Interpreting City Patterns
The Making of Roosevelt Island Park

Janki Bhatia
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The Making of Roosevelt Island

Janki Bhatia

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APPROVED BY:

__________________________
Hans Rott- Committee Chairman

__________________________
Steve Thompson- Committee Member

__________________________
James Jones- Committee Member

__________________________
William Galloway- Committee Member
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Abstract

City patterns have taken shape as Architecture has prospered— as a search for a coherent environment between nature and human desires. This thesis is a study of urban as well as architectural impacts together, to find the meaning of life patterns in relation to the overall city structure.
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>i</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>ii</td>
</tr>
<tr>
<td>Design Context</td>
<td>1</td>
</tr>
<tr>
<td>-Large Scale Organizations</td>
<td></td>
</tr>
<tr>
<td>-Precedents</td>
<td></td>
</tr>
<tr>
<td>Parc de la Villette, Paris</td>
<td></td>
</tr>
<tr>
<td>The Highline, New York</td>
<td></td>
</tr>
<tr>
<td>Downsview Park, Toronto</td>
<td></td>
</tr>
<tr>
<td>Vienna Expo</td>
<td></td>
</tr>
<tr>
<td>Site</td>
<td>7</td>
</tr>
<tr>
<td>-The story of the land</td>
<td></td>
</tr>
<tr>
<td>New York City</td>
<td></td>
</tr>
<tr>
<td>Roosevelt Island</td>
<td></td>
</tr>
<tr>
<td>-Modern Proposals for Southpoint</td>
<td></td>
</tr>
<tr>
<td>-Southpoint Competition Program: From Ruin to Rejuvenation</td>
<td></td>
</tr>
<tr>
<td>A Fictional Beginning</td>
<td>12</td>
</tr>
<tr>
<td>-2 Months later</td>
<td></td>
</tr>
<tr>
<td>-1 Week later</td>
<td></td>
</tr>
<tr>
<td>An Urban Park for Roosevelt Island</td>
<td>21</td>
</tr>
<tr>
<td>-Conceptual Framework</td>
<td></td>
</tr>
<tr>
<td>Layers and Superimpositions</td>
<td>23</td>
</tr>
<tr>
<td>-Spatial Coherence</td>
<td></td>
</tr>
<tr>
<td>A Day in the Park</td>
<td>30</td>
</tr>
<tr>
<td>-Natural and Artificial Groove</td>
<td></td>
</tr>
<tr>
<td>-Pathways</td>
<td></td>
</tr>
<tr>
<td>-Edge</td>
<td></td>
</tr>
<tr>
<td>-Recreational Buildings</td>
<td></td>
</tr>
<tr>
<td>A new model</td>
<td>49</td>
</tr>
<tr>
<td>-Material System of the Edge</td>
<td></td>
</tr>
<tr>
<td>-Material System of the Market</td>
<td></td>
</tr>
<tr>
<td>-Vistas</td>
<td></td>
</tr>
<tr>
<td>Bibliography</td>
<td>66</td>
</tr>
</tbody>
</table>
Over the eras, a diverse influence on the styles and means in Architecture has emerged resulting from human efforts in search of variety and invention. Each style has induced a new consequence of shifting from or negating past manifestations. However, this evolution of architecture has resulted into several specialized sub-disciplines because of its growing complexity and demands. The subsequent autonomy of these fields, such as building technology, urban studies, environmental studies, theory, programming, and several others, has resulted in increasingly incoherent end result. The isolation of such sub-disciplines has begun to limit the ability to impinge change. Recognizing this dilemma, today's architects and philosophers are trying to assimilate these fragments and re-construct a fuller picture.
Cities take shape based on several economical, political, social and cultural factors. Although economics, politics, society and culture play crucial parts in shaping cities, much of urban design attempts to bring in an ordered, unified and singular whole, to generate a richer and fuller life pattern. The problem of "lost space," or the inadequate use of space, affects most urban centers today. The automobile, the effects of the Modern Movement in architectural design, urban-renewal and zoning policies, the dominance of private over public interests, as well as changes in land use in the inner city have resulted in the loss of values and meanings that were traditionally associated with urban open space. Many writers/theorists have argued the need for architecture to recover the traditional role of 'building the city', and there have been individual architectural works showing successful results. The exciting and gratifying consequences of many projects have reflected urban success of sustaining continuities of city's fabric and take cues from it as to their form and content, to (re)present themselves. The following examples include collaborations between different professionals such as architects, urban designers, landscape architects, and traffic, road and sewage engineers. These projects have informed sensitivity to the whole, which includes the city's past and its traditions as well as its aspirations for the future. The enthusiasm generated by having such highly successful and applauded projects helped promote the unusual degree of collaboration between various professions.
Parc de la Villette, Paris
Bernard Tschumi, 1983

Bernard Tschumi won the competition project for the design of Parc de la Villette in Paris in 1983 as a part of urban renewal plan for the site of former meat market place and slaughterhouse. His design revolved around a point grid system of follies spread out on site as the generator of the park. The park consists of 35 red follies, sport and recreation areas, playgrounds, a science and technology museum, and a music center. Out of these, Tschumi was in charge of planning and development of the follies. His conception of the follies is that of a number of abstract, programless structures. It can house various events and groups related to the activities of the park. With ordering systems of points of follies, lines of paths and planes of sport areas, he introduced his much spoken theory of disjunction to his design. His design questions the conventional notion of parks as green open spaces, and rather expresses an artificial and domesticated place.
The High Line is an abandoned 1.5-mile stretch of overgrown railroad viaduct that runs from the Meatpacking district to Hell’s Kitchen. The idea to turn the old freight route, once condemned to demolition, into a public park has gained momentum over the past five years, culminating in a design competition that attracted 52 entries. Field Operations designed a very provocative and vivid proposal out of all the entries, with an undulating platform that would preserve some of the railway’s current wilderness. Long concrete planks are used for construction of the ramp, which at times are tightly fitted, and at times are separated by gaps overflowing with vegetation. With a combination of boardwalk and dune, the concrete ramps arc above trees providing lofty views, and leap down between the steel girders and shelter pedestrians in greenery. The intentionally used undulating ramp slows down the typical New York City quick march. With high-flying acrobatic demonstrations, to elevated beach and swimming pools the design envisions a highly vibrant place of retreat from the busy city life.
The international competition in 1999 focused on proposals for an urban park for the former military base in Toronto. The 320-acre competition site demanded a federal park with natural and formal garden environments that offered both passive and active recreation while promoting environmental sustainability, new ecologies and the rich heritage of the site. Rem Koolhaas won the competition project with his proposal called the Tree City. Tree City is a self-sustaining park proposal that stayed within the available budget. Proposed landscape elements are to 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. The park is conceived in stages of three long term phases—site and soil preparation, pathway construction, and cluster landscaping. The resultant park will consist of circular tree clusters covering 25% of the site, supplemented by meadows, playing fields and gardens. Each landscape cluster is left unassigned of program. Over the course of the park's life, functions will be assigned to ensure its own existence. Complementing these clusters, 1000 pathways of trails strew the entire park, providing infinite itineraries for the park visitor. With its continuing landscape clusters and extensive pedestrian pathways, the design envisions connection to the city's green spaces, forming a Tree infrastructure for the greater Toronto Area.
Vienna Expo competition set out in 1995 for a site located between the Danube and U.N. City, invited proposals that can become the foundation for developing a new community. The design by Morphosis focuses on the ideas of connection and bridging, interaction and interrelation of patterns of activity, and connection and utilization of the natural environment with architecture. They concentrated on programmatic diversity, anticipating a synthesis of the programmatic and formal objectives. The design attributes include a warping topographical surface that defines the project’s boundaries. Into this are woven, disparate, incremental structures that serve to contravene the traditional way of perceiving figure-ground relationships. The identity of each building fragment results from an integration of a series of datums, and superimposition of layers of organizing backgrounds. The superimposition strategy allows controlled accident and establishes a framework for future architectural sites.
Recognizing this necessity of relating the influences of diverse disciplines on the character of a city, my project began with the search for a piece of land. A larger scale and proximity within a city were important criteria in this search. Roosevelt Island came to my notice with the competition proposal set out in the month of September 2005. This barren site has caught the eye of many architects over the period, and still remains as a "lost place" amidst the busy and populated New York City. The site demands a collective effort of rejuvenation by the government and the people owing to its strategic location within the city and its abundant natural resources.
New York City

Since New York embraces the sea, the principles of economy were of greater influence in its development than health, pleasure and convenience. In 1811, a grid of 13x156=2028 blocks, also famous as the ‘Manhattan Grid’, was set out as the future model for the city. The prime objective was to concentrate on the form and manner in which business performs in confinement of the rectilinear streets. However, the grid speculation claimed more of "a mental construction over reality". Because of the grid, the city's planning failed to specify a built configuration. Since the grid negated the hope for developing larger parts of the island by single client or an architect, each architectural venture had to happen within the limitations of the block. Especially during the Machine Age, Manhattan became a place of invention and testing of metropolitan lifestyle. Not only large parts of its surface occupied architectural mutations, but each block also covered several layers of competing architecture that provided alternate images to New York. Despite this, today the city succeeds as a saga of prosperity, of accomplishments of mankind, one of the vital places that are influential to the entire world in its own possible ways.
Situated on the East River crossing New York, Roosevelt Island is the southernmost amongst the three small islands, with Manhattan and Queens parallel on its either side. It is almost a mile and three-quarters in length, extending from 51st Street to 68th, and comprises of an area of about 120 acres. The Blackwell family who owned the island named it the Blackwell Island in 1872. In 1854 Smallpox Hospital was erected on the extreme southern end. It was the only hospital in New York devoted to smallpox cases and served both private and public institutions. Behind the Hospital, extending north and south, the New York Penitentiary was erected. Further developments included few other Hospitals for Incourables, Almshouses and New York Lunatic Asylum.

Today Roosevelt Island’s architecture reflects its two major periods of social development. Most historically distinguished, and perhaps most haunting, are those buildings which belong to the Blackwell and Welfare Island era. Six of the existing buildings from this time (including the Smallpox Hospital) have been land marked as historic structures by New York City’s Landmark Preservation Commission. However, the urban fabric of the Island clearly belongs to another time. A number of architects design, following the master plan envisioned by Philip Johnson and John Burgee in 1969, the modern residential tower core along Main Street. The first phase of residential construction was completed in 1976, with four building complexes, and over 2000 apartments.
Beginning in the mid-1970s, although the General Development Plan for the island designated the space as parkland, the 10-acre Southpoint area has been subject to a number of development proposals.

In 1974, Louis Kahn was commissioned to design a Roosevelt Memorial for the southern tip of the island. In the 1990s, alternate proposals for the site were entertained, including a hotel complex and a restaurant pavilion designed by Santiago Calatrava.

Despite the numerous efforts and proposals by different architects, none of the projects are executed till date; Southpoint remains as an untamed land, neither a park nor a habitable place.
The Southpoint competition released in September 2005 invited numerous institutions to submit proposals to ‘re-use’ the land while incorporating the existing ruins on site that connect to the past and instill a complementary design for the future. The program determined for the competition was to build a Universal Arts and Performance Center that invites as many tourists as possible to promote commercial use on site. The program stated in the competition was:

**Universal Performance Arts Center**

- Performance Theater
- Black Box Theater
- Outdoor Performance Theater
- Art Gallery
- Studios for Art related activities
- Special Event Space
- Administrative Offices
- Artists Residence
In older times, the social structure of communities largely influenced city patterns. Amidst such a construct, the ‘undesirables’ recognized by the community were especially designated to remote places. In the present scenario, however, the social obstinacy has faded, and a blend of all ‘types and classes’ of people reside within the city itself. Roosevelt Island also began to reveal signs of life with construction of hospitals and asylums suggesting a place to lead the ‘undesirables’. However, today with abandonment of the asylums and hospitals, it stands disconnected with the city life. Even under the supervision of New York state government, its urban development has been taking place rather half-heartedly. With less commuting opportunities and remote residential ventures, it has little identity with the city that it is a part of. My immediate concern was to bridge a connection between the site, the city and the life style generic to it, so that it does not simply stand disjointed from the city, but also seeks recognition as a part of the city.
My initial studies and questions on site and city pattern led me to explore a condition that would establish connection with the city, and at the same time provide opportunities for variations and substitutions. Since the bearings of the traditional grid structure define a distinct character of New York, the immediate response to redevelop Southpoint was by extending the grid on it. But the mere incorporation of the grid imposes confinement on the site and negates the natural and topographical features of the site. Hence my studies attempt to demonstrate in terms of interpretation the possibility of utilizing the grid as well as transcend its physical limitations to create a new scale— a foundation that follows the principles of the city and evolves to a new configuration inherent of its own characteristic.
The design addresses people. It revolves around paths that entail the concourse of the city structure today and transforms the experience to an integrated type of living. Since the edge of the island is the direct recipient of the city, the new structure will grow along the edge and permeate into open and enclosed spaces to enact an urban structure that unifies the life style of the city and support opportunities for land use.
The exercise begins with graphic studies to incorporate the famous Manhattan Grid. The recognition of the grid leads to its deformation in order to adapt to the topographical characteristics of the site.
Overlaps are made with respect to the different factors that affect the proximity of the site to the city. This helps in bringing the hidden nuances of the grid that could compliment the features of the site. Life seeps in to bring in sense to the constricted human analogies.
Overlap of water patterns colliding with the site onto the grid and the skyline excerpts.
Extension of the streets coordinates onto the site generating different spatial envelopes. This generates a reflection of lifestyle of the city on the island.
Program...under Scrutiny

POINT: the beginning of new geometry, of growth
That which marks the entry to the setup. An
invitation/entry to the public.

LINE: a spatial location defined by a real or imaginary
unidimensional extent
A market space

EDGE: the end or the beginning of a thing
Street theatre

PLANE: a level of existence that defines, demarcates
or shields
Exhibition space

MASS: that which has weight in a gravitational field
Studio spaces/dwellings (house for art/creation)

FIELD: a region in which a particular type of force
can be observed
Park...........developing the existing park space.

PLAY: a state where action is feasible
Community space (conference, convention hall, auditorium)
"The end of the line."

“There is a common urge, namely, to visualize a thing in its beginnings, because the beginning is the simplest mode in which the thing is to be seen...But the simple beginning is something so insignificant in itself, so far as its content goes, that for philosophical thinking it must appear as entirely accidental.”

- Hegel, Aesthetics, Part III, Section 1, “Architecture.”
The design for Southpoint progresses with the idea of developing a new landscape combining public uses and events along with the inherent topographical features. At first instance the river basin dividing Manhattan and Queens, where the immediate logic of integration and penetration informs much of the site development, influences the site. On the other side, physically and psychologically, the site is a separation of human type. Hence, a theme park or a ‘natural’ preserve does not serve as an answer to the investigation. The proposition does not seek to use conventions of traditional park compositions like Central Park (an immediate comparative). It is a combination of deriving the connection to the city coupled with its natural resources and water body, and overlapping them to achieve an urban sensibility of land, life and culture. Built masses such as markets, galleries, performance spaces depict ideas of ‘urban’ settlements, even in the midst of openness, nature and abandonment.
The park seeks its identity by finding the form that would exist independent of program and use, a threshold or an intermediary that would define the relationship between the program and the resulting architecture. The conceptual framework hence begins by defining elements in the program that are clear and static, that would behave as key elements of the development, and that would further suggest, organize and administer future development by other designers. The program of the built, be it an auditorium or an exhibition gallery, could be reworked into a sports center or a clubhouse. The park would retain its identity, while the stated program could pursue its independent execution. The objective is to act upon the strategy of the static and the changeable. The intervention by other designers will defy the continuing parameters set by the initial form, and at the same time the rules would become the conditions for their proposals.
Layers and Superimpositions

Superimpositions of various grid principles constitute the project’s static and variables. The resultant organization is a ‘system of lines,’ ‘system of planes,’ and ‘system of field’. Each represents a different and independent system. They intersect with one another and build a new composition of dissimilar activities.

**LINES**

Systems of lines following different grid principles provide multiple choices of pathways to the commuters. These lines draw connections between various activities on site; entries, exits and intersections with different parts.

**PLANES**

A system of planes encloses different programmatic functions on site. The resultant buildings vary in nature according to the functions incorporated in them.

**FIELD**

The system of Field creates a region of friction between the artificial and the wild. A dense groove of artificial and green instigates the entry into the park.
Artificial and Nature

Surfaces

Lines

Articulation of Plan by Layering
The first step was to maximize the involvement of the site in relation to its location, by projecting the city grid on to the island. The grid is a means to derive linkages. It behaves as an extended definition of the city structure. It increases the interface between the populated and the remote land areas and directly intensifies the life and culture to its inert resources.
A Day in the Park

Arbitrary parts of the park are developed further to illustrate the progress of the park that is generated from a particular system of layers.

A day in the park gives myriad of opportunities to the visitor. Nature and artificial unite with each other for an expanse of urban activities. Different formal systems are not directly recognizable, but one experiences a new habitat on the untamed land standing solemn from the streets of Manhattan.
A groove of artificial and natural takes form from the dimension of Manhattan grid and invites the visitors in the park. The groove revives the rectilinear composition of the city, however making it less constricted with several pathways cutting through it. The solidarity of the groove is broken with dancing/playful shadows and sound, while the texture, material and colors also keep changing. Visitors can sit and take recluse beneath the trees, crawl on to them, play around them, and watch other visitors do the same.
Numerous pathways run through the park. Dissimilar in nature, some cut straight through the park parallel to the Manhattan grid, some crawl up in the air responding to the axis of the site, some turn sharp corners, and some curve in and out following the edge of the site. Each of these serves a distinct purpose, providing a number of possibilities for the visitors. Each path is a means of internal linkage. The point where they intersect with other elements of park, turn or collide, are the moments of ground transition.
The walking/jogging trail on the west edge curves into several loops, following the geometry of the site, and at several occasions touches the water. At regular intervals, the trail leads to sit-out spaces. These seating spaces are a number of steps that takes one right at the brim of the river. Visitors/Joggers rest while enjoying the vast expanse of the river with continuous/open skyline of Manhattan to reminisce. The river-facing edge of the trail is also outlined with narrow marshlands, housed in with sculptures of birds and plants in metal, which illuminate the path.
Recurring ‘boxes’ are placed on the eastern and western edge of the park, as nodal incidents to the streets of Manhattan and Queens falling out on the river. As a threshold of the park from the city these ‘boxes’ frame the streets and serve as ‘event stations’. The form and language of the event stations is integrated and interpreted from different overlaps at that node. The event stations are accessible from the walking trail on the eastern side and through the elevated path on the western side. Along with this, the visitors are directed to the event stations from any of the buildings they visit.
One of the event stations, facing the 48th street of Manhattan, is approachable from the market. The entry into the station is a series of load bearing pre-cast concrete walls with large rectangular openings, directing the vision towards the 48th street. The walls open out to the adjoining space, which is the main gallery. Circular sky light marks the transition from the dark space of walls to the bright gallery. The gallery is an open space, with abundant natural light coming through tapering glass walls, to view the paintings displayed on hangers dropped from the glass roof. On the outside, the floor of the gallery steps down into different courtyards for seating, and finally merges with the trail.
All the built work in terms of recreational buildings will house different programmatic activities and events. To assert their presence, they follow the common strategy of negating the grid. Each of the buildings is different, offering variety and surprise. They do not resemble each other in terms of spatial composition or material and light renderings.
The event station leads to a skating/walking ramp that rises high above ground. The ramp turns sharp angles and slowly slopes down in the south direction. The ramp intersects with the market below. Structural system in concrete supports the ramp and the market below. Steel arching beams anchor on the concrete structure, onto which the creepers grow enclosing the ramp in a green shelter. This overlap of green versus manmade enhances the intersection of the ramp with the market.

Below the ramp, on the central axis of the park, is the linear expanse of market. Twelve analogous shop modules repeat at regular intervals with narrow passageways separating one from the other. These passageways lead to the entry to the shops, where the roof cuts open, illuminating the entry into the shop. The entry recedes back from the continuous surface of the shop walls in glass. Each of the glass walls are for display, making the entire shop merchandise as interactive from outside as from within.
The passageways are the interactive zones between the shoppers and the merchants. Different in ground/floor rendering from the shops, they respond to the pathways meandering through the park.
The sky and the water, with the edge of land offer a threshold for realignment of the historic grid. Incoherent lines and names of places, random vista points are taken and tesselated to evolve an identity of equivalence. Equilibrium is taken to dissipate into a state of freedom... Substance is hoped for... Empty ground becomes a place of invisible joys- a city with open aura...
Material System of the Edge

- Roofing System in Concrete
- Concrete Skin
- Structural System in Concrete
- Floor in Concrete
- Glass Skin
- Structural System in Steel
Material System of the Market

- Green Roof
- Concrete Slabbing Sara
- Roof with Copper Cladding
- Glass Skin
- Structural System in Steel
- Structural System in Pre-cast Concrete
- Ground with Concrete Flooring
East-West Site Section Cutting through Market, Gallery, Pathway, Walking Trail with Sit-out Space
Event Station on West side of the park
Views of the Event Station
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**Images**

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