategies

4.4.2.1 Superimposition of Dots and Pathways

Tree City is a self-sustaining park. The project is a phased plan that will gradually change the site in three short-term phases: site and soil preparation, pathway construction and cluster landscaping. The physical development of the lands will cover over a fifteen-year period with the growth of old vegetation and new plantings. Landscape elements will be planted incrementally over time as funding permits, gradually building up the park's mass into a flexible patchwork of planted clusters separated by open undesignated areas (Figure 44).[203]

The design is achieved in pieces which are shown as dots in the proposal. OMA developed the scheme around dots as the organizational pattern of the design. The programmatic elements of the park, which are composed of both ecological and cultural features, are shown as dots in different colors at different scales. The dots are used to represent that the proposal is based on designed and non-designed areas. The dots display the designed areas such as cultural campus buildings, parking, deciduous forest, security, information centers, housings, recreational water, gardens, meadow lots, sports fields, wetlands and outdoor theatre.[204]

Another system, "pathways" is superimposed on the dots (Figure 45). This is composed of 1000 pathways to respond the circulation system in the park. In addition to the transportation hub in the site, the system has three pedestrian pathway types which are "hard and fast paths for recreation", "soft wide paths for strolling" and "ornamental paths for peaceful contemplation."[205]

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[203] OMA, "Downsview Park," *OMA official website*, http://www.oma.eu/index.php?option:com_projects&view=project&id=1049&Itemid=10 (accessed December 09, 2010).

[204] Bruce Mau, "Tree City," in *Lifestyle*, ed. Kyo Maclear and Bart Testa,393 (London; New York: Phaidon, 2005).

[205] Ibid, 397.

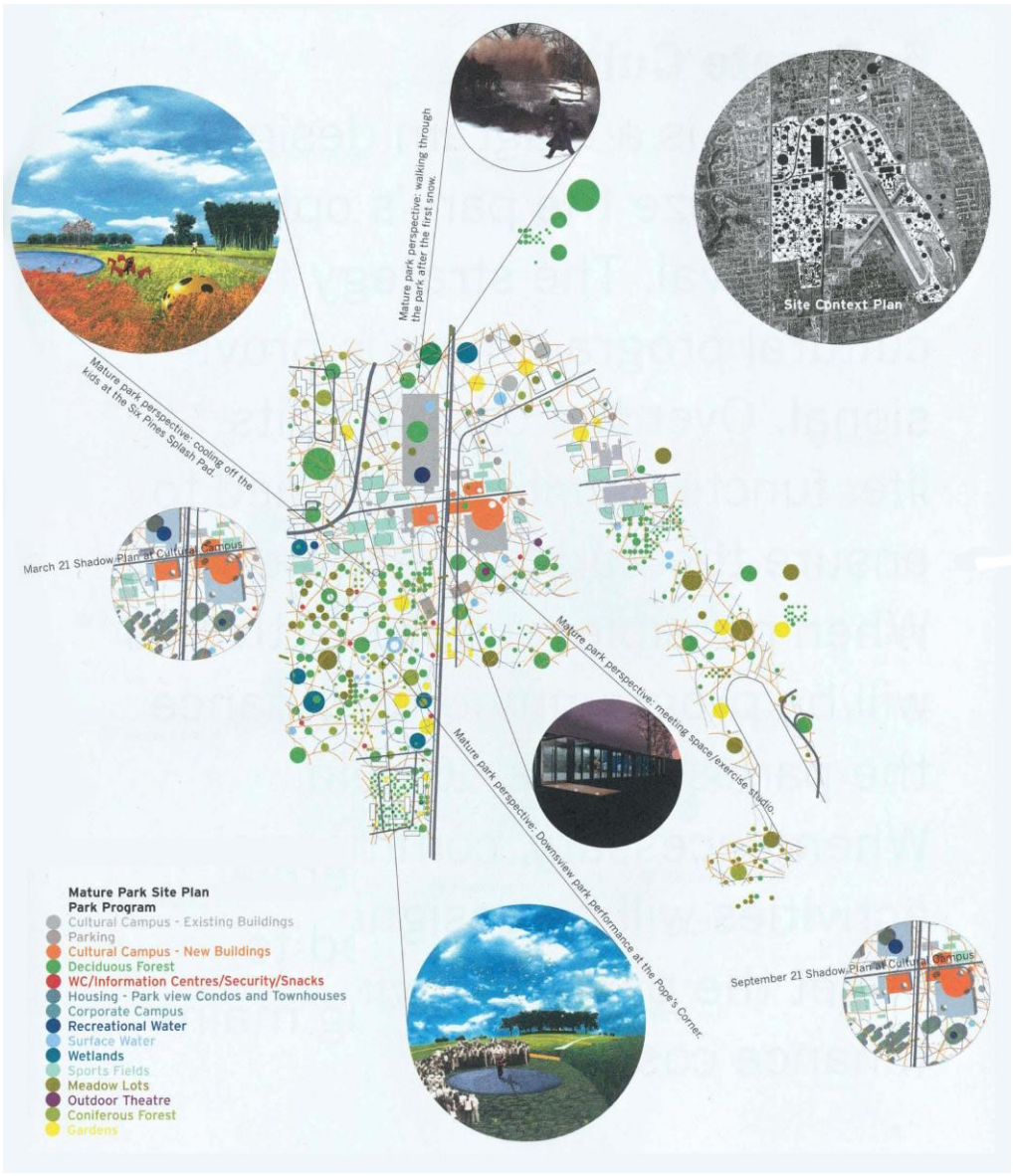

Figure 44. Downsview Park site plan showing the park program, visuals of specific points and the dispersal of the dots through the city. Bruce Mau, "Tree City," in *Lifestyle*, ed. Kyo Maclear and Bart Testa, 399 (London; New York: Phaidon, 2005).

Figure 45. Downsview Park site plan showing the pathways, visuals from specific points and entrances of the pathways through the city. Bruce Mau, "Tree City," in *Lifestyle*, ed. Kyo Maclear and Bart Testa, 397 (London; New York: Phaidon, 2005).

4.4.2.2 Creating a Low Density Metropolitan Life

They aimed to achieve a park "which will connect with the city's green spaces and become a part of a tree 'infrastructure' for the Greater Toronto Area."[206] By extending the landscape clusters and pedestrians pathways into adjacent areas, they aim to link up the park Downsview's ecology to that of the city. "In

[206] Ibid, 389.

this way, Tree City grows the park *into* Toronto."[207] They used trees as the infrastructure. OMA states about their projects:

> "We propose to use Toronto's most distinguishing feature as the park's primary urban component. Trees rather than buildings will serve as the catalyst of urbanization, vegetal clusters rather than new building complexes will provide the site's identity. An urban domain constituted by landscape elements, Tree City attempts to do more by building less, producing density with natural permeability, property development with perennial enrichment."[208]

To achieve this, the park is based on a formula which will create a low density metropolitan life for Toronto. The formula of the design is: "Grow the park + Manufacture nature + 1000 pathways + Sacrifice and save + Curate culture + Destination and dispersal = Low density metropolitan life."[209] "Grow the park" consists of growing the park beyond Downsview's boundaries through the city. They showed this on the competition diagrams as dots overflowing the boundaries of the park and highlights this as:

> "...Tree City is a campaign to grow the park beyond Downsview's boundaries and into the urban realm. It is the anti-thesis of the token green space. Rather than setting itself apart from the city like a trophy of environmentalism, Tree City accepts a degree of toxicity in order to establish greater presence."[210]

"Manufacture Nature" consists of manufacturing the nature for civic ends rather than restoring it in the natural state. The site will have an organic spirit by being artificial and natural both, which makes this proposal an ecological

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[207] Ibid.

[208] OMA, "Downsview Park," *OMA official website*, http://www.oma.eu/index.php?option:com_projects&view=project&id=1049&Itemid=10 (accessed December 09, 2010).

[209] Bruce Mau, "Tree City," in *Lifestyle*, ed. Kyo Maclear and Bart Testa, 390 (London; New York: Phaidon, 2005).

[210] Ibid, 392.

design project. As stated before, ''1000 pathways'' consists of the circulation system of the project. It connects the park to the city with 1000 entrances of the pathways. ''Sacrifice and Save'' consists of sacrificing the construction of buildings and saving funds for the infrastructure of landscape elements. It is based on the idea that ''growing the nature now and building the buildings in the future''. ''Curate Culture'' refers to the temporality of the cultural programming. This means they will be reprogrammed when necessary. ''Destination and Dispersal'' refers to being an urban leisure destination point and the park is ''synchronized for leisurely use and low-stress arrival and dispersal.''[211]

4.5 Fresh Kills Park Project by James Corner/Field Operations

4.5.1 Project Description

Fresh Kills is located on a 890 hectares site in Staten Island in New York which is composed of wetlands, open waterways and unfilled lowland areas, and 45% of the site was once used for land filling operations before. Fresh Kills became a landfill in 1948. Before it, most of the land was composed of creeks and marsh (Figure 46-47). Fresh Kills has a unique ecology which is composed of freshwater, wetlands, forests, plant species. It includes four major habitat groups which are ''breeding sites, foraging areas, freshwater marshes and wooded swamps and upland forests.'' Also the site has birds and other wildlife which make it a habitat.[212] Fresh Kills was used as a landfill until 1999. In May 1999, a committee including the Department of City Planning, New York City Department of Parks & Recreation and some other departments sponsored the development of a master plan for Fresh Kills Park. It reopened in March 2001 to accept the debris of World Trade Center. The landfill was again closed in 2001 after more than 50 years of operation.

[211] Ibid, 394-402.

[212] New York City Department of City Planning, "Context," *Fresh Kills Park Project,* http://www.nyc.gov/html/dcp/html/fkl/fkl3.shtml (accessed February 14, 2010).

Figure 46. Aerial photograph of New York, showing High Line Park and Fresh Kills Park. Edited by the author. Google Earth.

Figure 47. Fresh Kills in a regional context, aerial view and section. Linda Pollak, "Matrix Landscape: Construction of Identity in the Large Park," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 88 (New York: Princeton Architectural Press, 2007).

Figure 48. Fresh Kills future parkland from James Corner's Lifescape proposal. Julia Czerniak, "Legibility and Resilience," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 225 (New York: Princeton Architectural Press, 2007).

The City of New York conducted a two-stage land generation competition for the landfill in September 2001. The six finalists of the first stage of the competition are Field Operations, Hargreaves Associates, Mathur/da Cunha+Tom Leader Studio, JMP Landscape and John McAslan+Partner, Rios Associates and Sasaki Associates. In 2003, Field Operations was chosen to produce the draft master plan and as design consultant (Figure 48). Draft master plan is prepared by a multi-disciplinary team together with the leading and chief team Field Operations.[213] By 2008, the park construction began. The objectives of the master plan are cited as to: "create a world-class, large scale park; restore ecological systems and cultivate a sustainable landscape; create extraordinary settings for a range of activities and programs that are unique to the city; honor the events of September 11, and the recovery effort that took place at Fresh Kills, in a dignified and unique way;

[213] They are Hamilton, Rabinovitz & Alshuler (outreach and financial planning), Arup (transportation engineering), Applied Ecological Service,Inc. (ecological restoration), GeoSyntec (landfill engineering), Skidmore, Owings& Merrill (urban design and planning),Stan Allen (architecture), L'Observatoire International (lighting design), Tomato (media arts and communications), Richard Lynch (plant and wetland ecology), Curry&Kerlinger (avian ecology), Mierie Laderman Vleeles (percent for Art artist).

build a limited system of ecologically sensitive park roadways to optimize local and regional access to the park and reduce local traffic congestion."[214]

Field Operations's winning proposal "Lifescape" is an ecologically designed large park project. Charles Waldheim regards the project as a mature example of landscape urbanism because it has ''detailed diagrams of phasing, animal habitats, succession planting, and hydrological systems, as well as programmatic and planning regimes."[215] According to Anita Berrizbeitia ''landscape as a living material is the central event of the park."[216] They designed the park as a public ecological landscape project. They envisioned the park not as a pastoral image outside the city, but as an active element in it. The park would provide both settings for wildlife and act as a center for social life. The project includes recreation, public art and facilities for many sports and programs in addition to the ecological restoration techniques.[217] The project not only makes the spatial organization of the program but also draws a development phasing. Also, in the master plan, the park was divided into regions. Therefore, the thesis will study the park under the titles "the spatial organization", "the temporal organization" and ''the regional organization" which constitute the design strategies of the project.

4.5.2 Design Strategies

4.5.2.1 The Spatial Organization: Superimposition of Layers

The competition proposal's spatial organization consists of three systems which are the threads, islands and mats superimposed on each other (Figure

[214] New York City Department of City Planning, "Concept," *Fresh Kills Park Project*, http://www.nyc.gov/html/dcp/html/fkl/fkl4.shtml (accessed February 14, 2010).

[215] Charles Waldheim, "Landscape as Urbanism" in *The Landscape Urbanism Reader*, ed. Charles Waldheim, 48 (New York : Princeton Architectural Press, 2006).

[216] Anita Berrizbeitia, "Re-placing Process," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 192 (New York: Princeton Architectural Press, 2007).

[217] New York City Department of City Planning, "Introduction." *Fresh Kills Park Project*, http://www.nyc.gov/html/dcp/html/fkl/fklindex.shtml (accessed February 14, 2010).

49). Linda Pollak regards them as "as the agent of a fluid set of ecological systems, allowing the interaction of programmatic, cultural, and natural elements to create the complex, synthetic environment."[218]

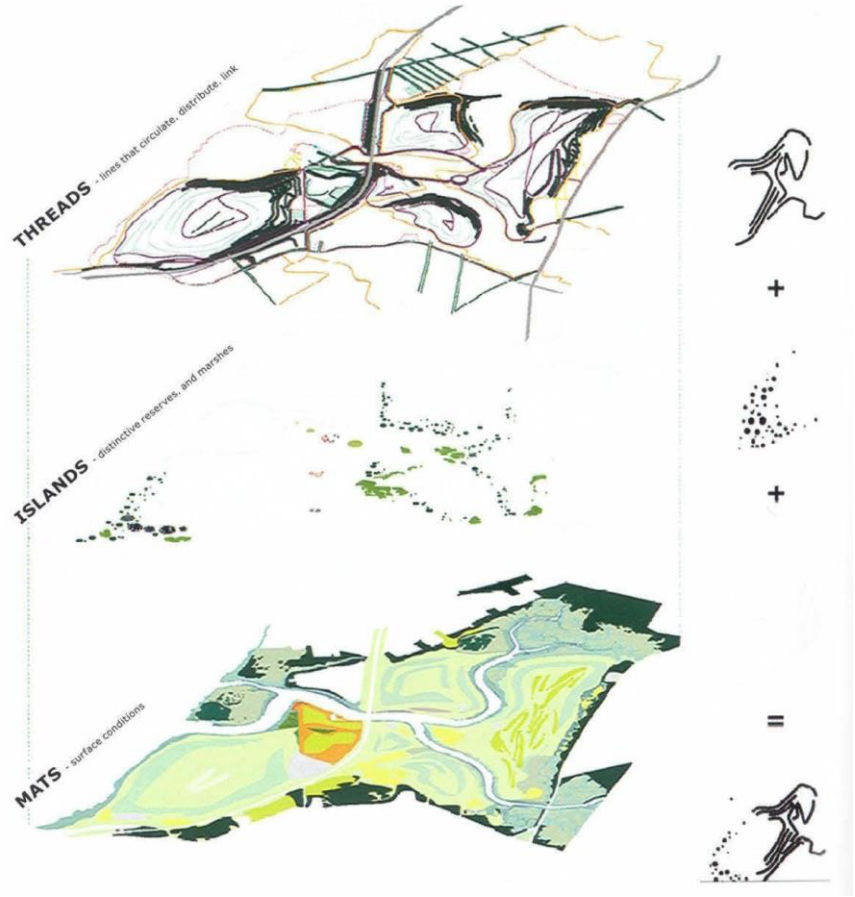


Figure 49. The systems of threads, islands and mats of Lifescape, Fresh Kills competition proposal by James Corner. Linda Pollak, "Matrix Landscape: Construction of Identity in the Large Park," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 100 (New York: Princeton Architectural Press, 2007).

The three systems are figures and devices of representation. Each element has its own rules of organization and they do not relate to the other two. The proposal places all kinds of plantings, activities and buildings in the three systems. The systems both have the existing values of the sites such as the

[218] Linda Pollak, "Matrix Landscape: Construction of Identity in the Large Park," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 107 (New York: Princeton Architectural Press, 2007).

existing ecologies and the proposed values for the future park (Figure 50). Anita Berrizbeitia states that the three systems threads (lines), islands (clusters) and mats (surfaces) have their own organizations: linear, free-standing and matrix like which are responses to site conditions.

Threads are linear elements which contain linear forests, links and circulation.[219] In the competition boards it is stated that "linear threads direct flows of water, energy and matter around the site, injecting new life into otherwise homogeneous areas. These are organized along existing swale lines, contours, pathways, and connections. They include thicket planting along swale lines on the north and east slopes, hedgerow and allee planting, long-meadow swale lines, roadways, pathways, trails, boardwalk elements, earth-berms, and linear architectural elements."[220]

Islands are free-standing elements which contain both ecological values such as protected habitats and programmatic requirements such as architectural structures.[221] "Clusters of islands provide denser nests of protected habitat, seed source and program activity. They include planted islands on the south and west slopes, where it is hot and dry; newly created wetland forest clusters in the lowlands; architectural features and site furnishing."[222]

Mats are matrix like elements which are distributed throughout the site and comprise predominant surface areas. They are colonizing, extending

[219] Anita Berrizbeitia, "Re-placing Process," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 187-189 (New York: Princeton Architectural Press, 2007).

[220] Field Operations, "Lifescape," http://www.nyc.gov/html/dcp/pdf/fkl/fied2.pdf (accessed February 14, 2010).

[221] Anita Berrizbeitia, "Re-placing Process," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 187-189 (New York: Princeton Architectural Press, 2007).

[222] Field Operations, "Lifescape," http://www.nyc.gov/html/dcp/pdf/fkl/fied2.pdf (accessed February 14, 2010).

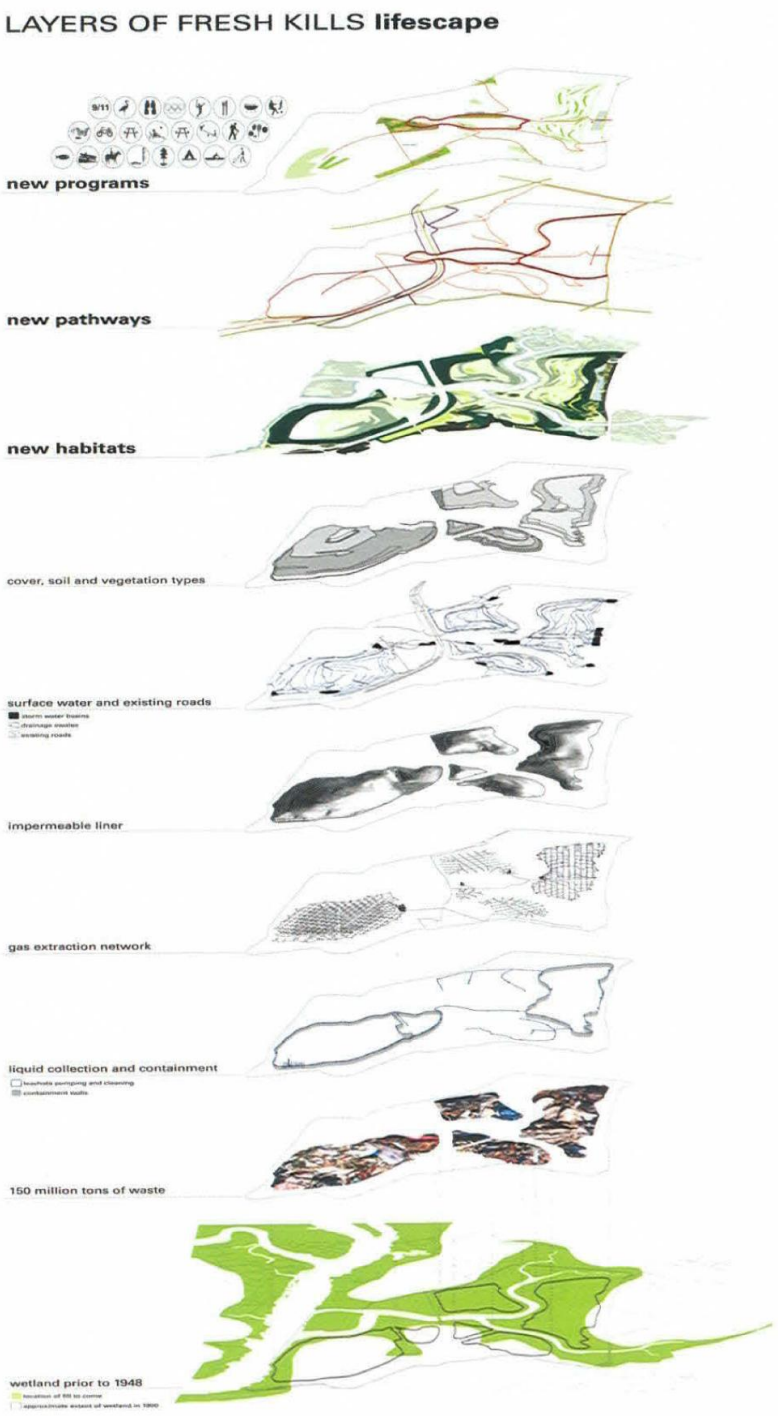


Figure 50. The layering of three new systems onto existing site systems in Lifescape, Fresh Kills competition proposal by James Corner. Linda Pollak, "Matrix Landscape: Construction of Identity in the Large Park," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 112 (New York: Princeton Architectural Press, 2007).

throughout as sports fields, event areas, salt marshes and fresh water wetlands.[223] "Surface mats create a patch-like mosaic of mostly porous surfaces to provide self-sustainable coverage, erosion control and native habitat. They include renovated salt-marsh, fresh water wetlands, eastern prairie grassland, recreation fields, sports surfaces, and event areas."[224]

4.5.2.2 The Temporal Organization: Phasing the Construction

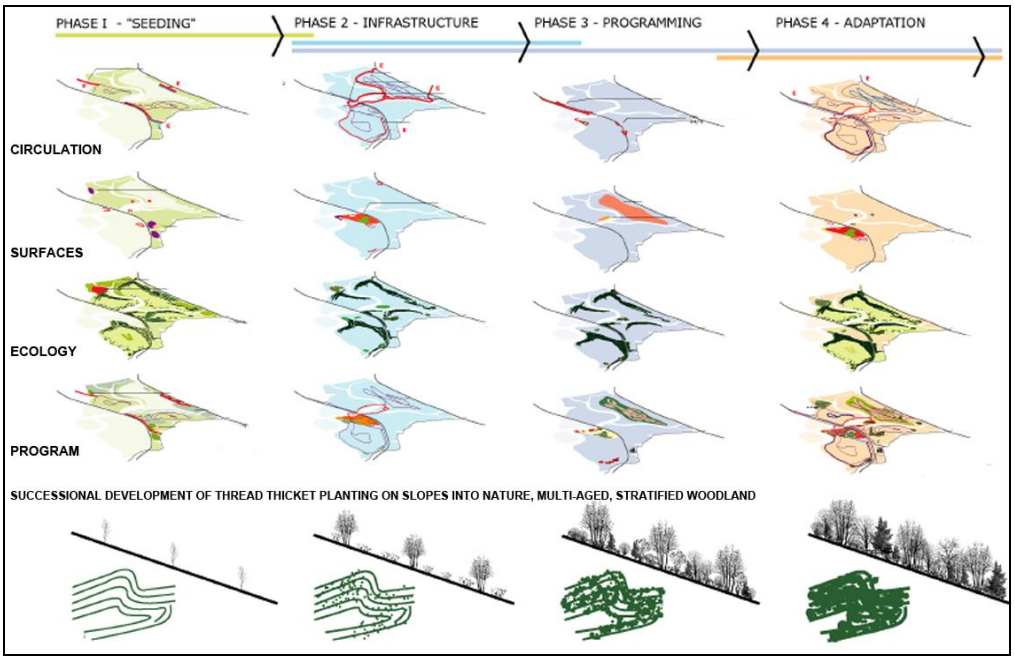


Figure 51. Phasing system showing seeding, infrastructure, programming and adaptation of Lifescape, Fresh Kills competition proposal by James Corner. Linda Pollak, "Matrix Landscape: Construction of Identity in the Large Park," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 110 (New York: Princeton Architectural Press, 2007).

The Fresh Kills Park is not a static but an evolving landscape project which will grow and change through time. The proposal was focused on the idea of a landscape which developed in stages and time. They outlined a strategy

[223] Anita Berrizbeitia, "Re-placing Process," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 187-189 (New York: Princeton Architectural Press, 2007).

[224] Field Operations, "Lifescape," http://www.nyc.gov/html/dcp/pdf/fkl/fied2.pdf (accessed February 14, 2010).

based on natural processes, agricultural practices and plant lifecycles to rehabilitate and transform the degraded site over the next thirty years. Corner says that "design at Fresh Kills is about the design of a method and process transformation as it is about the design of specific spaces."[225] The spatial framework is created in four phases which are seeding, infrastructure, programming and adaptation (Figure 51). The first three phases are the main development of the project with the living creatures over a thirty-year time. The last phase adaptation meets possibilities of changing needs and circumstances which the park will face (Figure 52).

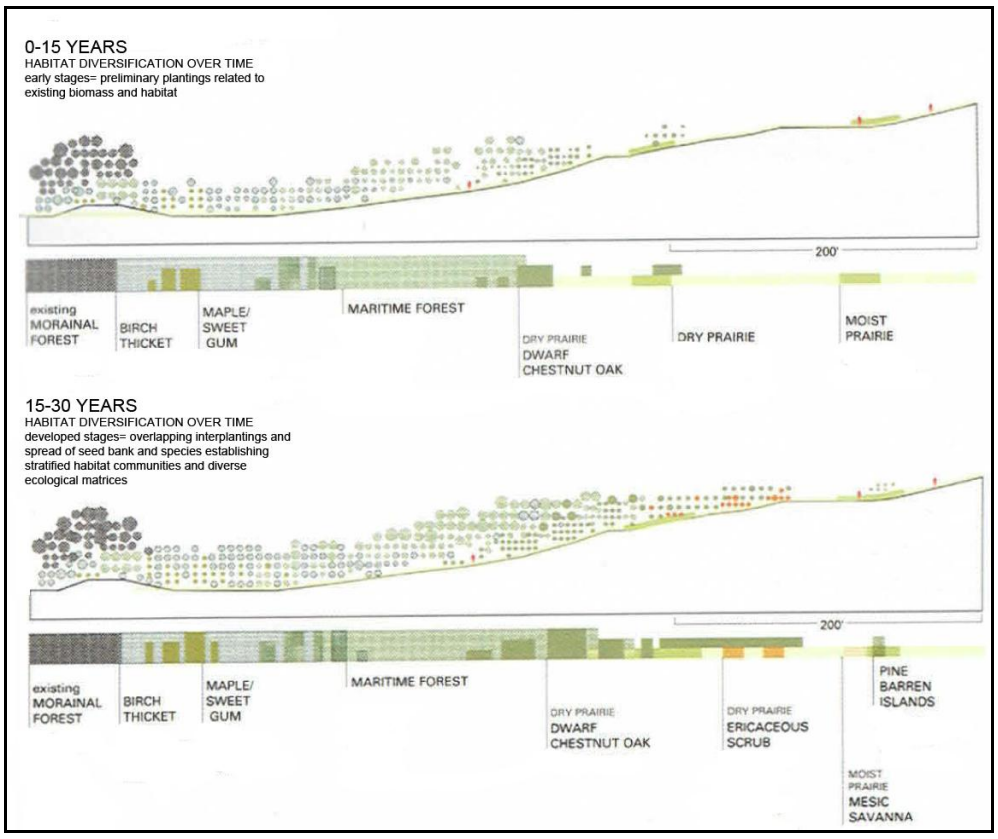


Figure 52. Sections of Fresh Kills Park showing habitat diversification over time of Lifescape, Fresh Kills competition proposal by James Corner. Linda Pollak, "Matrix Landscape: Construction of Identity in the Large Park," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 115 (New York: Princeton Architectural Press, 2007).

[225] Linda Pollak, cited from James Corner, "Matrix Landscape: Construction of Identity in the Large Park," in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 113 (New York: Princeton Architectural Press, 2007).

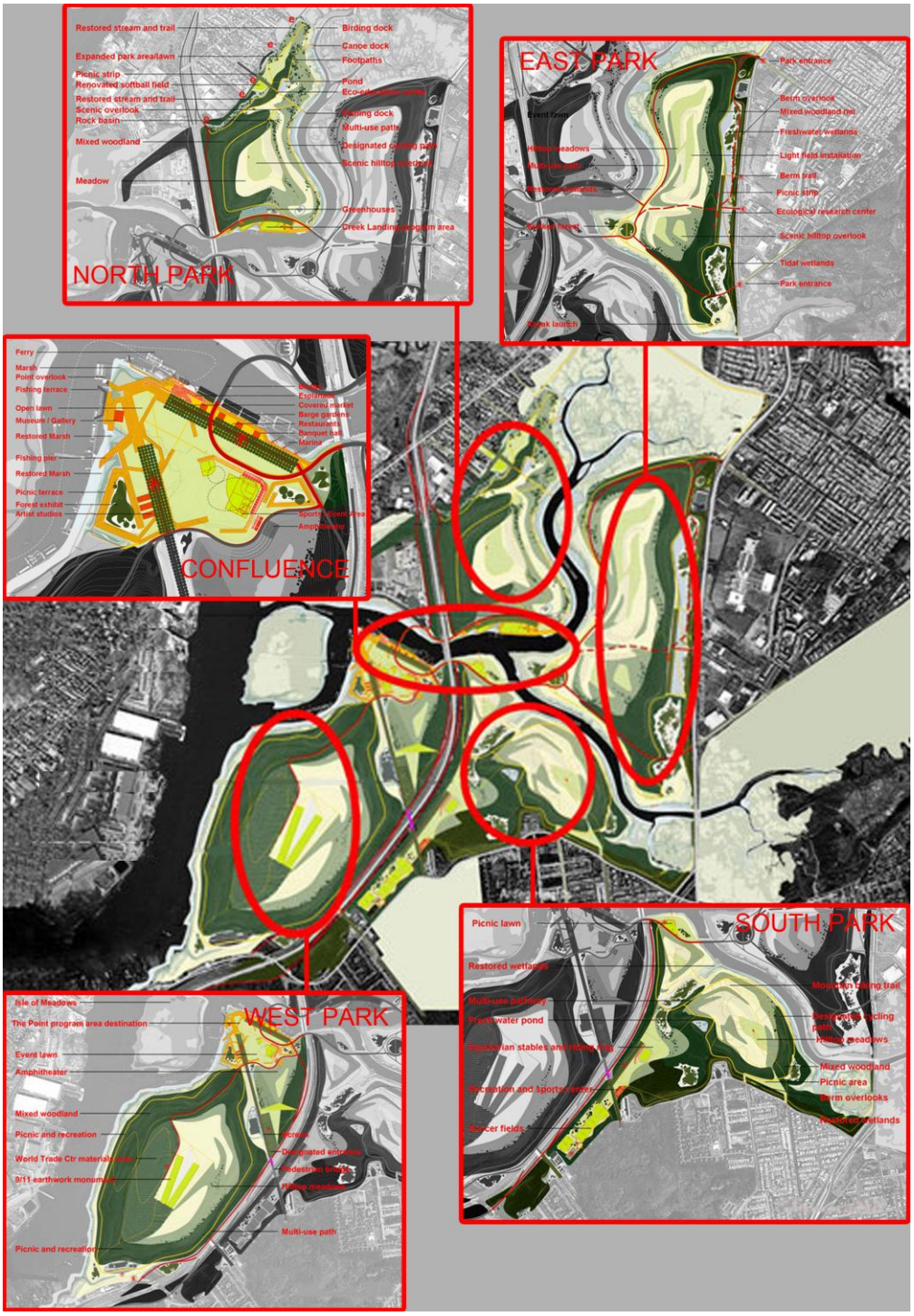


Figure 53. Draft master plan of Fresh Kills Park, five main areas of the park. Edited by the author. New York City Department of City Planning, "Overview." *Fresh Kills Park Project*, http://www.nyc.gov/html/dcp/html/fkl/fkl4c.shtml (accessed February 14, 2010).

4.5.2.3 The Regional Organization: Dividing the Site

In the draft master plan, the park is divided into pieces because of the largeness of the site. The park has 5 main areas which are the Confluence, North Park, South Park, East Park and West Park each having different programming approaches and distinct characters (Figure 53).

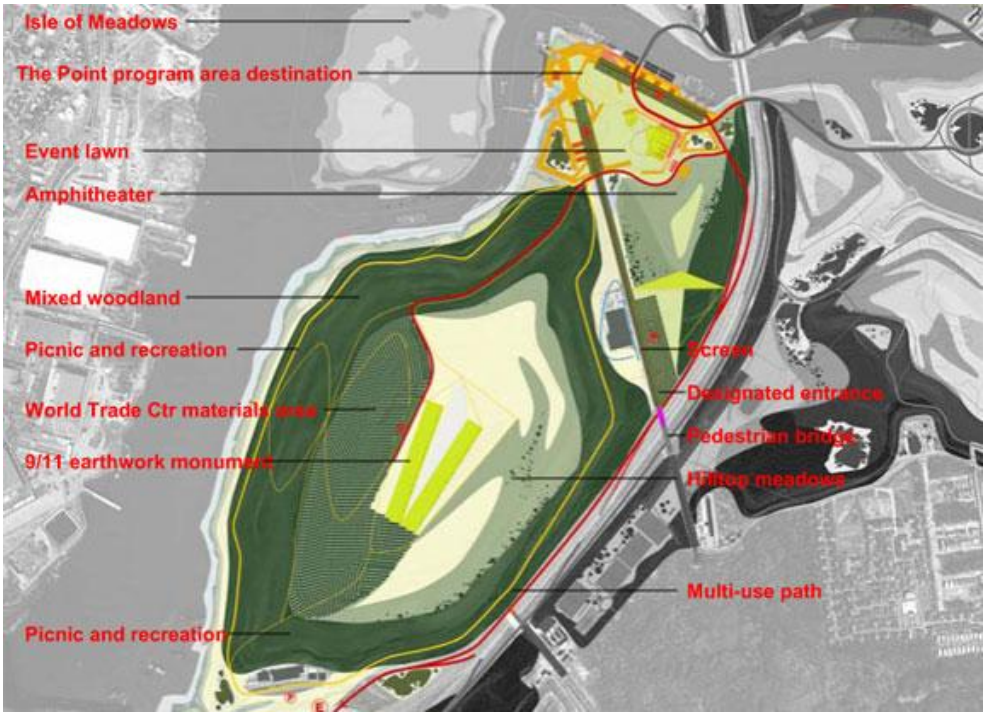


Figure 54. The monument of World Trade Center in the West Park in Fresh Kills. New York City Department of City Planning, "Overview." *Fresh Kills Park Project*, http://www.nyc.gov/html/dcp/html/fkl/fkl4c.shtml (accessed December 10, 2010).

The Confluence is located in the middle of the park and comprises two parts which are the Creek Landing on the north used for waterfront activities and the Point on the south used for sports, art-works and outdoor activities. **North Park** is characterized by wetlands, simple natural settings, scenic overlooks and extensive pathways. **South Park** is characterized by large natural settings and active recreational spaces and it comprises biking pathways, picnic areas, sports fields and nature trails. **East Park** is characterized by opportunities for wetland ecology education and public art installations. **West Park** is

characterized by the site's largest mound which will have a 9/11 monument because the mound has accepted the debris of the World Trade Center and therefore all the human remains. The top of the west park offers a 360 degree view of the region including lower Manhattan (Figure 54).[226] Therefore, the monument looks towards the site of the building in Manhattan. The monument is used to retrieve the memory of the public while giving a sense of place.

4.6 High Line Park Project by James Corner/Field Operations and Diller Scofidio+Renfro

4.6.1 Project Description

High Line is a 2.4 kilometers long and up to 18 meters wide abandoned elevated railway line which goes along the western side of Manhattan. It is located on a 0.33 hectares area spanning 22 city blocks between and through.[227] (Figure 55) The High Line was built between 1929 and 1934 to serve the warehouses and businesses; it is a 10-20 meters wide and 6-10 meters high elevated railway line. The railway began to be torn down in 1960s and totally stopped in 1980. In 1991 most of the southern part of the railway was demolished for new buildings. A decade later, there have been attempts for the demolition of the entire High Line which was prevented by the "Friends of the High Line" founded in 1999.[228] In the past various proposals came into existence for the High Line such as building housing, passenger rail and a very long swimming pool. The organization Friends of High Line and the City of New York held an open ideas competition. After the competition, it is determined that it should be a park. Finally, in 2003 a park promenade was planned.[229] An open design competition was held to redesign the elevated

[226] New York City Department of City Planning, "Overview." *Fresh Kills Park Project*, http://www.nyc.gov/html/dcp/html/fkl/fkl4c.shtml (accessed February 14, 2010).

[227] James Corner, "High Line Park," *Field Operations,* http://www.fieldoperations.net/html (accessed January 3, 2010).

[228] Robert Schafer, "New York: High Line Park," *TOPOS,* Vol: 68 (2009): 11.

[229] Tim Richardson,"NY Elevated Landscapes," *DOMUS*, Vol: 884 (2005): 27.

railway line which attracted 720 entrants. It was won in 2004 by the landscape architect James Corner/Field Operations and in collaboration with the architects Diller Scofidio+Renfro.[230]

Figure 55. Aerial view of Manhattan showing the High Line Park. Edited by the author. Google Earth.

4.6.2 Design Strategy: Keeping the Ecology on the Railway

The park is located ten meters above the traffic which goes through the Standard Hotel and designed as a viewing platform to the street life below. There are several lookout terraces, event areas and a sundeck in High Line

[230] The design team is James Corner Field Operations (project lead) and Diller Scofidio+Renfro with Buro Happold (structural/ MEP engineering), Robert Silman Associates (structural engineering/ historic preservation), Piet Oudolf (planting) and L'Observatorie International (lighting).

whose access is provided by lifts and stairways and has 12 entrances.[231] It has a vegetal balcony, shade garden, sumac woodland, river overlook, butterfly garden, grassland preserve, sundeck and a large outdoor event space.

Figure 56. Views of High Line Park. Robert Schafer, "New York: High Line Park," *TOPOS,* Vol: 68 (2009): 11.

Tim Richardson states that "Field Operations, which undertook an ecological survey of the High Line site, came to the conclusion that the "otherworldly" atmosphere and ecological character of the overgrown rail track was worth keeping" regards it as a "naturalistic, ecologically friendly, inclusive public space."[232] The design was based of the idea "Keep it simple. Keep it wild. Keep it quiet. Keep it slow."[233] James Corner states that the project is marked by "slowness, distraction and an other-worldliness that preserves the strange, wild character of the High Line."[234] "The idea was to retain the singularity of the place, to capture its postindustial charm" says James Corner (Figure 56).[235]

[231] Peter Stegner, "High Line in the Museum of Modern Art," *TOPOS,* Vol: 51 (2005): 6.

[232] Tim Richardson,"NY Elevated Landscapes," *DOMUS*, Vol: 884 (2005): 24.

[233] Peter Stegner, "High Line in the Museum of Modern Art," *TOPOS,* Vol: 51 (2005): 6.

[234] James Corner, "High Line Park," *Field Operations,* http://www.fieldoperations.net/html (accessed January 3, 2010).

[235] Clifford A. Pearson, "High Line, Standart New york," *Architectural Record*, Vol: 10 (2009): 86.

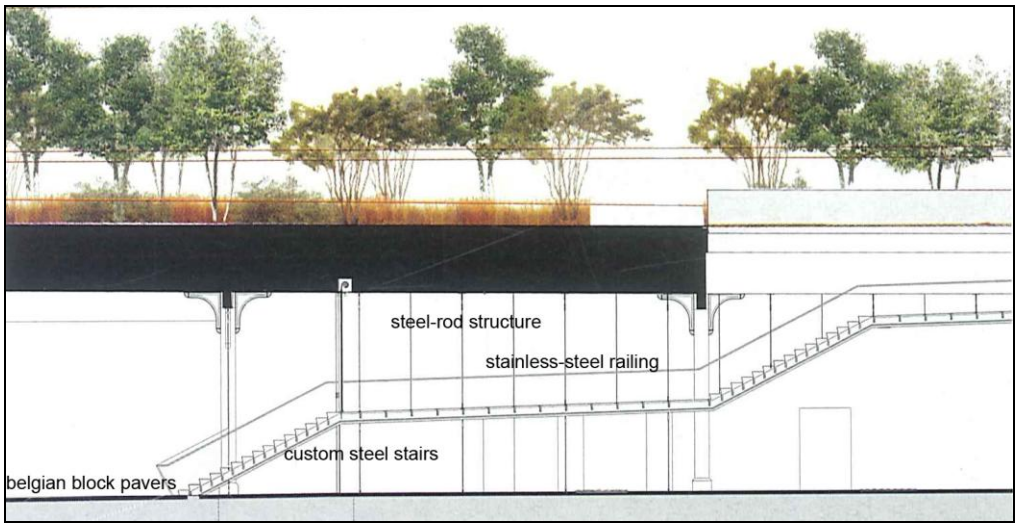


Figure 57. Façade of the High Line Park. Edited by the author. Clifford A. Pearson, "High Line, Standart New york," *Architectural Record*, Vol: 10 (2009): 88.

The park is based on a system of individual pre-cast units which are placed on the thick structural section of the High Line (Figure 57). "Agri-tecture" strategy was used in the design of the park which is defined as "the modular plank system the proportion of pedestrian space to plant space can be altered at will over the length of the park, allowing 'diverse natural habitats' to be engineered" (Figure 58).[236] It is a new paving and planting system "that allows for varying ratios of hard to soft surface that transition from high use areas (100% hard) to richly vegetated biotopes (100% soft), with a variety of experiential gradients in between."[237]

[236] Tim Richardson, "NY Elevated Landscapes," *DOMUS*, Vol: 884 (2005): 29.

[237] James Corner, "High Line Park," *Field Operations,* http://www.fieldoperations.net/html (accessed January 3, 2010).

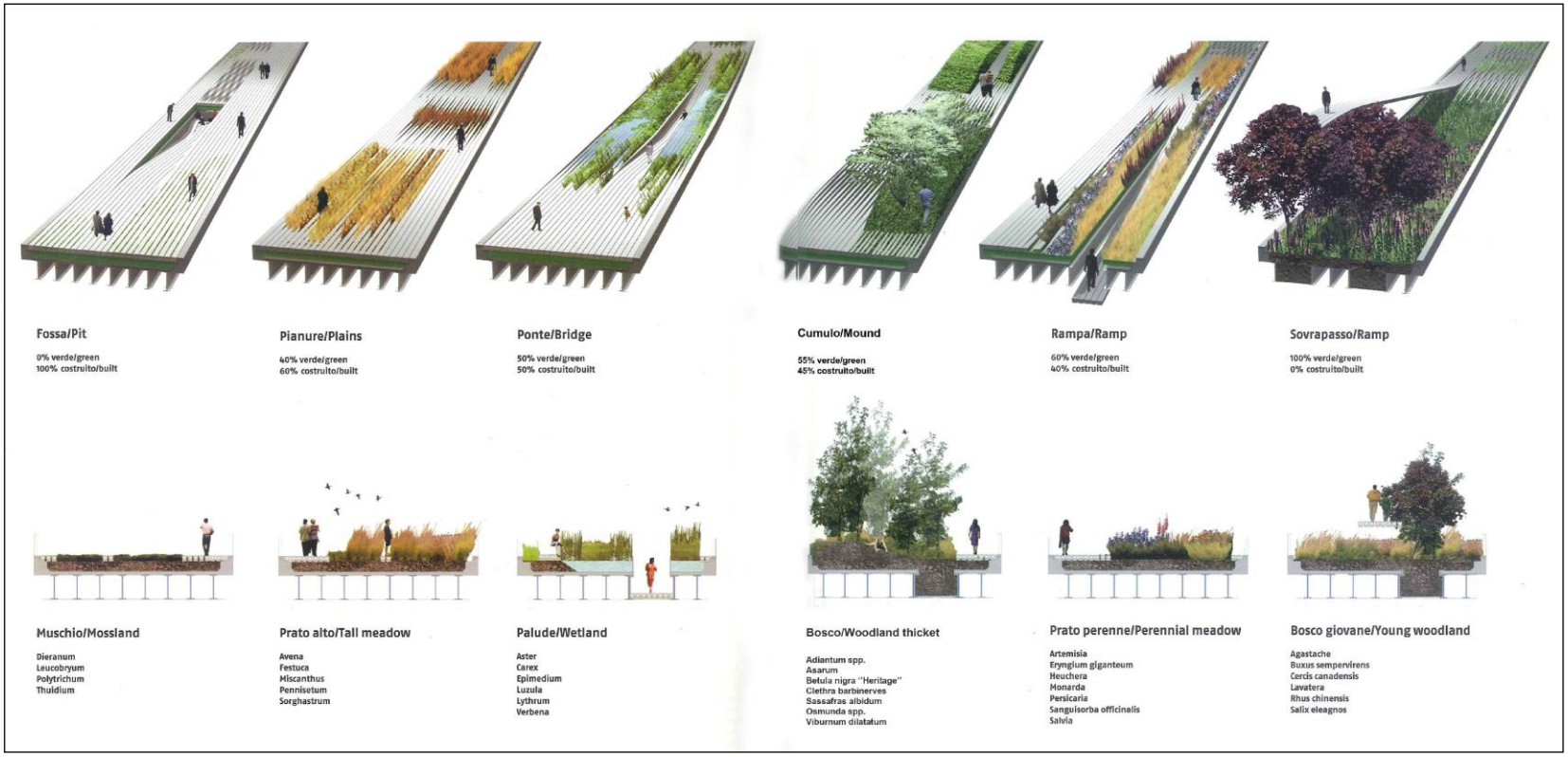


Figure 58. Agri-tecture strategy of the High Line Park. Tim Richardson, "NY Elevated Landscapes,"*DOMUS*, Vol: 884 (2005): 28-29.

4.7 Evaluation of Ecological Landscape Design

The competition of Parc de la Villette has brought landscape a significance of embodying the city and its activities. The designs were not based on green aesthetics rather they proposed activities for the city. The thesis has pointed out the presence of this idea in more recent projects. These latter were not only important for their cultural and experiential delights but also for ecological aspects such as Downsview Park in Toronto, Fresh Kills and High Line Parks in New York. They were recent park projects which were designed with ecological concerns. They proved that the landscape is capable of being ecological, even in the middle of the city.

Fresh Kills regards the ecological systems as a part of the program and operated them under the same layers. Also, the dots of the Downsview meet both the programmatic events such as cultural campus or outdoor theatre and the ecological fragments such as forest or wetlands. High Line was a crucial example for showing that a big scale is not necessary for an ecological park and a park could be designed ecologically in the middle of the city. The projects not also have programmatic systems but also detailed diagrams of phasing, animal habitats and planting.

Although ecological design is based on the analysis method developed by Ian McHarg in 1960s, they also effect by the previous park projects. They exemplified the ideas of being open to change and having a sense of place. In other words, the projects are based on the ideas of previous designs and add an ecological view to these ideas. They give to landscape design the significance that it could be a living habitat encompassing species. Also, they are adaptive design solutions which accommodate time because landscape is considered now as a living and changing entity in ecological designs. All the ecological processes occur in a certain period of time and they are modified during time. Therefore, designers have developed strategies so that their designs are capable of responding to time and changing conditions.

Downsview and Fresh Kills Parks are illuminative examples for their design strategies encompassing the time factor.

OMA developed the Downsview Park project around the organizational structure of ''dots'' which is similar to the ''strip'' of their Parc de la Villette project. The difference of two is the congestion of them. The strips cover the whole site to respond to the programmatic denseness of the competition while the dots were chosen to achieve a low density in design. While the similarity of them is the flexibility; both have the flexibility for future changes.

Fresh Kills Park project was developed by the superimposition of the strategic layers of threads, islands and mats which are similar to lines, points, surfaces of Bernard Tschumi's Parc de la Villette. Anita Berrizbeitia defined the fundamental difference between layers designed by Bernard Tschumi in Parc de la Villette and the layers designed by James Corner in Fresh Kills by stating that the layers of Fresh Kills are ''specific to particular ecologies, programs, and site conditions of the place. In addition, the layers are dynamic-that is, they are meant to change in size, shape, plant composition, and even function as they adapt to changing conditions over time.''[238] The thesis focuses on this difference. Both of the Parc de la Villette projects were designed on the idea that the projects would adapt to changing conditions without loosing their architectural quality. In other words, the function of the point grid and the strip could change without a change in form. However, the threads, islands and mats were designed in free and dynamic forms. Therefore, the changes in function will result in a change in form in the Fresh Kills Park. This is also valid for the Downsview Park project because the dots do not represent the size and shape of the architectural elements. Therefore, the changes in function will result in shape and form in this project also.

The strategic layers of Parc de la Villette proposals which are the strip and the point grid are pointed as the modular, flexible design tools which have the

[238] Anita Berrizbeitia, ''Re-placing Process,'' in *Large Parks,* ed. Julia Czerniak and George Hargreaves, 180-183 (New York: Princeton Architectural Press, 2007).

ability of change and grow through the city. The Fresh Kills and Downsview Parks can be examples for this also. The idea of diffusing units through the city is clarified in Downsview Park as dots and was shown under the title of ''grow the park.'' It is shown in design diagrams as dots overflowing the boundaries of the park.

These two projects are also regarded as mature examples of landscape urbanism which argues that cities can be constructed as landscapes. La Villette proposals were the inspiring design models for the theory of landscape urbanism because they also use the landscape as a strategic infrastructure. Therefore, La Villette projects can be considered as precedents of today's Fresh Kills and Downsview Parks.

Another significance of landscape which the thesis has dealt with is the capacity of exhibiting the memory with a sense of place. The thesis has pointed this approach in previous park examples which brought forth the characteristics and the history of their sites. This idea was later used in several proposals of Fresh Kills Park competition. Field Operations designed the West Park as a monument because it carried the ruins of the World Trade Center which had been demolished in September 11, 2001. They preferred to use a monument as a design element which exhibits the history of the site and retrieve the public memory.

CHAPTER 5

CONCLUSION

5.1 Final Evaluation of the Study

In the thesis, the contemporary design approaches to urban parks have been studied. Parc de la Villette competition was taken as a turning point in park design project and proposals by Bernard Tschumi and Rem Koolhaas were studied first as two referential projects of strategic design. Parc André Citroën, Bercy Park, Invaliden Park, Downsview Park, Fresh Kills Park and High Line Park which were designed at different scales and at different places constituted the other projects examined (Figure 59). All of the parks are competition projects; they are studied in a chronological way through the study. Table 2 illustrates the results of this study in a comparative way.

All the parks analyzed here are projects of recovery, the sites of which were old industrial, old military or old landfill areas. As shown in Table 2, the projects reclaimed their sites by developing new cultural activities and uses, by reviving collective memories or developing and protecting ecological diversification. The Parc de la Villette projects reclaimed the site by developing new activities and uses which makes them the precedents of a new type of program. The concept of cultural park has further evolved since the competition. Programs containing many activities for parks have been developed in later park projects such as Parc André Citroën and Bercy Park with thematic gardens, Downsview Park and Fresh Kills Park with cultural and sports activities. Parc André Citroën, Bercy Park and Invaliden Park also recovered their sites with the revival of the memory by making a reference to the history of their sites. They were oriented around a site element which was

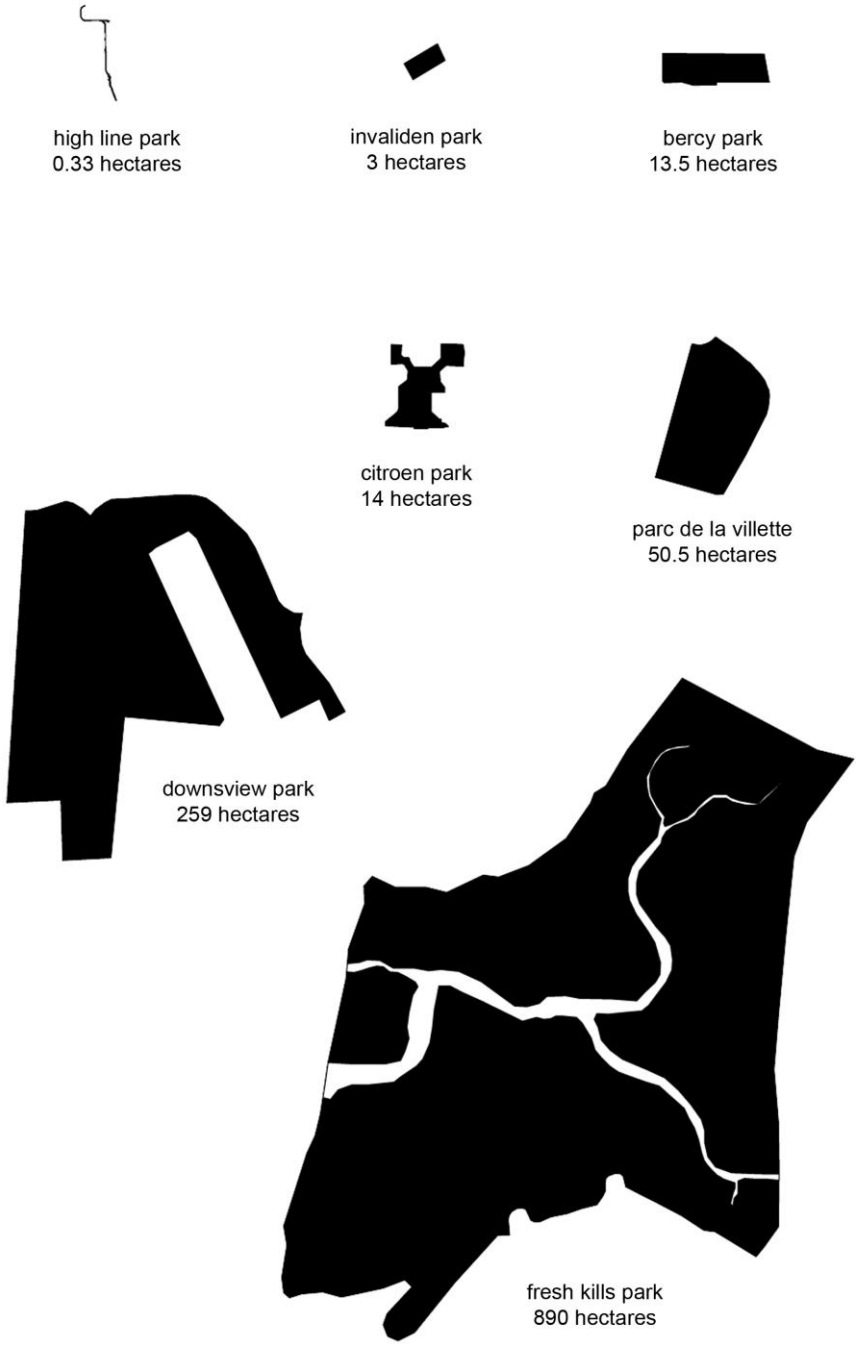
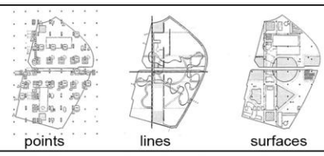
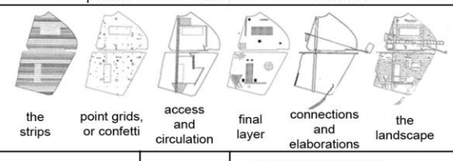
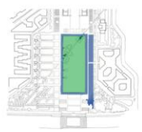
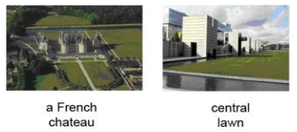
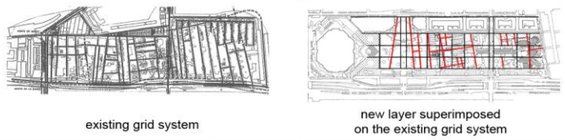
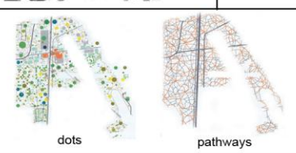
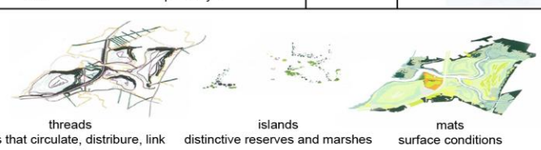


Figure 59. Scale comparison of the parks. Prepared by the author.

Table 2. Comparative diagram of the parks. Prepared by the author.

approach	project	size of the site	location of the site	project date	construction date	old function of the site	reclamation method	design strategy	design diagrams	significances of landscape in the designs
strategic design	**Parc de la Villette** by Bernard Tschumi	50.5 hectares	Paris, France	1982	1986 - 1991	slaughterhouse	developing new cultural activities and uses	mediation	design diagram showing superimposed layers 	- landscape embodying the city and its activities - strategic landscape responding to changing conditions - landscape consisting of modules as diffusing units through the city - landscape as an infrastructure of the city
	Parc de la Villette by Rem Koolhaas/OMA	50.5 hectares	Paris, France	1982	—	slaughterhouse	developing new cultural activities and uses	mediation	design diagram showing superimposed layers 	- landscape embodying the city and its activities - strategic landscape responding to changing conditions - landscape consisting of modules as diffusing units through the city - landscape as an infrastructure of the city
place-based design	**Parc André Citroën** by Alain Provost & Gilles Clement	14 hectares	Paris, France	1985	1987 - 2000	car factory	reviving collective memories	composition	design diagram showing the lawn with the ditches  comparative photographs of a chateau and the central lawn 	- landscape embodying the city and its activities - landscape exhibiting the memory and history of the site
	Bercy Park by Bernard Huet	13.5 hectares	Paris, France	1987	1992 - 1997	wine warehouses	reviving collective memories	palimpsest	design diagram showing palimpsest 	- landscape embodying the city and its activities - landscape exhibiting the memory and history of the site
	Invaliden Park by Christophe Girot	3 hectares	Berlin, Germany	1992	1993 - 1997	military site	reviving collective memories	composition	design diagram showing the wall  comparative photographs of the Berlin Wall and the wall at the park 	- landscape exhibiting the memory and history of the site
ecological design	**Downsview Park** by Bruce Mau+ Rem Koolhaas/ OMA	259 hectares	Toronto, Canada	1999	2005 - ...	military site	developing and protecting ecological diversification	mediation	design diagram showing superimposed layers  design diagram showing dots diffusing through the city 	- landscape embodying the city and its activities - strategic landscape responding to changing conditions - landscape consisting of modules as diffusing units through the city - landscape as an infrastructure of the city - landscape as a living habitat encompassing species in the city - adaptive landscape accommodating to time
	Fresh Kills Park by James Corner/ Field Operations	890 hectares	Staten Island, USA	2001	2008 - ...	landfill	developing and protecting ecological diversification	mediation	design diagram showing superimposed layers 	- landscape embodying the city and its activities - strategic landscape responding to changing conditions - landscape consisting of modules as diffusing units through the city - landscape as an infrastructure of the city - landscape exhibiting the memory and history of the site, - landscape as a living habitat encompassing species in the city - adaptive landscape accommodating to time
	High Line Park by James Corner/ Field Operations with Diller Scofidio+Renfro	0.33 hectares	New York, USA	2004	2006 - ...	railway line	developing and protecting ecological diversification	composition	design diagram showing agri-tecture strategy 	- landscape as a living habitat encompassing species in the city - adaptive landscape accommodating to time

derived from the history of the site. Downsview Park, Fresh Kills Park and High Line Park reclaimed their sites with the protection and development of the biological diversity and habitats by ecological designs. The science of ecology is regarded as the design dimension of first priority.

The contemporary design approaches were studied under three titles which are "the strategic design", "the place-based design" and "the ecological design" in the thesis. Strategic design projects were Bernard Tschumi's and Rem Koolhaas/OMA's Parc de la Villette competition proposals. Parc André Citroën, Bercy Park and Invaliden Park were examples of place-based design approach. Ecological design projects were Downsview Park, Fresh Kills Park and High Line Park. The three approaches were studied in the thesis in separate chapters and shown in the table in three parts in a chronological way. However, the thesis argued that they were not completely distinct approaches; on the contrary, they were related to each other because a park design can be achieved by involving more than one approach. Also the thesis pointed that the recent park projects were inspired by the previous approaches; therefore, the three parts could be regarded as a development in park design.

The thesis started with the strategic design and analyzed the Parc de la Villette competition because the two proposals were future-oriented design projects which required a "strategic" approach to the park design. Both of the proposals were designed in a strategic way which responded to programmatic changes which the park was to face in the future. In light of these two projects, strategic approach became a valuable dimension in park design and strategic design was also used in later ecological parks such as Downsview Park and Fresh Kills Park. However, the strategies of Parc de la Villette projects were clearer than the more recent parks. The flexibility provided by the strip in Rem Koolhaas' project and the grid in Bernard Tschumi's project, which were conceived as spatial responses that could accommodate possible changes in time, are apparent in the overall design with their spatial aspects. However, the dots of Downsview Park and the threads, islands and mats of Fresh Kills

Park are not as clear as the grid or strips in la Villette proposals. Therefore, such design tools which were meant to provide flexibility towards the possible changes, were not as apparent architecturally as those in la Villette projects. In other words, such design elements that were used as strategic tools to enable future changes in ecological parks are more open to change in size and shape than those in the strategic park designs.

The second approach studied was the place-based approach to the design of parks which took references from the site and aimed at creating a sense of place. They were based on the concept of memory and focus on design elements which could trigger memories. Parc André Citroën, Bercy Park and Invaliden Park were studied with their place-based approaches to design. However, they were designed not only with meanings derived from their sites; but integrated other approaches as well. Parc André Citroën was studied as an example for this because it was also designed with an ecological understanding in its vegetal design of gardens.

The ecological design approach was the third approach studied in this thesis and contained the parks which were designed to promote and sustain biological diversity by making use of the science of ecology. Downsview Park, Fresh Kills Park and High Line Park were the examples of ecological approach which had been designed with diagrams of ecological habitats and plantings; however, their designs were achieved by also involving other approaches. As stated before, Downsview and Fresh Kills Parks were inspired by the strategic parks and they were also designed is a strategic way. Fresh Kills Park has also a place-based character because it has a monument dedicated to the ruins of the World Trade Center which the park contains.

Table 2 shows that the parks studied were designed either as a composition or mediation or palimpsest. Parc André Citroën, Invaliden Park and High Line Parks were designed as compositions. The hierarchy, order and harmony of the elements were taken into account in priority in their designs. Bercy Park was the example of palimpsest. The design proposed a new grid system of

gardens which was imposed on the existing grid of the site. However, the Parc de la Villette projects, Downsview and Fresh Kills Parks were designed as mediations. They proposed abstract layers to fulfill the elements of the design which were superimposed on each other.

Layering as a design tool was first seen in Parc de la Villette projects studied in the thesis. Bernard Tschumi proposed three; Rem Koolhaas six abstract, nonhierarchical layers to provide the needs of the program. It was pointed out that layering was used in later projects. In Bercy Park, the project team proposed a new grid layer on the existing one. Downsview Park project used layers of dots and pathways and Fresh Kills proposed threads, islands and mats layers on the site.

These approaches have gained importance in the discussions of contemporary urbanism in the recent years. While analyzing the design approaches, the development of landscape urbanism which is a contemporary urban theory was also observed in the thesis. Although landscape urbanism is a complex theory with diverse interrelationships with other fields with the economic strategies, surface strategies, representation strategies that it involves; the thesis has investigated the subject in a limited way. The idea of landscape as an infrastructure to the city is the main idea which was dealt with. This was first seen in Parc de la Villette projects which were regarded as theoretical precedents; which then has become a developed theory having strategies at different fields. The thesis finally studied the recent parks Downsview and Fresh Kills regarded as mature examples of landscape urbanism.

Strategic design is based on the idea that "time" should be a dimension of design since the Parc de la Villette competition until the recent park projects. The two proposals of la Villette competition took the time as a dimension and designed according to changes which the park could face in the future. Time is a value in their design; however, in a limited way, considering only the programmatic changes. In the design of Parc André Citroën, time is also a

value with its gardens left for seasonal changes. Then, in more recent parks, time was again taken into account such as Downsview, Fresh Kills and High Line Parks. However, in their design the changes in ecological aspects are more significant as a time dimension than the programmatic changes; therefore, they are accepted as adaptive design solutions.

The park design is evolved also in terms of the design team. In Parc de la Villette competition, the search was for the chief designer that would lead a design team who was to be responsible for the design of the whole park and coordinate other contributors. However, this has evolved in time; more recent park design projects were created by a cooperation of different teams. This was probably resulted by the involvement of ecology in design; the presence of different teams specialized in different fields has increasingly become crucial to achieve an ecological design that incorporated ecological restoration, wetland ecology and landfill ecology teams.

As a result of the analysis, the thesis has pointed a number of new significances of landscape which are landscape embodying the city and its activities; strategic landscape responding to changing conditions; landscape consisting of modules as diffusing units through the city; landscape as an infrastructure of the city; landscape exhibiting the memory and history of the site; landscape as a living habitat encompassing species in the city and adaptive landscape accommodating to time. Parc de la Villette competition has brought to landscape design a significance of embodying the activities of the city because the program was overloaded with cultural activities; later on, similar programs were used in later projects. Another result of the competition was that landscape design could be strategic, as both of the Bernard Tschumi's and Rem Koolhaas's entries were based on strategic design solutions to compute the programmatic indeterminacy of the competition. The two la Villette proposals were modular design solutions; one of them used the module of *folie*, the other the strip, which had the ability of change and grow through the city. The Downsview project used dots as modules of the design and showed this on the competition diagrams as dots overflowing the

boundaries of the park. The significance of these as defining an infrastructure for contemporary cities was first seen in Parc de la Villette projects; the same idea was further elaborated in the recent examples of Downsview and Fresh Kills. The landscape has also gained the significance of exhibiting the memory and history of the site. Parc André Citroën, Bercy Park and Invaliden Park referred to design ideas and elements derived from the history of the site which could be seen also in the Fresh Kills Park with the monument of World Trade Center. Finally, landscape has gained the significance of being a living habitat which encompasses species and their ecosystems. As a result of the ecological design approach, the adaptive quality of landscape accommodating time as a living entity was used in Downsview, Fresh Kills and High Line Parks.

While evaluating the contemporary landscape designs studied, the thesis has also displayed the development of urban park design and the search for new park models for the 21st century, which has been continuing since 1980s. The aim of the competition for Parc de la Villette was to achieve a park in the place of the old slaughterhouse and its site which has become a model for the 21st century since the competition was held in Paris. The Europe-wide competition of Parc André Citroën which was held in 1985 was also a search for an ''urban park for the 21st century'' like Parc de la Villette competition. Then, in more recent years, the search has still continued in Downsview Park and Fresh Kills Park.

As a result, the thesis claims that the success of a park mostly effected by the preferences of people which can be achieved by embodying many cultural, sports and social activities; however, design solutions should be strategic to respond to the changing demands of the society. Ecology has become an essential issue in the contemporary park designs and it will remain as a value for a while; therefore, the parks should be designed in an ecological manner. The sense of place is another essential aspect of contemporary park design. In short, the parks should contain the three approaches; in other words, they should be designed in a strategic way with a sense of place and cope with the

ecological requirements. However, it is hard to find out a solution to achieve a park model which will remain valid for a century because new dimensions can be added to designs anytime. As an example, ecology has been a value since 1960s with the landscape designs of Ian McHarg; however, it has become an essential dimension in park design in the recent years.

5.2 Evaluative Research in Turkey

After the final evaluation of the study, the thesis will attempt a brief evaluation of the recent approaches in park designs in Turkey. The cases studied in the thesis were based on park designs that aimed at the rehabilitation of old industrial or derelict areas which were all obtained by design competitions. For this reason a brief evaluation is made here on the competitions of park designs in Turkey. It is to note that such project competitions have intensified in the same period beginning from 1980s until the recent years. The research was based on the Turkish architectural journals and websites however not only the park design competitions but also the urban design competitions were also examined because in the recent years, most of the entries of the urban design competitions were also designed as parks and most of the competitions called as "urban design competitions" have consisted in the design of parks.

Gaye Birol and Yasemin İnce Güney in the architectural journal *Mimarlık* argue that entries which took prizes in the recent urban design competitions are designed as parks rather than urban development projects. They add that the greenery and the landscape arrangement are just one of the issues which have to be considered in urban design.[239] It is interesting to note that landscape has been used as an infrastructure in urban design competitions in Turkey for a while; which is regarded as the principle argument of landscape urbanism theory throughout the thesis. In most of the urban design

[239] Gaye Birol and Yasemin İnce Güney, "Kentsel Tasarım Yarışmalarında Yerel Değerler: Balıkesir Çamlık Tepesi Yarışması," *Mimarlık,* Vol: 333 (January-February 2007): 65.

competitions which were held in the recent years, projects used landscape as the connective element of the design rather than roads and buildings.

The thesis has pointed the composition, palimpsest and mediation as design strategies in the park projects. In the palimpsest and mediation, layering as a design tool has been exemplified with projects proposed systems or layers which are superimposed on the site. They supplied the programmatic requirements of the competition at different layers. However, in Turkey most of the projects display composition as a design method especially in 1980s. Using an abstract system or systems superimposed on each other is not a preferred way. The park designs were mostly achieved by compositions according to certain design rules and based on the interrelationships of the design elements in a hierarchical way.

In the previous competitions of park design, the transformation of wastelands constitutes an issue to be dealt with. In Turkey, the park projects and the competition requirements mostly brought a multiplicity of social and cultural activities to the sites. It is possible to observe that the concept of memory is not a preferred reclamation method for the wastelands. Also, the projects are not based on strategic design solutions. However, there is a rising interest in ecological design in the design competitions in Turkey. Most of the competitions have been organized with ecological concerns and site recovery; and the entries have proposed designs with ecological principles. In the recent years, ecological issues have been the subject of the design competitions held for national parks, specially protected environment areas or for the urban parks.

In the recent years a number of ecological park design competitions have been held. Uludağ National Park Development Zones Landscape Planning, Urban Design and Architectural Project Competition was held in 2008 to achieve ecological, aesthetic, functional and economic design solutions for the protection of the national park and encouraged entries which had social, cultural and sustainable dimensions. Dicle Valley Landscape Planning, Urban

Design and Architectural Project Competition was held in 2007 in Diyarbakır to rehabilitate the valley and required a number of cultural and sport facilities designed in conformity with ecological principles. Ankara Gölbaşı Special Protection Area Urban Design Competition was held in 2001 with the objective to rehabilitate the ecologically sensitive area containing the Mogan and Eymir lakes and close surroundings which have environmental values. The aim of the competition was to obtain an ecologically designed urban design project with functional and aesthetic solutions and the competition achieved protective approaches with ecological restoration and biological renovation projects. Gelibolu Peninsula Peace Park international design competition was held in 1998 to get natural, protective, ecological, cultural and historical design which illustrates the complexity of the competition. The site was a 32.000 hectares large site that incorporated complex dimensions of history, ecology, agriculture and archeology. These are only some of the competitions held in Turkey, and in fact, these are worth studying more in depth in another thesis study. Here, the ecological approach will be briefly reviewed with a few more examples.

Ecological design can be achieved in the middle of the city even in a small piece of land; as in the case of High Line Park. However, in Turkey ecological design approach has been mostly preferred for large parklands. Also, most of the competition teams of ecological projects were composed of architects, landscape architects, city planners and urban designers; agriculture engineers and forest engineers sometimes take part in design teams and rarely environmental engineers and biologists can be observed as consultants of the teams in Turkey. However, the thesis has pointed that ecological projects require multi-disciplinary design teams. As an example, the Fresh Kills has an ecology team which was composed of ecological restoration, landfill engineering, plant and wetland ecology and avian ecology teams in addition to other design teams.

The rehabilitation projects most of which were post industrial sites have been the subject of study throughout the thesis. Producing parks in such areas has constituted a way of reclaiming these for the cities. In the city of Ankara, for

example, there are similar areas which have become wasteland after deindustrialization yet having potentials as parks. The Havagazı Factory Plant in Maltepe built in 1929 and served for 61 years which was an industrial archaeological site that could have been designed as a park while protecting its industrial value. Atatürk Orman Çiftliği is a precious area presenting historical, recreational and ecological values for the city of Ankara. Covering a very large area along the Ankara River and consisting of forested and agricultural areas, it has the potentials of being developed as an example of ecological design while protecting its agricultural value. In extension of the green corridor constituted by Atatürk Orman Çiftliği, the Hipodrom area, the sports and recreational area around the Stadium, Youth Park which was designed in late 1930s as a park of culture and the site around the Presidential Symphony Orchestra's building site and the Cer Gallery of Modern Art which is an area where activities of art and culture are located. The site has a significant cultural value since the Early Republican period and can be rehabilitated with a design based on the meaning of the land under the guidelines of landscape urbanism. Imrahor Valley is another valuable land in Ankara which is the only valley preserved from building constructions and has a great landscape quality with its topography. The valley is a part of the green corridor of Ankara which could be gained to the city life by designing a park. The valley has its own ecology therefore the design should be ecological and a protective approach which will preserve the land from settlement. Having similar site characteristics to Downsview Park, the project could be designed with a strategic approach.

The urban design and park design competitions in Turkey have been increasing and a great number of them have been held in the recent years for the wastelands in particular. Aiming to achieve park design projects especially by design competitions is a way of reclaiming wastelands that is worth of appreciation; however, the problem is the lack of implementation of these projects in Turkey. The park projects which took prizes in the competitions have great values which could enhance their sites; however, the majority

could not be constructed because of financial, bureaucratic or political problems.

In summary, the thesis aimed to present an examination on contemporary urban park designs and highlighted the significances of landscape design. Not only a number of park design strategies were studied, but also a framework on recent design approaches was drawn in this study, which aimed to bring clarity to the approaches of park design in the world and aimed to mention briefly the situation related with park designs in Turkey. It is worth to explore these and their potentials in depth in future studies.

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