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Fusion of Reality and VIRTUAL REALITY

THESIS PREP.

12/07/00

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Thesis Statement

This thesis is focused on the implications of digital technology within the relationship between film and architecture, from the use of architectonic elements in film that has the potential to build a complex, nonlinear space or new reality. I contend that through the use of digital technology, it will effect and change people's perception and experience of space in time, which will create a fusion of physical and virtual spaces, and will blur the boundary between reality and the virtual. The integration of digital technological revolution of today has allowed film and architecture to create and view previously unexplored combinations of space and time. Computer technological advances in film and architecture have always help pushed the filmmaker's and the architect's vision, from stronger computer hardware and software for better visual and special effects to developing and calculating to build and construct malleable glass and steel to create structures and spaces that try to defy gravity. These technological advances will lead to different ways we will experience films as we are already starting to with the technology of 3D Imax theatres, which will carry on to how we experience space. As walls and the skin of the building can now become screens, changing the way the building relates and interacts to its context and the way people experience space.

Digital technology has forged relationships between the creations of film and architecture together as parallel art forms. Architects now can manipulate space in time the way filmmakers has always done. This produces a hybrid of synthetic and experienced spaces. Through the new use of digital technology one can now explore various combinations and perceptions of space and time. This thesis will exemplify the relation of film and architecture through designing a film center, where film and digital technology of film is studied, viewed, exhibited and produced, through the methodology of using digital and 3D modeling software and perspective drawings to deal with the issues of sequence, transparencies, superimposition, juxtaposition of programs and spaces, and the manipulating the skin of the building, and representing time in space.

A Real Set/On Location vs. A Film Set vs. A Digital Set

From the beginnings of film, architecture has always played an important role to film as a set, which sets the mood and atmosphere of the film, from extravagant stage sets of musical films of the early 1900's to the digital sets of today. Filmmakers like Michelangelo Antonioni had used architecture to its greater effect. In his films architecture both contributes to the events taking place among actors and acts independently with other objects in motion and in space. (Lamster, pg 198) For Antonioni, architecture "enunciates themes of ancient vs. modern, nature vs. culture, atheism vs. Catholicism, woman vs. man, and even socialism vs. capitalism." (Lamster, pg 198) In *La Notte* (1960), the character Lidia (Jeanne Moreau) and Giovanni (Marcello Mastroianni) separated by a pillar as shown on the right.

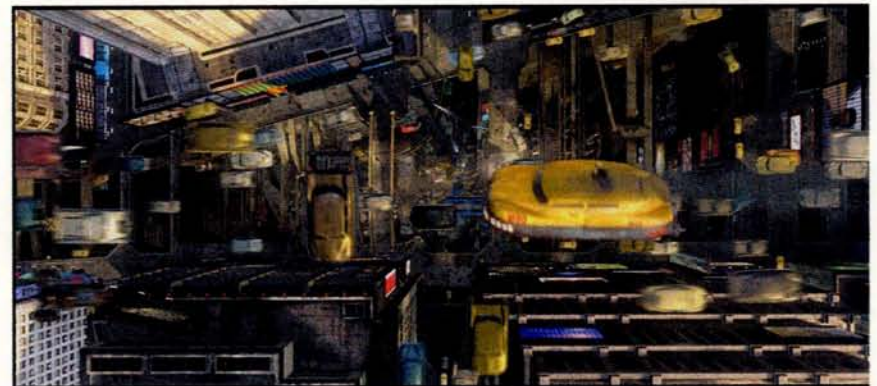


In *Dick Tracy* directed by Warren Beatty in 1990 as seen below, depicts and compresses the imagery from New York City of the 1920's and 40's, into a wide range of backdrops, street vistas, models, and matte paintings. The architecture in this film imagines Manhattan to grow without adopting the stylistic changes brought by European modernism in the late 1940's. (Neumann, pg. 172) The film's magical atmosphere could only have been achieved through an intense use of matte shots that merge background paintings with filmed sequences. (Neumann, pg. 172) In a way it is the beginnings of a sensible collision of the virtual and reality to obtain optical effects and perception of the space in terms of context in its depth.



Painted backdrops like in the movie *Dick Tracy*, can now be produced with digital paint systems, offering a less toxic and more malleable format. Character work then began to be pursued, from the abstraction of the water tentacle of *The Abyss* to fully realized dinosaurs of *Jurassic Park*.(Fear, pg.66) At the end of the 1990's, digital characters were omnipresent and considered for lead roles such as characters in Disney's *Toy Stories* and *Bug's Life*. Whereas character work has leveled off and is now commonplace, digital sets are just beginning to reveal their potential. Films such as the *Fifth Element* began to present new possibilities, but for the sheer magnitude and ambition of its imagined worlds, the release of *The Phantom Menace* must be seen as being pivotal for digital sets as *Jurassic Park* was for character animation.(Fear, pg 66)

In Luc Besson's *The Fifth Element*, offered visions of the future of Manhattan. An example of digital technology used to conceptualize other worlds and possibilities. It originally conceptualized a future Earth with a lowered oceanic water-table elevation, a result of exporting water to terraform distant planets.(Fears, pg 68) As a result, the Hudson and East River were run dry, establishing the island of Manhattan on a high plateau reminiscent of the Acropolis. As a consequence, real estate development excavated down, slicing the island into vertical canyons. This changed the notion of a single street and ground plane for circulation, so hovering craft were envisioned to ride into stratified layers vertically.(Fears, pg. 69) A side view from Brooklyn looking across the drained East River is shown on the bottom. This shot is typical of the hybrid nature of effects-shot composites. The 'Thai Restaurant' boat was shot as a full size built element, its attached jet engine a 3-D computer model. The small vehicles crossing the 3-D computer model of the Brooklyn Bridge were created as 2-D painted animation and, finally, the smoke of the jet engine was rendered with a 3-D particle system.(Fear, pg 69)





Digital sets are starting to be used with partially constructed ones, where the convergence of reality and the virtual happen, visually in Disney's *Fantasia 2000*, a follow-up to the original of the 1940s. It was the notion of merging live-action set with partial digital elements in the backdrop for the interstitial segments, which were the introductions to each piece of animation as seen above. (Fear, pg 69) It intended to maintain the spirit of abstraction of the original chiaroscuro of orchestra members silhouetted against colored backdrops, along the curvilinear forms in which deflect and modulate the projected shadows, including ideas of transparencies. This project for *Fantasia 2000*, suggests the potential of computer graphics to create abstract and surreal environments, the realization of which would be limited by physical techniques.

Alongside the obvious function of architecture in film as a device to produce atmosphere, to intensify plot or to describe historical background, the architectonic potential of film lies in its ability to depict space and time interconnections differently from what is usually perceived, where this widens the reality we experience with its devices and to increase our sense of space. In this connection, we have to remember that it is our world-view that provides us with the basis for a new understanding of space and time and enables us to imagine space differently. We have to accept the fact that the world we can experience with our senses is only a partial view of a multi-layered reality, and that it is only with the aid of instruments that we can access a further area. It can be proved that time and space are relative and one can claim that 'space is simple a possible series of real events'. (Fear, pg.60)

The reality we perceive is thus only one of many possible combinations of space and time. It is this kind of realization that forms the basis for new ideas of space.(Fear, pg 60) In film, space does not necessarily have to be represented in a logical sequence or chronologically correct order. Film devices such as digital editing allow us insight into new combinations of space and time, making a fantastic area of unlivable reality something we can experience on a two-dimensional surface.

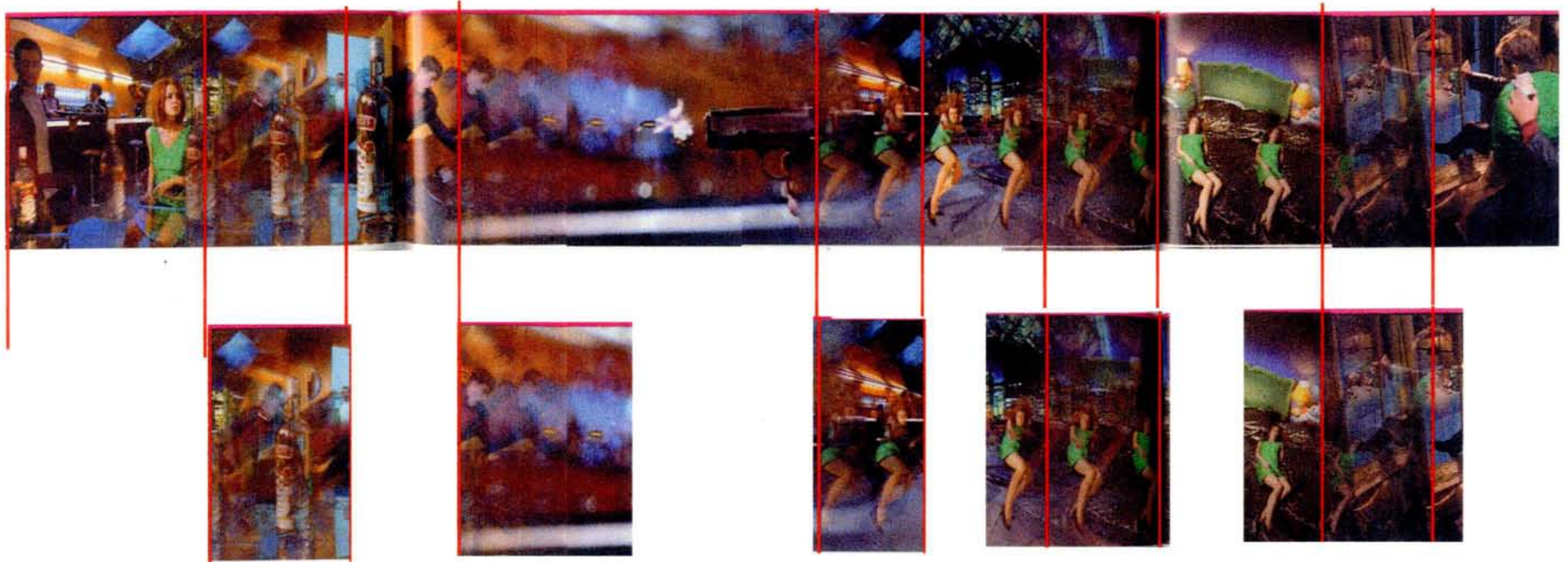
Traditional linear to digital non-linear process of producing film.

The classical method of remounting space in film is by editing the film material, in which this part of a linear method of producing film is architectonic. As on a two-dimensional sheet of paper, new relations are established between areas of space in the collage of film material. Without even having to manipulate the images themselves, spatial sequences that necessitate a new kind of orientation are possible. The viewers assemble the sequences using their own imaginations, thus creating a world beyond depictable reality. Such as Escher's endless loops of stairs became a reality in the film *The Avengers* (Jeremiah Chechik, 1998). By using the same film sequence, which is the view down on to a broad staircase several times, the filmmaker can make the main actress descend the stairs without actually going down them.

The non-linear technique of digital filmmaking will change the classical assembly line way of making film as digital film making become more feasible. It will also change the way people think about film and space, because of this drastic change of its production, such as director Michel Gondry has with his Smirnoff vodka commercial shown later. With the advent of digital technology different fields can work on a film simultaneously, where the sound department can work together with the editing or visual department on a segment of a film.

Before the arrival of digital technology, the possibilities open to film to form spaces were restricted to dealing with photographic images using collage-like, additives methods, animation, crafted model techniques, varieties of exposure or even the manipulation of the film material itself. The computer offers the chance to generate spaces synthetically. Today one can use the

computer that can calculate the transition between two incompatible spaces, where a hybrid of synthetic and experienced spaces is produced without a gap that has to be filled by the imagination of the viewer, being able to directly see the creator's vision first hand. Below an analysis of the Smirnoff vodka commercial is shown extruded individual pieces of transition and calm from its original montage of the commercial, where this montage shows the film of its space and transitions and action in time.



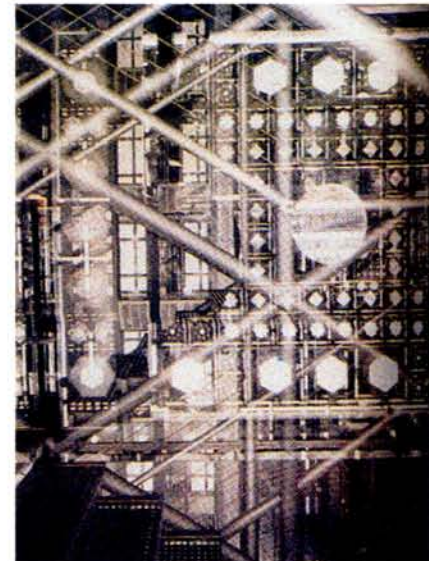
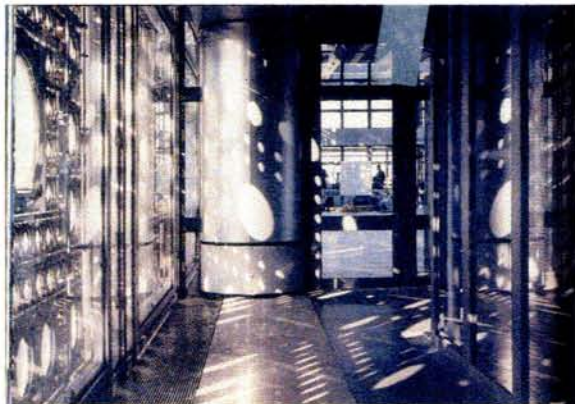
The concept of “morphing” is relevant. Marcos Novak describes this in connection with his “Transarchitectures” in the following: “Morphing is no longer about the mechanical juxtaposition of different objects, but rather about the alchemical admixture of different but similar fields.” (Fear, pg 61) This means that by mixing differently new features where as far as space in film is concerned unheard of spatial features come into being.

For example, in a commercial for Smirnoff vodka as shown in the previous page (directed by Michel Gondry and animated by CGI specialist Pierre Buffin who studied to be an architect, a number of these ideas were combined) a young couple is suddenly surprised by the arrival of an unpleasant guest, and an unusual chase begins. The window through which the couple escape leads into the floor hatch of a ship; the hierarchy of the top and bottom is cancelled although the couple are still subject to gravity. Floor and walls are interchangeable; it is possible to move alternately on both and their openings offer access to a known space, however impossible it is in the way it is arranged. The transition from one sequence to another is soft; spaces flow into one another and the physical laws of the single spaces overlap at the point where they join. The viewer can see how, when someone climbs through a window, the wall containing that window turns into a floor without any kind of cut. Memories of spaces to scale, computer animation and photographic images are mixed into a hybrid, subject to its own laws and disorientating our senses, particularly when we see that the couple arrive back at their point of departure even before the chase begins. (Fear, pg 58)

With the potential of computers, spaces without scale can be created and the immaterial images need not be subject to our physical laws. (Fear, pg.61) What seems to be material space can flow and be in permanent movement; the relations between spaces are infinite. One might ask whether the computer can go beyond the similarities to the reality we perceive and generate totally new laws. This allows the manipulation of the basic elements of space and hence the viewer’s perception of it. If one understands film as the moving depiction of spaces, which we experience as being three-dimensional on a two-dimensional surface, while as the images are accepted as being three-dimensional, film as an illusion of space on a plane. By using all the possibilities inherent in film, all of its technology, the medium could offer the architectonic potential to allow us to look far into the future by enabling us to immerse ourselves in previously unimaginable spaces.

Manipulation of Skin – changing the perception of space and its (in)materiality

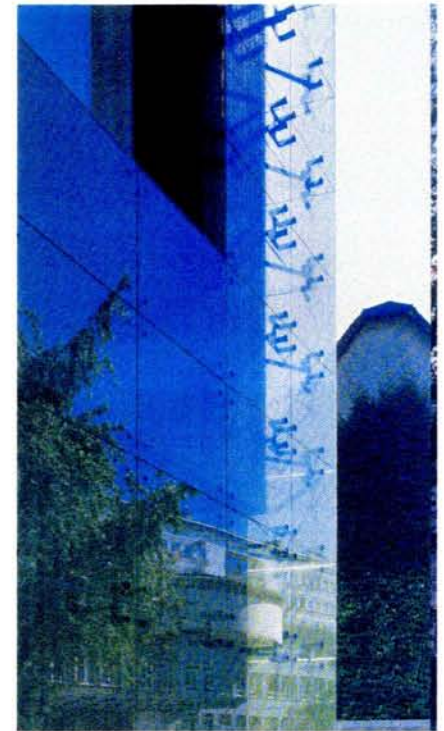
Some contemporary architects have manipulated skin to include images or moving images and their relationship to space and time such as Jean Nouvel and Herzog & De Meuron. And some have used glass as skin to make metaphoric relationships to film such as Coop Himmelblau and Benard Tschumi. Jean Nouvel have incorporated direct inspiration from the figures and environments of the cinema into his architecture, fusing the world of moving images and the film set with design in the real world. (Penz, pg.119) Jean Nouvel states that architecture exists, like cinema, in the dimension of time and movement. One conceives and reads a building in terms of sequences. To erect a building is to predict and seek effects of contrast and linkage through which one passes. In the continuous shot sequence that a building is, the architect works with cuts and edits, framings and openings. He also states that he likes to work with a depth of field, reading space in terms of its thickness. Hence the superimposition of different screens, planes legible from obligatory points of passage, which are found in all his buildings. For example, like in his Arab Institute in Paris, when a person experiences the space one can comprehend your own movements and role as one descends through the pierced screen side of camera lenses, which changes and corresponds automatically to the amount of sun shine the screen receives. It changes its focus or shape of its lenses to allow a certain amount of sunlight into the buildings, where the skin of this building reacts to sunlight, thus moving in time reacting to its natural context, which is sunlight in this case. This links a filmic perception with personal experience with architecture.



Herzog & DeMeuron's Eberswalde Technical School Library also manipulates the building's skin containing iconographic and symbolic images of the town's history as shown on the left image. Thus using skin to reflect the past, like Warhol's silk screened multiples, the library's repeated images and photomechanical dots generate rhythms of their own, producing tension between the figurative and the abstract, between surface and depth, reel or illusory. Intensifying the ambiguities, distinctions between aggregate and dot screen blur at close range. And the "wallpapering" of concrete and glass (conventionally an unpainted material) with a continuum of images transforms these different surfaces into a single textile where deeper more traditional task-level windows are cut to differentiate the openings.

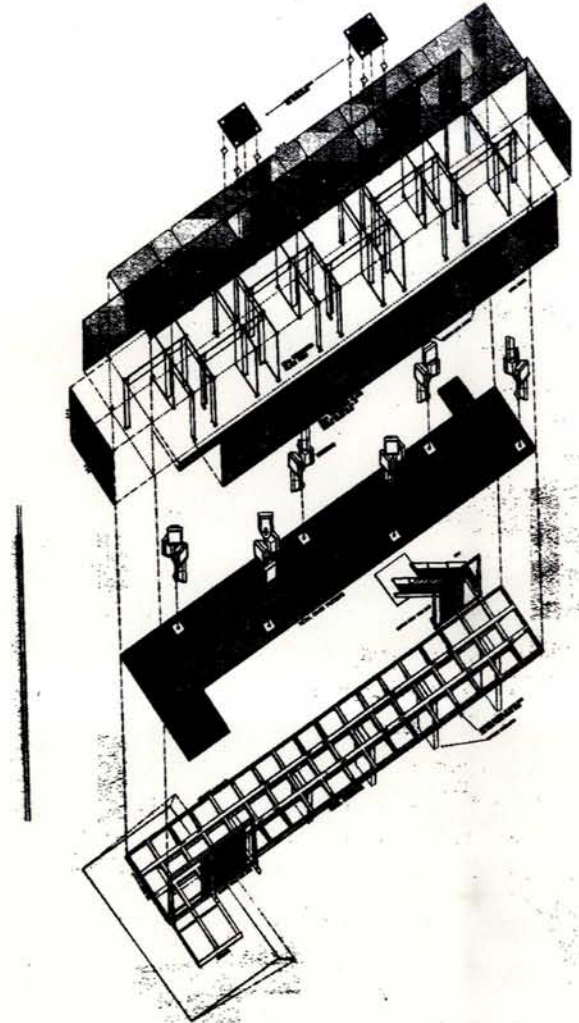
The skin of Rossetti Hospital Pharmacy of Basel's Kantonsspital Complex in Switzerland also by Herzog & De Meuron is even more abstract which is the image on the right. Flat-faced and geometrically clean, like many Herzog & de Meuron buildings, it transforms itself as it is approached. Its placid, glossy green, sometimes visually impenetrable skin becomes a spatially deep façade, its rigid membrane virtually vibrating with optical activity. It ranges from the reflection of its surroundings to changing its skin's transparency or reflection depending on the viewer's angle or location to the façade. The glass appears green from afar, but the glass panels is held several inches outside the supporting wall by four-pronged steel struts, are actually colorless glazing, silk-screened with grids of

bottle-green dots. (Amelar, pg 89) Behind these panes, thin stainless steel plates, perforated with a similar dot grid, are layered over rigid insulation and concrete structure. The interference patterns of perforated and painted dots and, at the corners, painted dots over

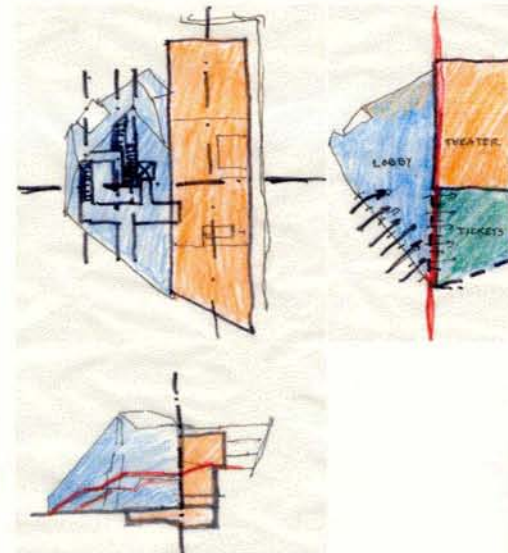
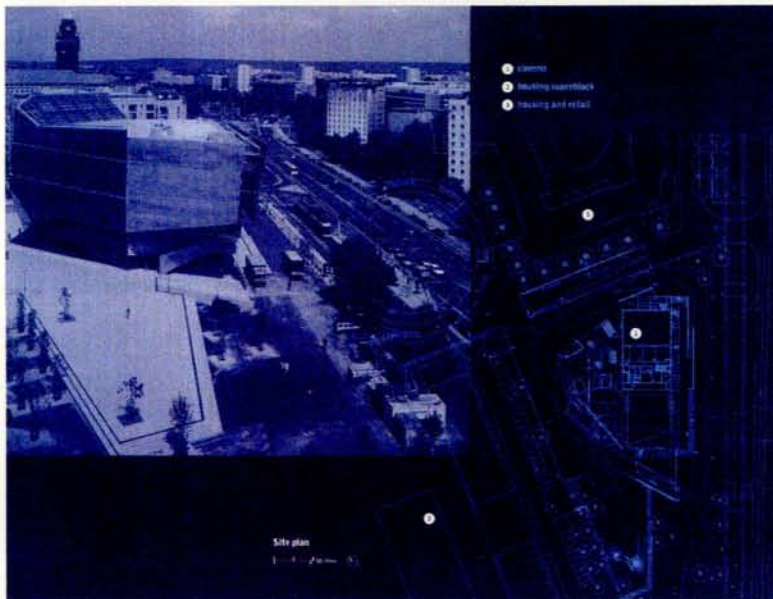


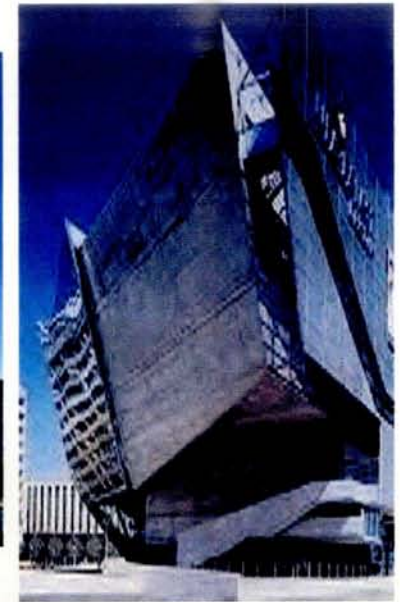
painted dots creates a shimmering effect where the walls perceptually are dematerializing, thus creating an illusion out of the façade's layered materials.

In Bernard Tschumi's Glass Video Gallery is a public pavilion for watching music videos. Within the glass volume are six banks of video monitors. Tschumi's seemingly transparent structure signifies the immaterial nature of video images as flickering patterns of colored light projected onto a glass screen. The entire enclosure, including roof, sides, vertical supports, and horizontal beams, is made of toughened glass plates held together by metal clips, eliminating any substantial differentiation between structure and skin minimizing the perceptive barrier between inside and outside. Glass plates divide the actual interior of the space multiplying layers of reflection and dissolving the solid surfaces of the glass. The lucid and rational function of glass as a building material is ultimately denied by yanking the gallery out of the Cartesian grid in which it would otherwise seem to belong and tilting it on two axes. The visitor to the gallery is not allowed the anonymous subjectivity of peering out of a darkened space, as in a movie theatre, but is instead on view. In a transparent box, the spectator becomes spectacle, and the feasibility of private life in a media covered culture is questioned. At night, the architectural volume disappears altogether, displaced by countless reflections and disembodied video screen images.



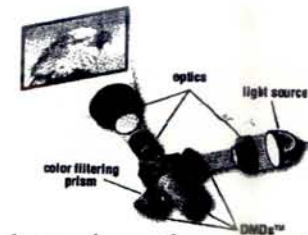
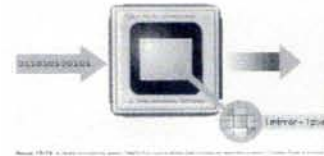
Coop Himmelblau's UFA cinema center in Dresden also uses the materiality of glass as a effect to create the illusion of inmateriality to help create the metaphor for film. Referring to the figure of speech used by the French film critic, Andre Bazin, which describes film as a window to the world.(Toy, pg 49) The concept as applied to architecture works as a metaphor for the phenomenological specificity of a medium, in this case glass as a medium for the metaphor of a window to the world. Bazin does not refer to walls but he does speak of that architectural element that necessarily brings about the connection between inner and outer worlds by means of the eye through the window. (Toy, pg 49) Fragmentation of film is projected onto the steel, which can be seen by people inside and outside through the glass of the cinema center. The building is a body that has become pure skin, and does not simply hold film in its interior but additionally surrounds itself with the luminous skin, which is film. The analysis shows a contrast of two sides conforming to each other on its odd shaped site and its context, the side of the glass lobby represents the building's inmateriality in which the people enter upon and embark on a fictionist and illusionary journey that comes with the characteristics of film, while the other side houses the programmic elements of the theatres which represents the material aspect of its heavy rigid cast-in-place concrete structure, a stark contrast to its lobby side which appear to be lightweight due to its steel and glass.





Now with developing new technologies where walls and the skin of buildings become screens, it questions the (non)materiality of the space, where it turns a static wall into a very dynamic one in which the surface is always changing or moving and can be informative. Thus being able to create virtual spaces, which try to reconcile and fuse with reality that is the site's physical context, and the people who interact and experience the building, being able to blur the role of the actor and audience. By being dynamic through the use of light, reflection, transparencies and opaqueness can change the perception of space, as contemporary architects mentioned above had tried to achieve. When walls become screen of images it can also visually change the materials of a building by appearing opaque or transparent. It can also change the depth of the space visually through reflections and projections of images, such as how a wall made entirely of a mirror can change the perception of the space being twice its real size. The impact of this new digital media create a unique plasticity, creating unexplored possibilities for architecture, and also its less tangible impact on form or rather the absence of form which haunts the imagination, creating a ghostly aesthetic of disappearance.

Methodology



The design process will probably use hand drawings of a series of perspectives similar to a storybook to show the sequential progression and experience of the space, which also includes axons and other orthographic drawings, which may help tell the story and ideas of the building. I also will be using digital technology of 3D modeling software such as 3D Studio Max and Form Z, and also digital manipulative software such as Photoshop to represent this project and building and to simulate the effects of the illusions of a projection screen juxtaposed with real physical space, such as recreating illusions that can be caused by these juxtapositions as Alfred Hitchcock has such as his effect of a endless wrapping stair case by having a screen projecting its bottomless pit in the middle of the wrapping staircase. Experimentation of different positioning of the screen in different angles and locations or experimenting with different screen sizes and shapes in the simulated confines of a computer and a real scale model perhaps. A 3D computer model of the project can also be placed within a digital photo of the site to show its relation to its context. These programs together will help show the fusion between reality and virtual space. Within this 3D computer model one can take animated walk through the space, being one of the advantages of 3D modeling software to be able to animate and manipulate space, versus traditional hand drawings. Software like Form Z, also have the ability to project images on surfaces, which will simulate digital screens used as walls. It will show the implications and ramifications of how enclosures of digital screens may affect an individual who is experiencing the building from within, but also how these screens react to its surrounding context, and how these moving images relate to space and time of the building and its context when it is being viewed and experienced from the outside as well as from within. The image screen used as walls and enclosures will simulate the use of new digital technology like DMD (digital micro-mirror device) developed by Texas Instrument, that could digitally projects images and LCD cladding, liquid crystal display, like the screens of a laptop and can manipulate skin and surfaces of the building. The DMD chip functions as a reflective surface that is covered with more than one-half million mirrors which, in tandem vibrate over 5000 times per second.(Phillips, pg 277) As they vibrate, the micro mirrors become reflective and non reflective, and their positions correspond to binary values. The DMDs reflect the individual red, green and blue channels, and the resulting images are processed by an optical lens, which projects the image onto a screen.(Phillips, pg 278) This technology can have different implications on the meaning of skin and surface.

Program

- 1. *There is no architecture without action, no architecture without events, no architecture without program.*
- 2. *By extension, there is no architecture without violence*

By "violence," I do not mean the brutality that destroys physical or emotional integrity but metaphor for the intensity of a relationship between individuals and their surrounding spaces. The argument is not a matter of style: modern architecture is neither more or less violent than classical architecture, or than fascist, socialist, or vernacular variations. Architecture's violence is fundamental and unavoidable, for architecture is linked to events in the same way that the guard is linked to the prisoner, the police to the criminal, the doctor to the patient, order to chaos. This also suggests that actions qualify spaces as much as spaces qualify actions; that space and action are inseparable and that no proper interpretation of architecture, drawing, or notation can refuse to consider this fact.

-Bernard Tschumi ("Architecture and Disjunction")

Lobby @ 3000sf

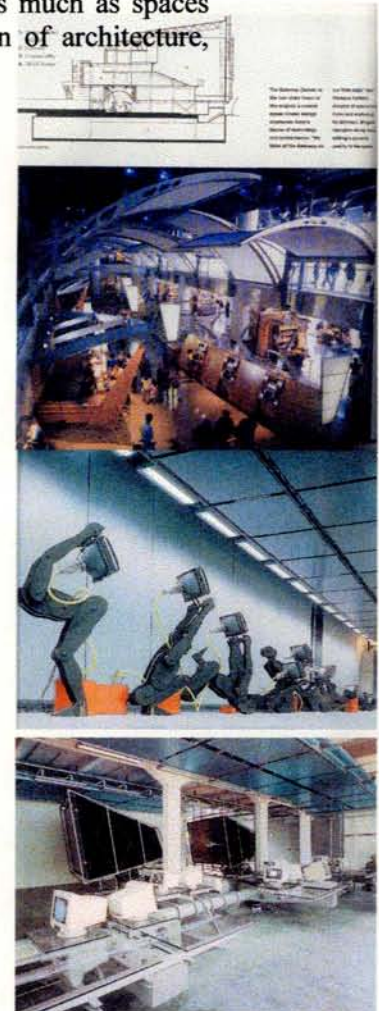
People will enter upon another realm that blurs the boundaries of virtual and real. It is also where the people start their own sequence of events. It will house the Ticket booth, ATM, concession stands, coat rooms, and restrooms.

Ticket Booth @ 400s.f.

Exhibition @ 3000s.f.

It will be part of the main circulation sequence, displaying avant garde media works from people at the Film Center. It will also exhibit new technological advances in digital technology in the film industry.

3 Major film theatre @ 2000 sf each



Seats 200 people including free sight lines and screen size for regular (4:3 ratio) and wide angle films (7:3 Ratio). These theatre are versatile as in showing of different screen sizes, and the showing of its content, which can range from feature motion pictures to students' work. It contains views of the Manhattan skyline and then motorized window shutters and screens closes during the showing of a movie.

IMAX Theatre @ 2000 sf

Seats 150 people, which will display 3D films, which may require people to wear 3D devices for their eyes depending on the film in a domed screen interior room.

Experimental Theatre @ 2000 sf

Seats 100-200 people which will display advent garde films through the new technological advances in film, such as virtual reality. This space will be primary a cube space that can be outfitted to any needs.

CyberCafé @ 750 sf

Seats 100, where people can eat a small meal, sit down to chat, and enjoy the city skyline. Half of the tables are wired (contain laptops linked to the internet.)

-Bar/kitchen area @ 150 sf

-Storage @100 sf

(Precedent – Zaha Hadid's Monsoon restaurant in Tokyo, Japan)



Arcade @ 1000 sf

More and more people today prefer the virtual world of computers (i.e. internet) and games (i.e. PlayStation2) over the real world, where even at workplaces of today people spend long hours staring at a computer, then go back home to spend even more time with their computers and TVs. The arcade are tools for entering and exploring the virtual world, containing the latest arcades and simulated rides, and virtual reality pods, where people are hooked up to sensors and wear head sets.

Outdoor Theatre @ 2000sf

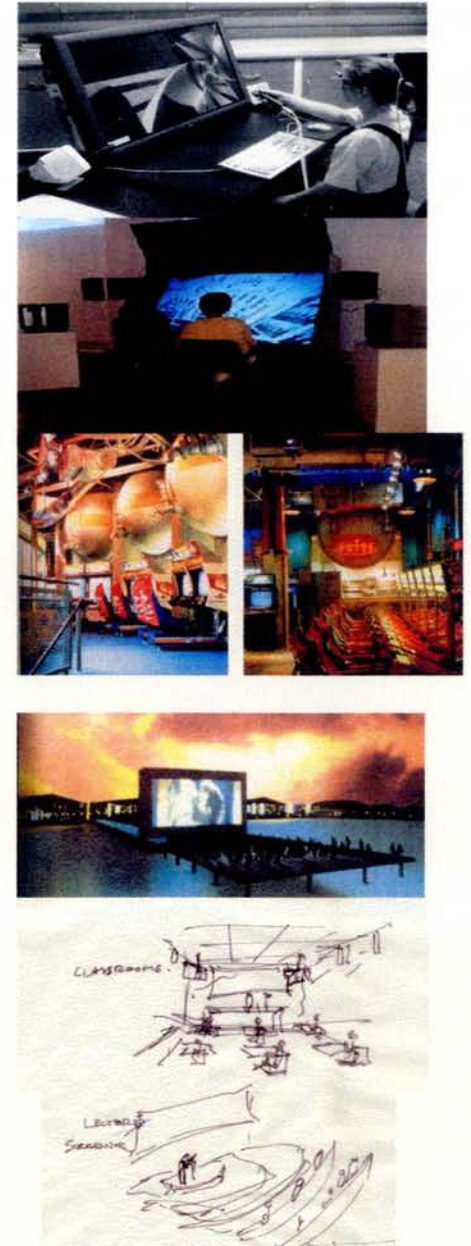
Seats 300 people on the lawn and people in boats on the East River can also watch movies during summer nights. The content shown can vary from experimental to feature films. It will contrast and question the issues of the juxtaposition of having the virtual (screen) and the real (water).

6 Classrooms @ 600 s.f.

20 Students. Contains video monitors, projection screen, speakers, and lecturing podium.

Lecture/Screening Room @1500sf.

Seats 150 people.



Production Studio @ 3500 sf.

For any film or television production.

Set shop @ 1000 sf

Costume @ 500 sf

Green Room @ 300 sf

7 Projection Booth @ 200sf. each

Varying on different kinds of projection devices.

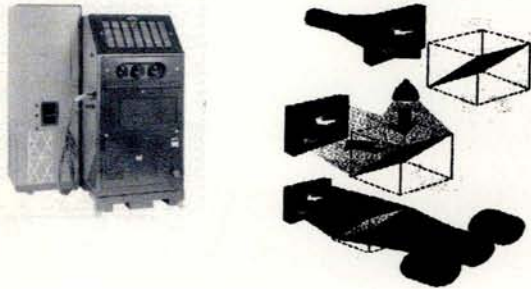


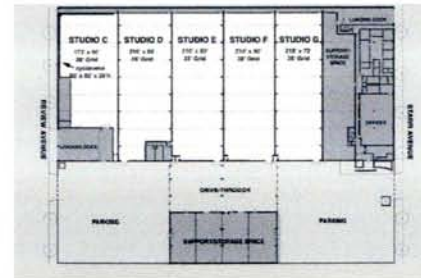
Figure 19-14 Screen projection

Storage @ 2000 sf total

Large enough to store objects like oversized props, stage sets, etc.

Control Room @ 1200sf

Controls cameras and projection screens of the Film Center



5 Editing Suite @ 150 sf

Sound proofed insulated rooms

Server Room @ 1000 sf

Year-round cool temperature room for computers and server

Sound Studio @ 400 sf

Recordings, etc.

4 Dressing Rooms @ 150 sf each

Offices @ 1000 sf

Mechanical room @ 3000 sf

6 Restrooms @ 350 sf each

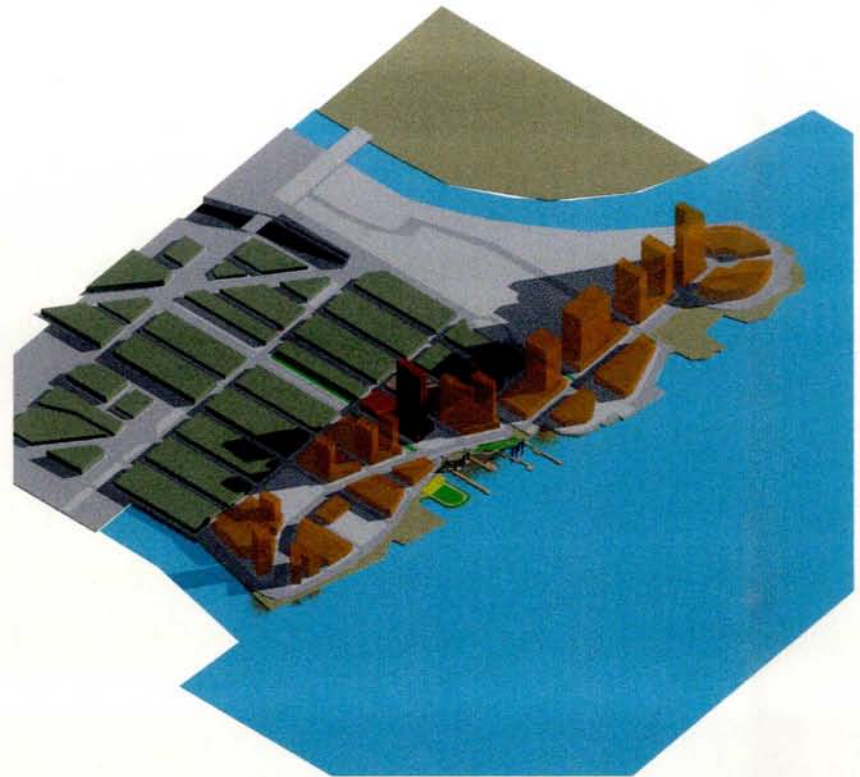
35% for circulation, mechanical , delivery, and storage = 15,500 sf

Total = 65,000 sf.



Site

Queenswest



This site is located on the waterfront in the borough of Queens of New York City. It is currently being redeveloped where the city is in the process of reclaiming its East River waterfront from the industrial area, which flourished in the early 1900s. Then the factories have been steadily emptying out the past 50 years. Therefore the city is taking this opportunity to retake the waterfront with residential and commercial buildings. Currently a residential tower a factory and a dome for tennis courts sits along the waterfront as a collection of objects along a park.

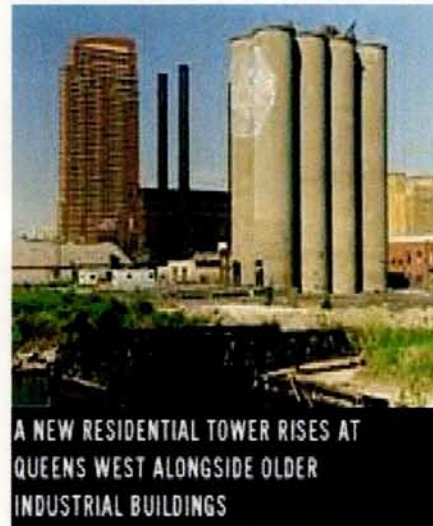
The site is specifically located in Gantry Plaza, a park that is part of a 1.5 mile promenade. This promenade faces midtown Manhattan offering great views of the city's skyline. The park contains various programs such as sun tanning, fishing, café, and ferryboat piers. It also contains a outdoor performance space which includes a fog fountain, playground and a garden that relates to the historical context of the Gantries which are the towers located by the piers that use to lift train cars off barges on to the rails. These gantry towers are now also used to frame views of the city by the curved steps used for performances, and is a daily reminder of the its industrial past. These different elements are providing a variety of stage or film sets, setting the stage of what activities or programs that occur, in which an architectural intervention can also be an addition to these sets. These programmic events sits on a linked sequential path.

The site sits also sits on the grid geometry set by the edge of the East River, which grids of the city also bleeds into this area, along with the Sunnyside Railroad Yards that slips in the area of Hunter's Point.

Historic Site Information

The Gantry Towers are kept relics of Gantry Plaza's Industrial past of the early 1900s during the height of the Industrial Revolution. These Gantries were used to transfer train cars from barges on to their railroad tracks.

Currently few factories remain and will soon be demolished for in place of more residential towers.

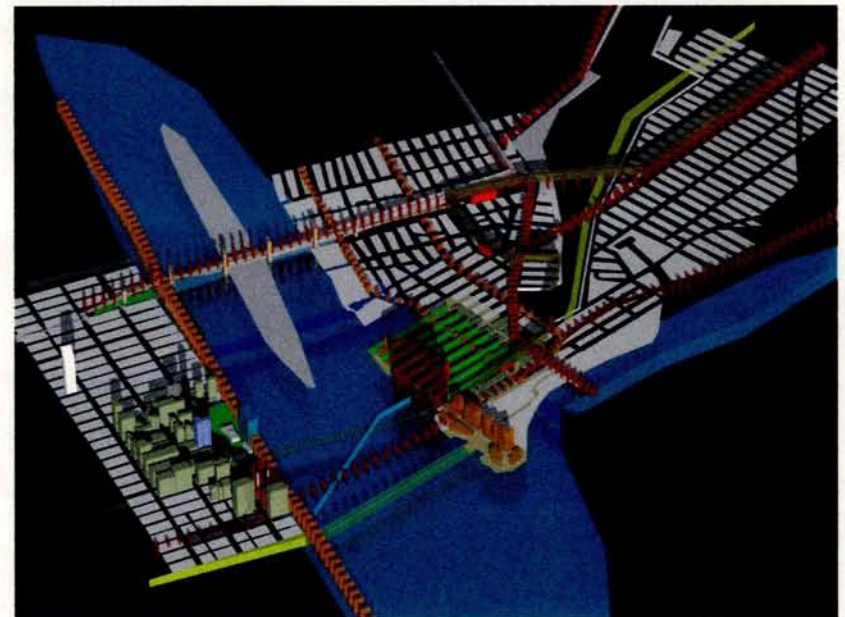
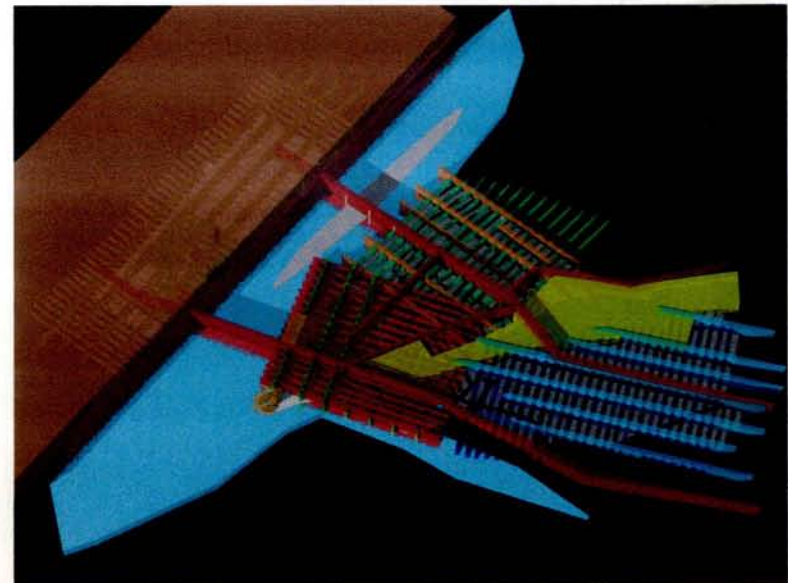


Site Analysis

Grid of Queens overlap each other with the Long Island Rail Road Sliding between all the grids, includes major circulation of Queens into Manhattan.

One would be able to arrive at the site in various ways. From subway, train via Long Island Railroad, car, walking, and by boat, which would allow different perceptions of the building on the site. It will also allow people to view movies different, such as a drive through except for boats. It reverses the idea of the cinema being a closed space isolated from the city, where the screens of the building exterior can open and merge itself with the urban setting

Circulation diagram of Queens into Manhattan.



Major Circulation Paths at Site
Includes subway tunnels

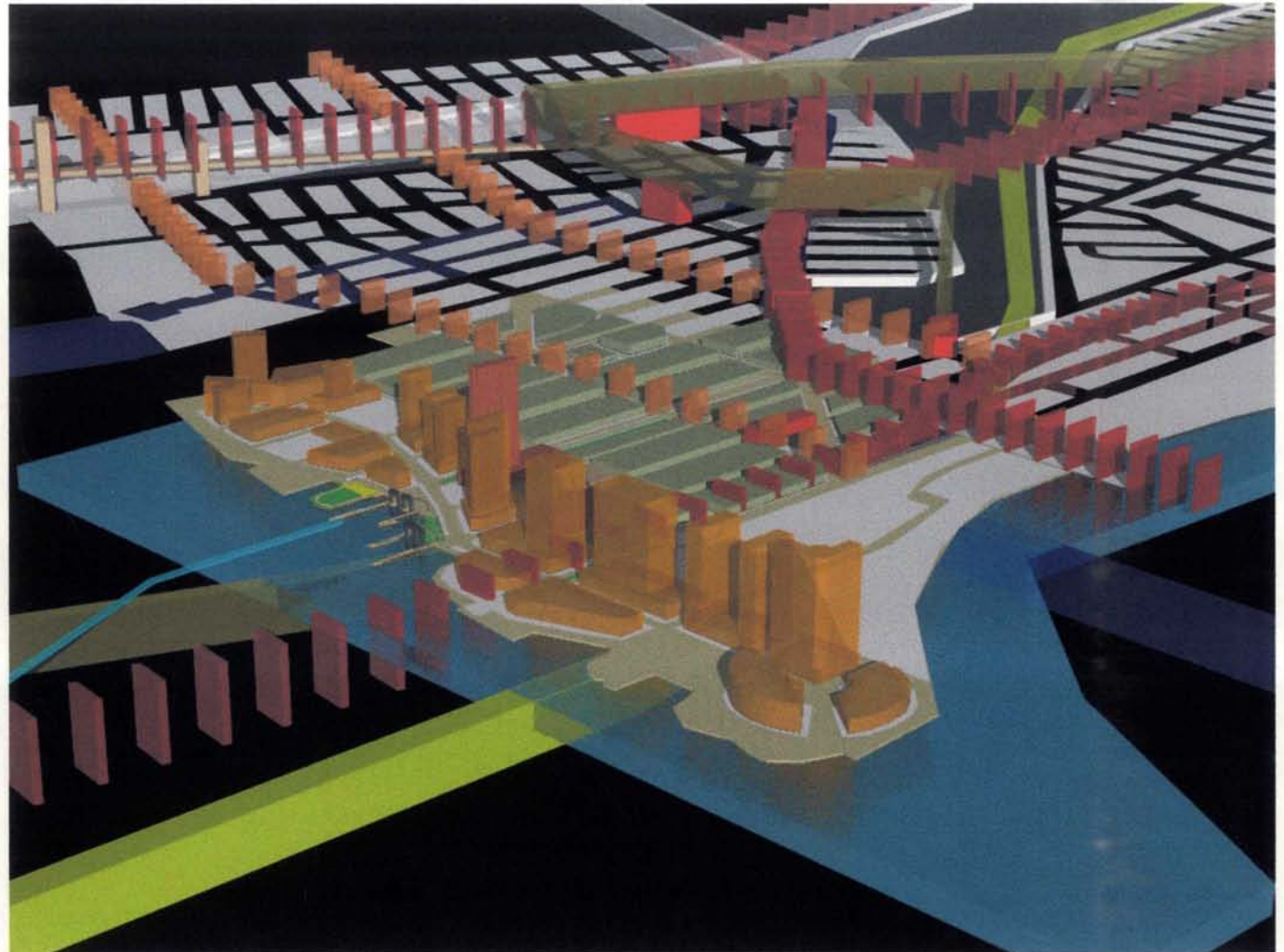
Midtown tunnel

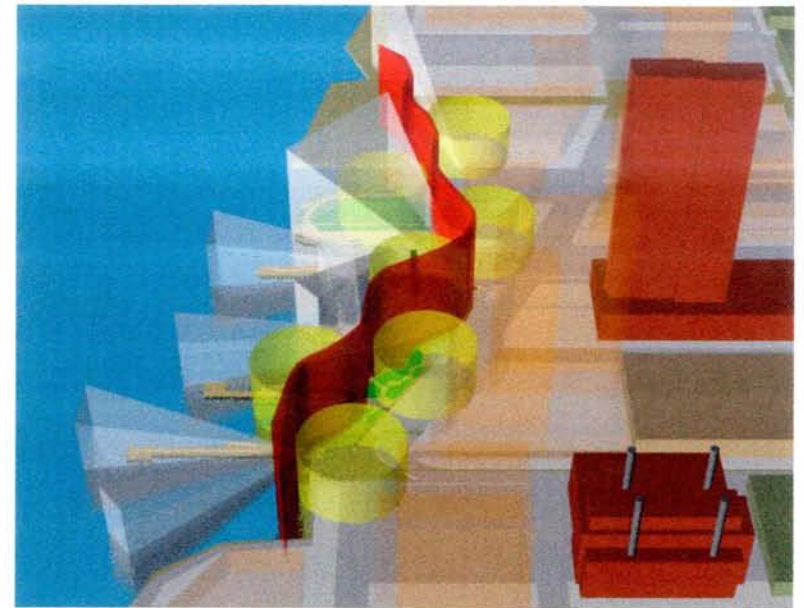
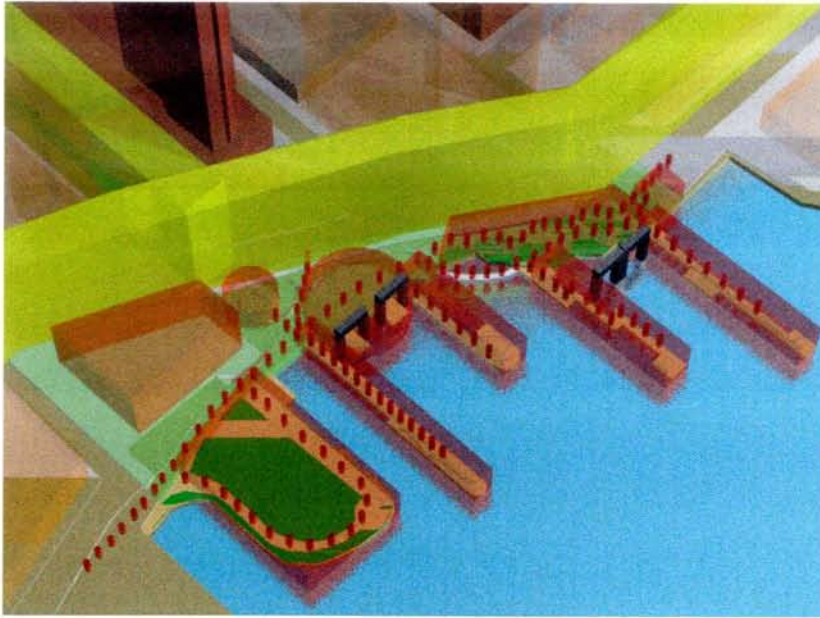
Major vehicular routes

Railroad

Elevated subway tracks

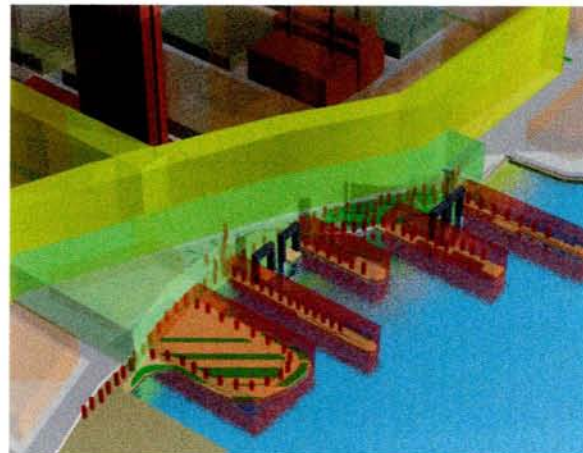
Ferry



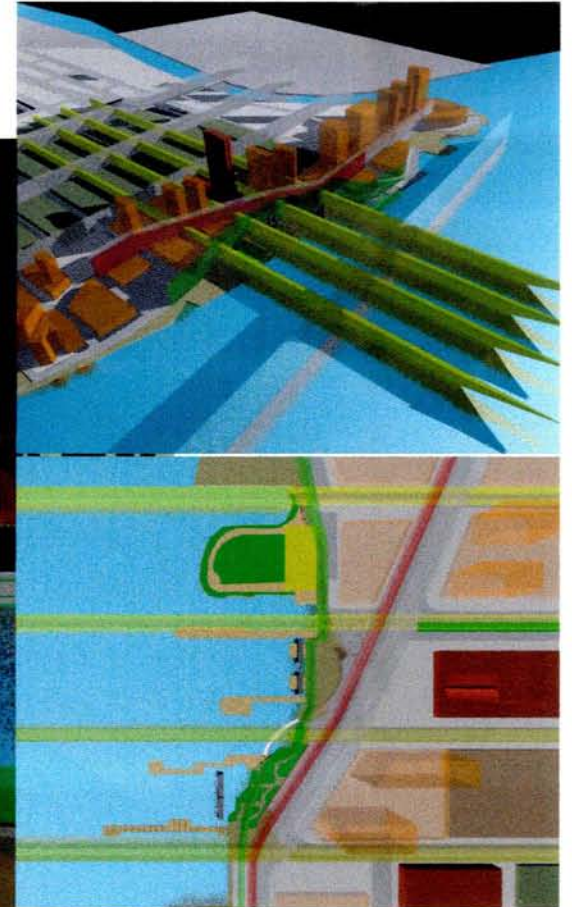
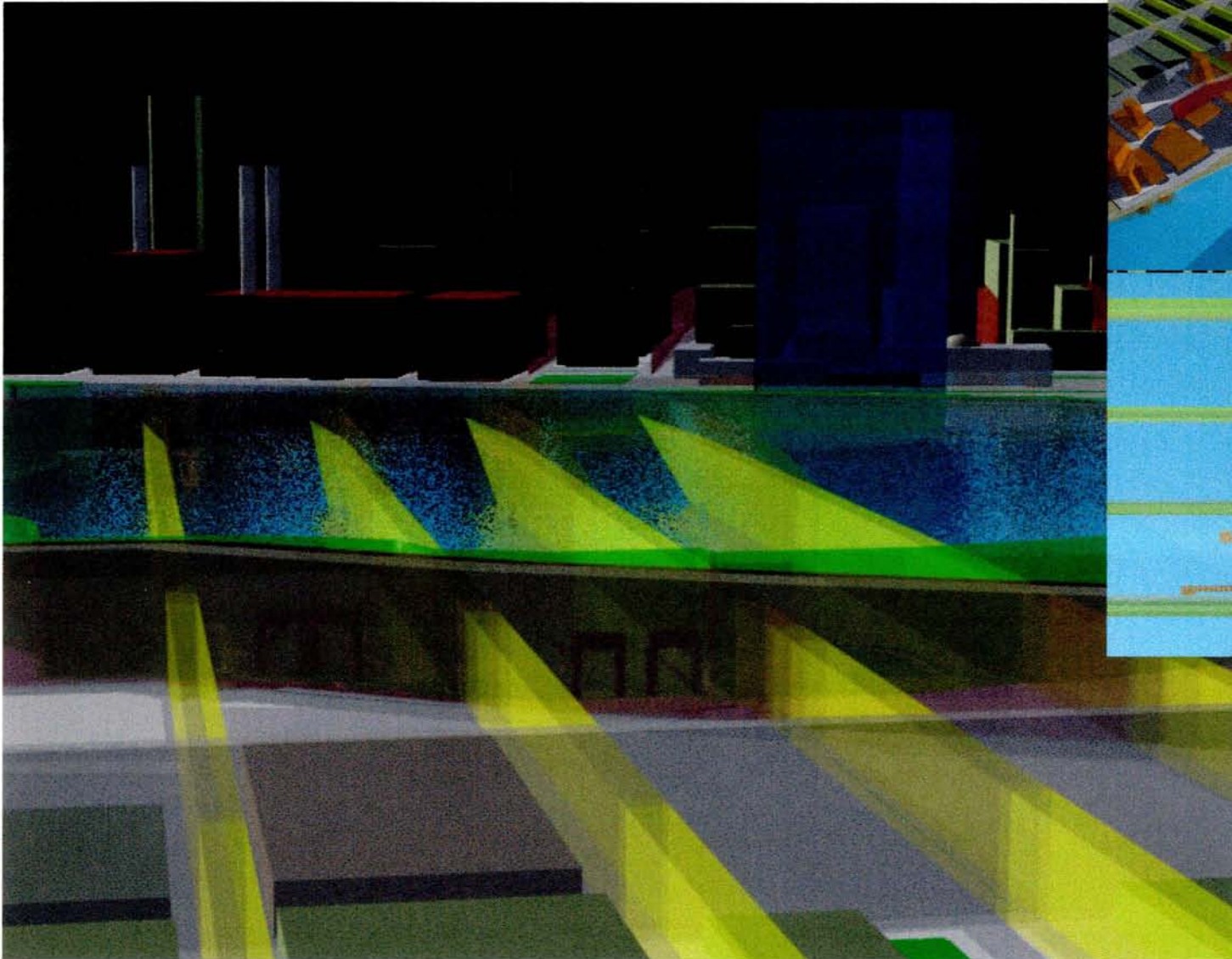


Local Circulation Diagram which includes major pedestrian and vehicular paths. The main circulation path curves back and forth in a wave like pattern to link all the various programatic elements of Gantry Plaza. This curving path allows different views of Manhattan and the park.

The street creates an edge between the park and the urban fabric.



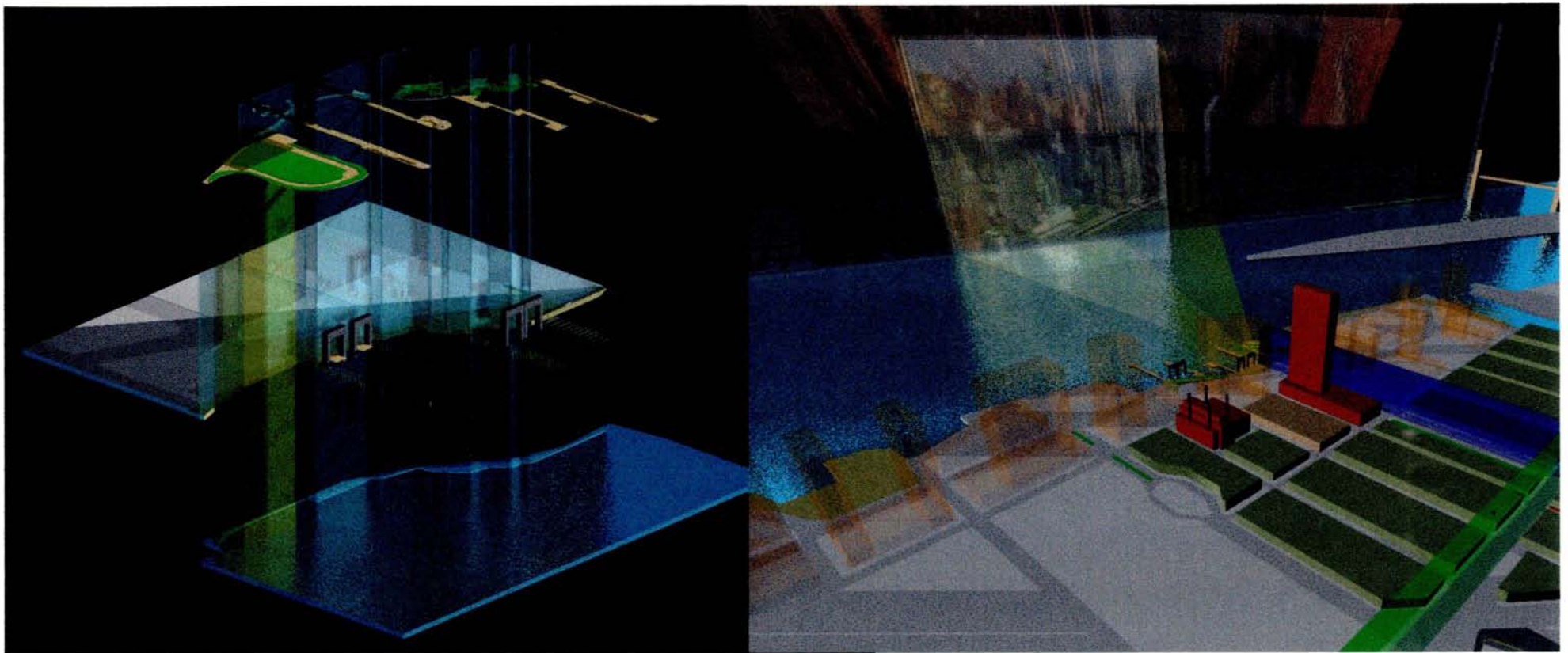
Site Analysis of Piers



Site Analysis of Water's Edge

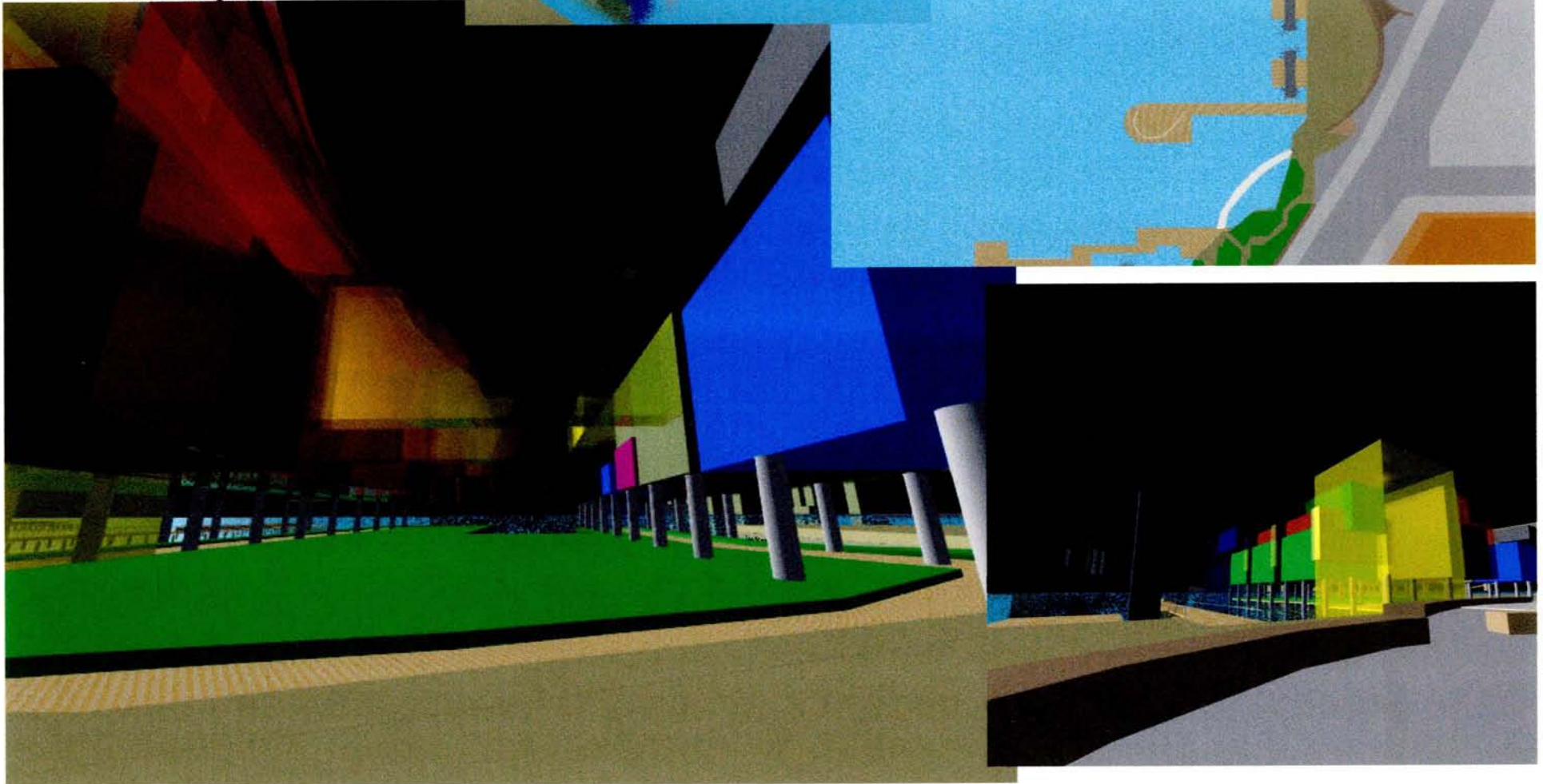
Manhattan acts like its own cinema where the residential realm across the river watches.

Which may tell a different story and have different meaning to everyone, within its normative grid of midtown, compared to the layered and shifted grid of Queens. The water is a reflective and dynamic element, and may act as a threshold to inmateriality, where the ground is no longer concrete. The water's edge also separates elements along the park, as well as their program. Programs such as fishing and sunbathing makes for a more private a remote area, trying to get away from the "materiality" (real) of land as much as possible, and inhibiting the "inmateriality"(virtual) of water.



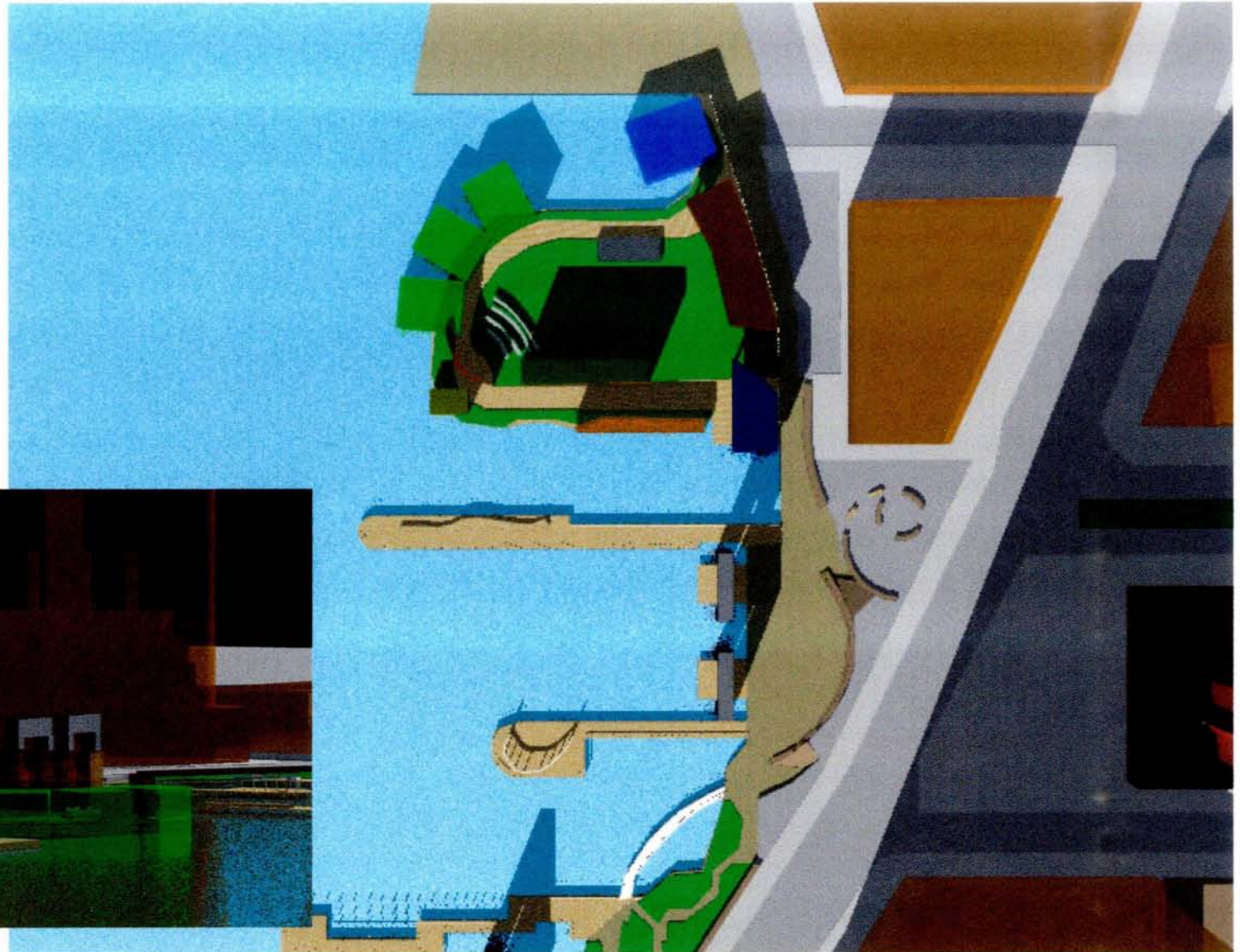
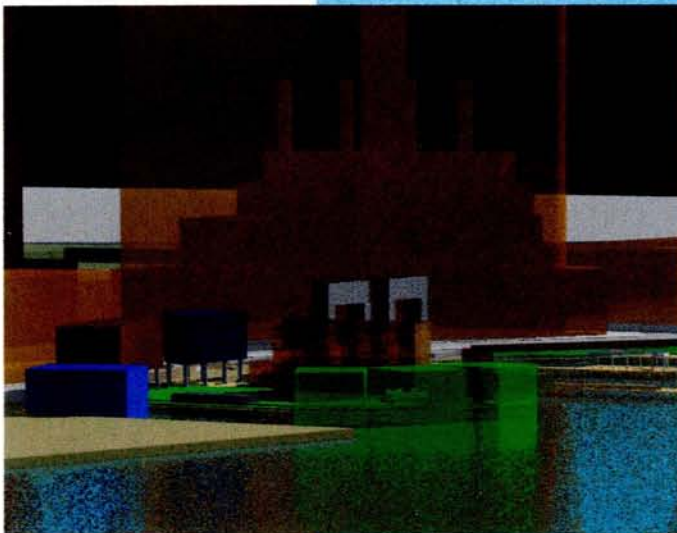
Site Strategy & Site Test Fit-1

Created 2 elevated pier
One pier containing production and
School programic element the other
Pier contains the theatres, arcade, etc.
Metaphorically going between realms
Of real and virtual – materiality and
Immateriality. The river is allowed to
flow into the park



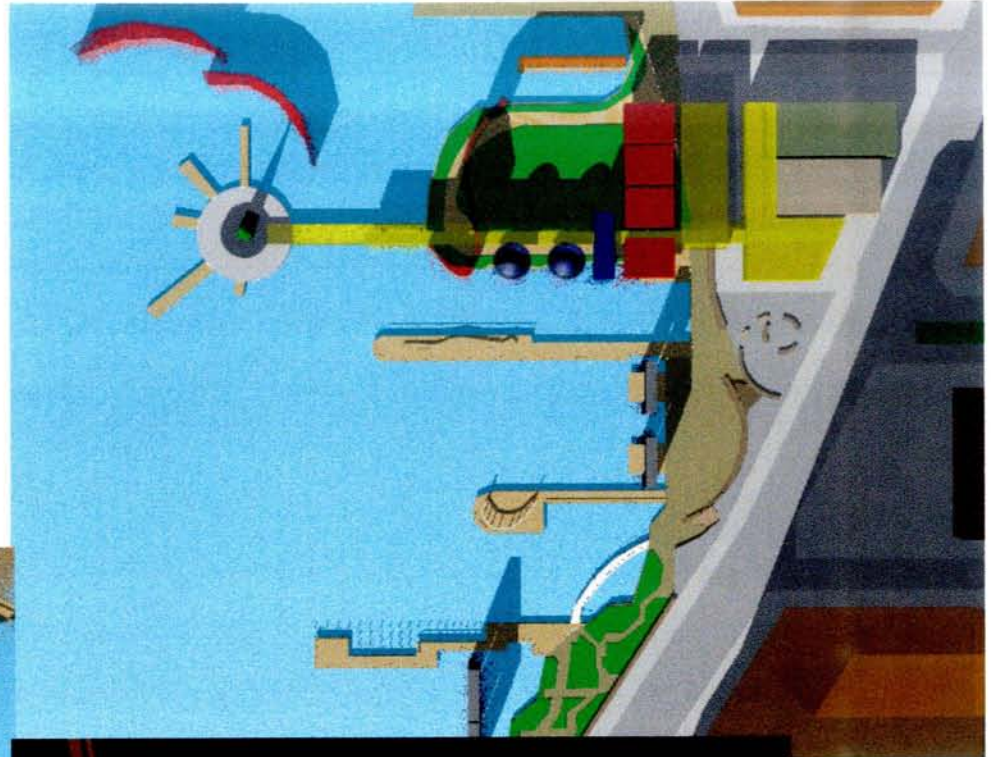
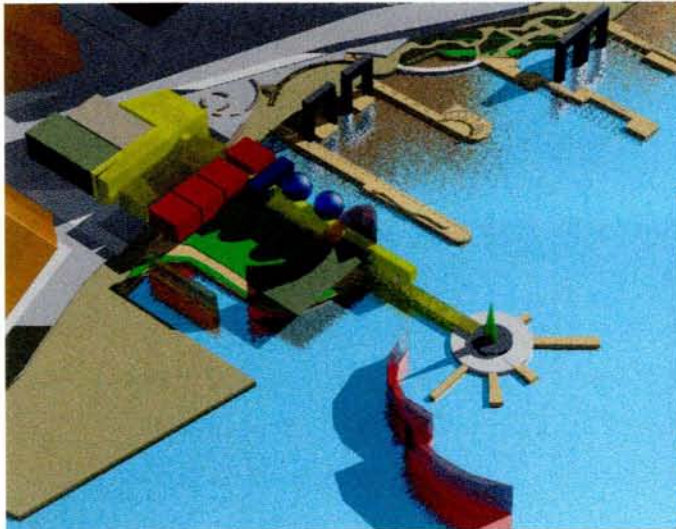
Site Strategy – 2 **Site Test Fit**

Each programmatic element is its own individual pavilion that sits along a path. The school which is elevated and people can walk underneath acts as a threshold into the park.



Site Strategy 3
Site Test Fit

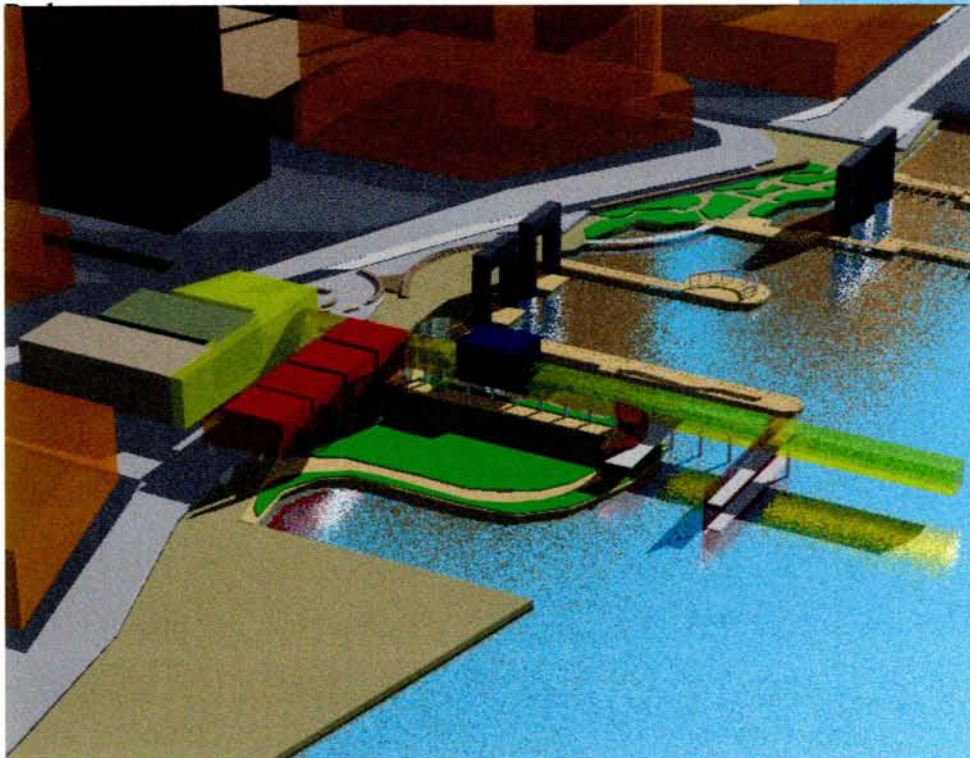
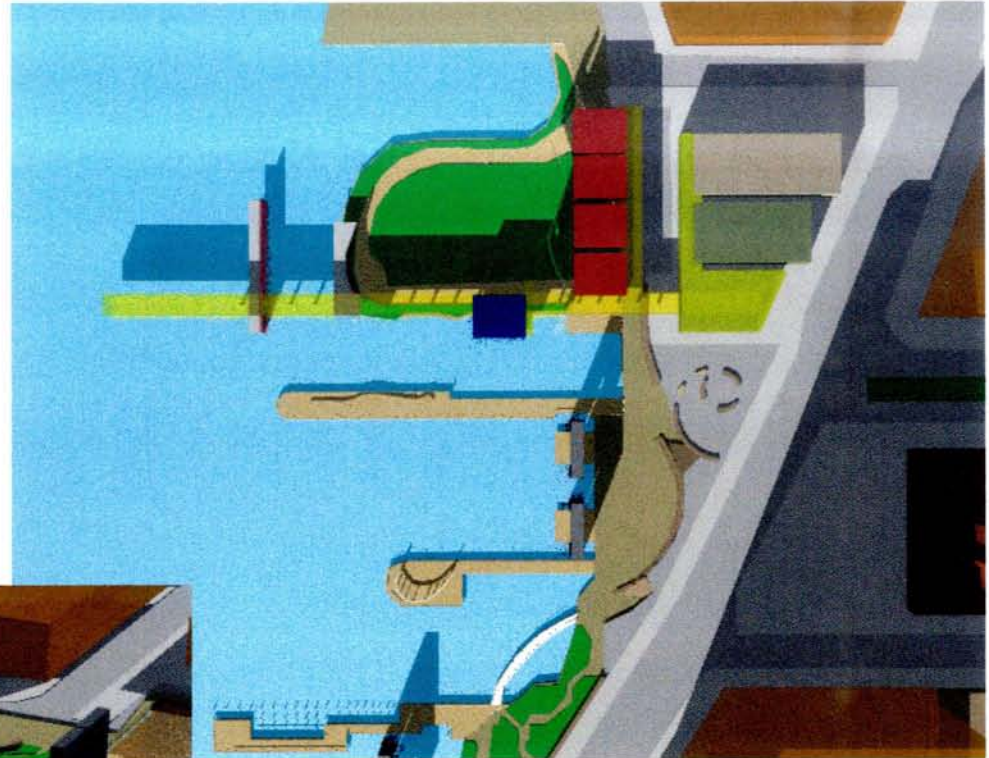
Contains going through a major sequential path that goes Through all the program. It ultimately ends at the docks On the water for ferries. This strategy calls for going Through different layers from right to left. From the Studio and school that engages the street to the Theatre (red) that engages the water and the city.



Site Strategy 3b
Site Test Fit

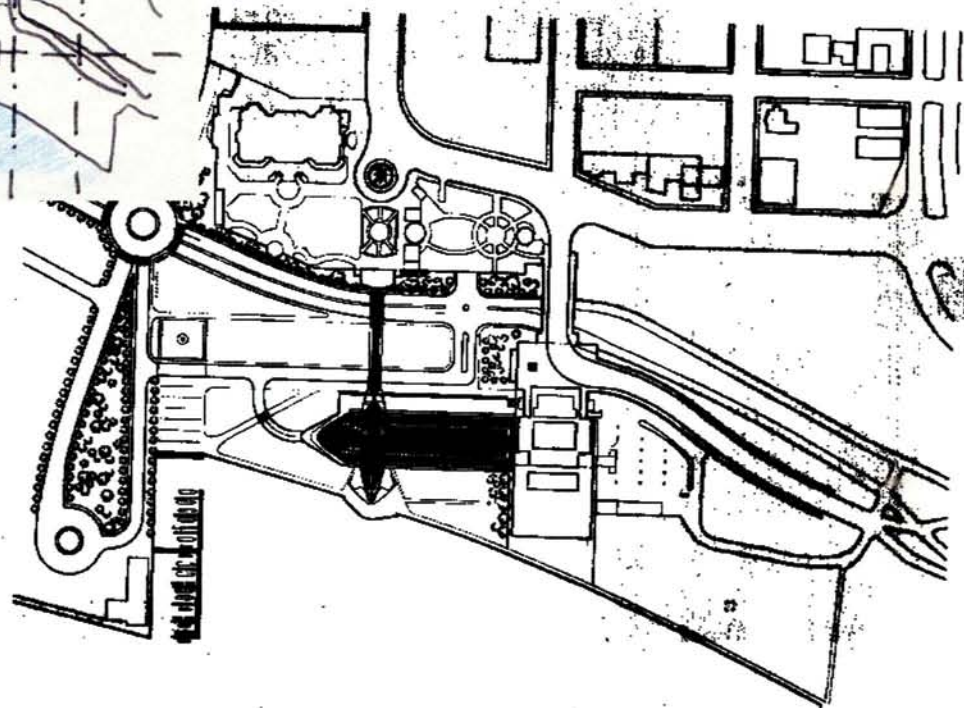
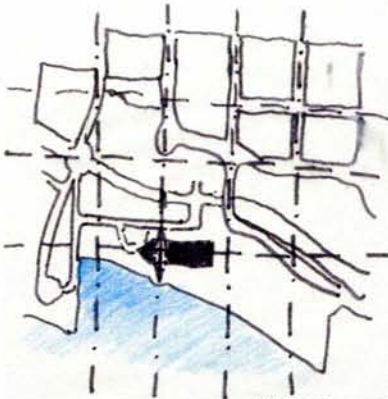
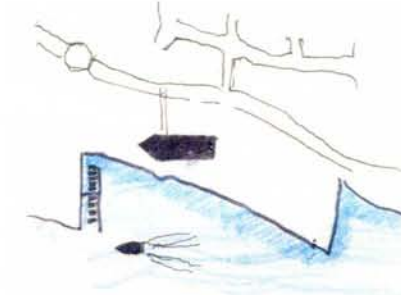
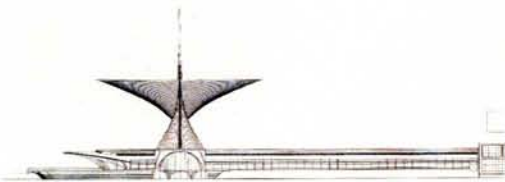
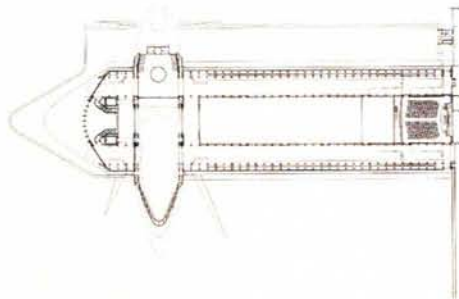
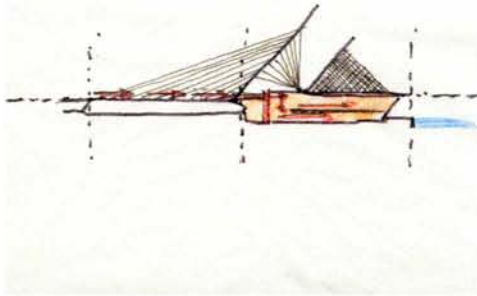
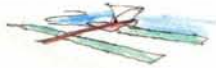
Similar strategy as above, but more modest, containing
A screen on the river for out door movies.

All strategies involve elevating program from the
Ground level to give it a floating quality as well as
Offering trying to obstruct views to the city on the



Site Precedent

Santiago Calatrava
Milwaukee Art Museum, Wisconsin

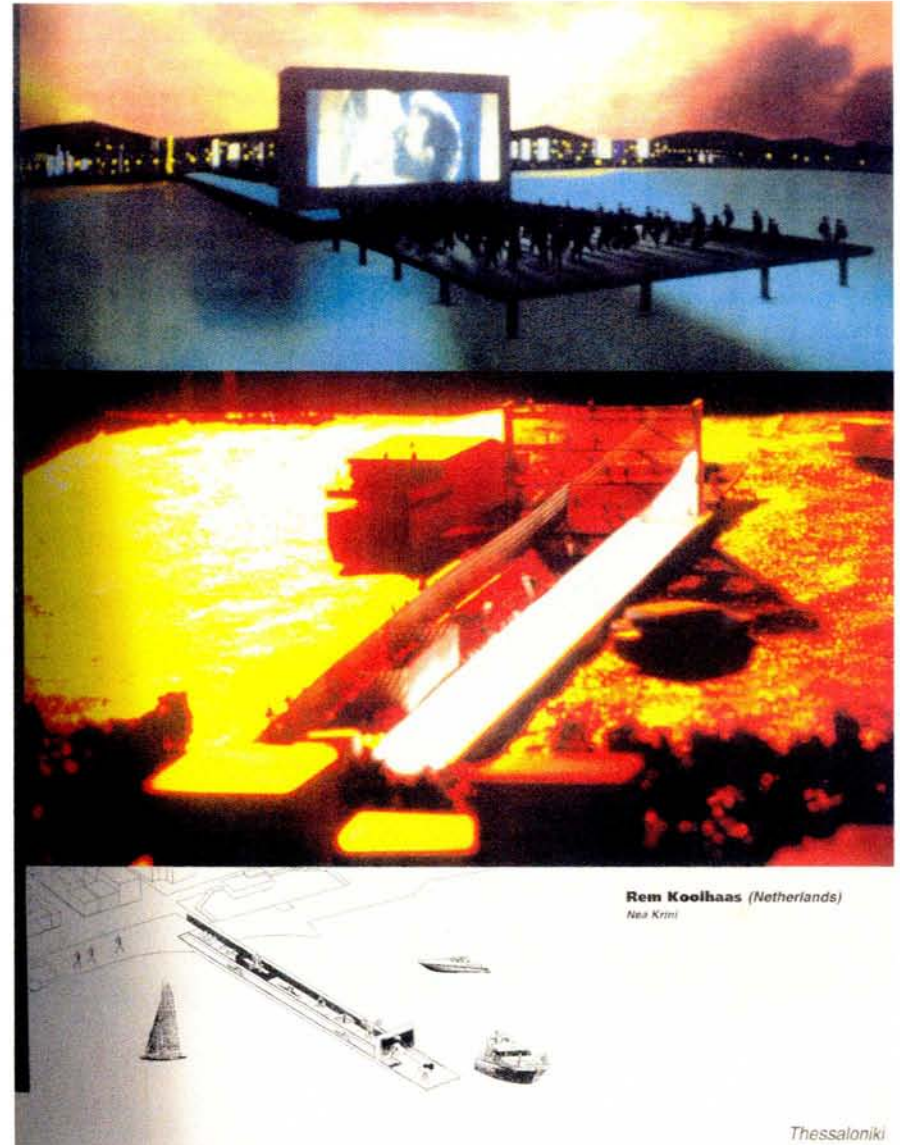
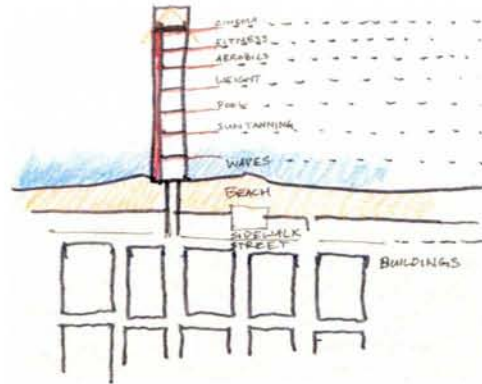


Site Precedent

Rem Koolhaas
Nea Krini, Netherlands

Outdoor theatre faces
Water so it has effect
Like drive in for boaters.

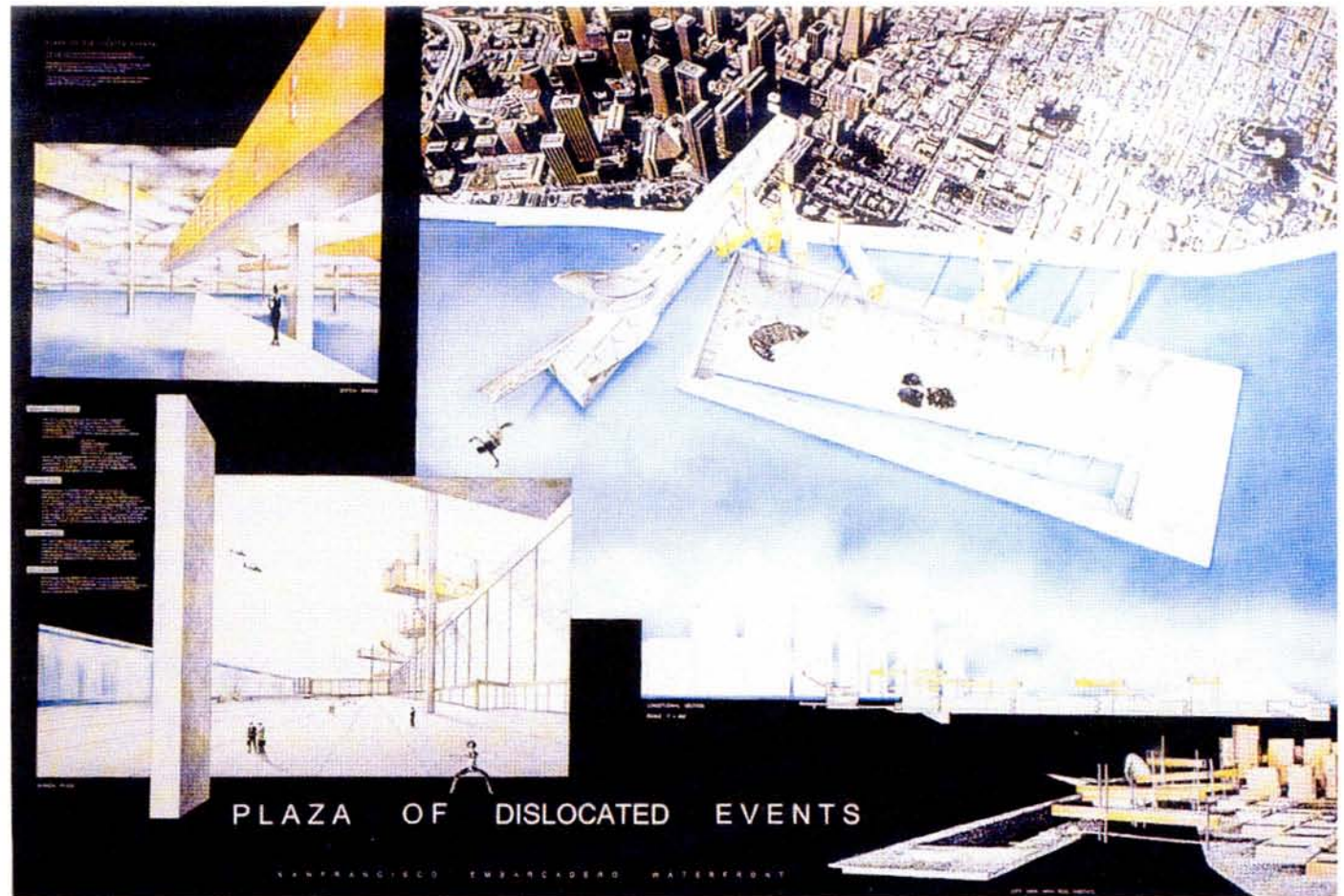
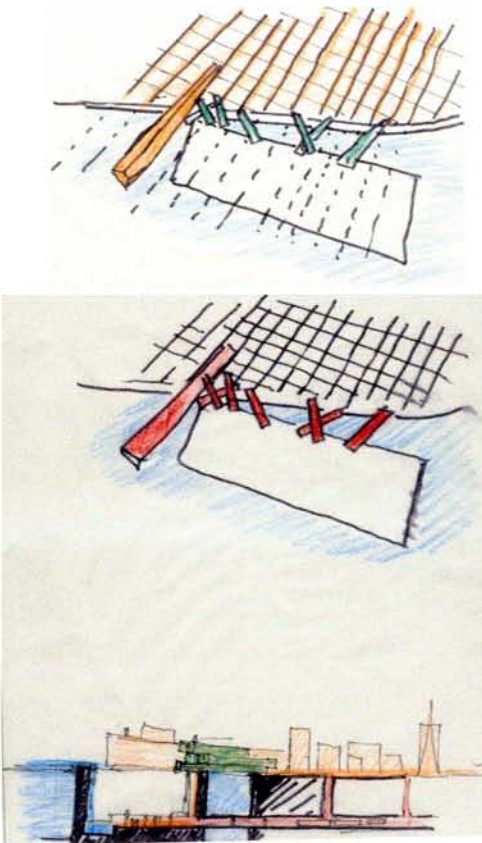
Pier acts as extension of
City grid. Continuation of
the street.



Site Precedent

Hariri & Hariri

San Francisco Embarcadero
Waterfront Competition 1993



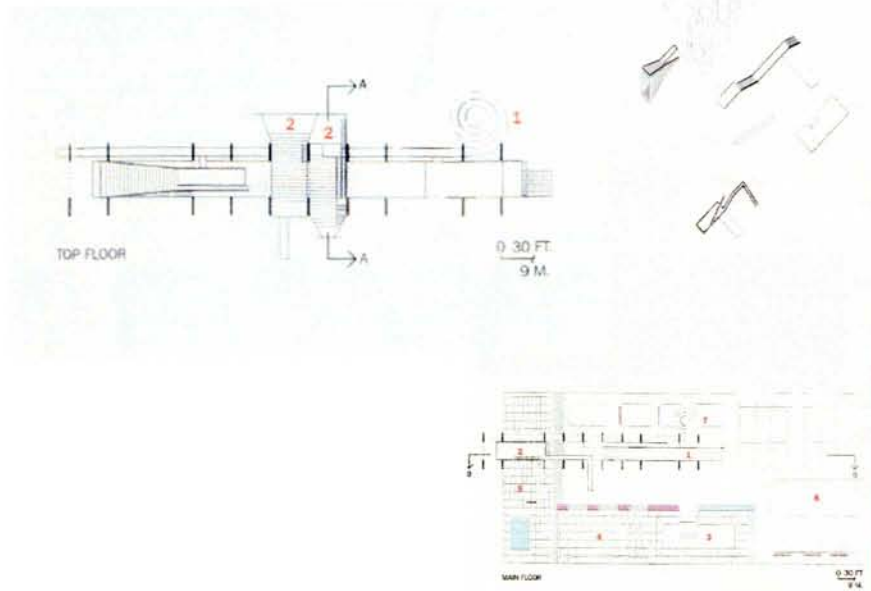
Elimination of all old piers to create this one which is sunken into the Bay, and on the East wall water overflows into a pool. It is only accessible by tunnel and the Fog Habitor overlooks the pl which contains living and working quarters. About the dislocated events of the city or today's culture and society. But is still dislodged from the main city.

Hariri and Hariri

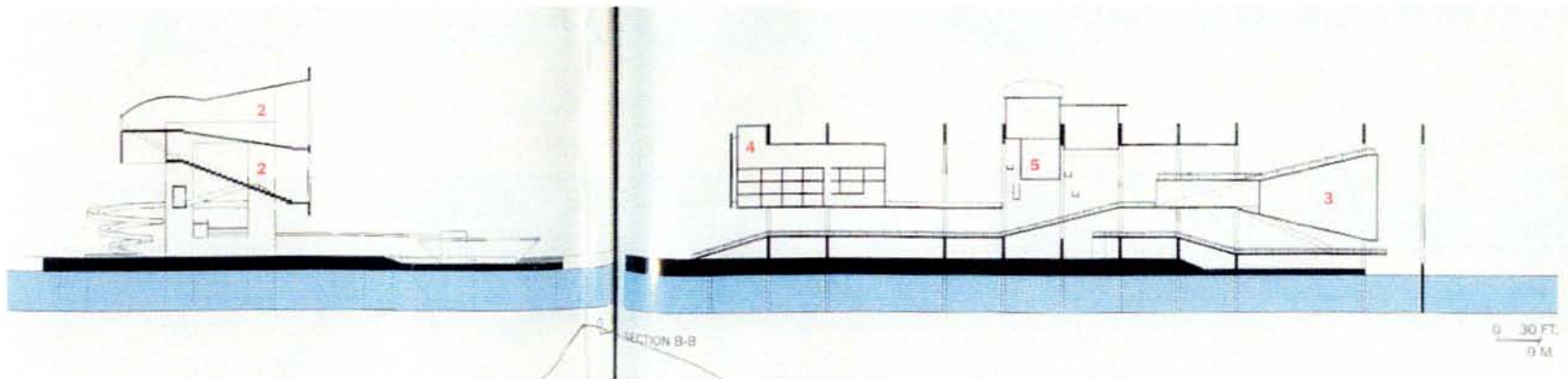
The Cine

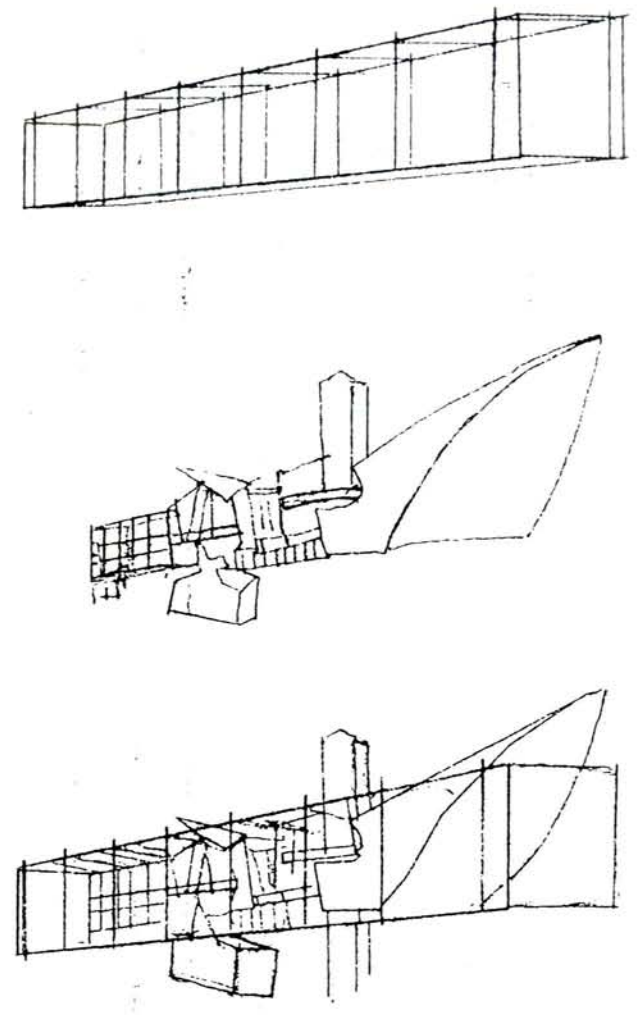
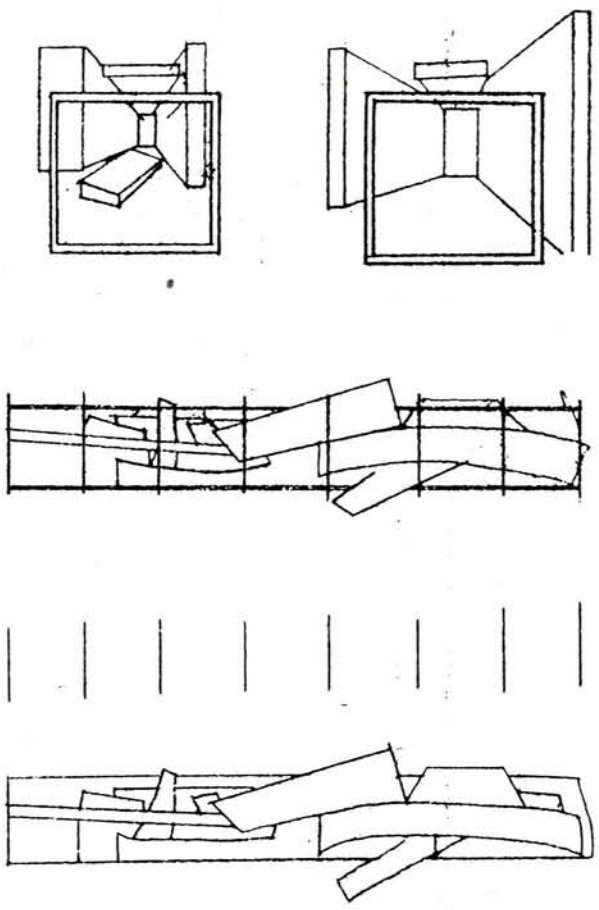
Brooklyn, New York

A experimental film center



The exploded axon represents different architectonic elements in the built form. The concrete frames is metaphoric for sequential frames occurring in film, where 24 frames go by a second. In this case people walk through these frames, which keeps all the programmatic elements together. Through form and structure, this building explores relationships between architecture and film.





Hariri and Hariri

Fog Habitat I

A building part of the San Francisco waterfront competition.

They also used structure in a manner where it looks like going through frames of film. The structure frame its spaces as one would progress through the major circulation axis. The analysis shows that the frames keep the odd forms in place and coherent.

It gives order to something chaotic. It is also raised above the ground to rise over the San Francisco fog and to emphasize its importance.

Site Precedent

Mecanoo

Boompjes Pavilion
(Restaurant)
Rotterdam, Netherlands

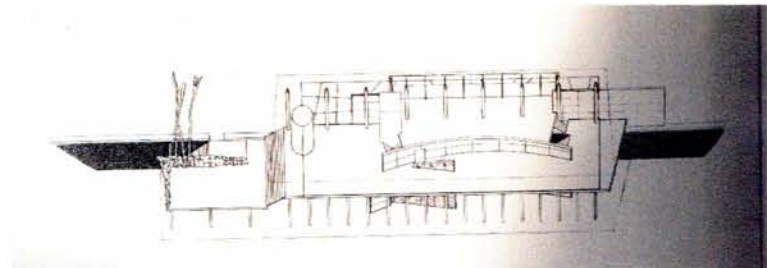
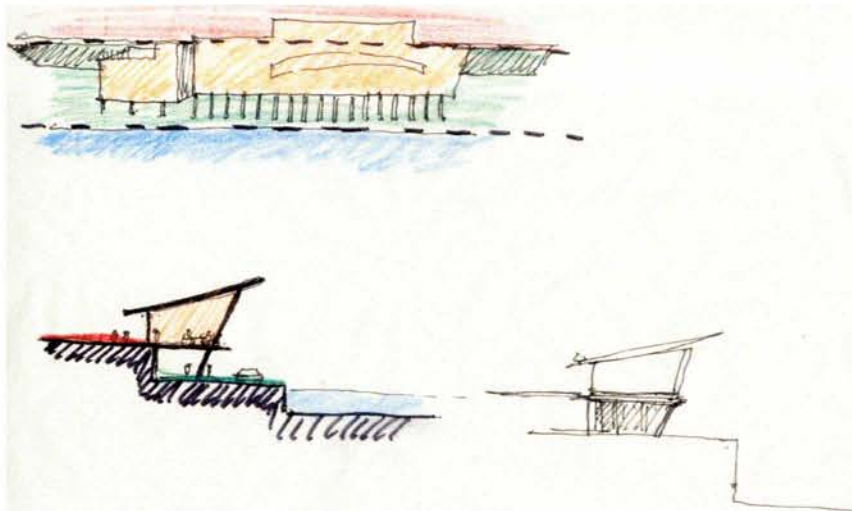
The building is layered in section as well as in plan.

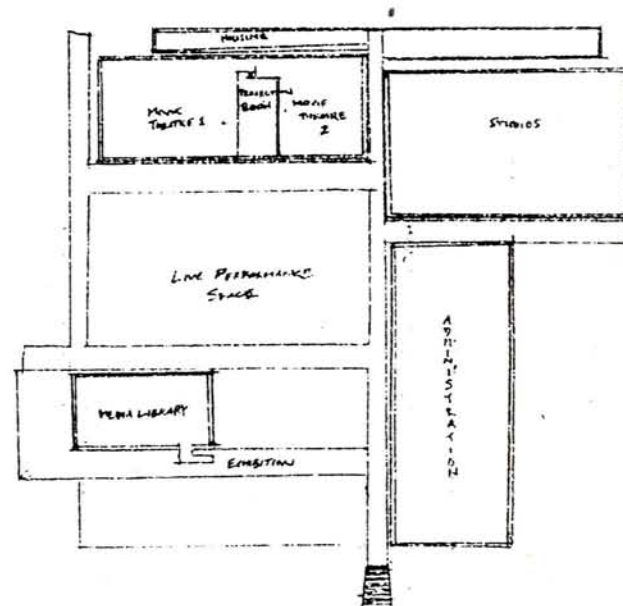
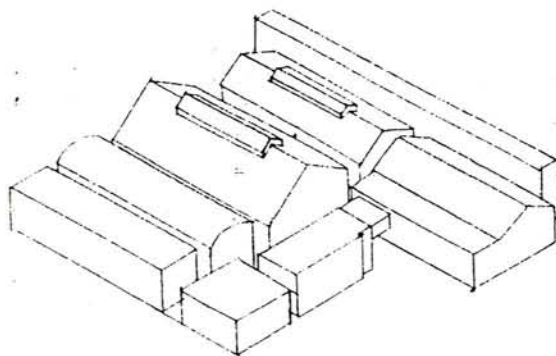
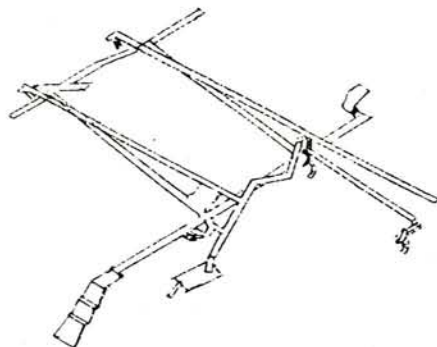
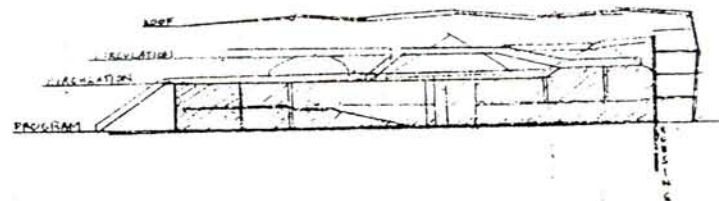
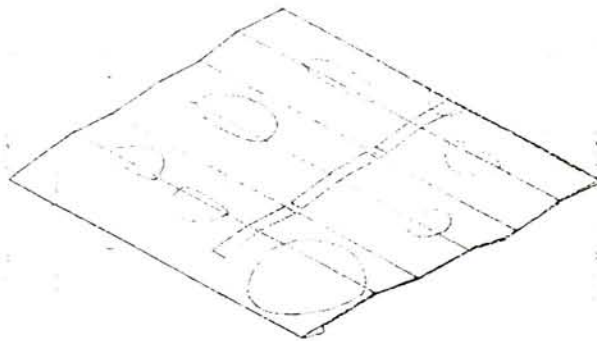
From the urban street one can just walk into the restaurant with

No elevational changes, but from the water it is viewed differently.

A raised restaurant where circulation moves underneath it.

Giving the idea that it is like a pier. The building meshes and combines urban element and the element of the water.





Bernard Tschumi

Le Fresnoy

National Studio for Contemporary Arts

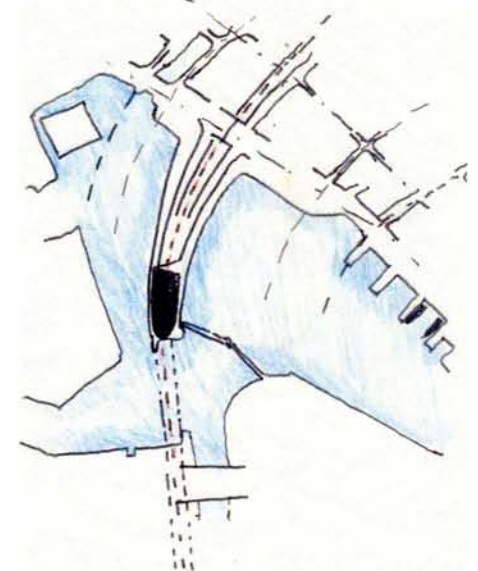
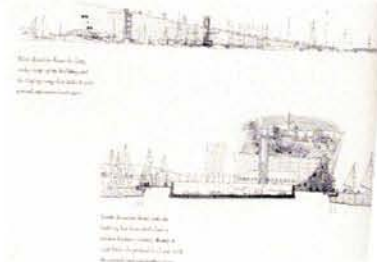
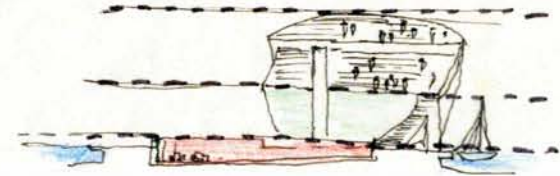
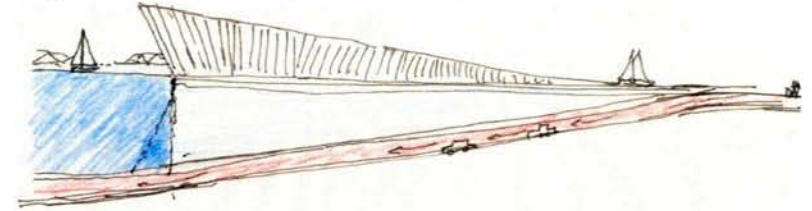
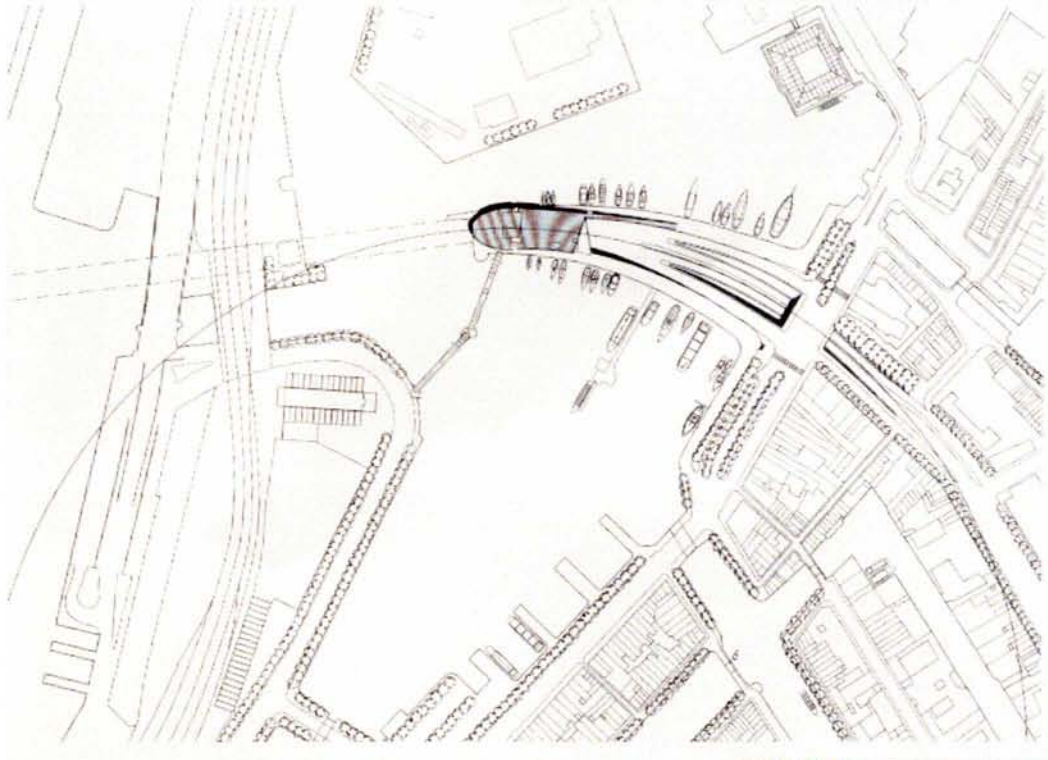
Tourcoing, France

An art center that houses studios for painting, sculpture, film, music, and photography. It also contains theatres and live performances stages. Literally taking programmatic elements as events along a sequential path. Two major axis takes one through all the different programmatic events that occur. The raised circulation path also makes the person more aware of his or her movement, which makes this movement important. But at the same time the raised circulation bridges are like catwalks, services hidden from the main performance area which are programmatic.

Renzo Piano

New Metropolis National Science and Technology Center
Amsterdam, Netherlands

The slope of the roof of the building is a direct mirror image of the slope of the ramping tunnel that enters from beneath the building into the Bay. The roof contains programs such as an out door theatre. The angles and slope of the building gives it relationship to the angular ships around it. It also contains pre-oxidized copper panels, where it strengthens the building's relationship of the sea and the air as the angular roof of the building slopes up towards the sky.



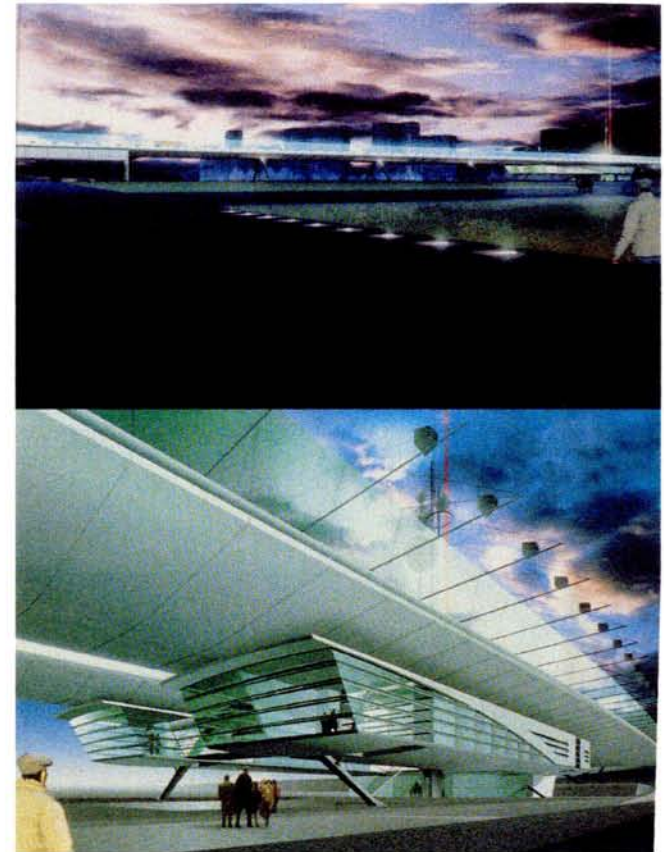
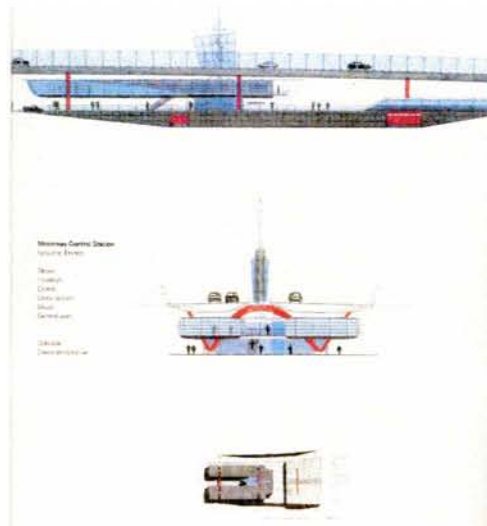
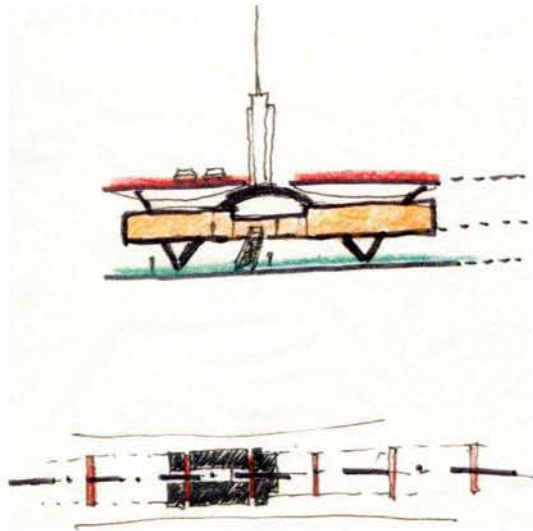
Odile Decq and Benoit Cornette

Carrieres sur Seine viaduct

Motorway control station

Nanterre, France.

I used this precedent to take the notion of pedestrian circulation moving through from underneath a building, where a stair or escalator moves one up into its programmatic element. Its vertically divided into three distinct zones, and is also divided horizontally by structures colored in red which frames and holds up the highway.



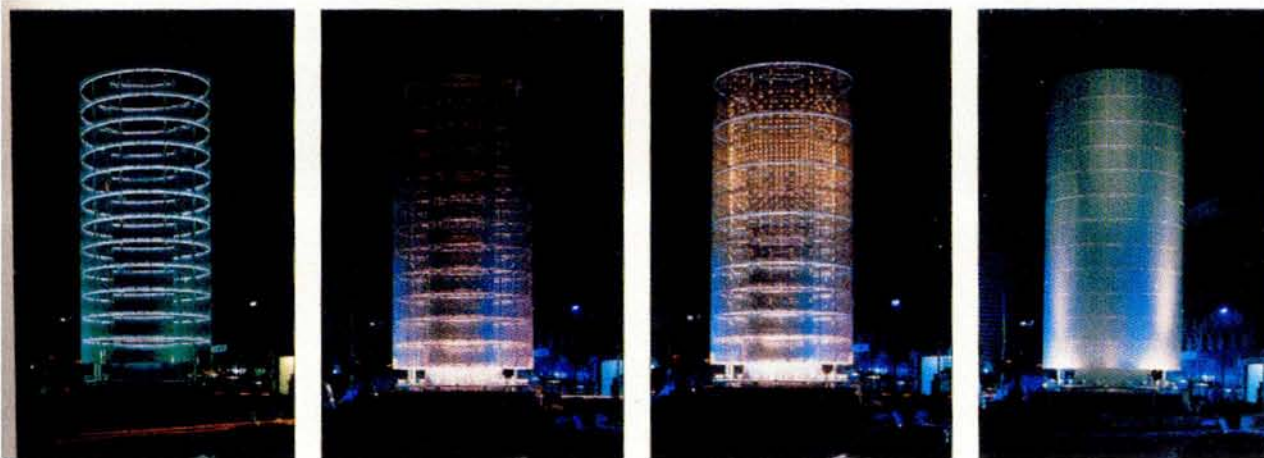
Precedent of inmateriality

Toyo Ito

Tower of Winds

Yokohama, Japan

During the day it stands as a metal tower, but during the night it loses its materiality of a meta tower and turns into a display of lights reacting to the lights and sounds of its surroundings. The reflective properties of the aluminum panels emphasize the tower's simple metallic form during the day. At night the kaleidoscope is switched on presenting a brilliant display of reflection. The tower consists of 1,280 mini-lamps and 12 bright-white, vertically arranged neon rings. Thirty computer-controlled flood lights make the pattern of lights within the tower, according to the time of day. Natural elements such as noises, and wind-speed and direction affect the intensity of the flood lights: the result is a controlled natural phenomenon. The panels sometimes become a translucent film, at other times they appear to rise floodlit to the surface. (Riley, 1995.)



Toyo Ito

Egg of Winds Tokyo, Japan

Same qualities as the tower of winds, except it displays images, either for informational or advertising purposes. Five liquid crystal projectors implanted in the egg transmit pictures on to two rear screens and on to the face of the perforated panels. The projected picture is computer controlled, involving three kinds of lighting equipment and combining five images sources. The Projectors which form the lighting source enable the Egg of Winds to present information which display a new kind of advertising space where video artists may exhibit their work or where information for residents can be aired



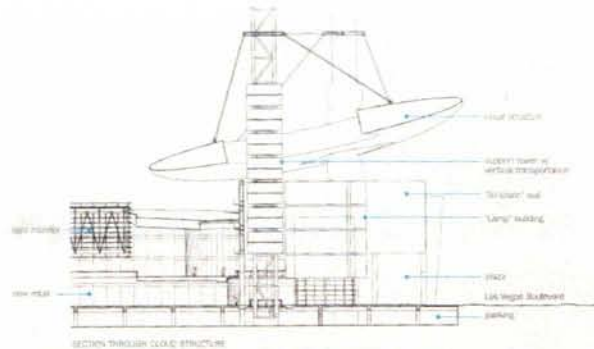
Precedent

Orne + Associates-Richard Orne
Fashion show, Las Vegas

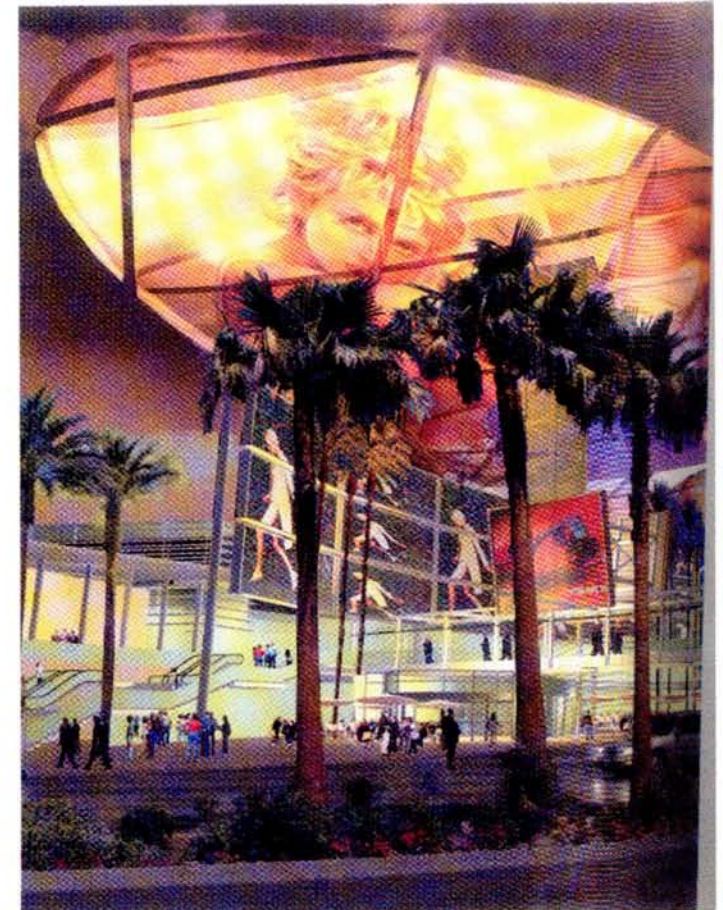
A virtual outdoor theatre.

The main feature is the cloud canopy, which will be wrapped with either perforated metal panels or perforated PVC fabric, will be suspended 100 feet above the street from three truss towers

An architecture of light and
Pixels on Las Vegas' strip.



1. Las Vegas Boulevard
2. Cloud structure
3. Department store
4. Frontier Hotel
5. Treasure Island Hotel



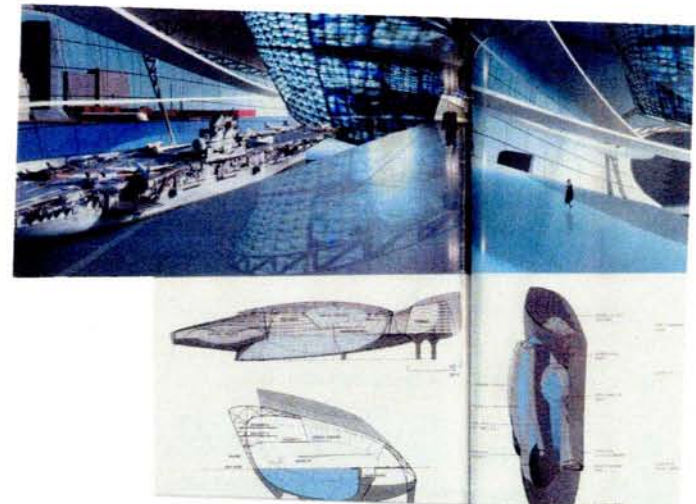
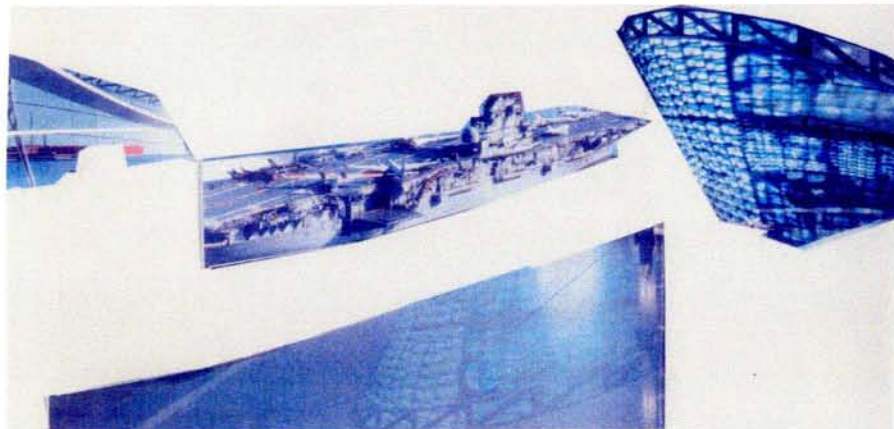
Precedent

Asymptote

Museum of Technology Culture

Lower Manhattan

The museum of Technology Culture responds to such treatment of technology as art, and to the dematerialization and simulation of all aspects of culture through information and digital technology. Analogies are made between this museum and Joseph Paxton's Crystal Palace of 19th Century symbolizing the progress of the machine age. Perhaps this project may be a symbolizing the process of digital technology of today. Unlike Crystal Palace's fixed iconic form, Asymptote's museum is interactive. Its malleable interior can transform itself in plan and section: Its exhibition floor, for example, slides back to create an aquatic arena, and its meandering ramp can be reconfigured. With LCD cladding, it can broadcast digital signals across its exterior surface. The building thus becomes a "real" physical entity, as well as an ephemeral mediator of information. This duality, like the urban condition itself perpetuates a constant state of flux. The museum juxtapose the 'real' scaled materiality of an aircraft carrier against the non-scaled immateriality of the building.



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