

Relaxation Creativity

Elrashid Zomrawy
Masters of Architecture
University of Detroit Mercy - School of Architecture
AR 510 & 520
Tom Roberts, Adjunct Professor



Table of Contents

Thesis writing	
Abstract.....	4
Project summary.....	6
Thesis Paper.....	7
Precedent analysis	
JM Tjibaou Cultural Center.....	15
Milwaukee Art Museum	19
Musee des Confluences	23
Site possibilities	
1st Site- Detroit.....	28
2nd Site- Detroit.....	29
3rd Site- Chicago.....	30
Site Circumstances	31
Site Criteria.....	32
Site analysis	
Culture (Detroit Auto Industry)	34
Location	44
History	46
Views.....	48
Program	
Program Statement.....	50
Quantitative summary.....	51
Design process	
Springboard.....	54
Schematic design.....	77
Design development.....	87
Final Project	
Documentation.....	99
Endnotes.....	103
Bibliography.....	104

Abstract

In our contemporary world, globalization, industrial age, and now the information age has shaped lifestyles. Duplicable systems have become a regular norm that we all have to live with. McDonalds has the same form in United States as in South Africa. X-Box is the typical video- game fashion all around the world. Buildings have become not much more than duplications. As a result, people have lost their perception of identity. Architects have a great responsibility as innovative designers to change this situation. It is a duty to restore the intellectual architecture wiped out by duplications.

This investigation aims to elaborate the freedom of thought. That freedom does not means ignoring the constrains of architecture, but means giving more space for out of the box type of thinking. By considering the premise that informality and relaxation inspire creativity, architects have to come out with innovative ideas and walk the distance between formal and casual architecture. It is true that society's decisions are predominantly based on money, but innovative solutions could save money rather than costing more. The conceptual intent has to respond to the pervasiveness of orthogonal buildings- a cultural condition- in order to create buildings with its own meaning and perception. The goal is to create inspiring building for people to live in and to live with. No fear from going beyond the norms. It is time to make a new reality. Our fear should be that society will enslave the imagination to typical forms of thinking and be forced to repeat itself over and over again

Project Summary

In our contemporary world, globalization, industrial age, and now the information age has shaped lifestyles. Duplicable systems have become a regular norm that we all have to live with. McDonalds has the same form in United States as in South Africa. X-Box is the typical video- game fashion all around the world. Buildings have become not much more than duplications. As a result, people have lost their perception of identity. Architects have a great responsibility as innovative designers to change this situation. It is a duty to restore the intellectual architecture wiped out by duplications.

This investigation aims to elaborate the freedom of thought. That freedom does not mean ignoring the constraints of architecture, but means giving more space for out of the box type of thinking. By considering the premise that informality and relaxation inspire creativity, architects have to come out with innovative ideas and walk the distance between formal and casual architecture. It is true that society's decisions are predominantly based on money, but innovative solutions could save money rather than costing more. The conceptual intent has to respond to the pervasiveness of orthogonal buildings- a cultural condition- in order to create buildings with its own meaning and perception. The goal is to create inspiring building for people to live in and to live with. No fear from going beyond the norms. It is time to make a new reality. Our fear should be that society will enslave the imagination to typical forms of thinking and be forced to repeat itself over and over again.

uniqueness could be achieved through responding to the pervasiveness of orthogonal buildings- a cultural condition- in order to create buildings with its own meaning and perception. Not only has the culture, but also through responding to the site circumstances; since every site has its own characteristics and conditions. The goal is to create inspiring building for people to live in and to live with.

In the way to analyze the macro level, it is necessary to understand the cultural aspect of the city of Detroit. The building has to reflect the history, state the present challenges, and address the future expectations. Robert woods have a bright idea about the city "Detroit is the handsomest city in the world." He may be right or wrong in his statement, but the statement itself shows the deep meaning of the city inside many people, not only who lived in Detroit, but also who just visited like Woods.

"What each must seek in his life never was on land or sea. It is something out of his own unique potentiality for experience, something that never has been and never could have been experienced by anyone else."

Joseph Campbell



Globalization



Duplicable Systems



Thesis Paper

In our contemporary world, globalization, industrial age, and now the information age has shaped lifestyles. Duplicable systems have become a regular norm that we all have to live with. McDonalds has the same form in United States as in South Africa. X-Box is the typical video- game fashion all around the world. Buildings have become not much more than duplications.

Lost identity

As a result, people have lost their perception of identity. All the images start to be repeatable, which create monotonous feeling in the journey of walking or driving. Most of the American cities start to be identical, especially at the neighborhood sectors. All houses start to look like the same. Downtown area is kind of different for the first moment. After making another look, buildings start to make connections with others in different cities. The business buildings can be realized from the first moment. It is that glazing cube with one main entrance at the middle. Parking structure is that concrete construction with long open strip between the short wall and the upper floor. Similar characteristics shaped most of our contemporary buildings.



Pre-designing and identity

Nevertheless, pre-designed buildings start to find its market on line. The same design will sell to many different clients in a cheap price. It is true that it is good to offer designs for less cost, but the question is (do all the clients have the same necessities and the same site circumstances?) It is clear that each building has different function, necessities, users, and meaning "A work of art is the unique result of a unique temperament." Duplicable forms can serve part of that but it can not respond to the whole expectations and provide building has own identity and characteristics. Architects have a great responsibility as innovative designers to change the situation. It is a duty to restore the intellectual architecture wiped out by duplications.

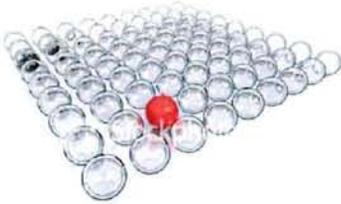


Freedom as a goal

This investigation aims to elaborate the freedom of thought. That freedom does not means ignoring the architecture constrains, but means giving more space for out of the box type of thinking and provide unique buildings. By considering the premise that informality and relaxation inspire creativity, architects have to come out with innovative ideas and walk the distance between formal and casual architecture. Isaac Bashevis defined the scale to evaluate the success of the design as: "The greatness of art is not to find what is common but what is unique."

Uniqueness

To get better understanding to the topic under research, it is important to understand the meaning of the word "unique." It is being defined as: "existing as the only one or as the sole example; single; solitary in type or characteristics." , "having no like or equal; unparalleled; incomparable", "limited in occurrence to a given class, situation, or area", "limited to a single outcome or result; without alternative possibilities", or "the embodiment of unique characteristics; the only specimen of a given kind." Unique cannot be compared because of their "meaning": a word that denotes an absolute condition cannot be described as denoting more or less than that absolute condition.



Uniqueness in architecture

After defining the word unique, it is time to see how it transformed in the Architecture practice. That uniqueness could be achieved through responding to the pervasiveness of orthogonal buildings- a cultural condition- in order to create buildings with its own meaning and perception. Not only has the culture, but also through responding to the site circumstances; since every site has its own characteristics and conditions. The goal is to create inspiring building for people to live in and to live with.

Basic elements

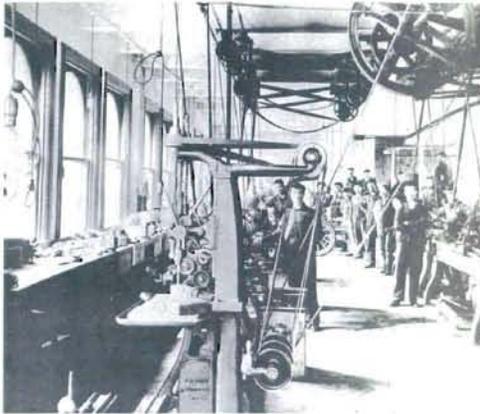
In the way to apply that uniqueness into the architectural piece, it is essential to create that condition of different experience. This new situation can exist by getting a better understanding of many concepts that have to be considered and treated as key elements to test the success and the failure. In his book "As I Lay Dying", William Faulkner defined the essential conditions to shape the enduring architectural experience including:

- Time/timing
- Procession
- Light/light affects
- Structure
- Geometry
- Signifiers
- Int./ext. spatial sequence
- Contrast
- History of place
- Interior and exterior form
- Tectonics
- Site/sitting
- Tactility
- Culture of Place
- Speed/cadence
- Dimension
- Perspectival phenomenon

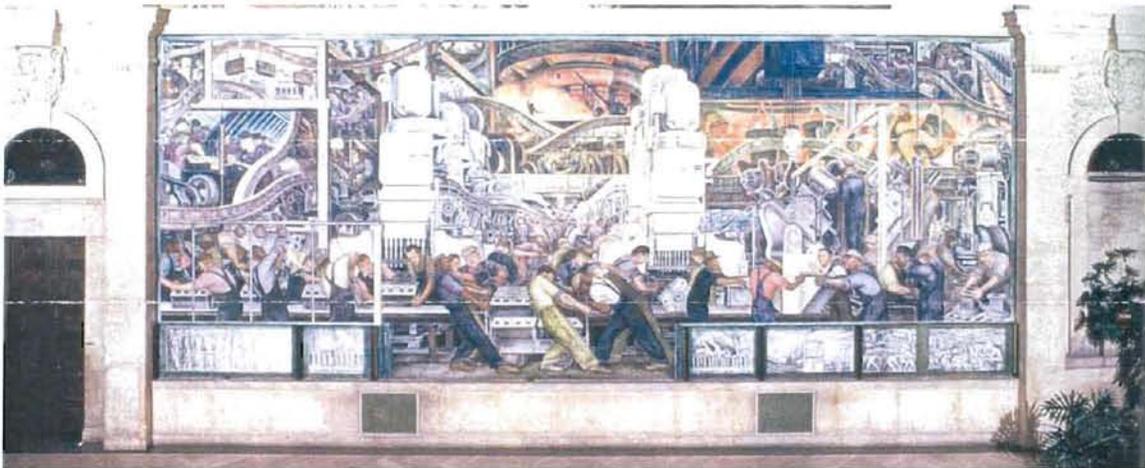
The building has to aware of two essential experiences (one observing, one observed). The final result must infuse with deep meaning, spatial complexity, and contextual precision.

Detroit Auto Industry

This project elaborates the uniqueness of the auto industry revolution in the city of Detroit by understanding the dynamics through the analysis of various iconic cars, their signature characteristics, design evolution, and dissemination. This understanding analyzed by the design of the car, and transformed to architectural lines, spaces, and volumes (Showrooms and dealership). The project focuses on the functional design of the car and how can it be interpreted to architectural concepts and solutions. At the same time, the project looks at the urban implications of car designing and how it can effect both micro and macro levels.



Since the design of cars can provide more inspiration for the architectural design, the problem solving method will be the strategy for the project solution. In addition, the visual design will be supporting element to elaborate that solution. The design of a car itself can allow those issues to come to the foreground. No confusion is intended between the problem solving method and the pure formalist in architecture. The form of the building will not be the goal of the project, but it will come out as a result of the problem solving method after analyzing all factors generated that solution.





Macro Zooming

In the way to analyze the macro level, it is necessary to understand the cultural aspect of the city of Detroit. The building has to reflect the history, state the present challenges, and address the future expectations. Robert Woods has a bright idea about the city "Detroit is the handsomest city in the world." He may be right or wrong in his statement, but the statement itself shows the deep meaning of the city inside many people, not only who lived in Detroit, but also who just visited like Woods.

Urban fabric

Detroit is one of the shrinking cities. The population decries to half it was in 1950. Many social, economical, and political reasons lead to this situation. Those changes can be analyzed through the brief facts provided by Georgia Daskalakis and Jason Young:

- From the 1900 to 1950 the population of Detroit grew from under 285,700 to over 1.8 million.
- From 1950 to 2000 the population of Detroit decreased from over 1.8 million to 951,270.
- No building construction permits were issued in Detroit in 1988, then the 7th largest city in the U.S.
- Between 1978 and 1998 only 9000 building permits were issued for new homes in Detroit, while over 108,000 demolition permits were issued.
- In 1998, Detroit was the 11th largest city in the US.
- In 1998, 79% of the population in Detroit was African American.
- In 1998, 78% of the population in the surrounding suburbs was White.
- In 1998, the average income in the city was 47% of that in the surrounding suburbs.
- In the 1990, Detroit had the largest percentage of single-family homes in the U.S.
- In the 1990's, the city lost 1% of its housing stock each year to arson.
- In 1990, the city spent \$25 million on the removal of abandoned houses and other structures.
- Between 1990 and 1992, the city spent \$250 million on the removal of toxic waste on property the city was donating to Chrysler corporation for the construction of a new Jeep Factory.

That change on the surface of Detroit city, make necessity to create sense of awareness reflected by the design. It is some type of protesting. At the same time the design can provide some kind of solution which is another Auto industry revolution. Detroit was known as an Auto Industry city of the United States. The main reason for the success in the 1950's is the Auto manufacturing revolution. If we are looking for another success, it is clear that we have to look at the potentiality of the city -it is the auto Industry.

Creating the experience

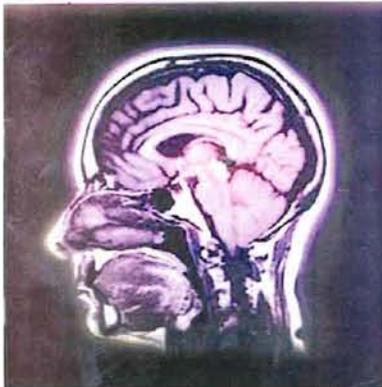
Many other layers can inspire the building designing. The idea of this building is not only creating an interior experience, but also an exterior one. Landscaping is another way to response to the social necessities. At the same time it can use to reflect the political issues. The Landscape maintained to have two different identities or utilizations: one for the summer activities and another for the winter activities.

Some of the successful landscaping point of interest in the city can inspire the design process by retracing the elements of that success into the design. One of the main favorite landmarks in the city is the ice fountain on Washington Boulevard. The essence of attractiveness for this fountain came not only from the artistic point of view of the sculptural value, but also from the social opportunity that provided by being a winter playground for kids to play with the ice of the 30 feet height of ice created by the jets of water. This idea has been adapted by the design to create a winter recreation plaza.

"Mah-nah-be-zee," "The Swan," "Hog Island," "Belle Isle" are different names for the same island at the midway between Canada and the United States. For over 120 years the island has served as an oasis for Metro Detroiters. The island has hosted numerous events, picnicking, school outing, walking, jogging, fishing, auto racing, bike racing, and boating. All those activities has been utilized by Detroit residents and visitors.



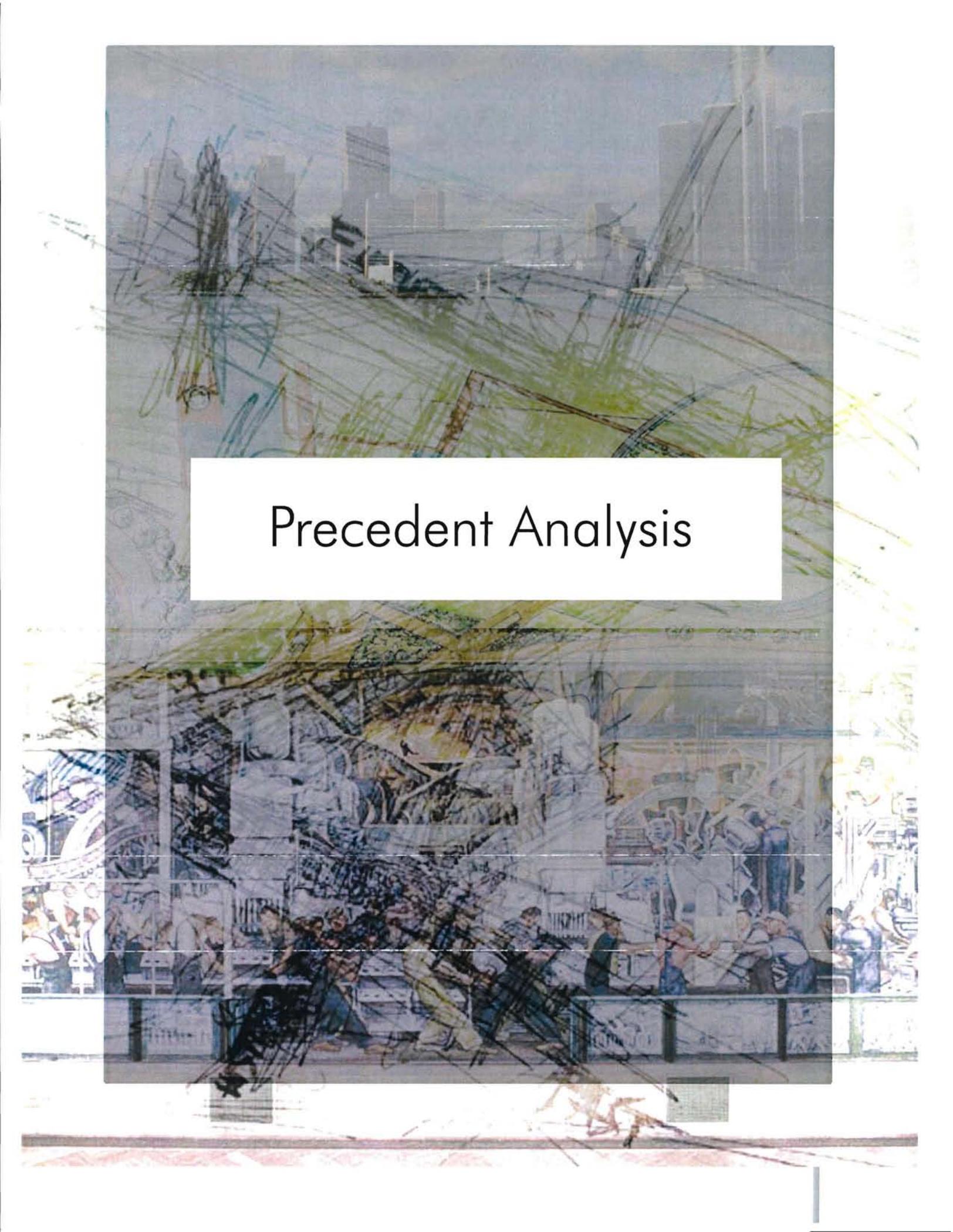
In 1932, the Mexican artist Diego Rivera accepted the \$22,000 commission from Edsel Ford to create a mural in the courtyard of the Detroit Institute of Arts. He tried to illustrate the essence of the city in one big frame "He took the smoke-stack image of Detroit and squeezed the soot out of it." His master piece "Detroit Industry" came out as a controversial art work describing the Rouge complex plan processing "Even the image of unsmiling workers are straining at their tasks, watched over by the omnipresent servicemen." Today it became the most famous art pieces describing the Auto manufacturing in Detroit.



Constructing the Experience

Tectonics has three orders the projected treated structure, skins, and partitions. The primary wall system is a steel frame composed of both straight and curved concrete fabricated members. Two finish skins are applied to this frame. The exterior skin made of cement fiberboards follow the contour of the wall. On the other side, the interior skin of wood follow the structure sometimes and challenge the structure lines on other times to create spaces of storage, fixtures, and privacy. Partitions are constructed with the ability to rearrange at any time according to the necessity and the change of space function. To give the partitions more functioning than spaces dividend element, the plywood portions formed -with realizing the human scale- some times to serve as sitting, shelving, board projecting, and show case utilizing. As a result the interior spaces exist as temporary perceptual constructions. The entire building form cannot perceive as fixed form, but as continuous changing identity. Visitors and people working in the building alike must continually construct their relationship with the architecture through visual and physical perception. That changing in the geometric conception in one's mind, gives the building sense of live that tracing and reflecting the changes in the city. It is the part of the uniqueness of this building to come with the idea of changing to adapt the present situation and requirements and reflect the future hopes.

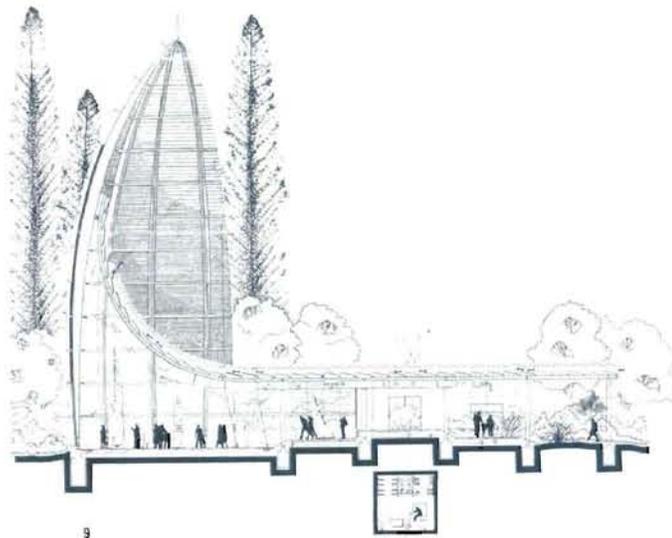
No fear from going beyond the norms "Create your own visual style... let it be unique for yourself and yet identifiable for others." It is time to make a new reality. Our fear should be that society will enslave the imagination to typical forms of thinking and be forced to repeat itself over and over again.

The background of the slide is a complex collage of architectural sketches and drawings. At the top, there's a sketch of a city skyline with several tall buildings. Below that, there are various architectural details, including what looks like a staircase or a walkway with a railing. In the lower half, there's a more detailed drawing of an interior space, possibly a public area or a transit station, with several people engaged in different activities. The sketches are rendered in various colors, including blues, greens, and browns, and are overlaid with a network of thin, dark lines. A prominent white rectangular box is centered on the slide, containing the text "Precedent Analysis".

Precedent Analysis

Precedent Analysis

J M Tjibaou Cultural Center

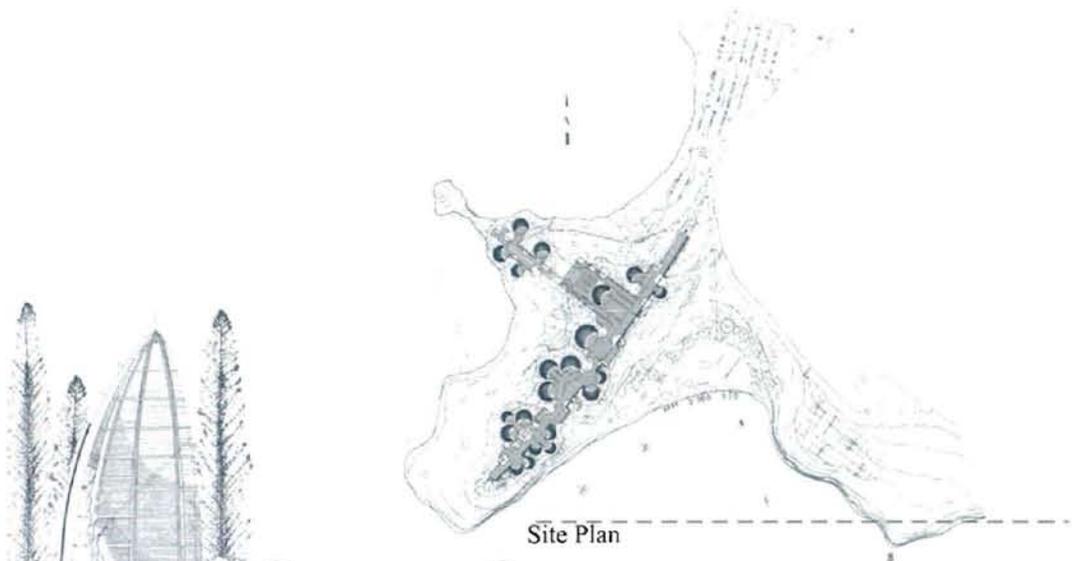


Introduction: J M Tjibaou Cultural Center was designed in 1991 by Renzo Piano. The site is located at the eastern edge of Noumea, capital of the Pacific island of New Caledonia. The building is a gift from the French government to the indigenous people of New Caledonia. The intention from the building is to celebrate the traditional society of the Kanakas and reflect the inevitable evolution of its culture. Many events will serve through the building including: exhibitions, music, dance, and other day -to-day activities.

Description: Piano's design presented as a series of curving cage-like structure of wooden ribs and slats rise from area covered in palm and pine trees. The extraordinary structure created a great hesitation because it looked like nothing had ever seen before. It was an overlay the folkloric and the sophisticated technology.

Evaluation: The main success for Piano's design accomplished by creating a harmonious relationship with both nature and culture which reproduced the past and the present. At the same time the building reflects the ability to benefit of contemporary technology which shows the desire reach the future. It is a strong link between the past, the present and the future.

This project is a great example to the adaptation of cultural aspects on the design processing which can create unexpected architecture.

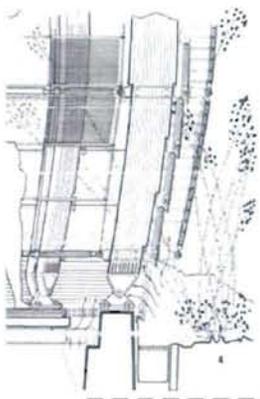


Site Plan

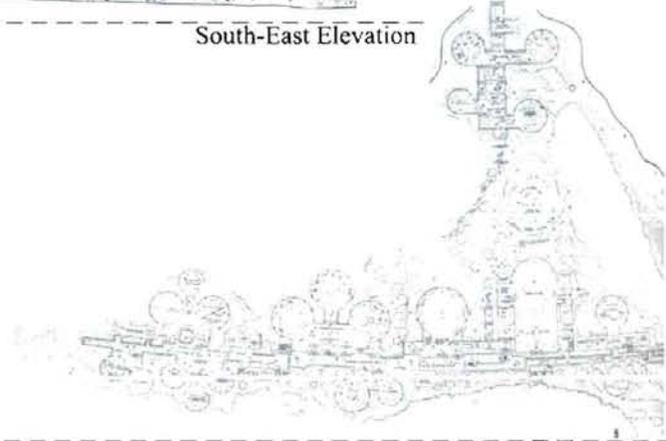
Typical Section



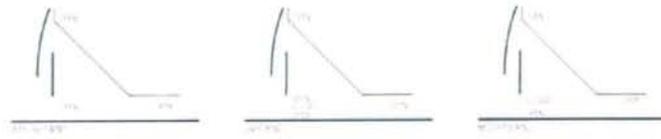
South-East Elevation



Detail Section



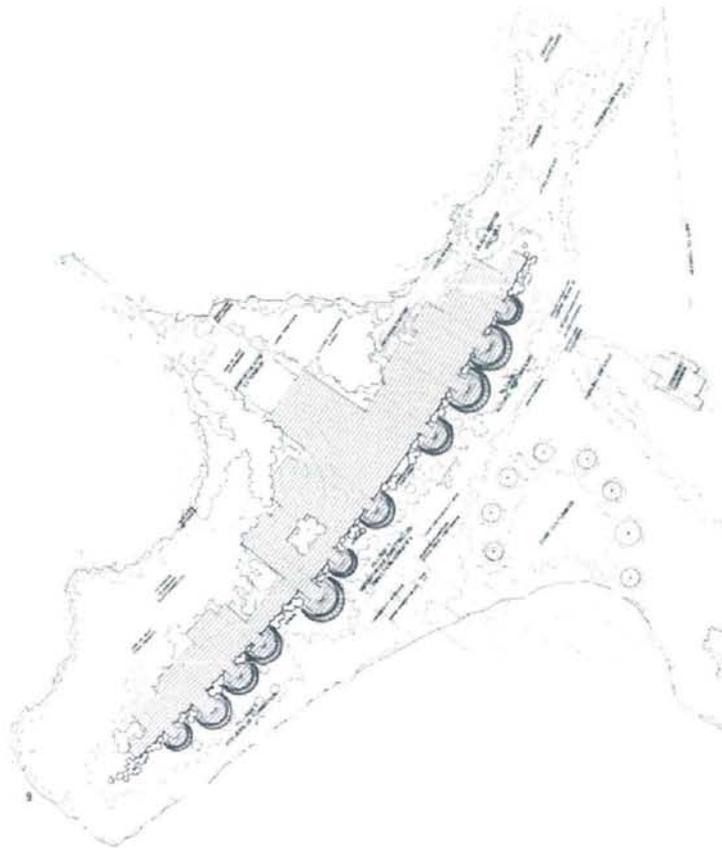
Ground Floor Plan



Ventilation Diagram



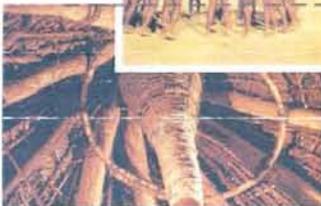
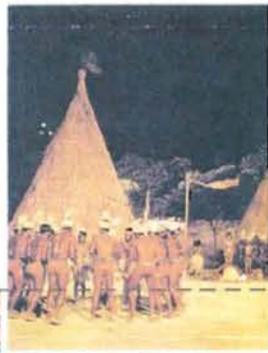
Ventilation Diagram



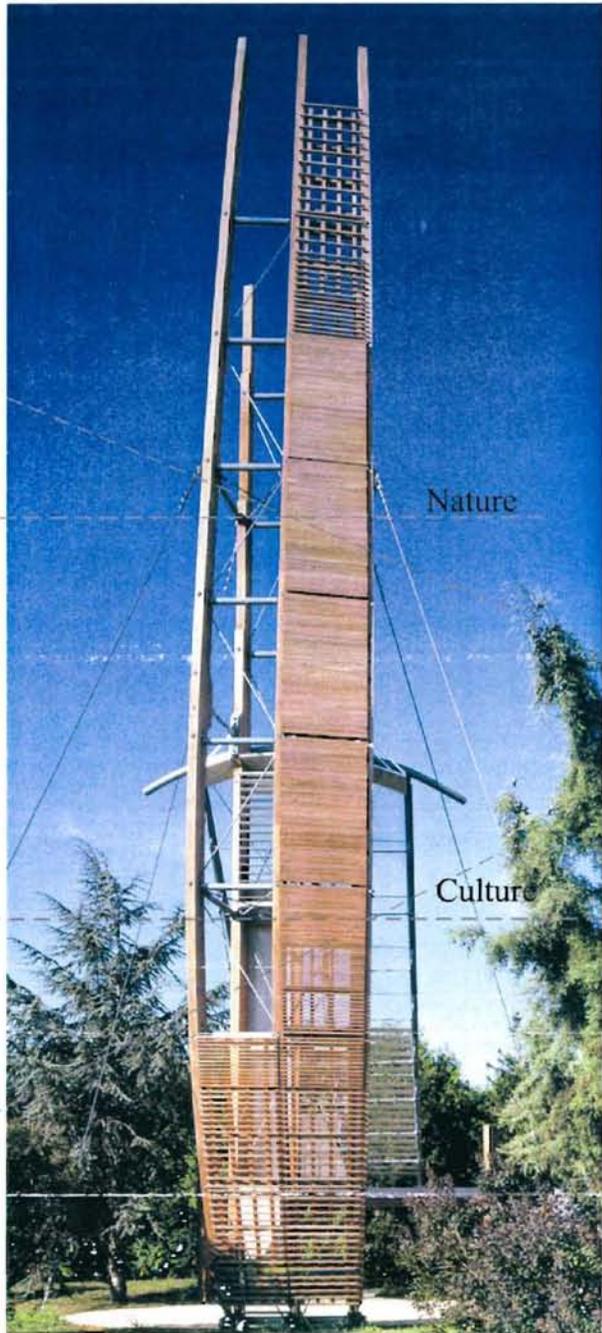
Roof Plan



Nature



Culture



Nature

Culture

Precedent Analysis

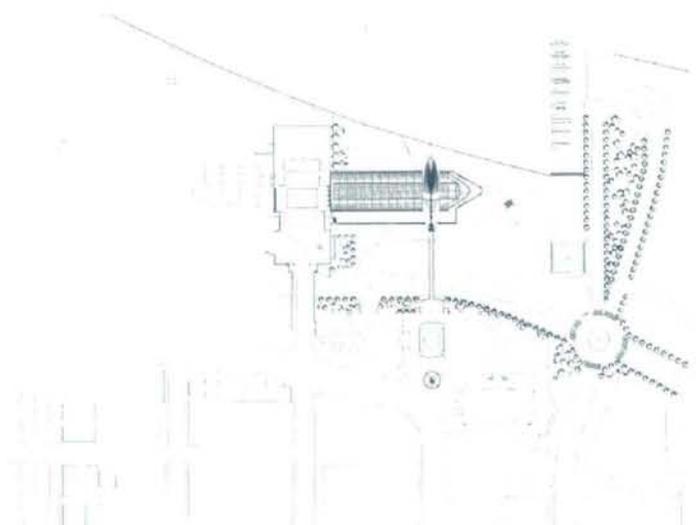
Milwaukee Art Museum



Introduction: In 1994, Calatrava designed the new expansion of Milwaukee Art Museum. The building is overlooking Lake Michigan. The original building was designed in 1957 as a War Memorial by Eero Saarinen. In 1975, David Kahler creates the addition of the two lower floors, which used as an art gallery. The first two buildings were notable for its massive cuboids concrete geometry. As a result, the building lacked both architectural identity and functional clarity. In addition, the only access to the building was through the memorial center.

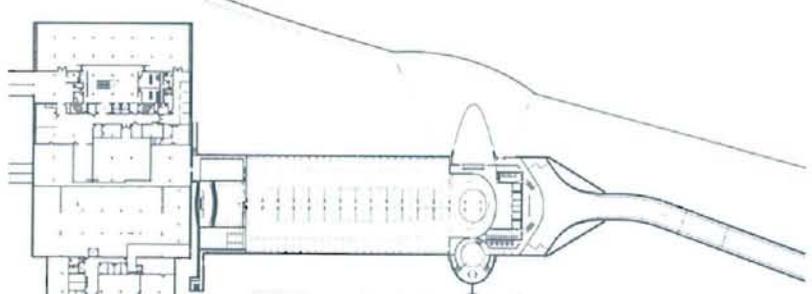
Description: Calatrava designed a pavilion which aligned to Wisconsin Avenue. The new building is contrasted to the existing building in geometry, material and volume. A new adjacent pedestrian bridge added to provide direct access between the building and the city. The roof has a unique mobile roof structure which accommodate functional change and avian grace that create identity and significant

Evaluation: The success of Calatrava's design achieved by creating dynamical form which has its own identity and contrasting the existing building. The complement has been accomplished not only by presenting an elegant structural system and different materiality, but also by encouraging the movement through the footbridge that invites pedestrians from the city.



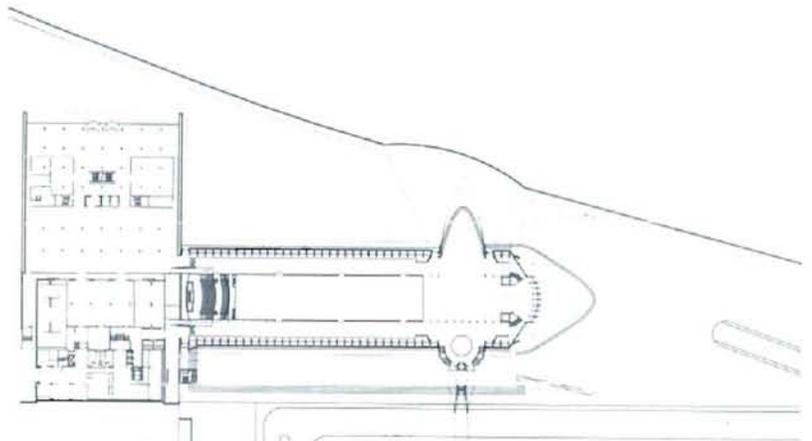
Site Plan

The site plan shows a building complex with a central circular feature and a long, narrow structure extending to the right. The building is situated on a plot with surrounding streets and a curved boundary on the right side.



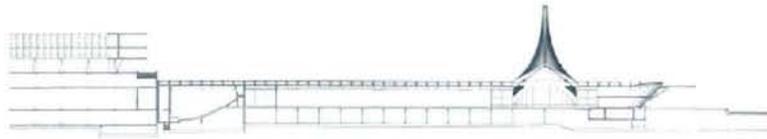
Second Floor Plan

The second floor plan shows a long, narrow structure with a central circular feature and a smaller structure at the right end. The plan includes detailed room layouts and structural elements.

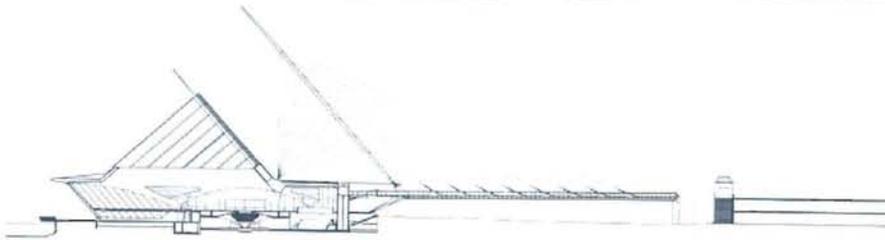
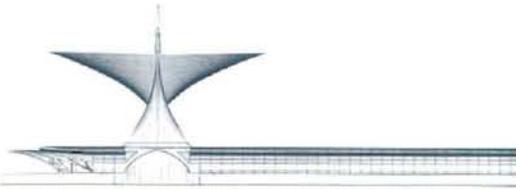
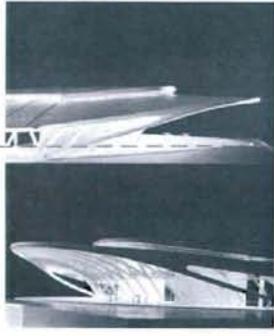


First Floor Plan

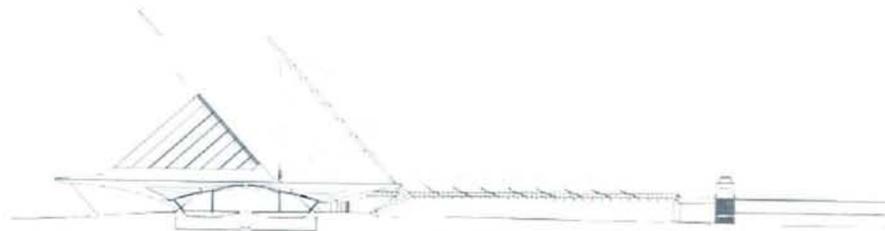
The first floor plan shows a long, narrow structure with a central circular feature and a smaller structure at the right end. The plan includes detailed room layouts and structural elements.



Longitudinal Section



Entrance Section



Cross Section



Bird Over Water Diagram



Unfolding Human Figure Diagram

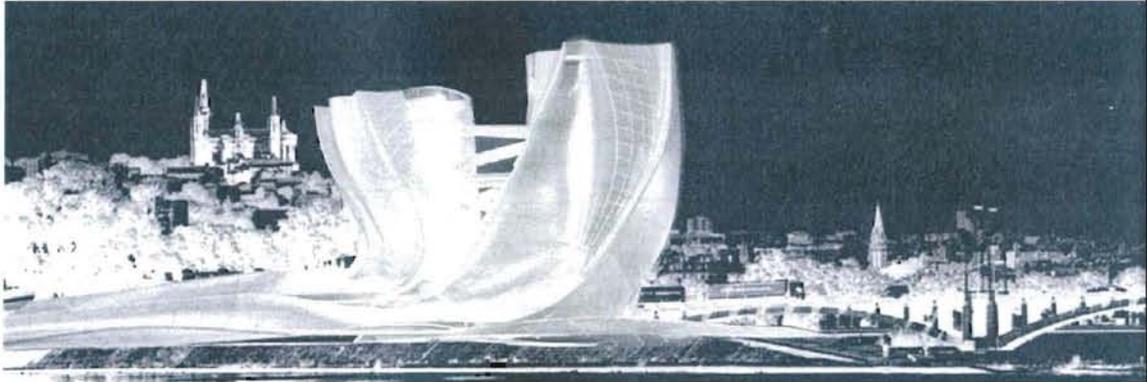


Roof System Diagram

Precedent Analysis

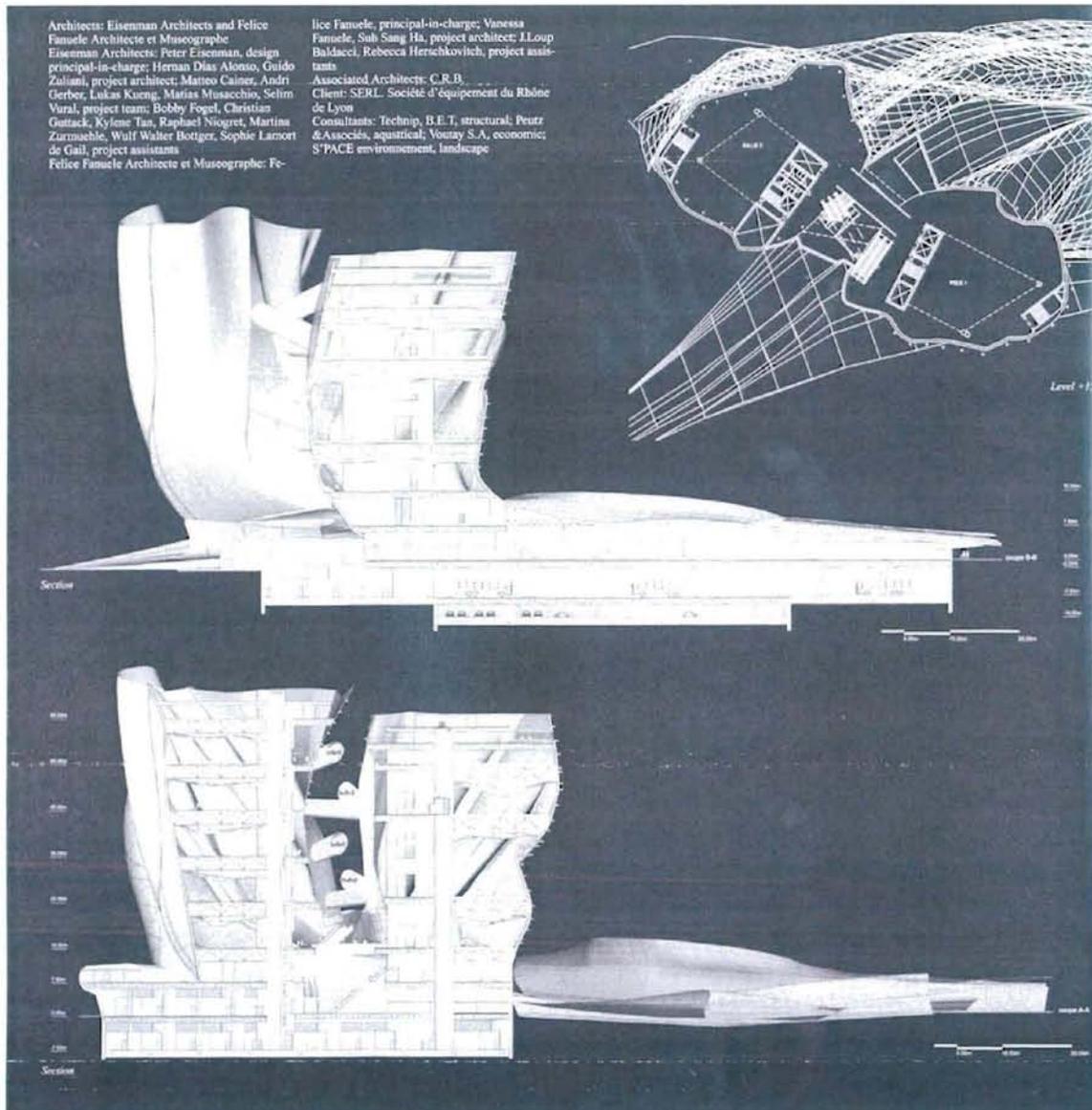
Musee des Confluences

Architect: Peter Eisenman
Lyon, France
Design: 2001 (competition)



The project is a museum of two parts, "science and society." It is located between the Rhone and the Soane rivers in France. The significant location and the nature of the project inspired the designer to adapt un-expected style to create a girded zone "that lifts off the ground, bifurcating and enfolding as it moves upward, generating in its warped forms an object that is neither figure nor ground, tower nor slab, but a melding of the two."

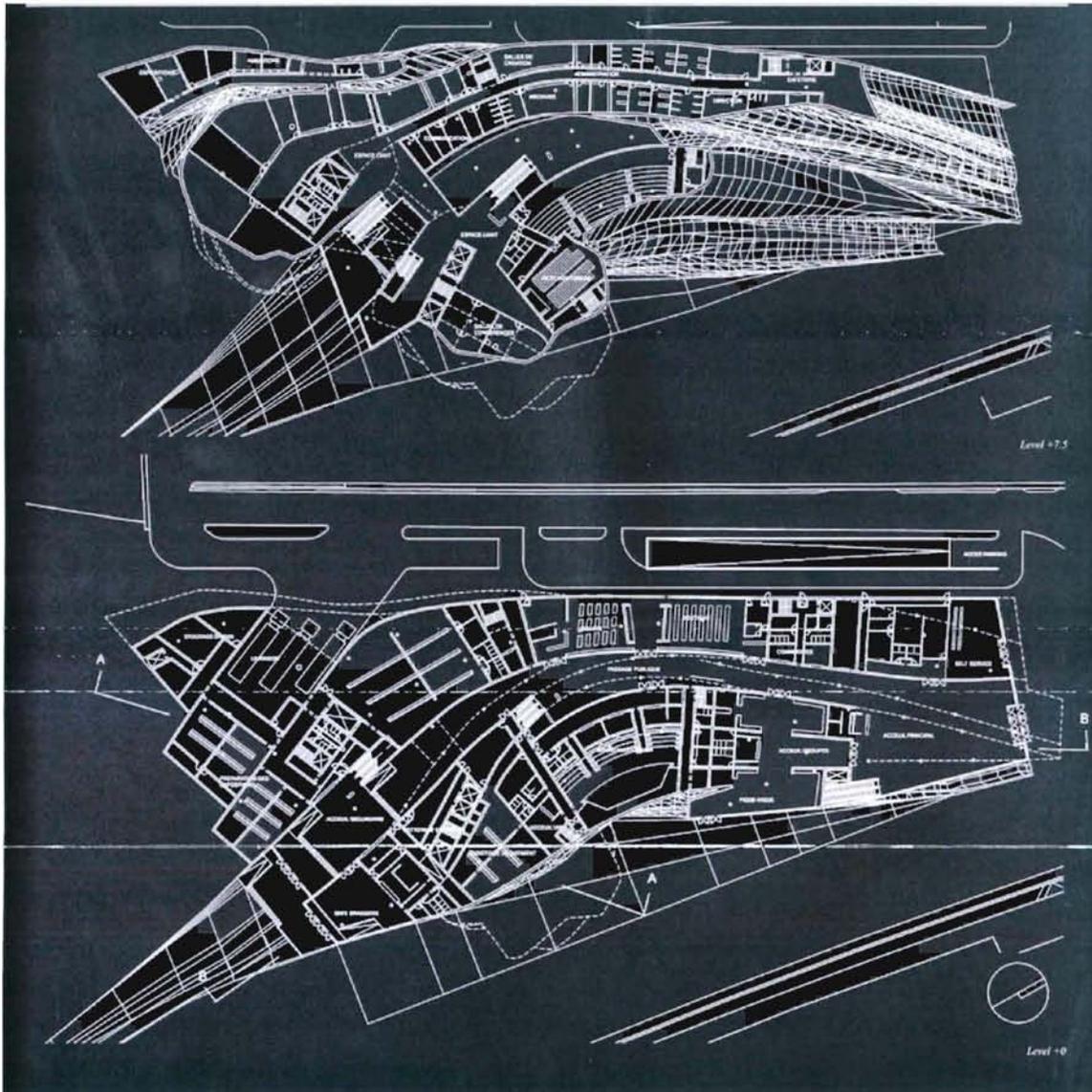


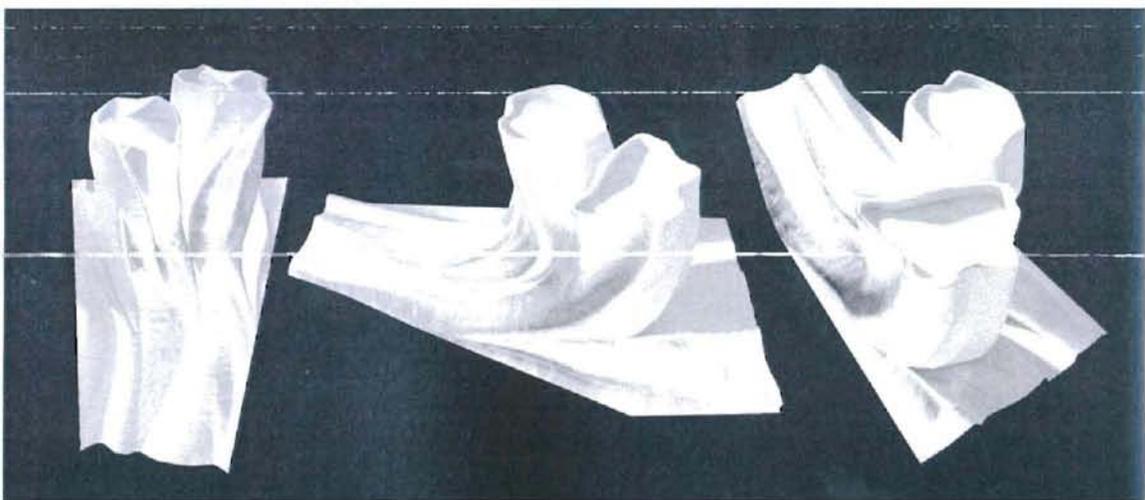
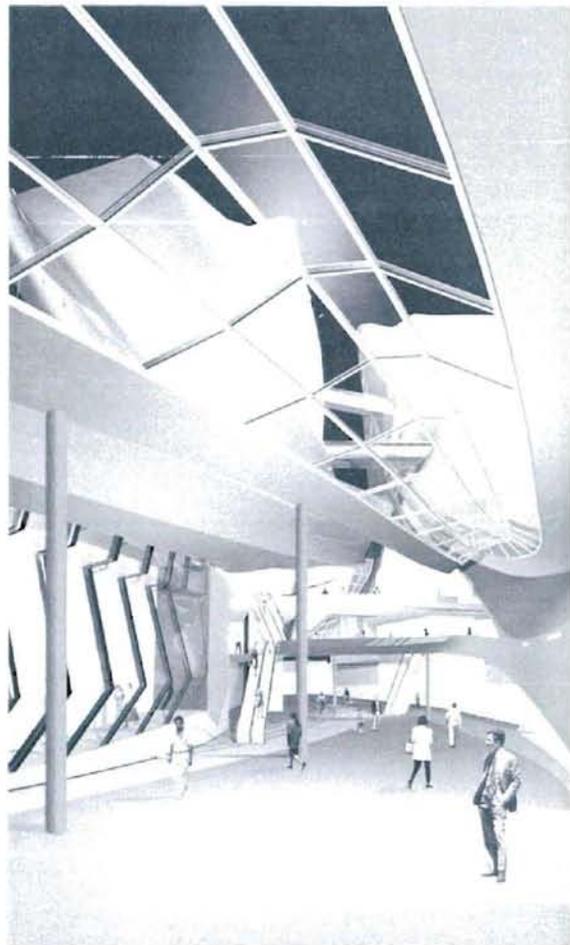
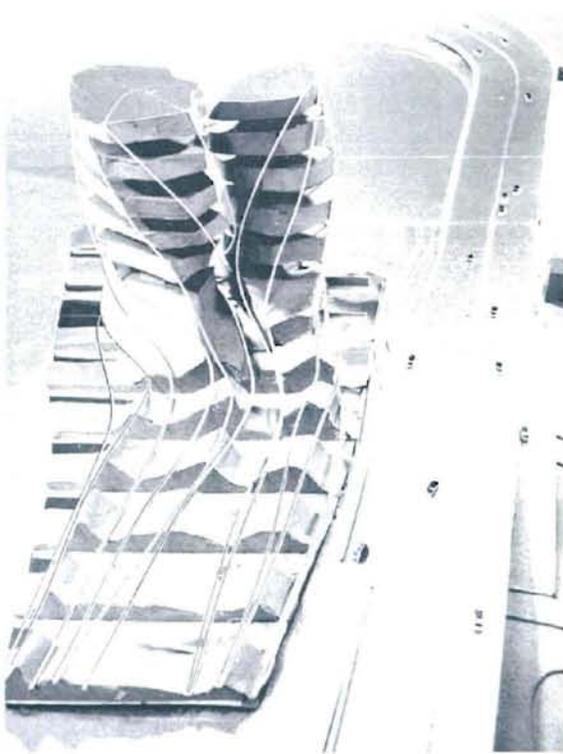


Eisenman's design has strong link to thesis in term of conceptual and functioning aspects. As a museum of science and society, the building has much common programmatic elements with the program of the thesis which has the same cultural nature. In addition, the building has more than the functional aim to construct, the symbolic perspective as an entry and departure for Lyon and an object response to the natural flows of the particular landscape in which it finds itself.

The **first floor** of the building contains the main entrance which connected to the main lobby. Many other supported elements are located close by: self-service restaurant, coat check, and storage lockers, tickets, and information. Above this public area on the **second floor**, other public spaces are provided: Boutique retails, reading room, bookstore, main auditorium, and VIP room. All **upper floors** consist of exhibition spaces which are connected by the vertical cores. **Under the ground**, all supported, technical and fabricated spaces are located. This separation provides a controllable service zone.

In general, the project has a great success in capturing the energy of the site and the confluences of the rivers with a dynamic attachment of today's technology.



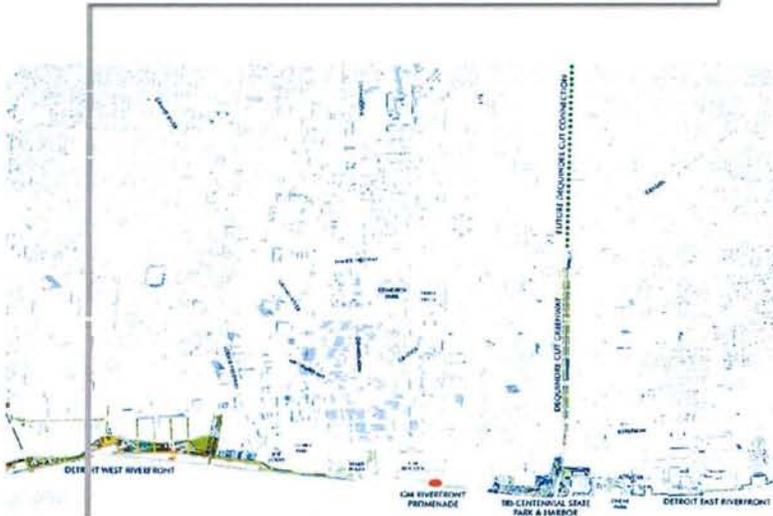




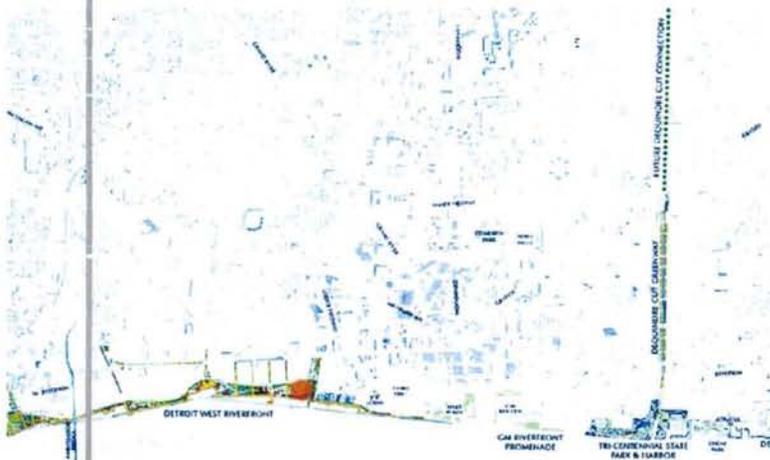
Site Possibilities



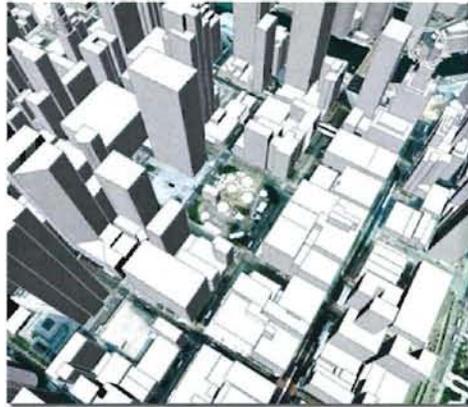
1st Site - Detroit



2nd Site - Detroit



3rd Site - Chicago



Site Circumstances

Project nature:

Since the thesis aims to elaborate the freedom of thoughts and focus on dynamic architecture, the project location became more critical. The site can become a great addition to the main concept of the project or a reason for the failure of the attempted goal. This project represents dynamics as fundamental nature. The link between building and people is essential.

General expectations:

In response to the nature of the project, many criteria are expected in the selected site location.

1. The site should be located in an urban context, where the interaction between people and buildings is more than the rural or undeveloped area.
2. Metro areas can be a good location for the project where everyone has many reasons to visit and in result to interact with the building.
3. In response to the different needs: the building will have more attention for variety of users by locating in mixed uses area (commercial/retail, office, professional offices, residential).
4. It is expected for the building to be located in a contemporary development context, since historical context can limited the ability to introduce contemporary architecture.
5. It will give more meaning for the building to provide a real need for its type of functioning.
6. The need for more interaction with the building requires the public than private.
7. Easy access to the building through main streets, public transportation, bike bathes, and walk ways.
8. Parks by the side will encourage more people to visit the building.

Site Criteria

	Excellent	Good	Poor
Urban Context	Metropolis	Urban center for small city	Rural area
Access to Location	Multi access (cars, public transportation, bikes, pedestrian)	Access by cars and public transportation only	Access by cars only
Land use	Mixed uses (Commercial/Retail, offices, Residential)	One land use other than Industrial	Access by cars only
Architecture Style	Contemporary	Mixed styles (Contemporary and Historical)	Historical
Land Size	More than 200 X400 Ft	200 X 400 Ft (Regular block size)	Less than 200 X400 Ft



Site Analysis

Detroit Auto Industry



By the beginning of the twentieth century, the auto industry in the city of Detroit shaped the growth, the success, the abandoned, and the shrinking of the city. Many social, economical, and political reasons lead to these stages of development and declination. The success linked to the growth of the auto manufacturing in the city. On the other had, the declinations caused by many reasons that forced the change from centralization auto industry to decentralization which remains the major factor of the city shrinkage.



The first automobile ride in Detroit streets was made by Charles Brady King in 1896. He took his four-cylinder horseless carriage in an experimental ride in downtown streets. In 1903, the growing up auto manufacturing in United States produced only 11,000 cars nation wide comparing to 1 million bicycles. There was a huge rash of auto industry. In that year, 57 new firm starting up and another 27 failing. Ford Motor Company is one of the successful examples. Henry Ford was born

in Dearborn in 1863. He used to work as a night shift engineer Edison Illumination Company. Ford organized the Detroit Automobile Company with several inventors like Mayor William Maybury. He separated to create his own factory by having partnership with local coal merchant Alexander Malcomson. In his factory, workmen get paid \$1.5 a day to create a two-cylinder model that can reach speeds up to 30 miles per hour. The average cost for the automobile was around \$850 which is what the working man makes in 10 years.

To change the product cost to be affordable, many car makers decided to leave pricey vehicle to sport one and focus on producing cars could be affordable for middle class people.



In 1913, Henry Ford introduced a new system in auto manufacturing processing. It is the assembly line concept. In fact he did not invent the assembly line but he perfected it. The creation of cars used to build on sawhorses by craftsmen. The new system was a series of repetitive tasks provided by unskilled labors. The result was cutting down the production time from nearly 13 hours to 93 minutes. In city scale, the new system created job opportunities for hundreds of thousands of Detroit workers. The car prices dropped down. It became affordable even to the workers into the auto industry.

Fordism era became the model of the fordist industrial development in the first part of the twentieth century. It was not shaped only the economical face of the city, but it was a strong base for the city prosperity, growth and declining. Fordism became an organizational model of urbanization. The collaboration between Henry Ford and Albert Kahn set the three development stages for the fordism era: Taylorization, The factory under one roof, and Decentralization.

Taylorization: In 1909 Henry Ford built Highland Park Plant. He used Taylor's principle of scientific management which increased the speed and the scale of production. The theory based on recording and analyzing the individual labor tasks and set invented ways to improve the performance. Albert Khan provided the architectural spatial organization for the new system. He provided concrete construction with wide space to provide more flexibility in movement and functional adaptation. The system was built in vertical organization (different floors) where the materials flow from top to bottom. Taylorization was the first jump in the auto manufacturing processing. It set the first base for competitive manufacturing production in Detroit.

The factory under one roof: In 1917 the River Rouge plant was built to accomplish the concept of the assembly line to an overall urban complex. It became the world largest industrial complex. The idea based on connecting many single story buildings together into one multi buildings assembly line. In this factory the manufacturing process built cars form scratch to final touch into the same building. It was the real mass production era. Detroit reached the peak of development at that time.

Decentralization production patterns: Ford changed his principles from centralization to decentralization or anti-urbanism after World War II. Albert Khan helped him by changing the designing forms from all in one building to construction of specialized production sites located in different places around the country. This stage was the turning point for the city development. It was the end economical progress and the beginning of the segregation. The impact of policy was fundamental part of adapting the new strategy. The policy lacked part of the big picture. It missed to anticipate the future of the city after the decentralization.

In addition to the economical implication to the Fordism principle, it has also social results. Ford advanced the social life not only by offering hundreds of thousands of job opportunities, but also by increasing the wages to the famous "five dollars per day". In 1914, he introduces that change in the wages at the time where the typical labor wages in the auto industry were 30 cents per hour. By doing that he offered double wages for auto workers. The following day to those announcement ten thousand applicants packed at the employment office at Highland Park plant. Detroit became Mecca for unskilled labor from everywhere. Not only that, but he also allowed for eight hours working per day and forty per week. The previous system was working two shifts of nine hours. The new modification changed to three shifts of eight hours which means none stopping assembly line and creating a huge number of job opportunities in the factory. After that it became a regular norm every where under the Fair Labor Standards Act of 1938. As rewarding and motivating system, fordism gave workers access to own cars they make. By doing so, the system created its own market. It is clear to realize the huge impact of the Fordism system on social life in the city.

The development of the fordism processing from Taylorism which considered the scientific analysis for individuals to the assembly line processing, made a huge development into the productivity of the Auto manufacturing. As a result, the industry had the ability to render workers basic needs (food, clothes, shelter, and transport) which considered remarkable transformation to the social-economic condition in the city.



Fordism mass production system faced many breaks in the middle of the way to force the change toward post-Fordism era. The first struggling happened in 1966-1967 (the post-war boom) followed by the political struggles of 1968, the oil crises of 1973, and a deepening in the recession in 1974. All those factors caused a free-fall for the auto industry. The crises did not effect only on the auto industry but also in the city of Detroit. To adapt the new changes the Fordism theory has to change accordingly. It has to have new political and economical strategies.

The emergent from fordism to post-fordism became a necessity as a result of the crises. It required several socio-economic transformations. There are five major key conditions shaped that transformation: "shifting commodity markets, increasing electronic control of production, decreasing state regulation, increasingly global capital markets, and deteriorating labor relations."

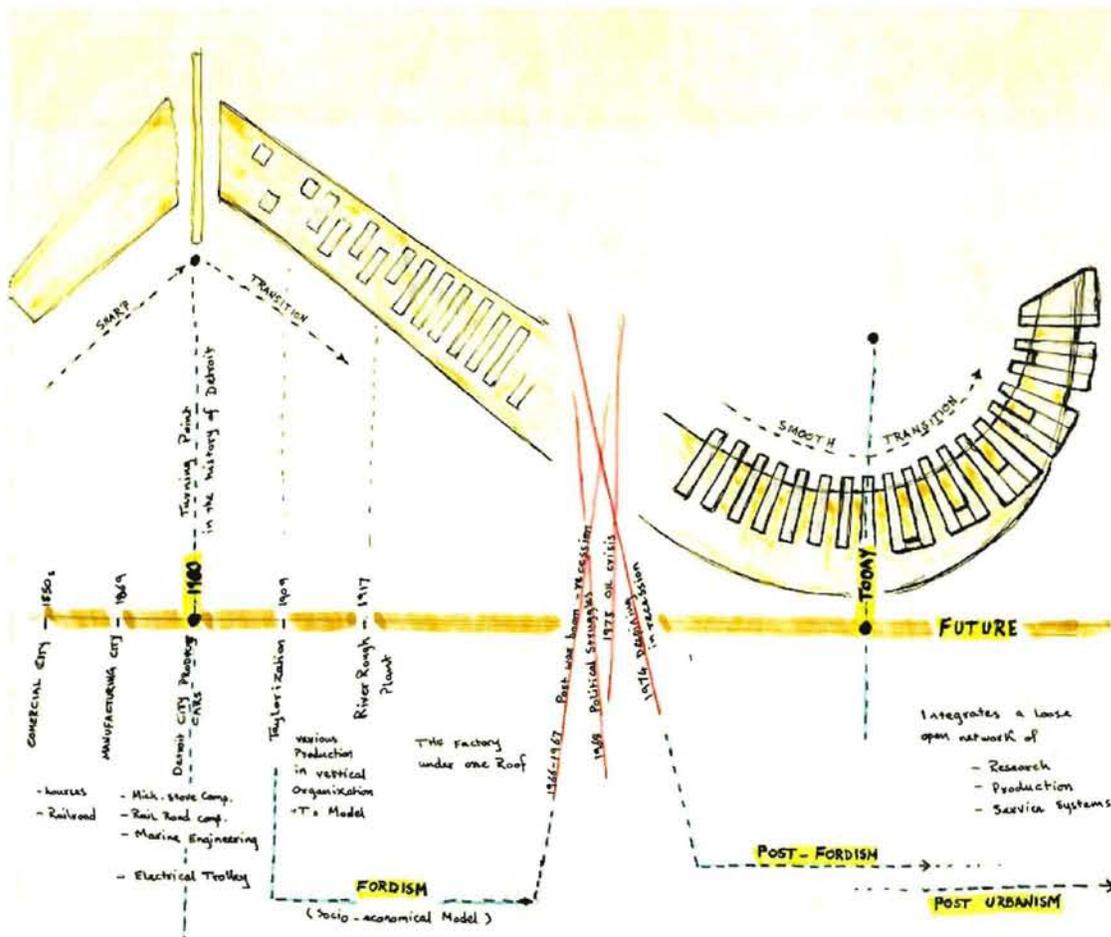
Market Stratification: With the growing presence of labor division, salary stratification increased. Looking for more than the basic needs created diversity in the market. People started to look for status and identity to speed up the product cycles. The focus of attention shifted from looking for cost reduction to innovation and flexibility. The city perceived by postmodernist and urbanism as a recreation place.

Flexible Production: Technology offered possibility for product diversity. Previously manufacturing depend on handicraft production which is limited the differences in the standards. Yet with the computer technology, flexibility and subsequent fluidity required rearranging and reconfiguring the labor forces to compromise with the new system.

Vanishing State Regulation: Economic of scales became an international phenomenon as a result of variations of products and markets and the need for the global expansion. The international economic resulted on wearing down the competence of the nation state. The cost price became the bottom line for the international trade. Mobilization of capital has increased by withdrawing from macro-economic regulations. Detroit has suffered from this process and still experiencing the processing.

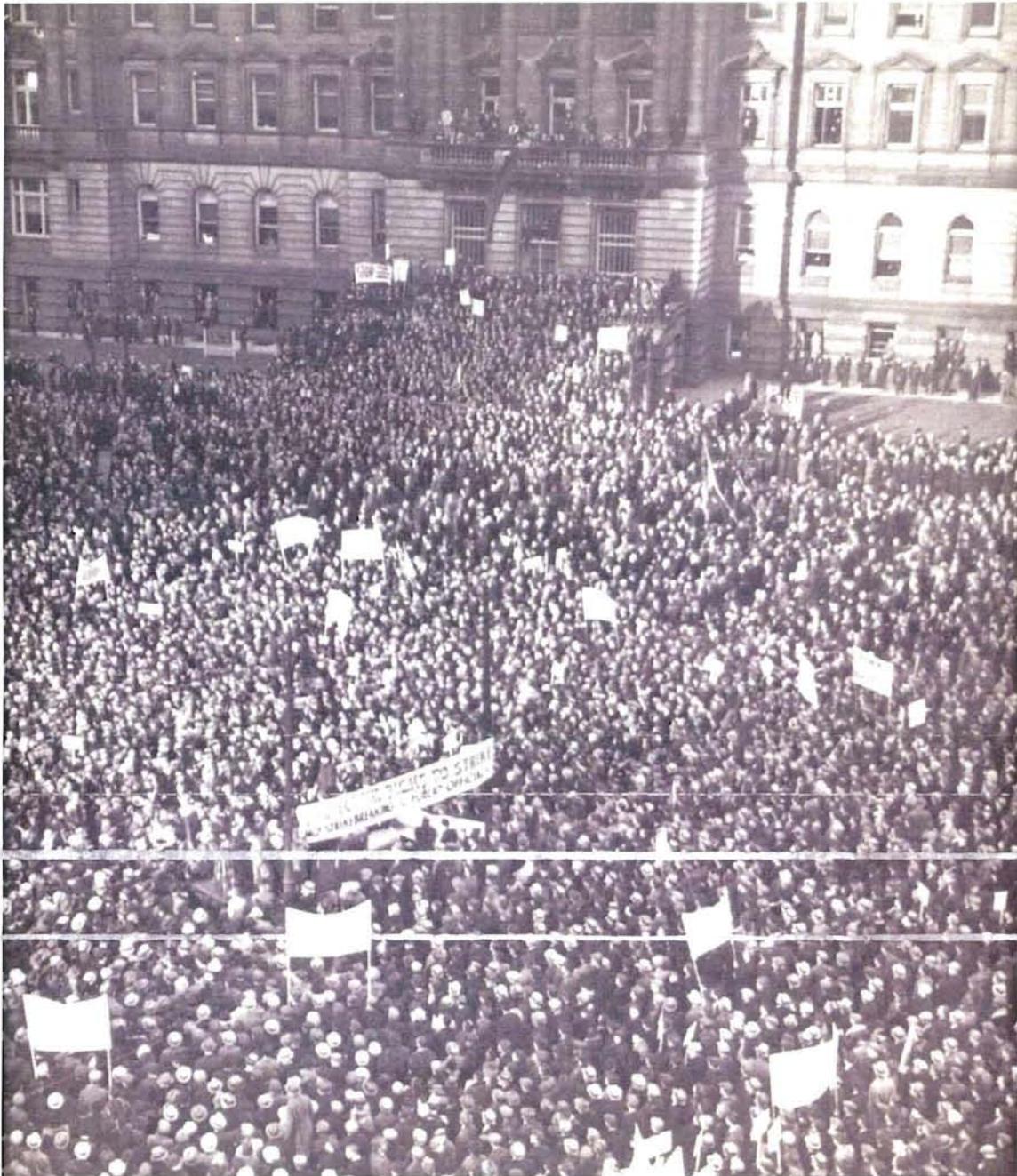
Globalization of Capital Market: Globalizations became a new model to make the incorporation between production and consumption. International labor and out of home country production aims to reduce the cost in order to compete internationally. Globalization takes different forms: "re-emergence of inter-imperialist rivalries, militarism, enforced austerity programs, the breakup of national welfare programs, and a downward pressure on labor-costs." As a result the standard of living declined while class disproportion increased.

Exploding Labor Relations: as a result of the free market "the neo-liberalism," capital-labor compromises, the international labor became the norm, "replacing regular employment by flexible arrangement, employment contract became shorter, mobility increased, casual labor and self employment replaced regular employment. All that turned the market to be constantly changeable.



Post-Fordism production was based on "decentralization, horizontally, transparency, fluidity, and rapid mutability." The base for the post-Fordist and many different social arrangements is the post-modern principles. The new trend has collaborative essence evident in corporate reformation. Hierarchies flattened into horizontal fields. Authority and responsibility has been decentralized. Bureaucratic task allocated by self-organization. Command and control replaced by collegial communication and evaluation. Team-work became the basic structure with spreading and sharing of information.

After the years of crisis, the auto industry lost most of its contribution as well-paying manufacturing jobs. Higher fuel prices and international competition created more pressure on the auto industry market. As a result, 50,000 of Detroit auto workers laid off between 1978 and 1988. Many plants were closed. The population of the city lost half it was in the 1950's. The metropolitan area became the most segregated area nation wide. Even the city suburbs get more development and expansions, the core city get more neglected and abandoned. Racial segregation became worse and worse. One out of four of the city population is Black. Poverty became more concentrated in the inner city.



Auto industrial workers were looking for some kind of unity to protect their rights. At the beginning of the twenties century, 25,000 were being killed every year. Even President Benjamin Harrison affirmed suffer of the auto workers: "American workmen are subjected to peril of life and limb as great as any soldier in the time of war." The nature of the auto industry makes it a dangerous place to work in. Moving belts and machinery elevate the risk. Losing fingers became the most common reason for permanent disability to many of the workers. Layoff happened frequently with no support for those workers and their families during those payless weeks. They did not have any benefits like health insurance, pensions, sick days, and seniority. Even workers were united many times for better wages or working conditions, the real effective unity came in 1937 by the United Auto Workers. On March 8, 1937 around 57,000 auto workers strike inside Dodge Main and eight other factories in Detroit. They were looking for seniority. The UAW reached its greatest strength in 1979 by having more than 1.5 million members. The membership had declined to 752,000 most of them are working for GM, Ford, and Chrysler. Under the umbrella of the UAW the U.S. autoworkers became the best paid industrial workers in the history.



Another way to reflect the development and the shrinking of the auto industry in the city, it is essential to analyze the changes into the demographic condition. Detroit considered one of the shrinking cities by losing population rapidly. The population decies to half it was in 1950. Even, many social, economical, and political reasons lead to this situation, the changes from centralization auto industry to decentralization remains the major factor behind that transformation. Those changes can be analyzed through the brief facts provided by Georgia Daskalaskis and Jason Young:

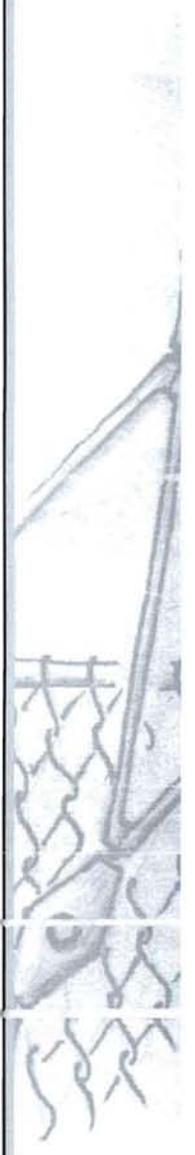
- From the 1900 to 1950 the population of Detroit grew from under 285,700 to over 1.8 million.
- From 1950 to 2000 the population of Detroit decreased from over 1.8 million to 951,270.
- No building construction permits were issued in Detroit in 1988, then the 7th largest city in the U.S.
- Between 1978 and 1998 only 9000 building permits were issued for new homes in Detroit, while over 108,000 demolition permits were issued.
- In 1998, Detroit was the 11th largest city in the US.
- In 1998, 79% of the population in Detroit was African American.
- In 1998, 78% of the population in the surrounding suburbs was White.
- In 1998, the average income in the city was 47% of that in the surrounding suburbs.
- In the 1990, Detroit had the largest percentage of single-family homes in the U.S.
- In the 1990's, the city lost 1% of its housing stock each year to arson.
- In 1990, the city spent \$25 million on the removal of abandoned houses and other structures.
- Between 1990 and 1992, the city spent \$250 million on the removal of toxic waste on property the city was donating to Chrysler Corporation for the construction of a new Jeep Factory.

That change on the surface of Detroit city, make necessity to create sense of awareness reflected by the design. It is some type of protesting. At the same time the design can provide some kind of solution which is another Auto industry revolution. Detroit was known as an Auto Industry city of the United States. The main reason for the success in the 1950's is the Auto manufacturing revolution. If we are looking for another success, it is clear that we have to look at the potentiality of the city -it is the auto Industry.

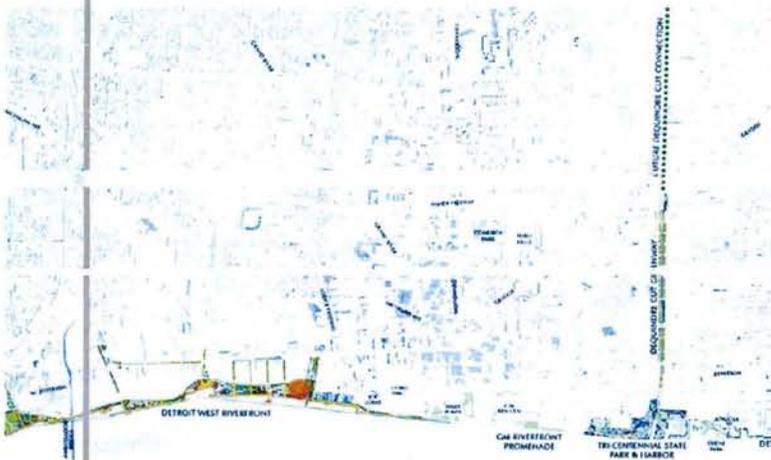


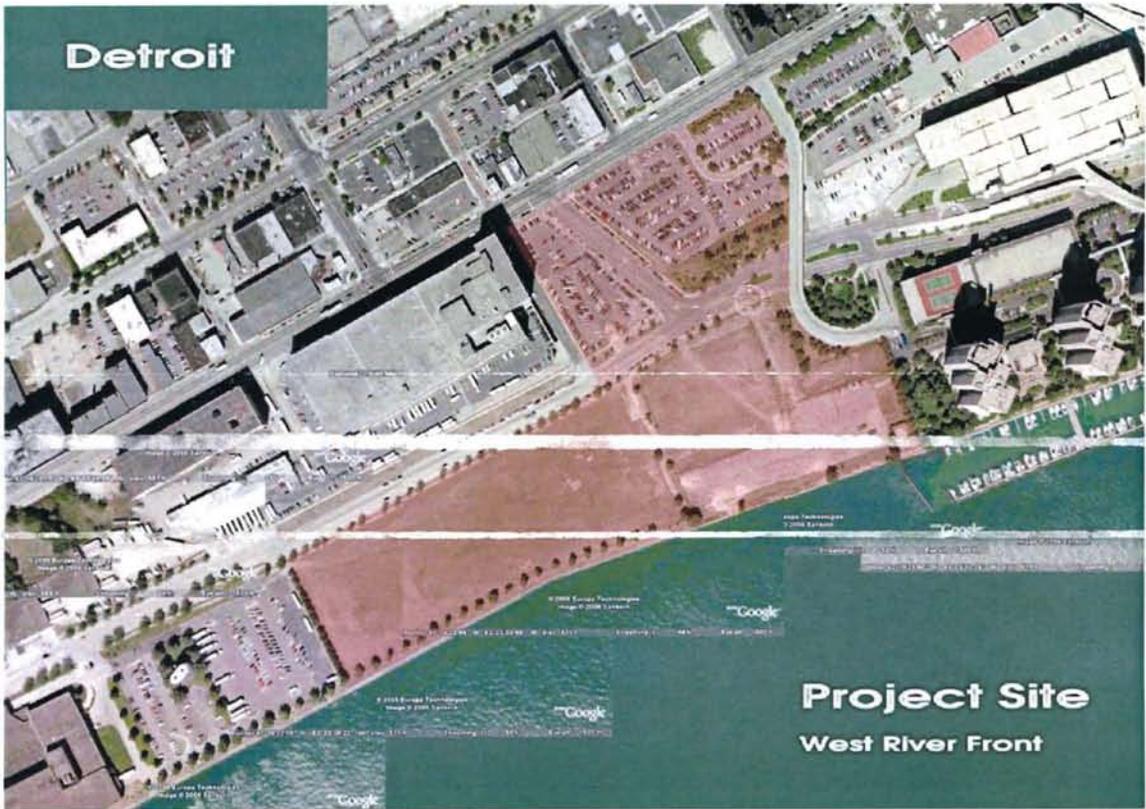
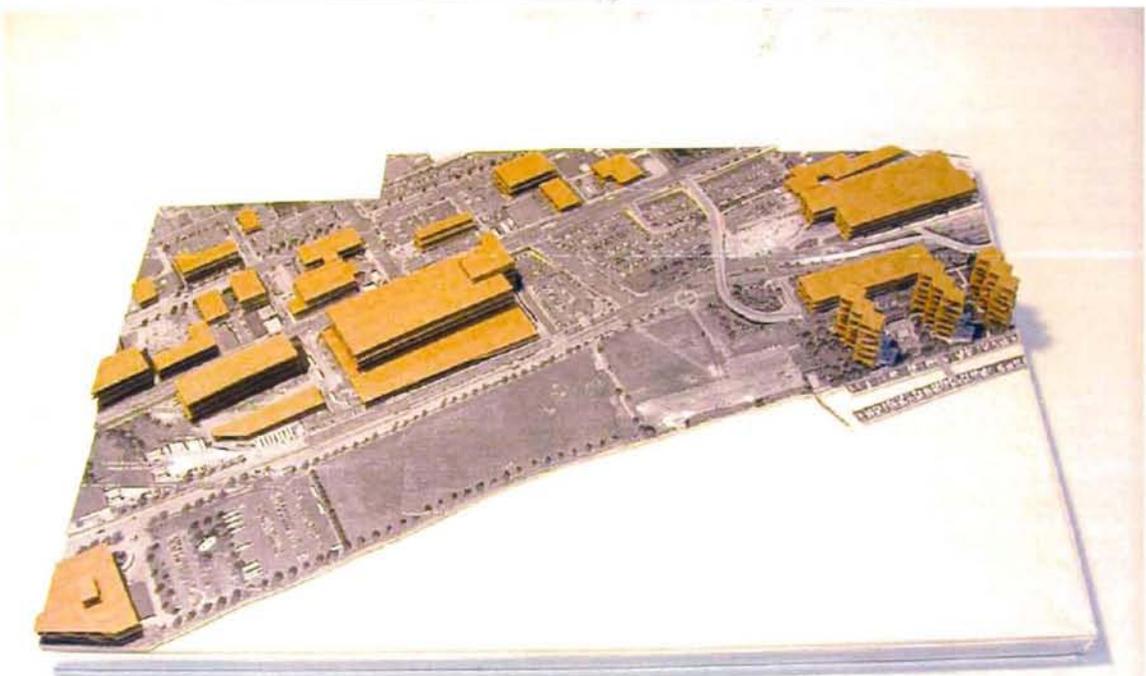
The economical drop-off shaped a new picture for the city of Detroit. By losing most of the job opportunities provided by the auto industry, many people flee out of the city. May be not only the economical reason was led to this situation, but also the media presented Detroit in ugly images. Some times it been presented as "Murder City" when the city had the highest homicide rate nationally in the 1970's. Other times, it presented the Devil's Night disaster as a regular custom in Detroit; when hundreds of houses burned during the annual ritual of mindless arson. All of those reasons together and others more increased the depth of the hole. Middle classes population moved to the surrounding suburbs. Poverty became more concentrated into the metro area. Accordingly, the quality of education declined sharply. It is a serious situation facing the past, present and the future of the city. New policy should be produce to collect the remains of the potentiality and take back the city to the golden ages. Auto industry could be the keyword for the success. Before, it was the strong base for the city development. It can play the same rule if it gets more attention by having new creative ways to match and provide international competitive production. Opening more plants in the city instead of the suburbs will encourage the middle class coming back to the city which will reduce the poverty. Federal help to the auto industry and creating long term programs could create healthy economical environment in the city. Providing affordable housing near the auto manufactory will ease the traffic and reduce the pollution

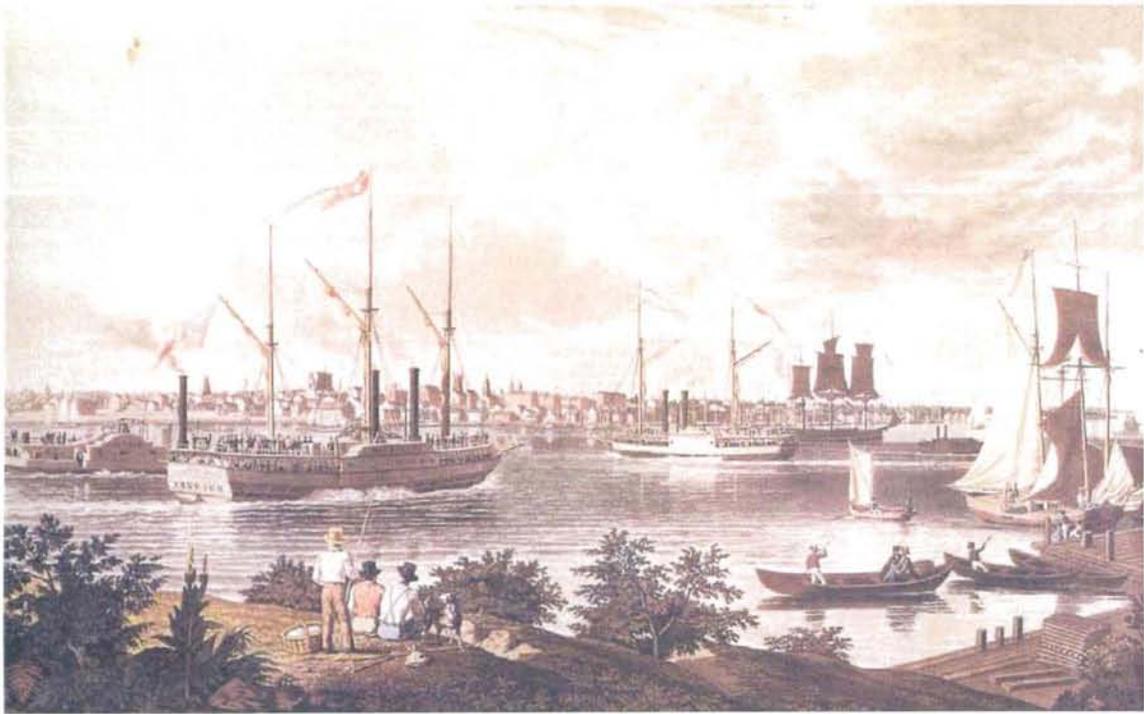
After tracing the growth, success, centralization, and decentralization of the auto industry in the city of Detroit, it is clear to see the link between this economical phenomenon and its impact in the social and political life in the city. The presence of this manufacturing created a huge development in Detroit. Decentralization caused the shrinking of the city. The future is still undefined; it has a mixture of hopes for redeveloping the auto industry structure, and hesitations of the unhealthy market situation. The key word of the hope and success remain the same "Detroit auto industry."



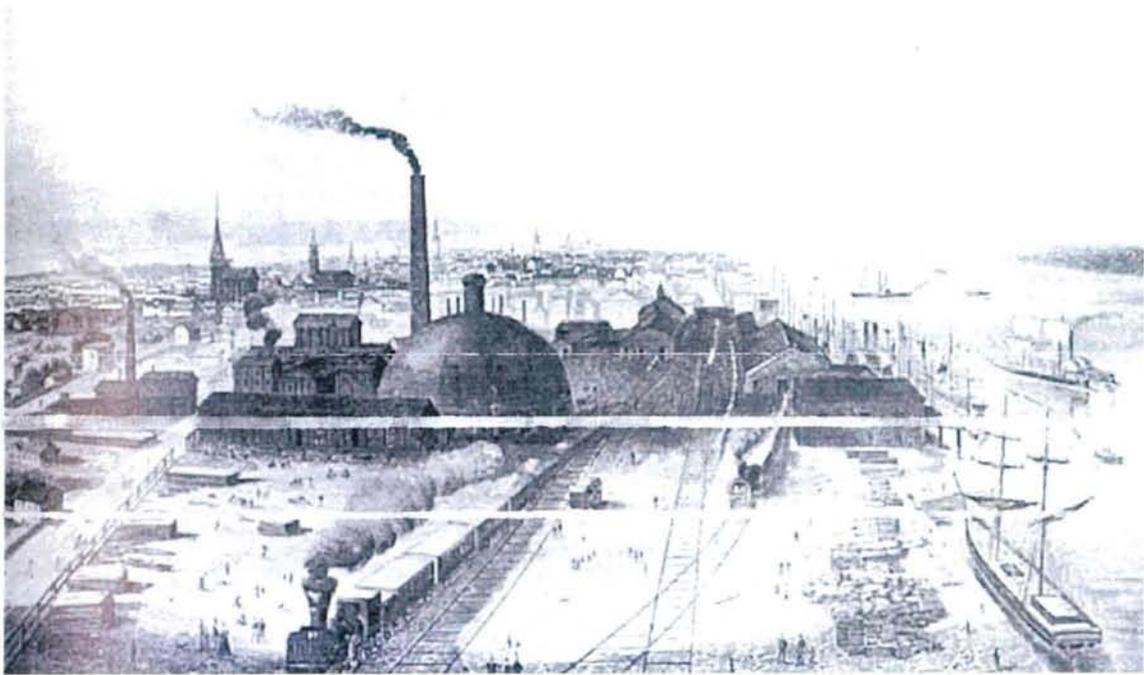
Site Location Detroit



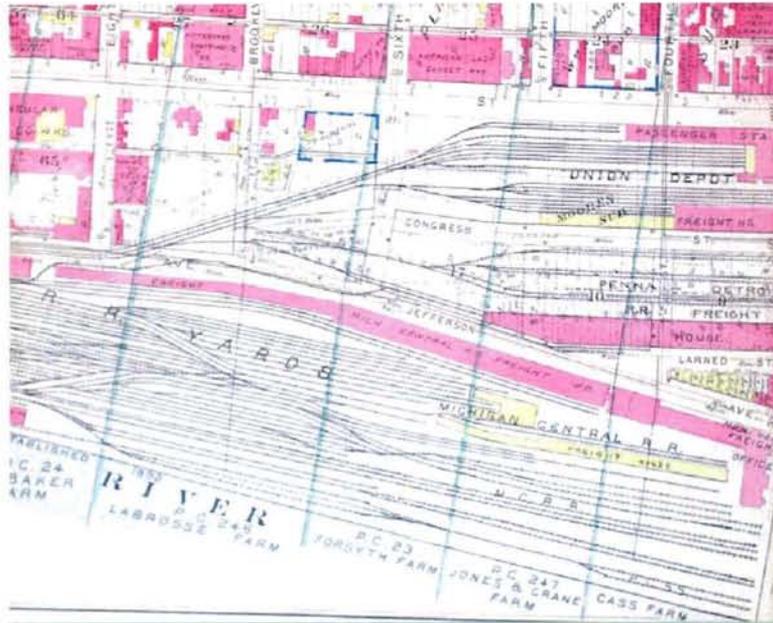




History of Detroit River



History of the site in 1927



History 1927

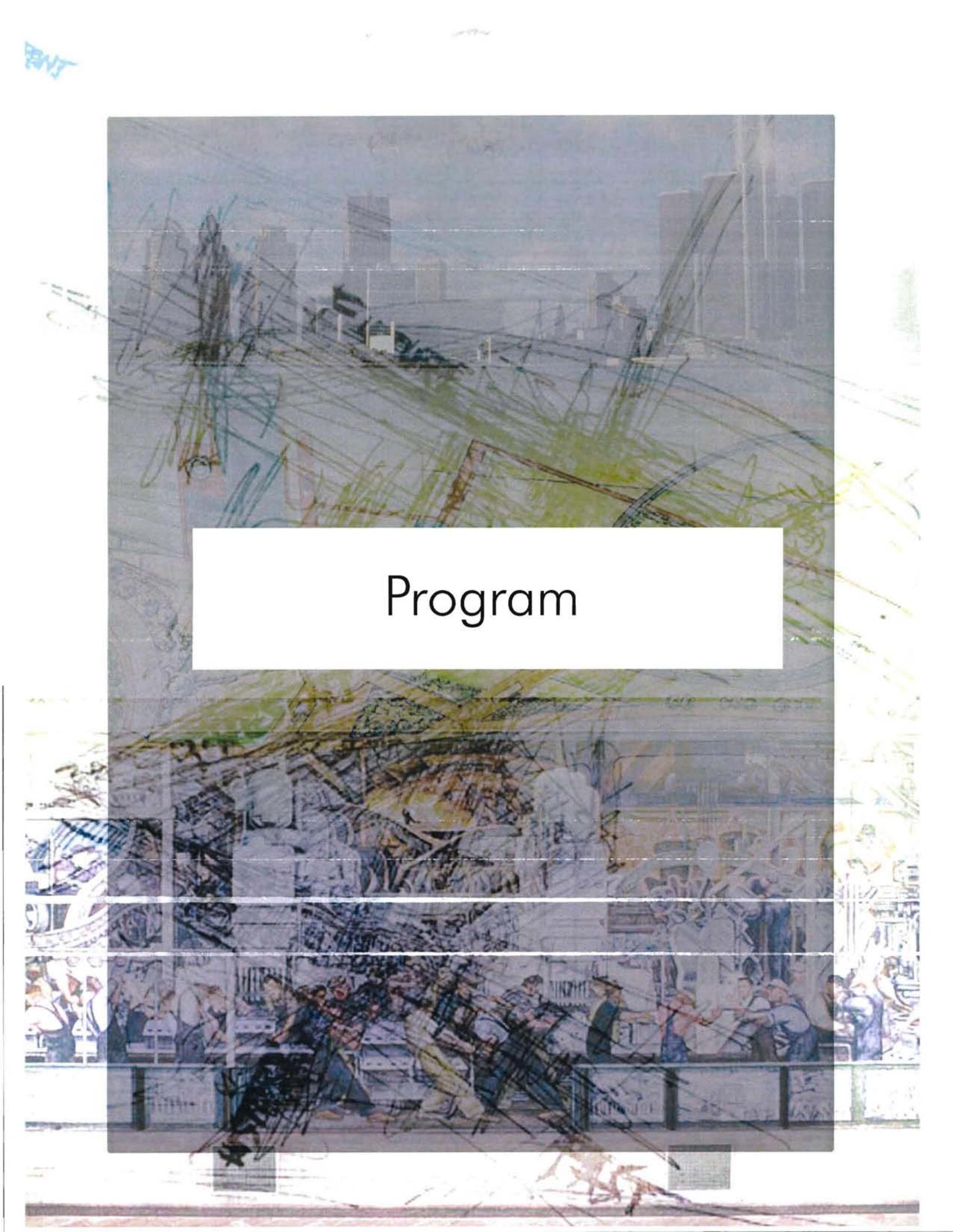


Future



Site Views





Program

Program Statement

Project identification

The thesis is intending to search for the relaxation creativity in making unique buildings that response to site circumstances and cultural conditions. Since the site is located in Detroit by the river front, many different elements will be considered to elaborate the site specialties. Part of that is Detroit River and its unique assets and heritage.

By developing the site functioning, many goals have to be observed. Bringing Detroiters and visitors to the site and to the riverfront will be primary goal and essential objective.

Activities articulation

Strong influences from cultural and social aspects will reflect on building programming. By realizing the key words that create the uniqueness of the site, activities can be divided through three categories:

Indoor activities:

- Visiting Detroit Art galleries which reflect the history of Detroit and the potentiality of its contemporary artists.
- Watching Musical performances and Act Theater.
- Informing by the main events and attractions in the city.
- Observing the latest technology of Detroit Automotive industries.

Outdoor activities:

- Creating an open and save area for walking, strolling, biking, and running.
- Specifying an attractive green area for people to spend part or all of the day watching and enjoying the beauty of the site and the riverfront.
- For more convenience to the visitors, the site has to provide an indoor/ outdoor dining area.
- Making festival atmosphere and providing an open theater for performance and watching major sport events.
- Sport area which has fields for summer sports and ability to transform to winter gaming like skating.

Riverfront activities:

- Providing additional access to the site through water taxi stops and boat tours.
- Elaborating the shipping and maritime heritage and commerce.
- Offering convenient places for people to watch the river, enjoying fire shows, and spending quality time in fishing.

Program Quantitative Summary

In order to define the programmatic elements of this project, it is important to set a strategic plan which is classifying the indoor activities into different zones. Those zones are based on the level of publicity and privacy which are:

- " Public/no collections
- " Public/collections
- " Non public/no collections
- " Non public/collections
- " Super-secure spaces

Classification	Space	Area (Per Square Foot)
Public/no collections	Theatre (Auditorium + Stage)	1,200
Public/no collections	Museum Lobby	3,000
Public/no collections	Check Room	90
Public/no collections	Information Desk	250
Public/no collections	Retails	2,000
Public/no collections	Food Services	2,000
Public/no collections	Public Toilets	350
Public Areas/collection spaces	Exhibition Galleries	40,000
Public Areas/collection spaces	City information Hall and library	3,000
Non public/no collections	Workshop (carpentry)	1,800
Non public/no collections	Freight Elevator	90
Non public/no collections	Collection Loading Dock	1,200
Non public/no collections	Receiving	300
Non public/collections	Catering Kitchen	600
Non public/collections	Food Service/ Kitchen	600

Classification	Space	Area (Per Square Foot)
Non public/no collections	Electrical Room	200
Non public/no collections	Mechanical Room	800
Non public/no collections	General Storage	1,500
Non public/no collections	Offices (5 offices)	750
Non public/no collections	Conference Rooms	400
Non public/no collections	Security Offices	400
Super-secure spaces	Collections Storage	2,000
Super-secure spaces	Computer Network Room	250
Super-secure spaces	Security Equipment Room	250

Collective spaces area = 63,030

10% circulation area = 6,303

Total net area = 69,333

ENT



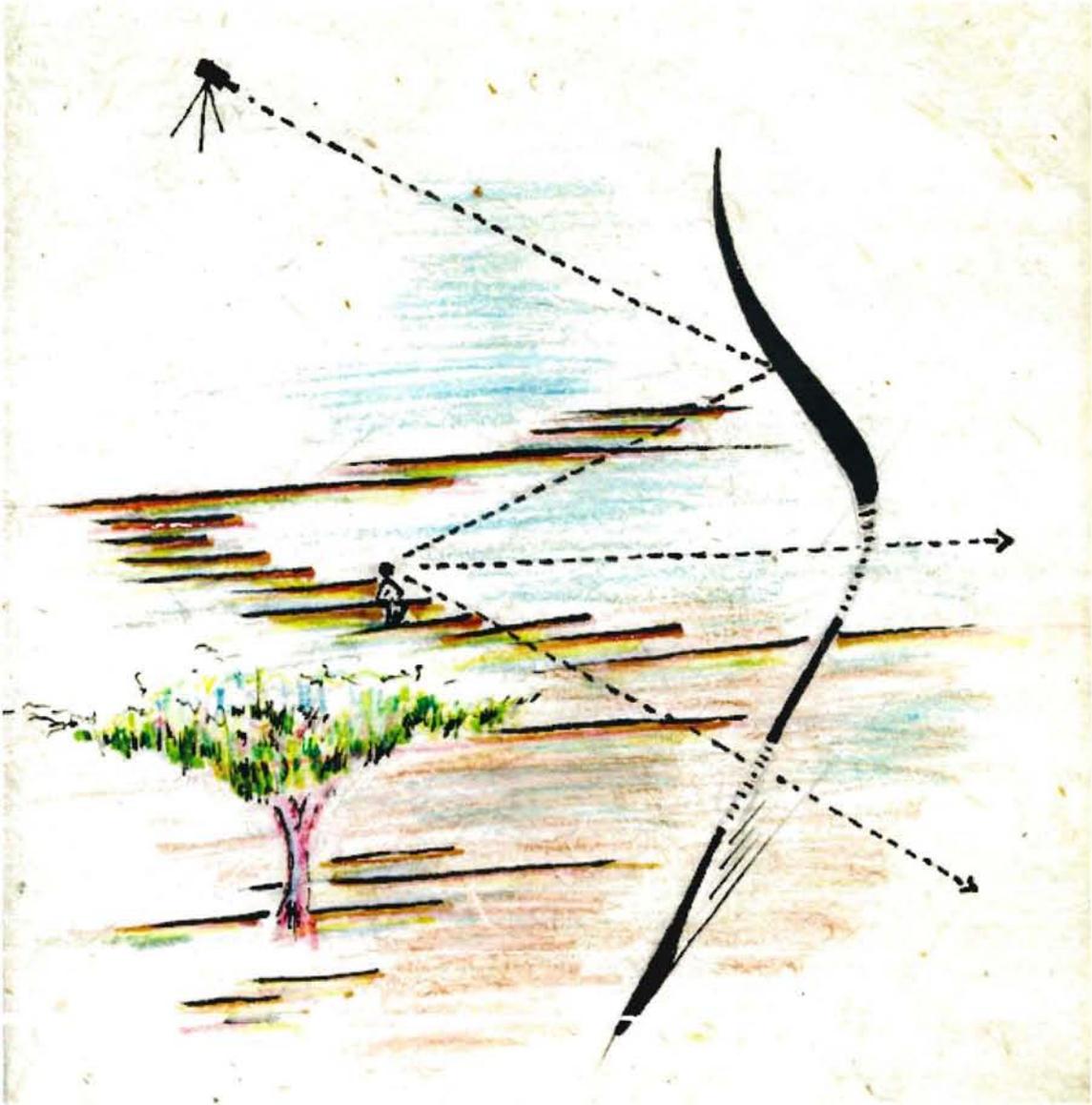
Springboard



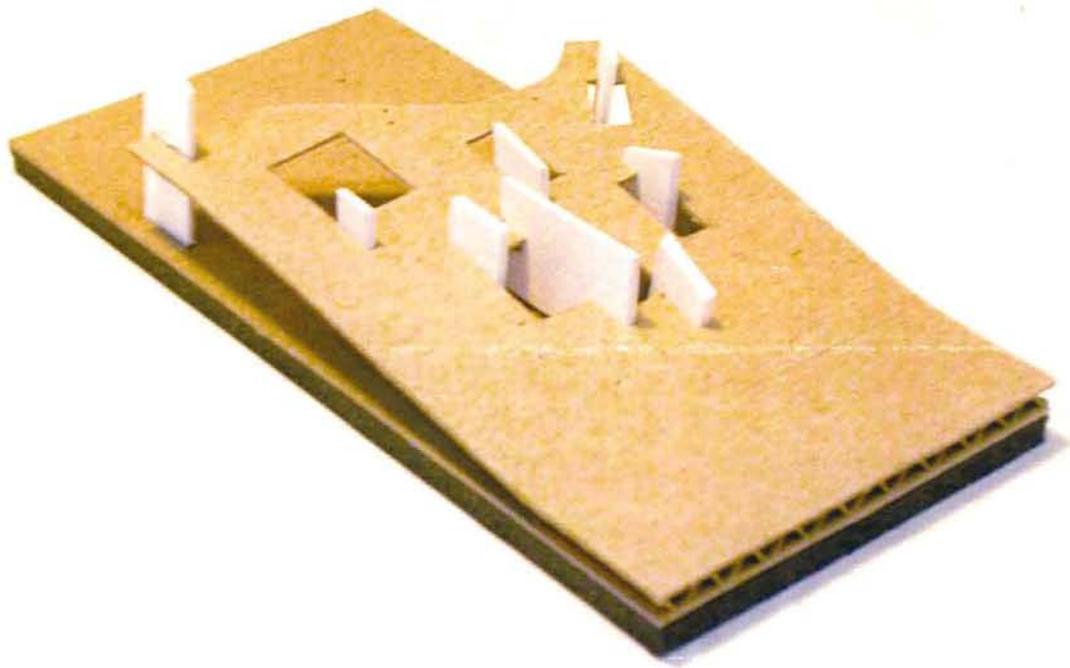
Leveling



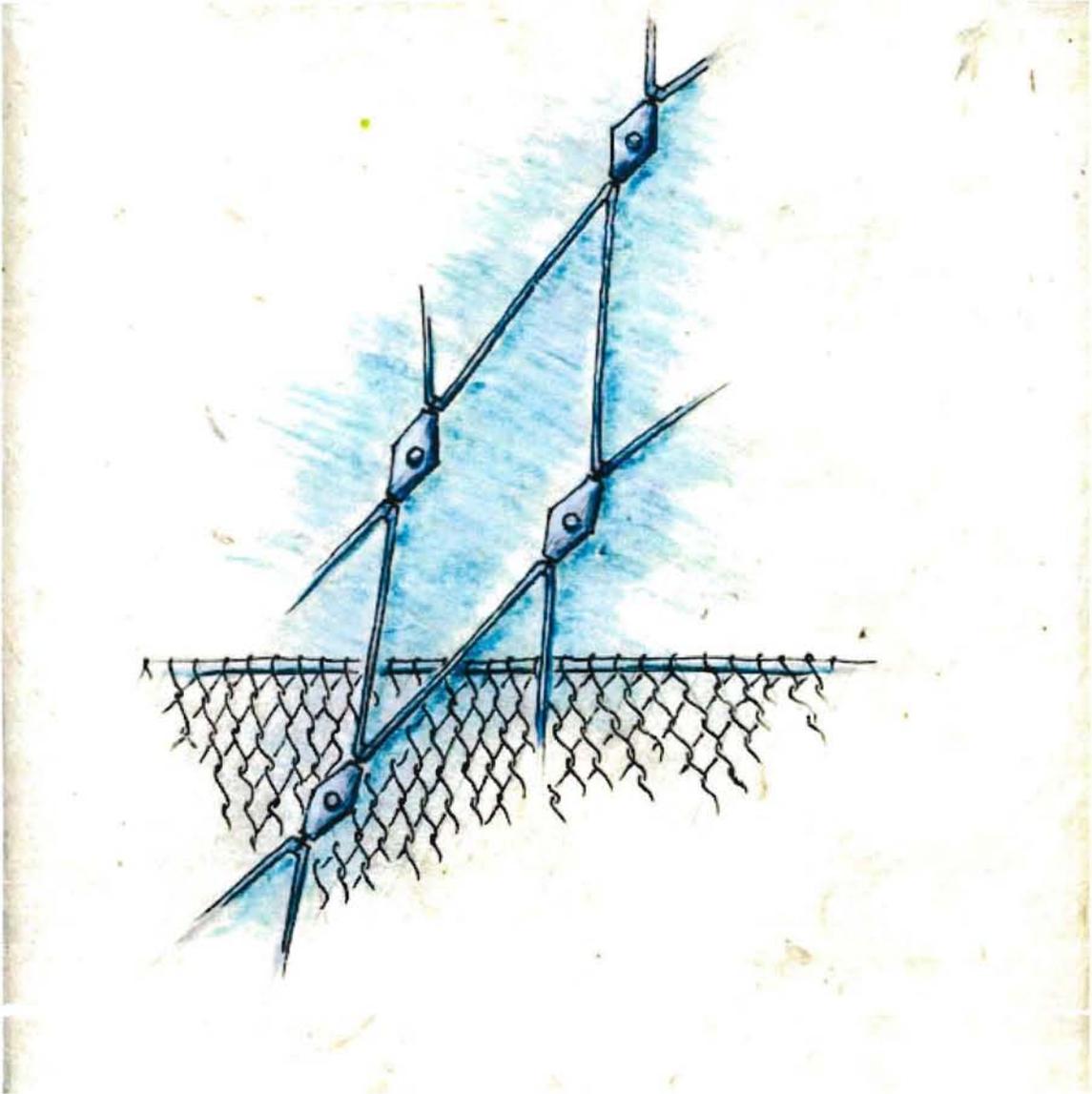
Transparent Order



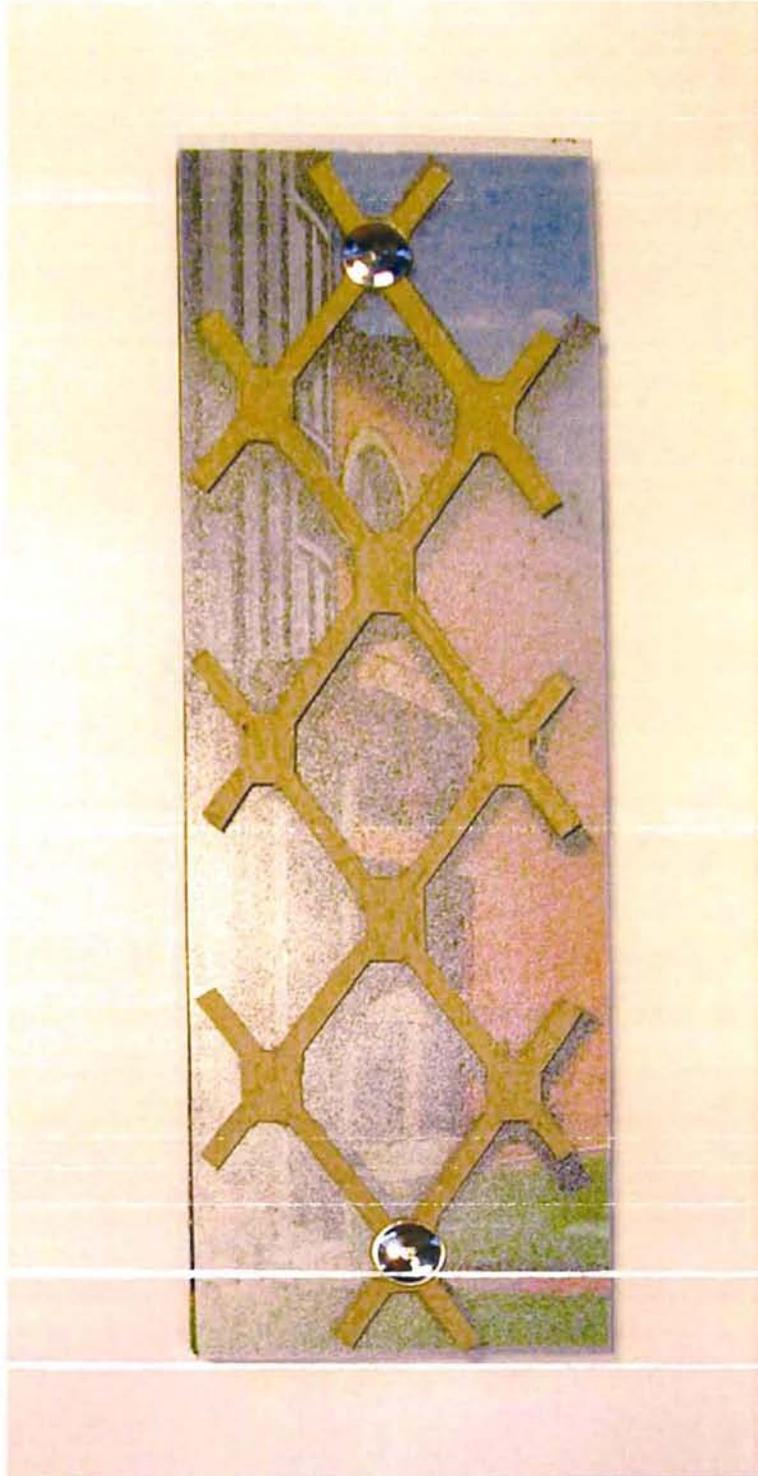
Views



Walking Plaza



Fencing Pattern



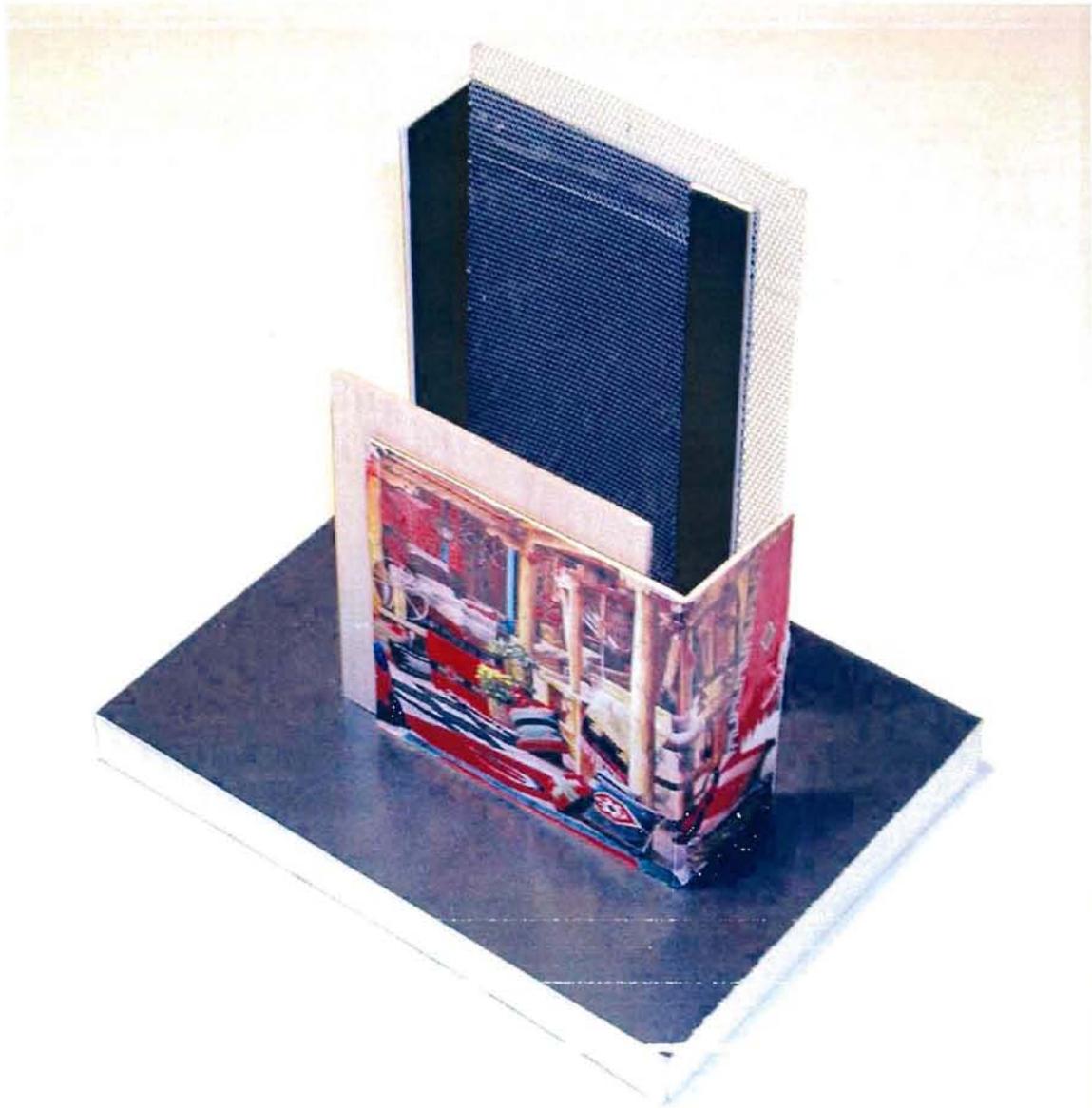
Wall Section



Organic - Geometric



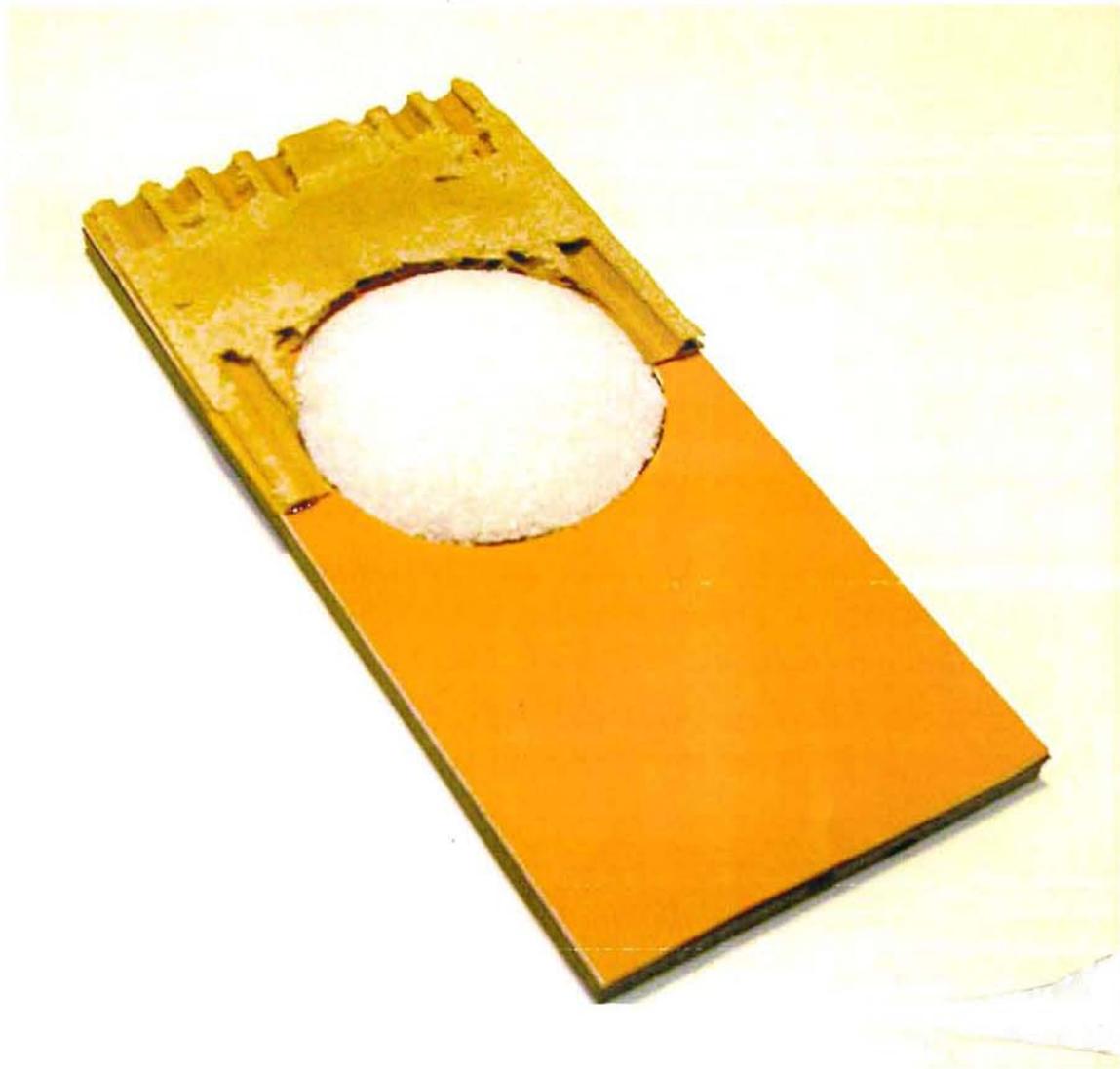
Culture - Color - Materiality



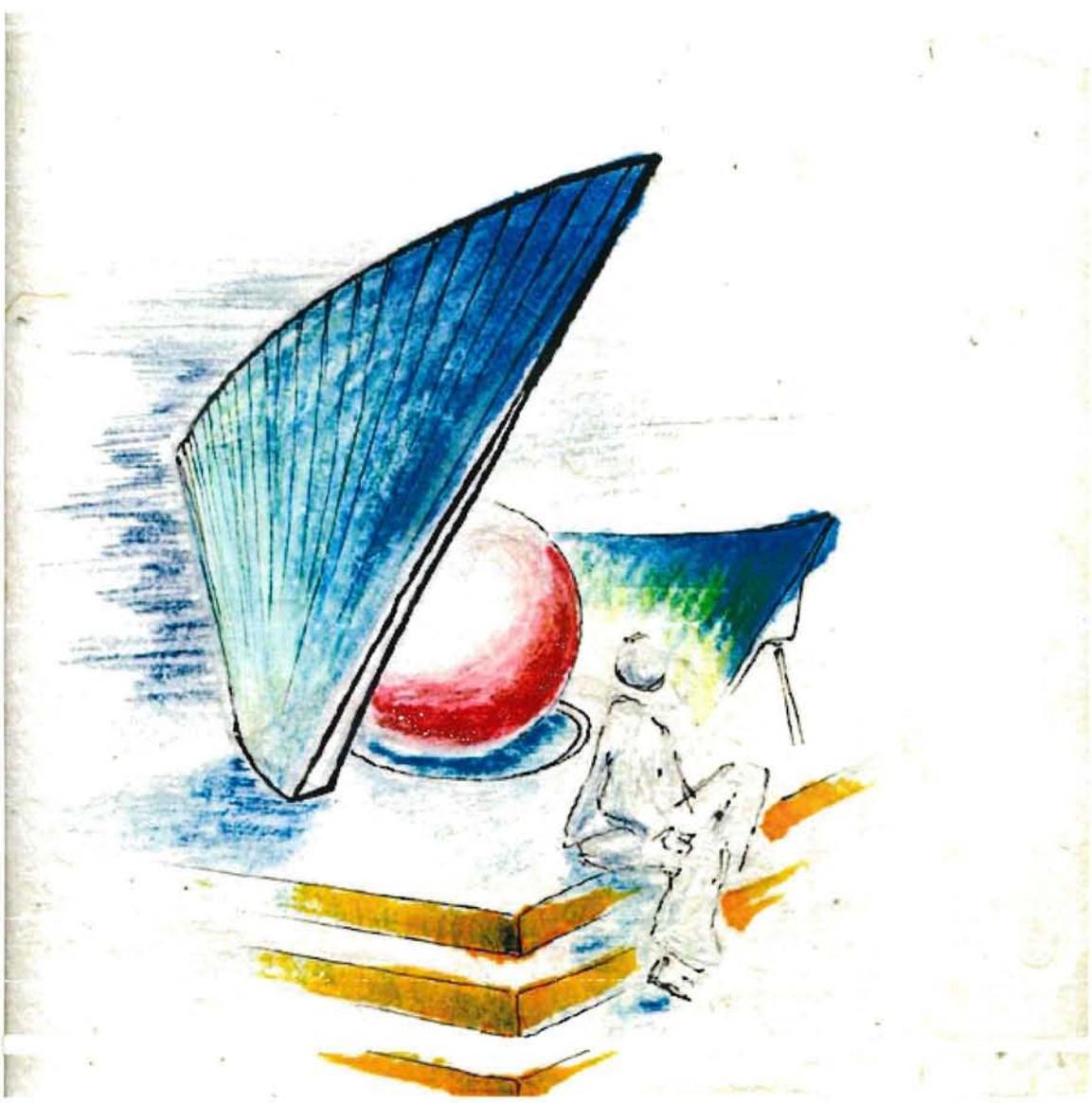
Culture - Color - Materiality



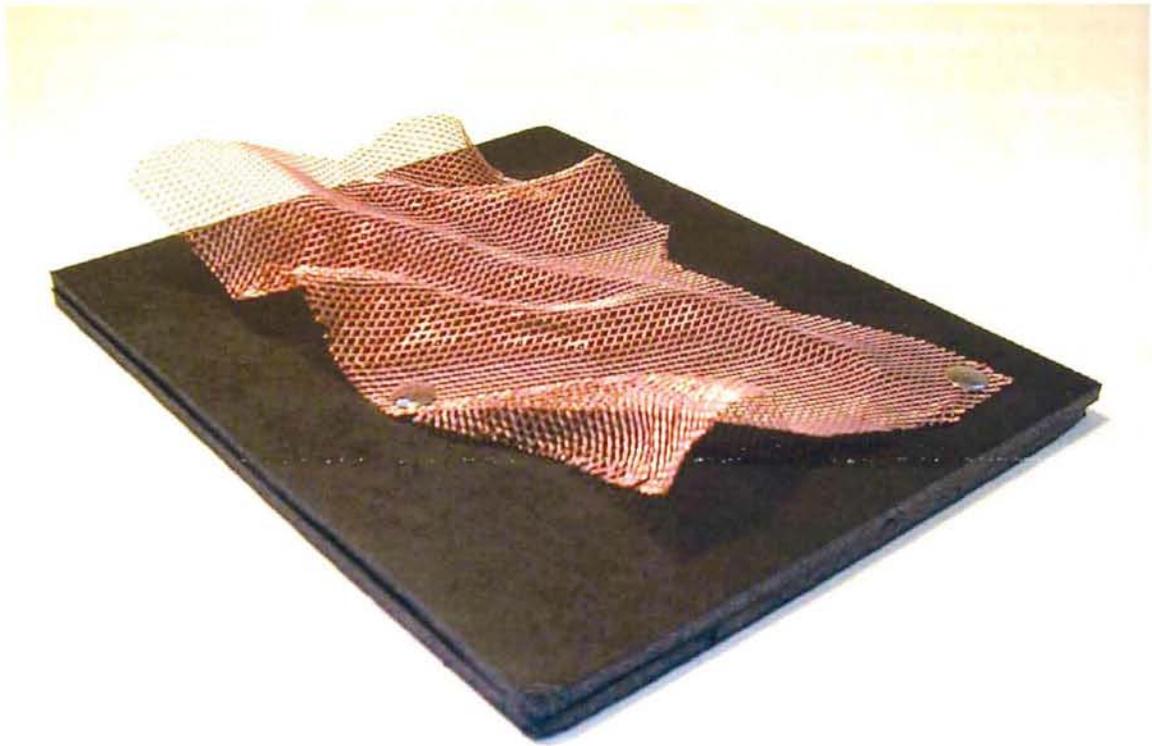
Entering



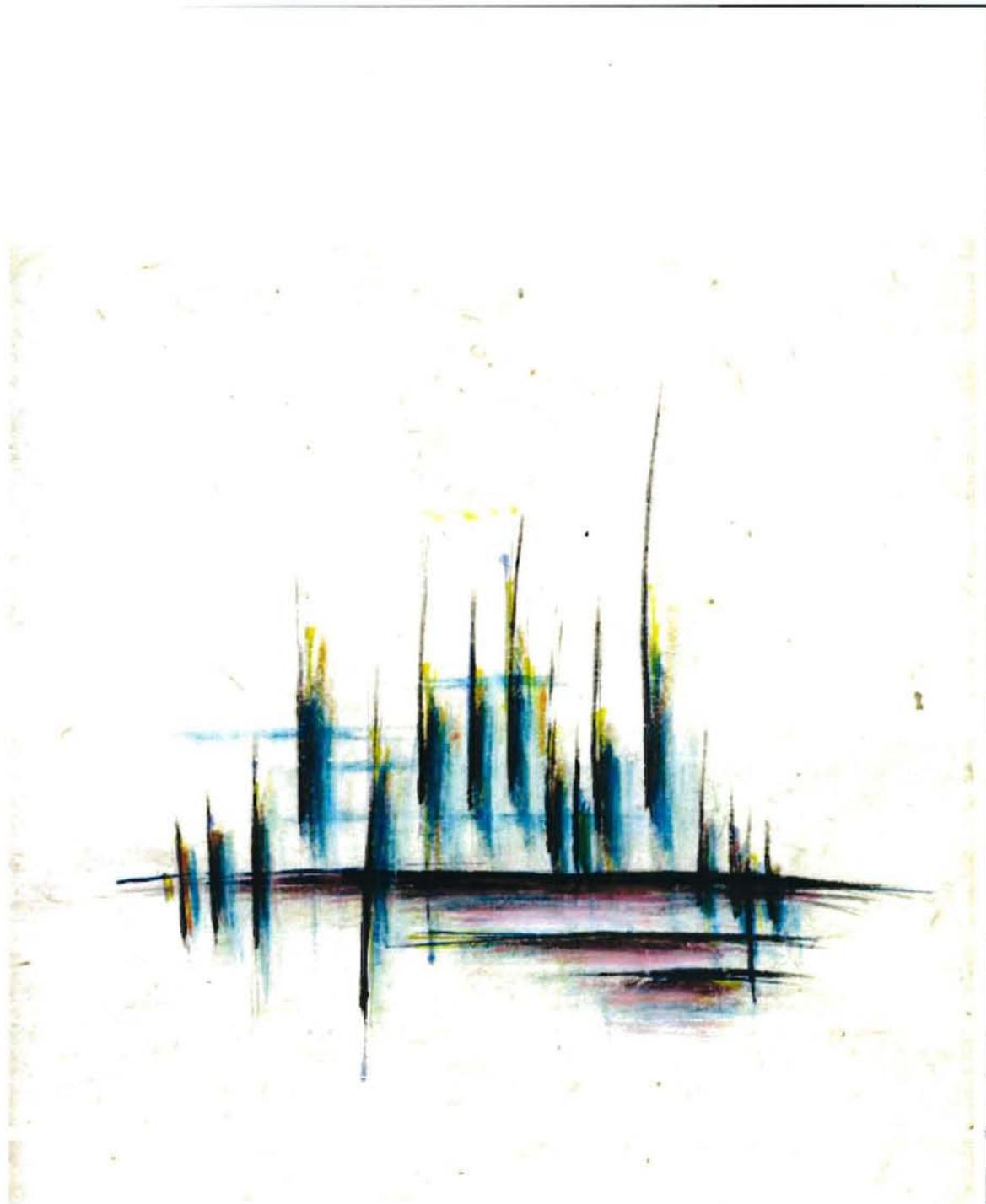
Texture - Color



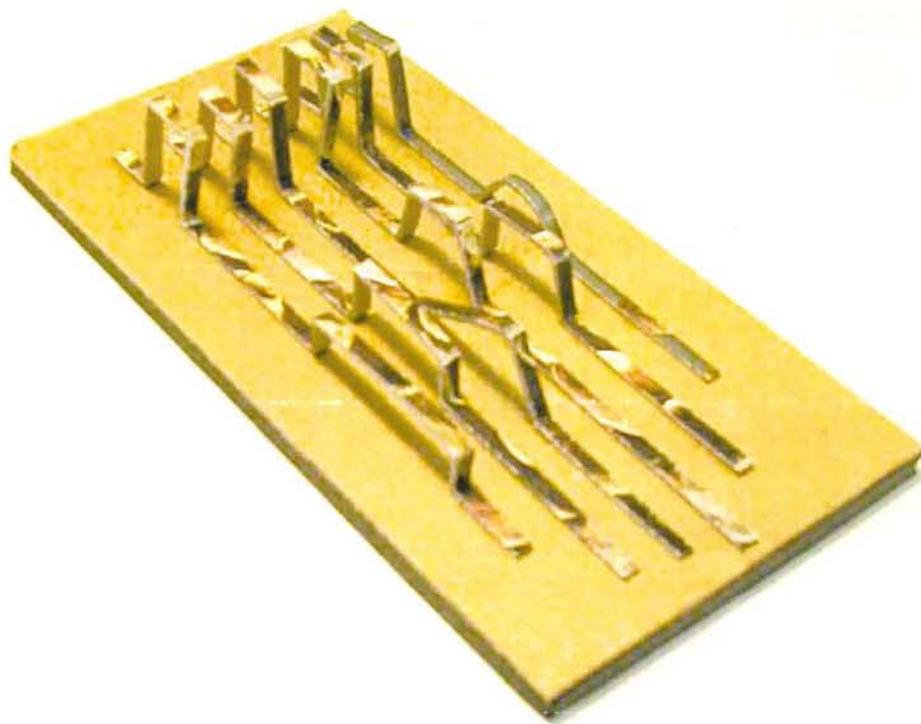
Relaxing Point



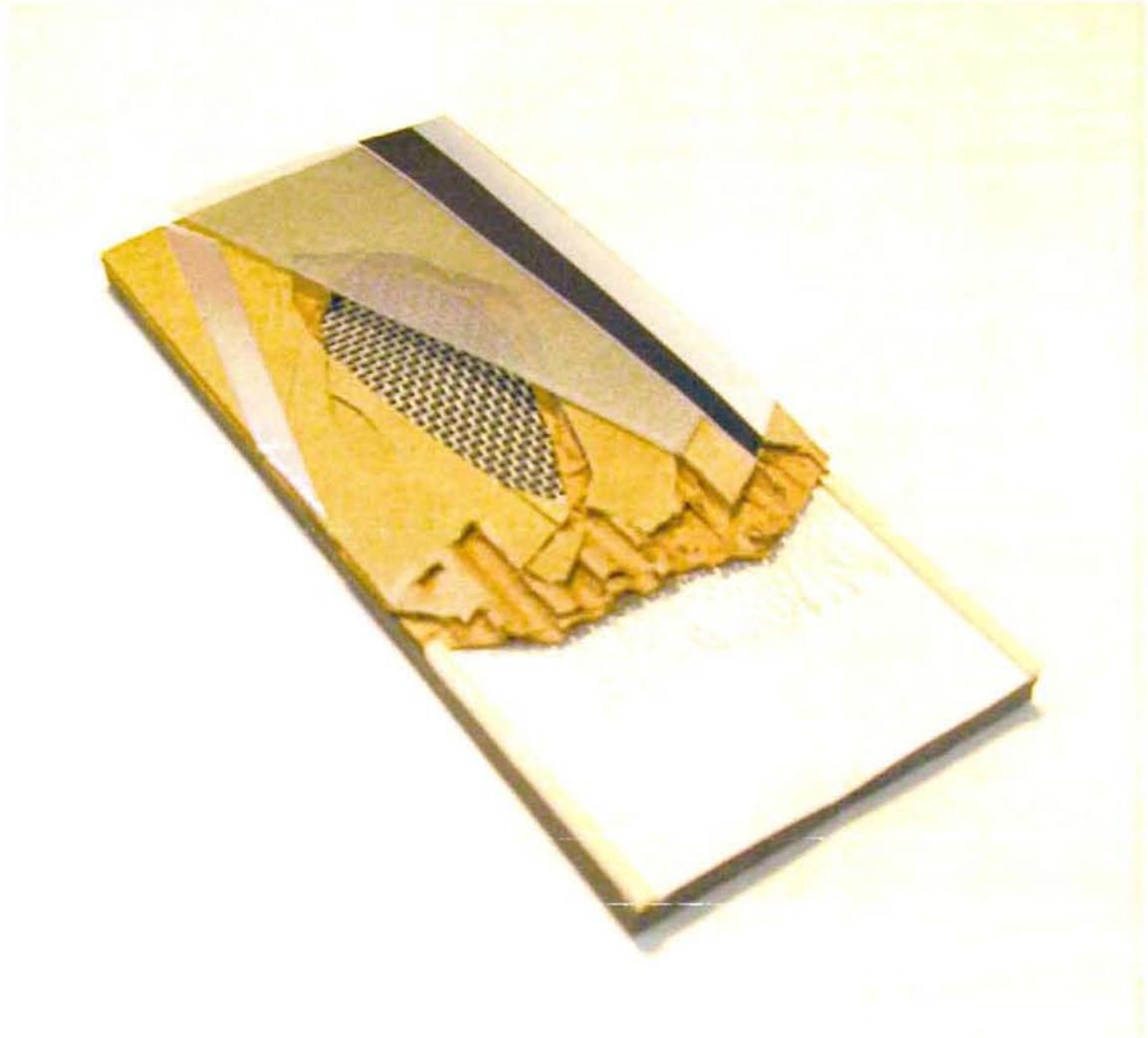
Under one Surface



City Panorama



Massing



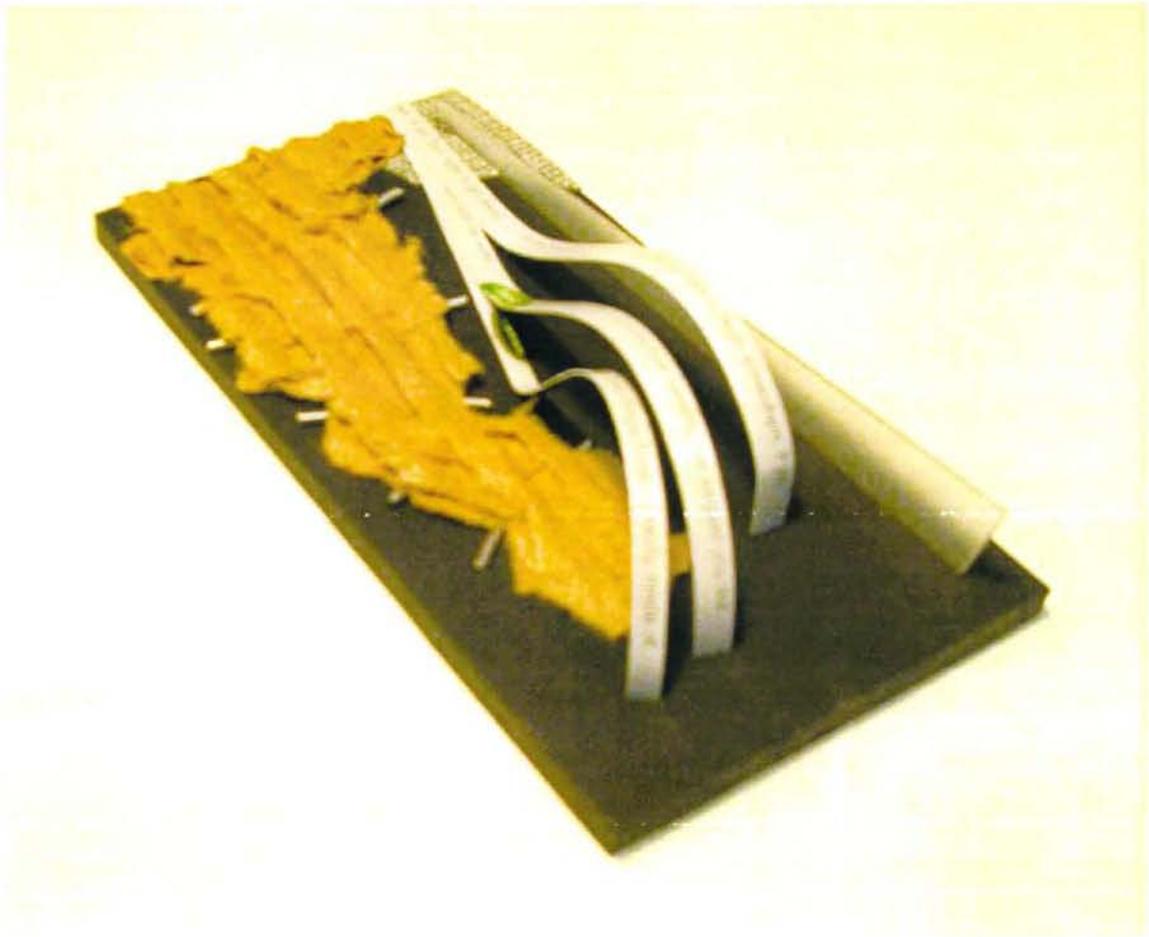
Materiality



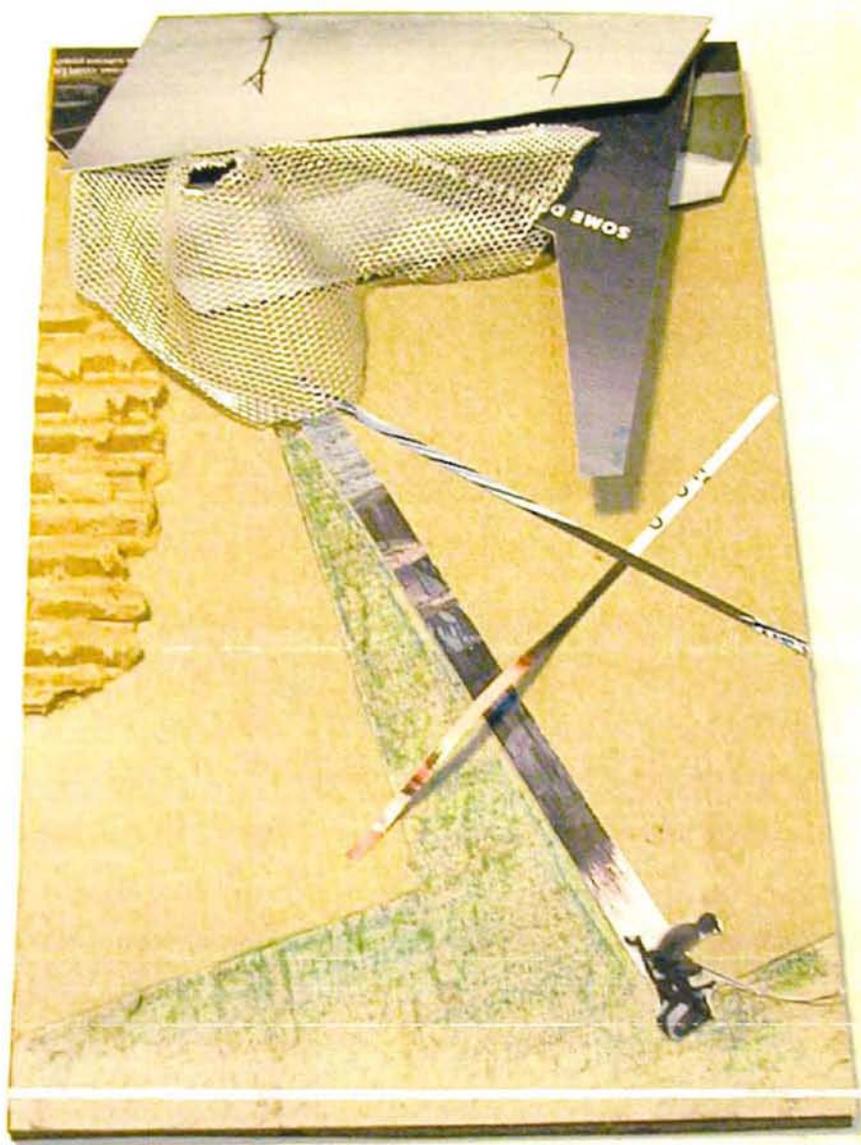
Self Formating



Metal Covering



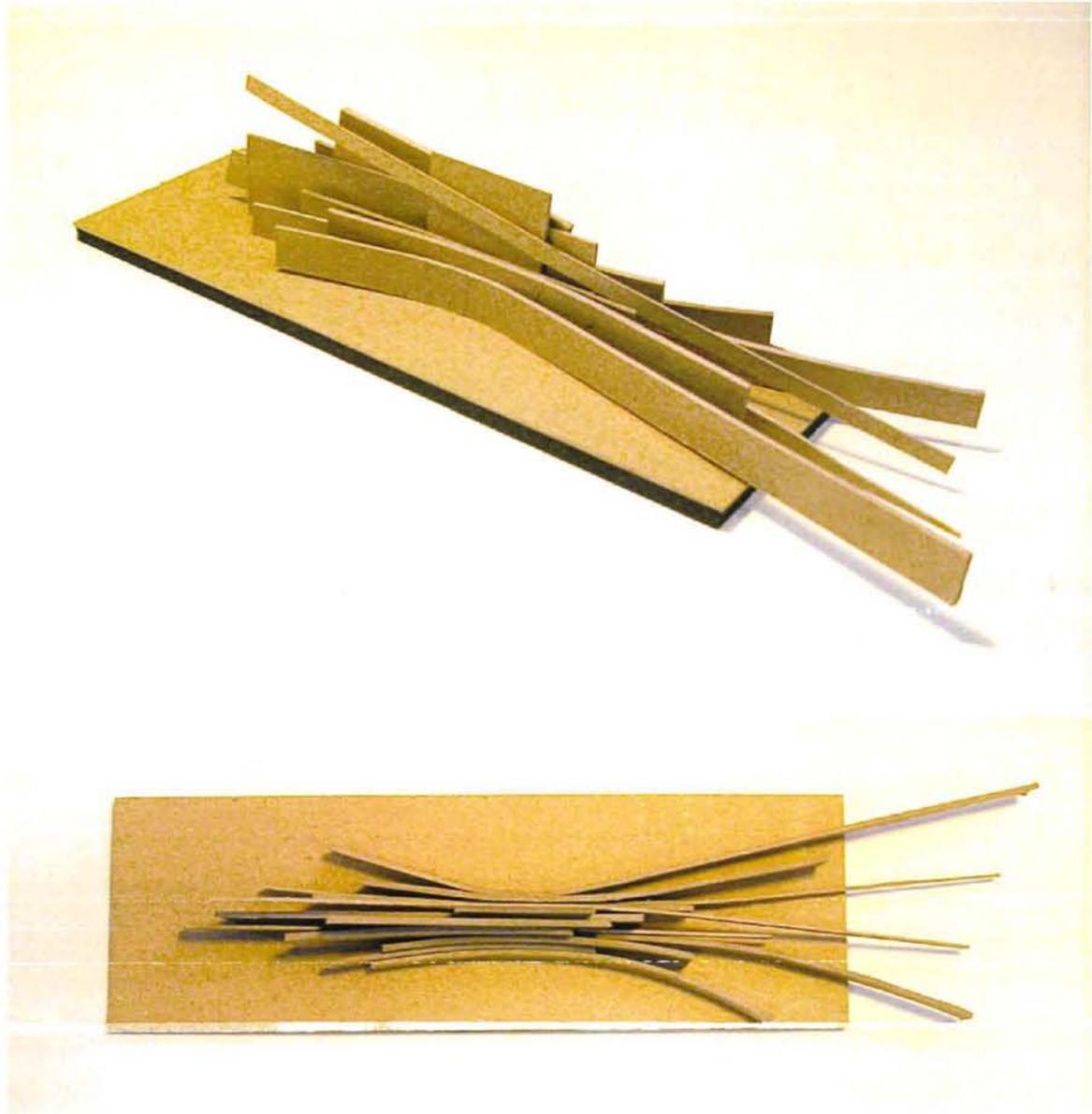
Color - Materiality



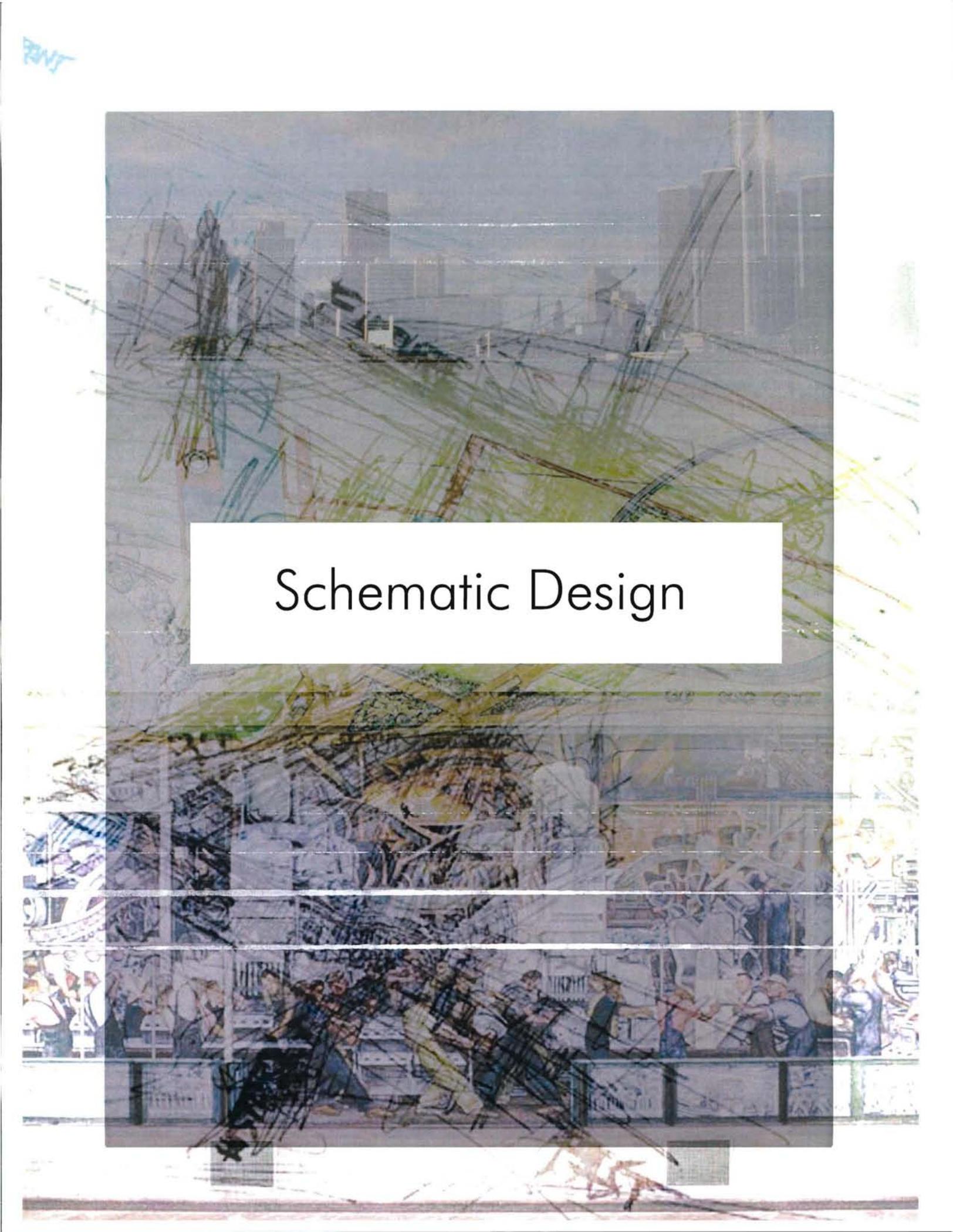
In Depth



Artistic Expression



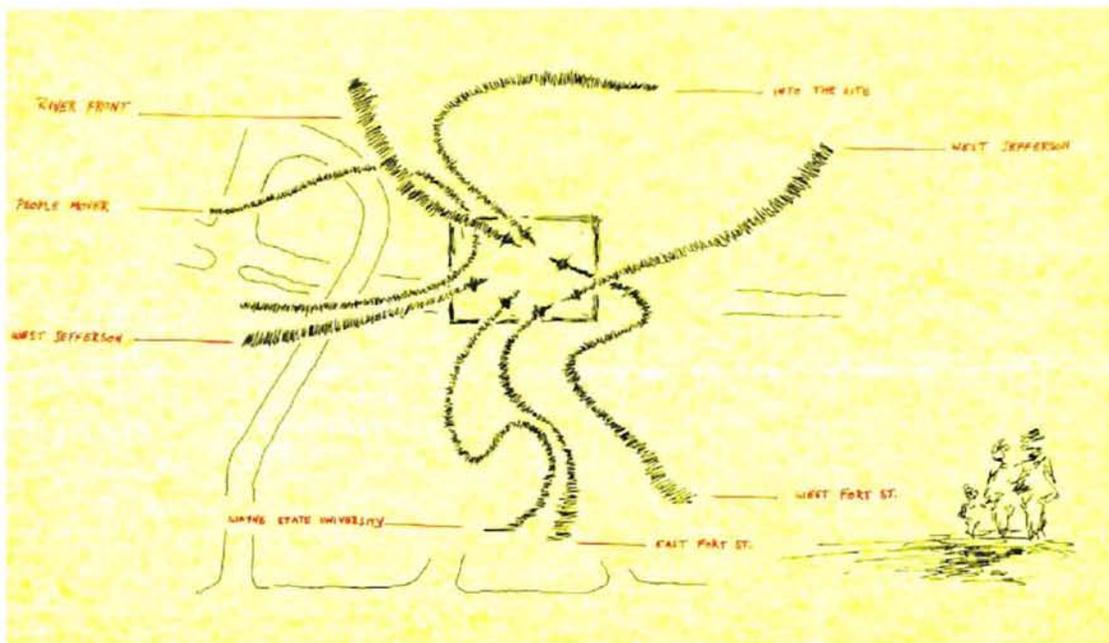
Connection

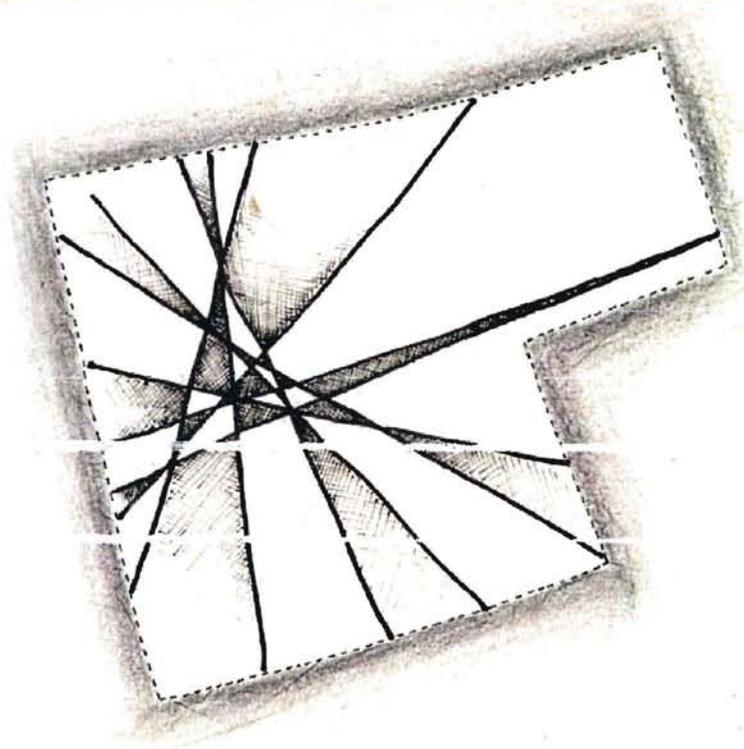
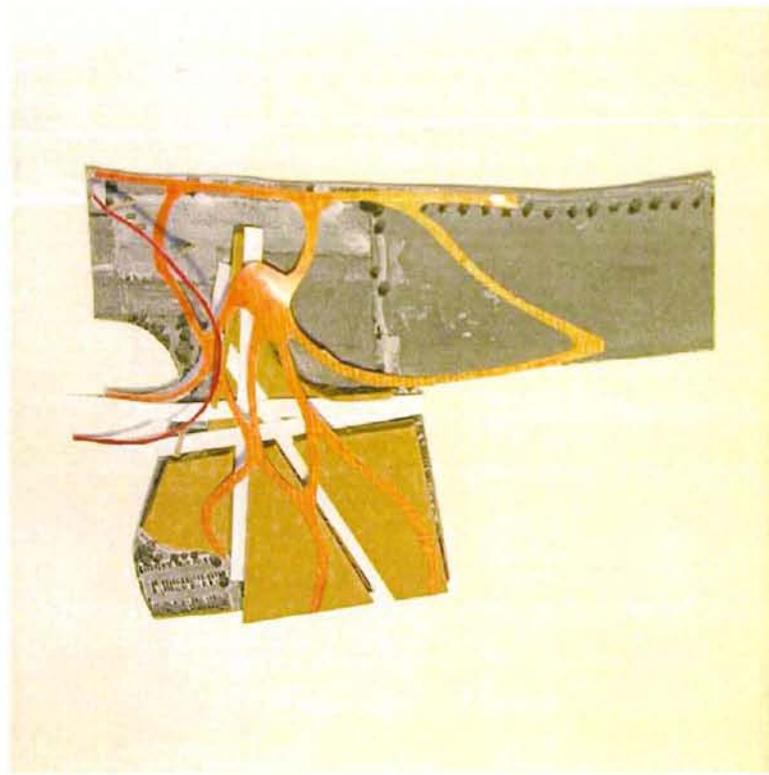


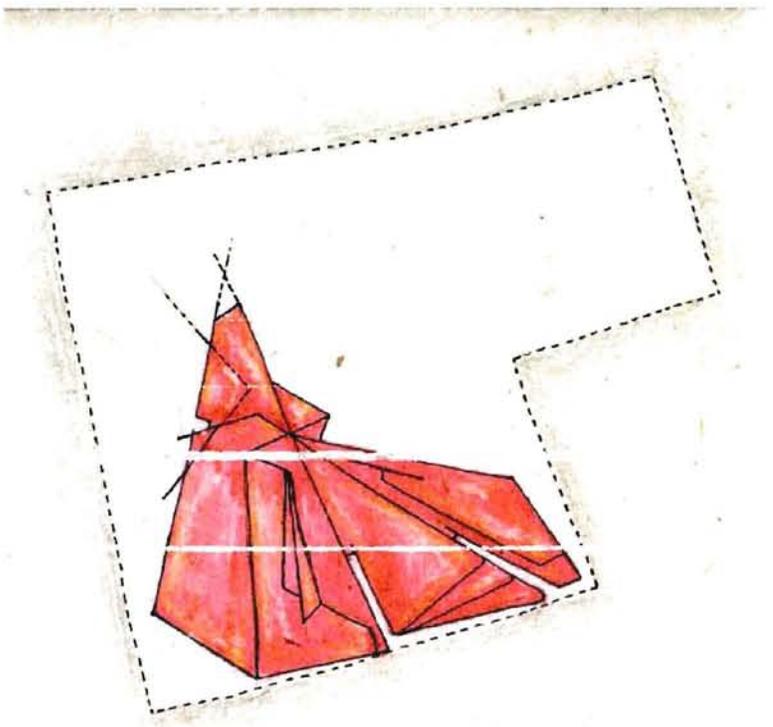
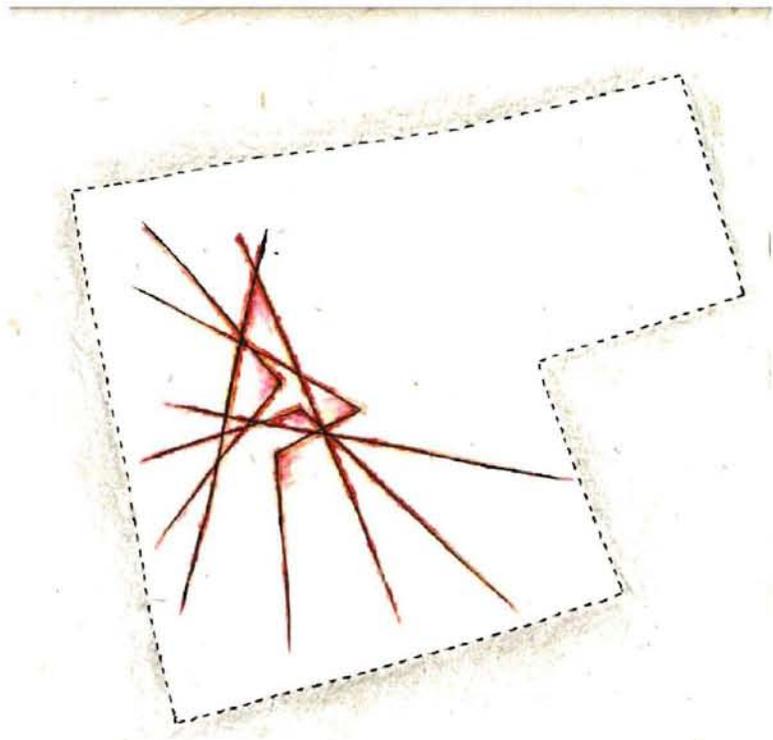
Schematic Design

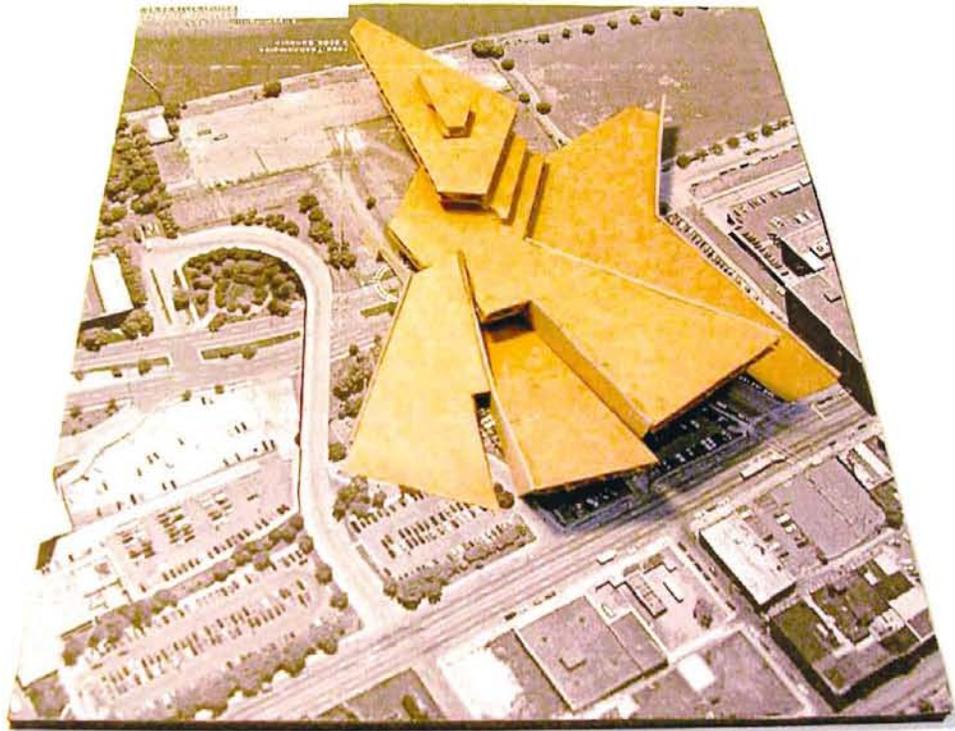
Connection

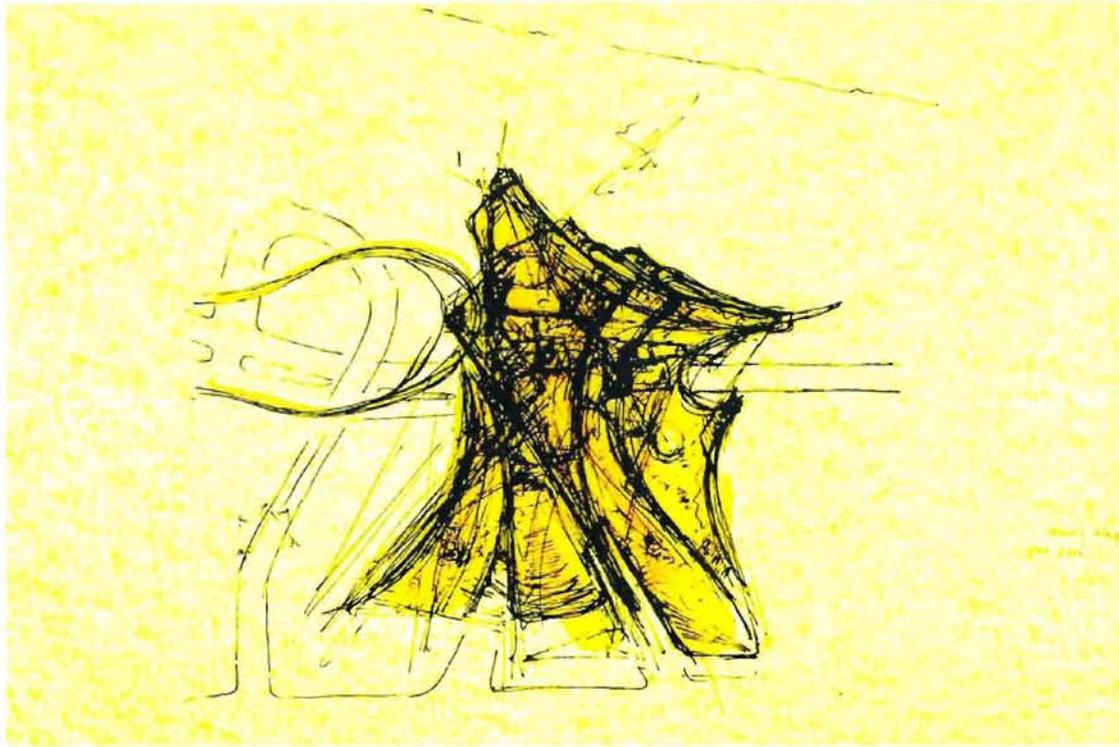
The concept based on analyzing the dynamics of movement in the site. That considering pedestrians and auto movements. After diagraming these forces, the building form itself in respond to all of those factors and other side potentials.

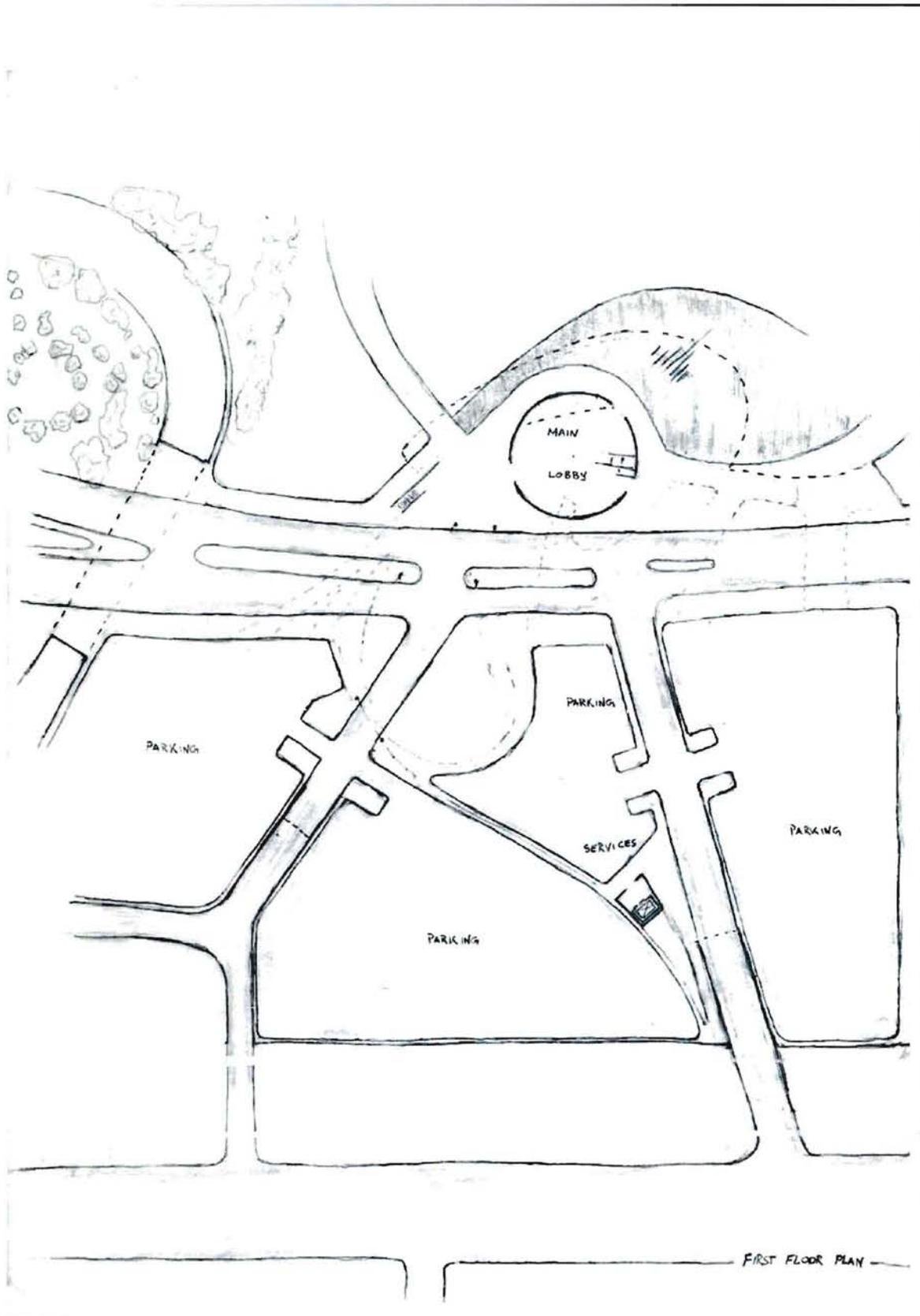


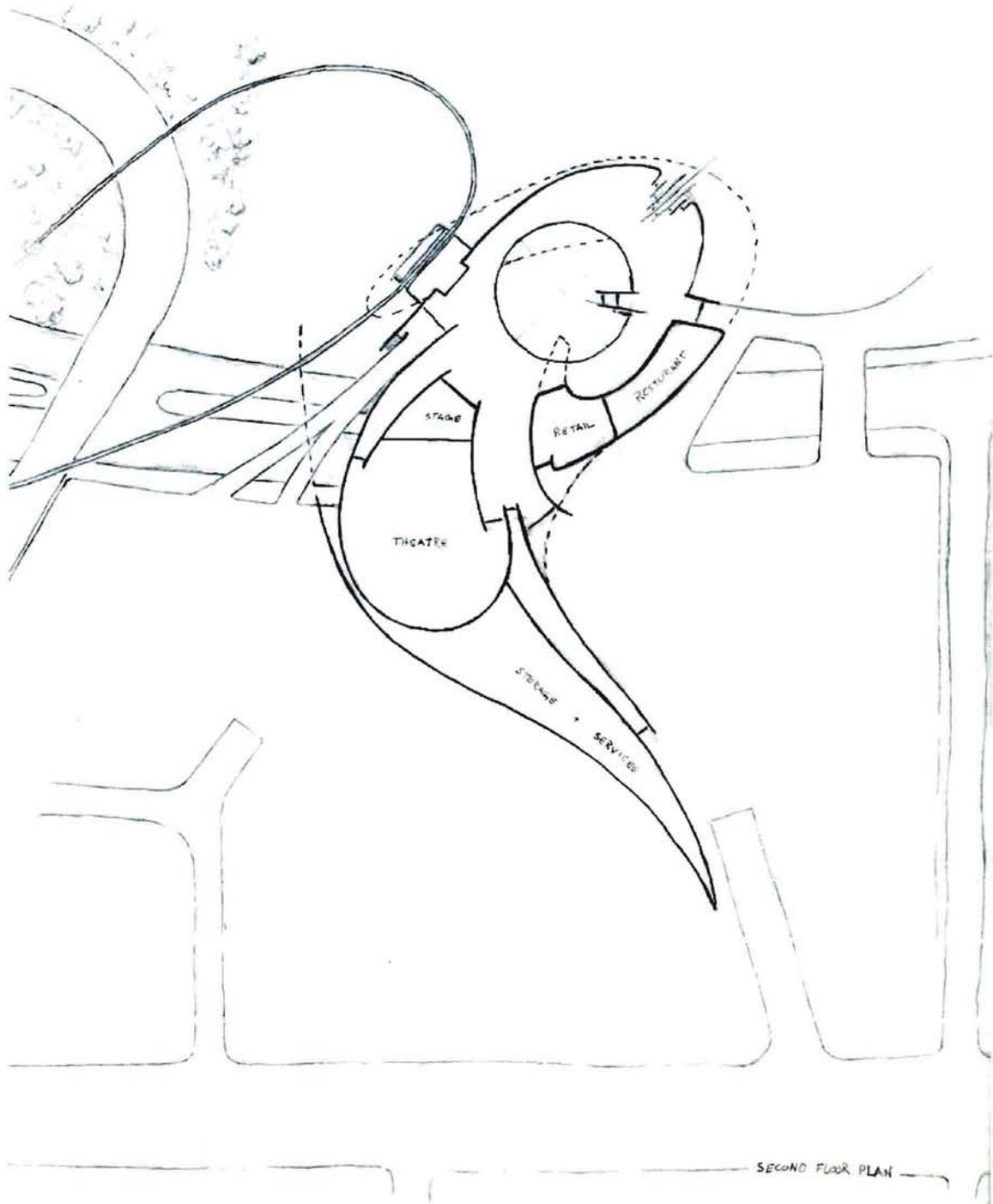


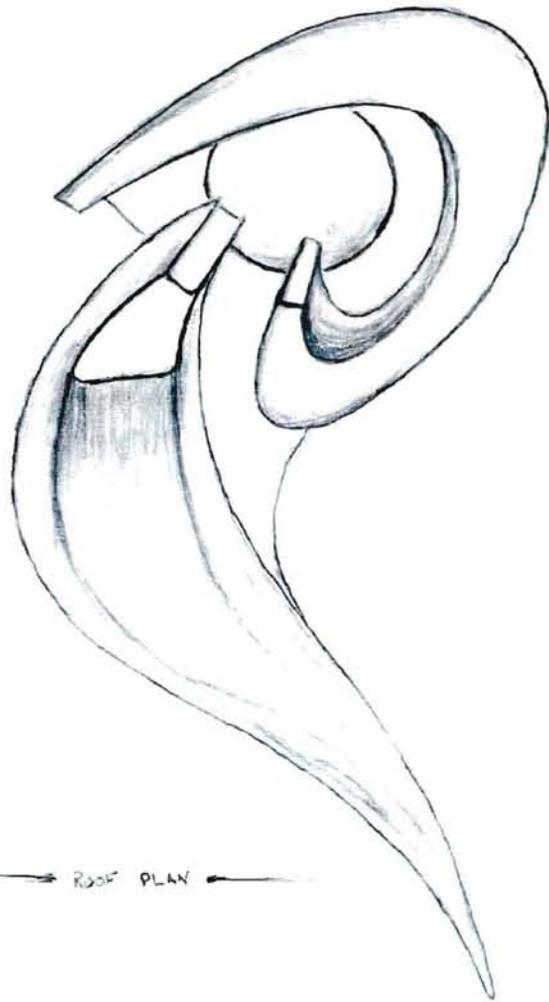




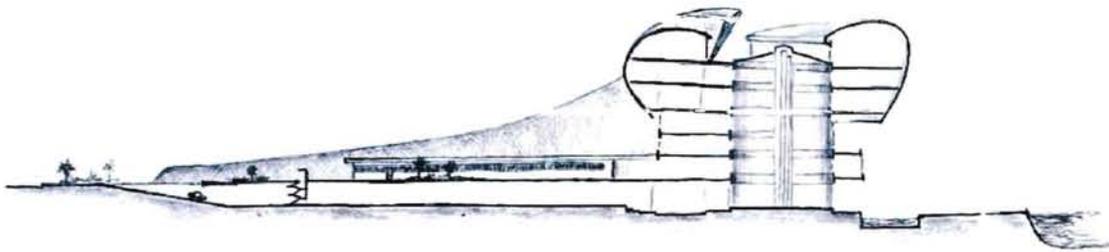


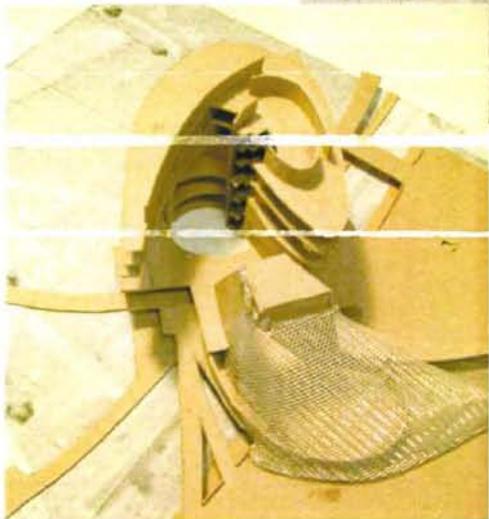
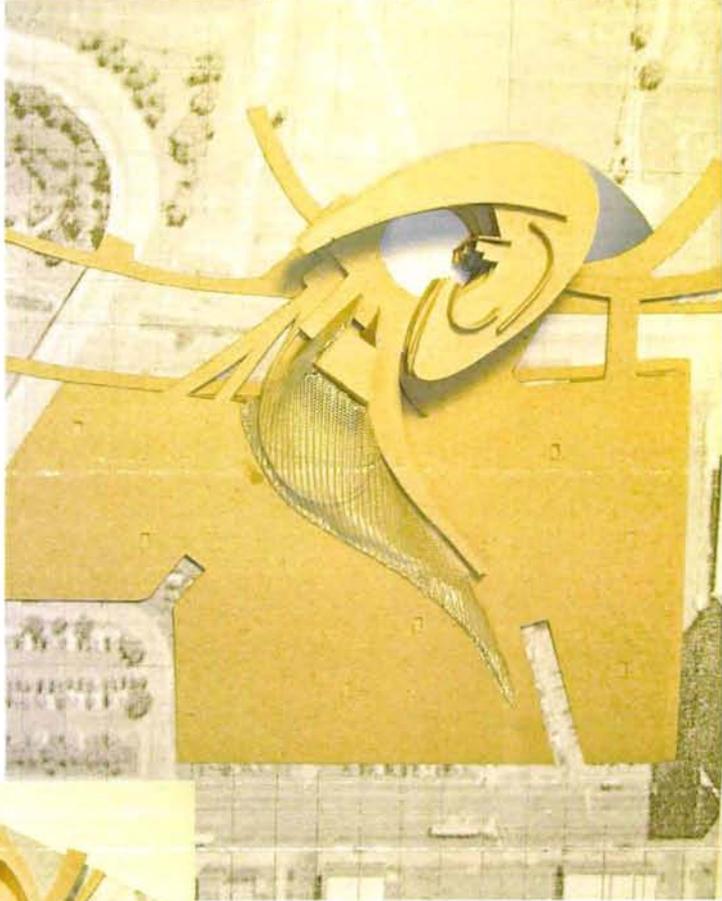
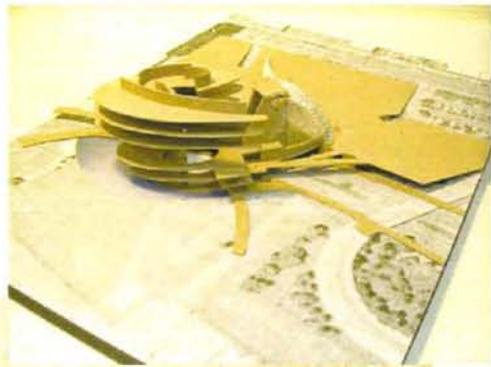
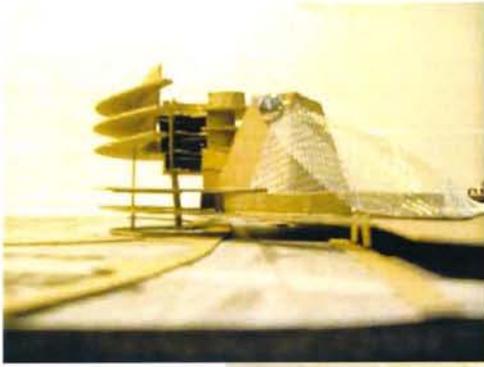


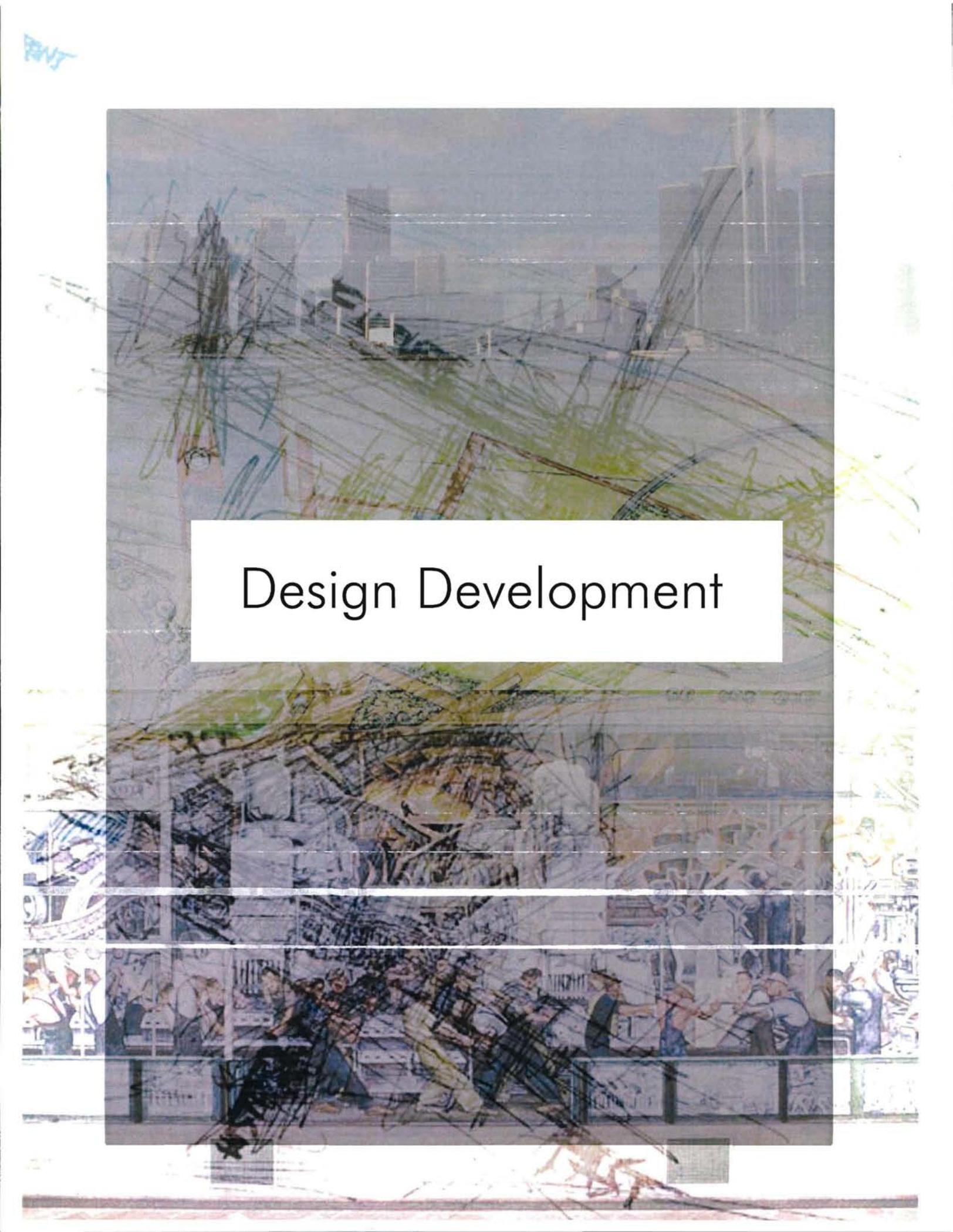




→ ROOF PLAN ←





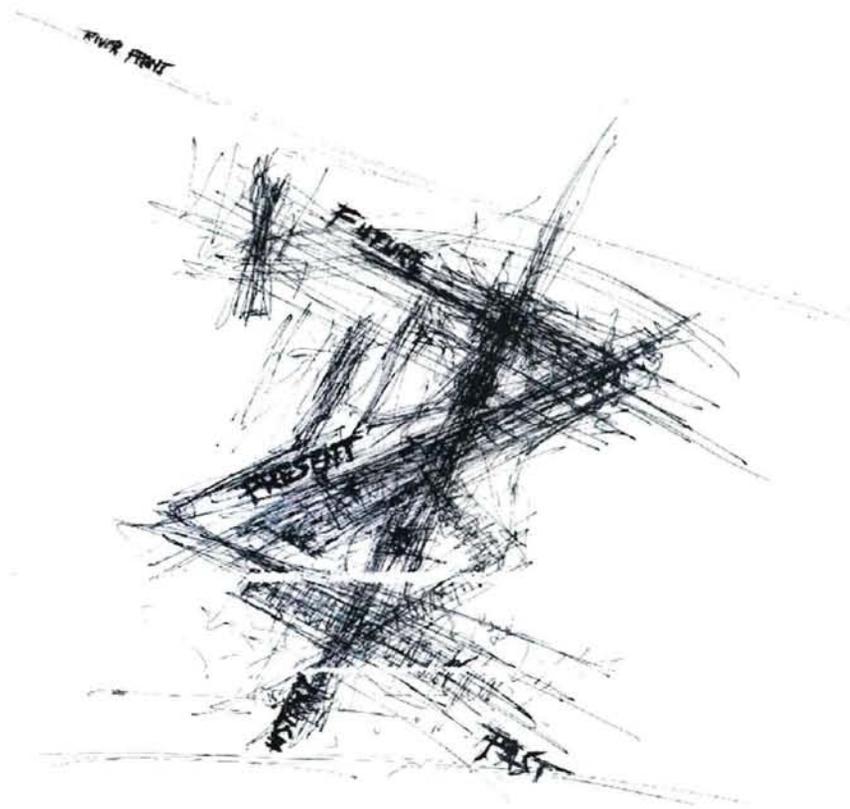
The background of the slide is a complex collage of architectural sketches and drawings. At the top, there's a sketch of a city skyline with several tall buildings. Below that, there are various architectural details, including what looks like a staircase or a walkway with people. The sketches are done in various colors, including blue, green, and brown, and are overlaid with a network of thin, intersecting lines. A white rectangular box is centered on the page, containing the text "Design Development".

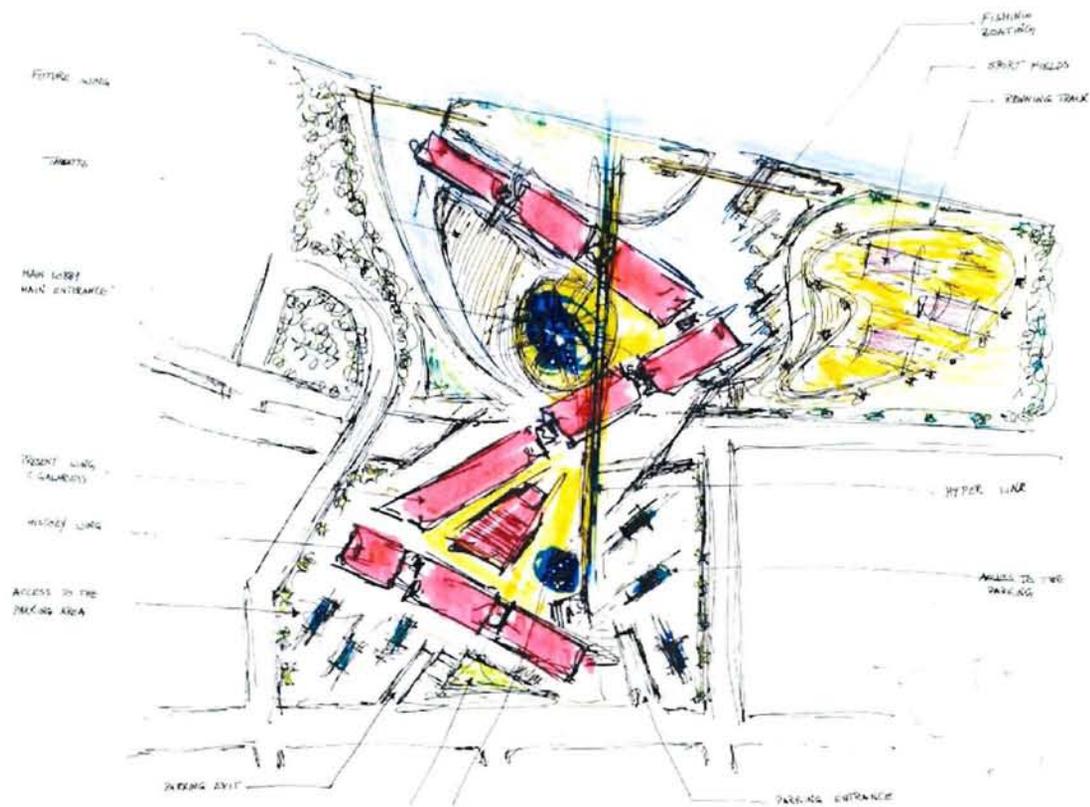
Design Development

Culture Refection

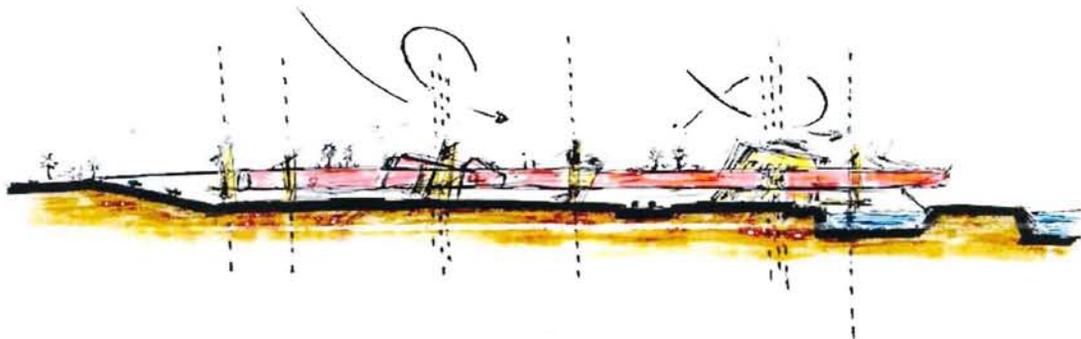
The first part of the design was concerning only about analyzing the site circumstances. This part is more about applying the second part of the thesis "Culture Reflection."

By adapting the Auto Industry as a unique phenomenon for the city of Detroit. The building has to reflect that essence. To create that experience, the walking distance through the gallerias will reflect the past, the present, and the future of the Auto Industry and it's reflection on the city of Detroit.

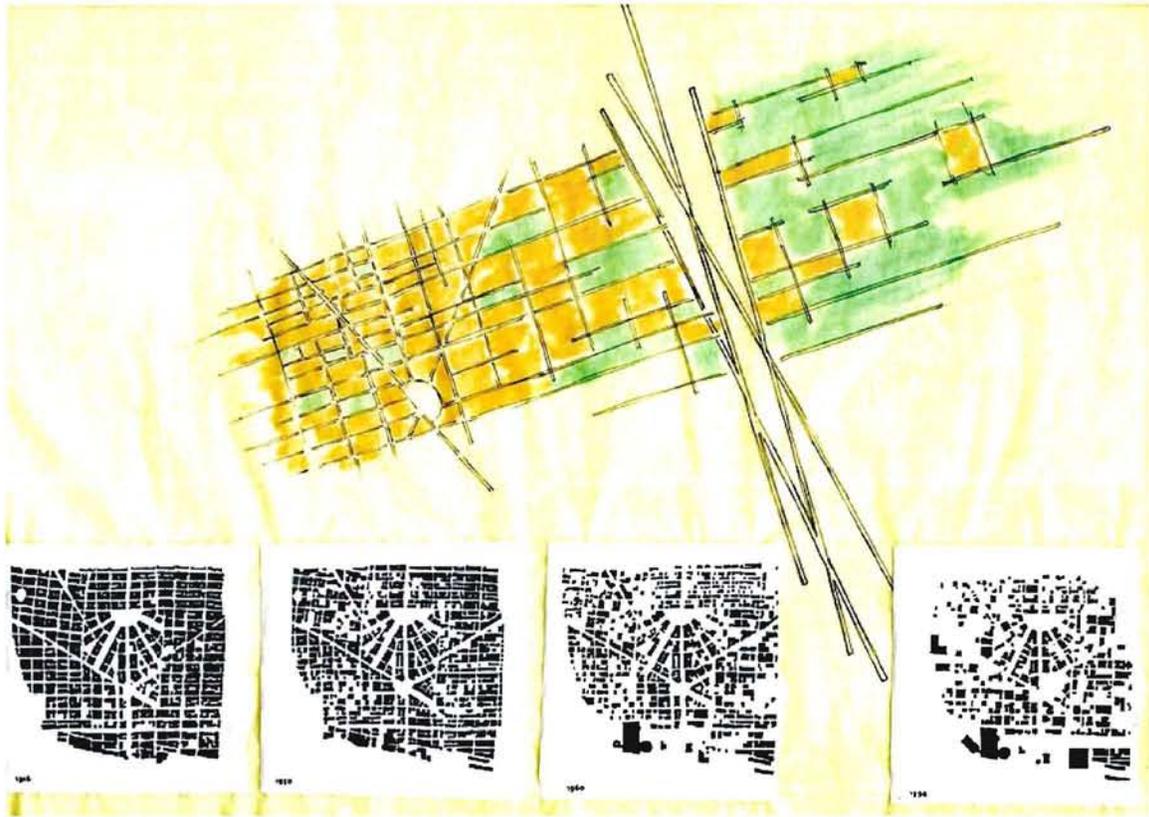




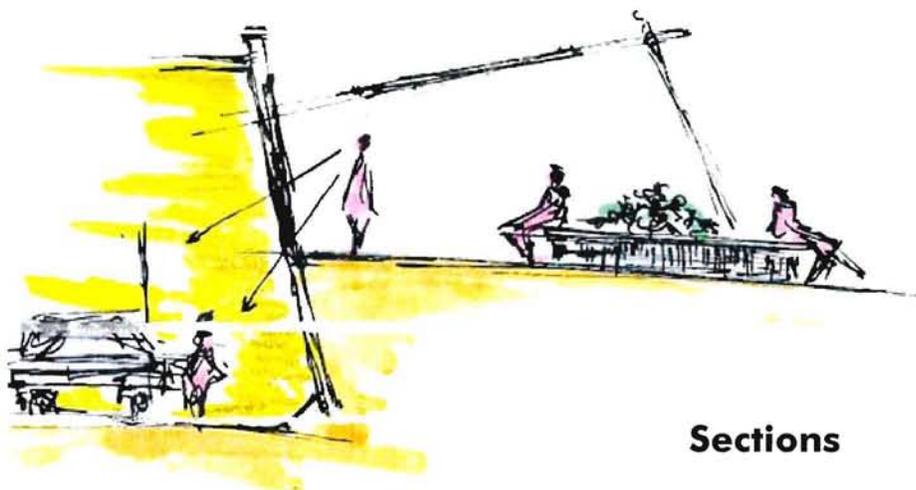
Plan Diagram



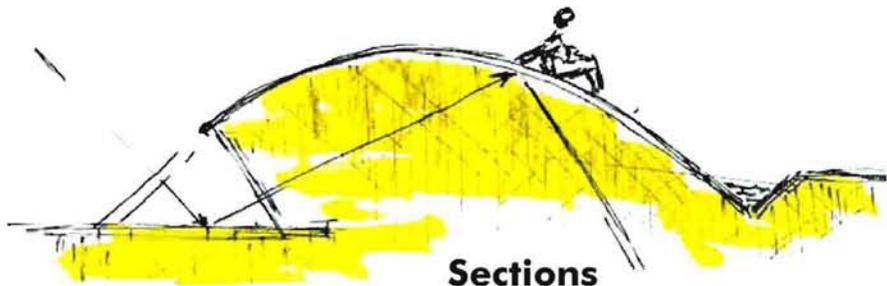
Section Diagram



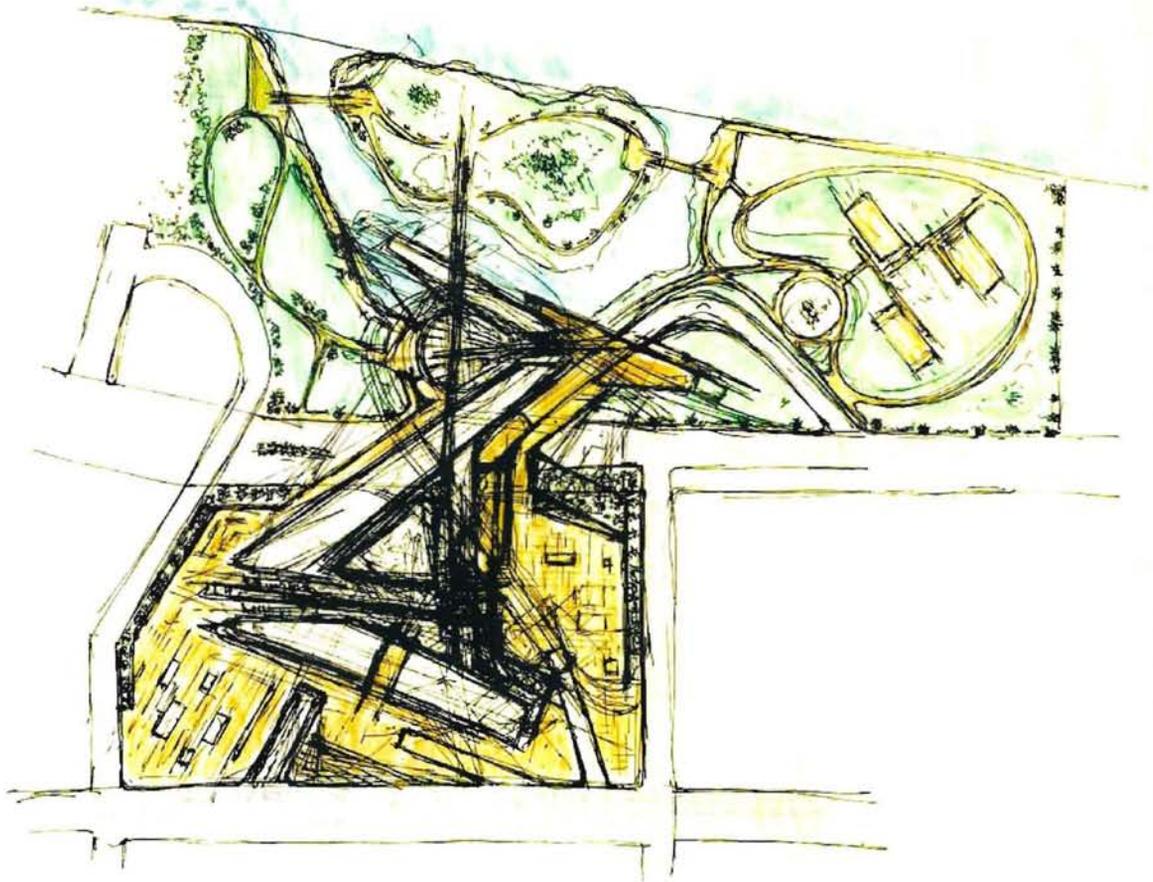
City Urban Development Diagram



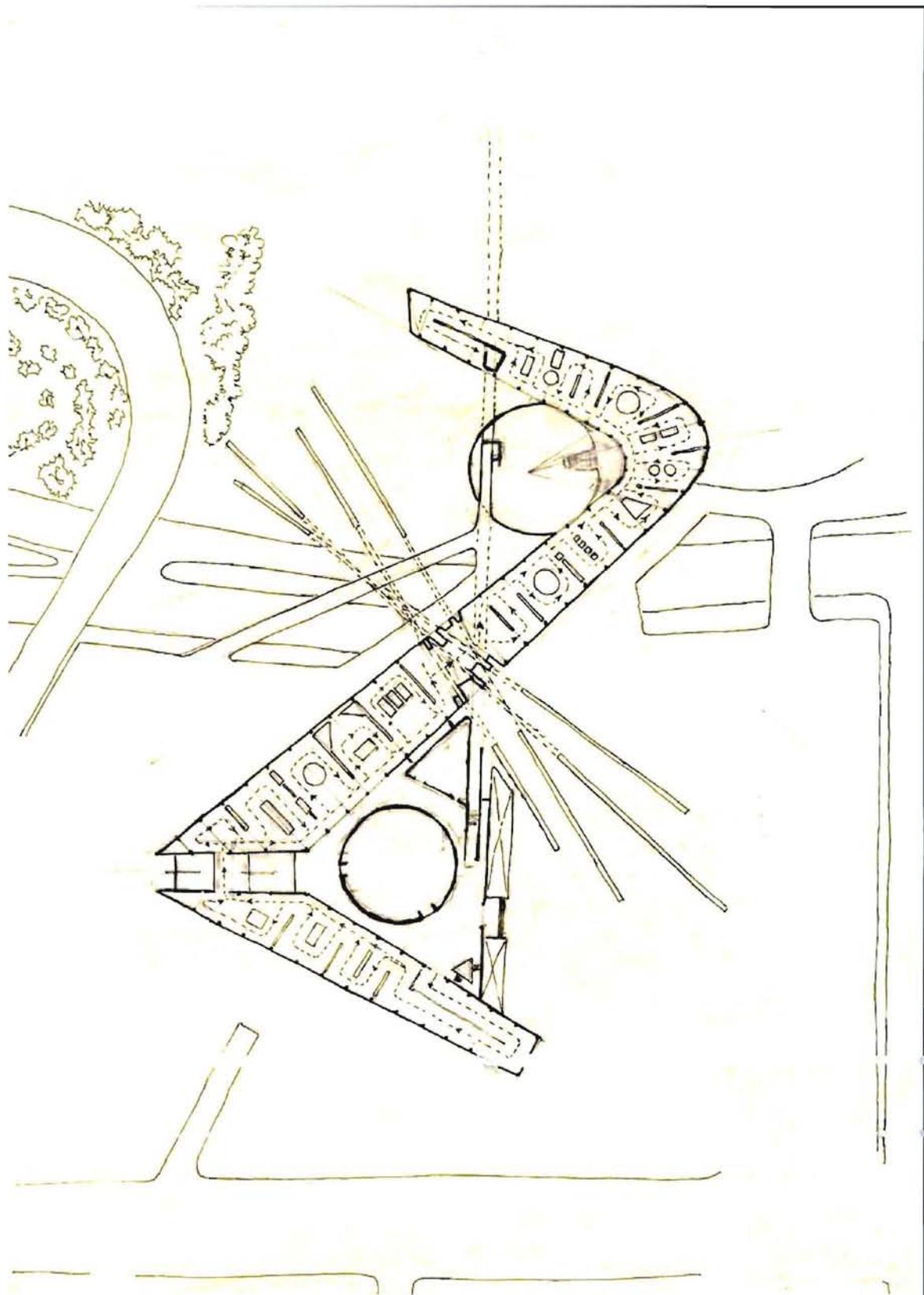
Sections



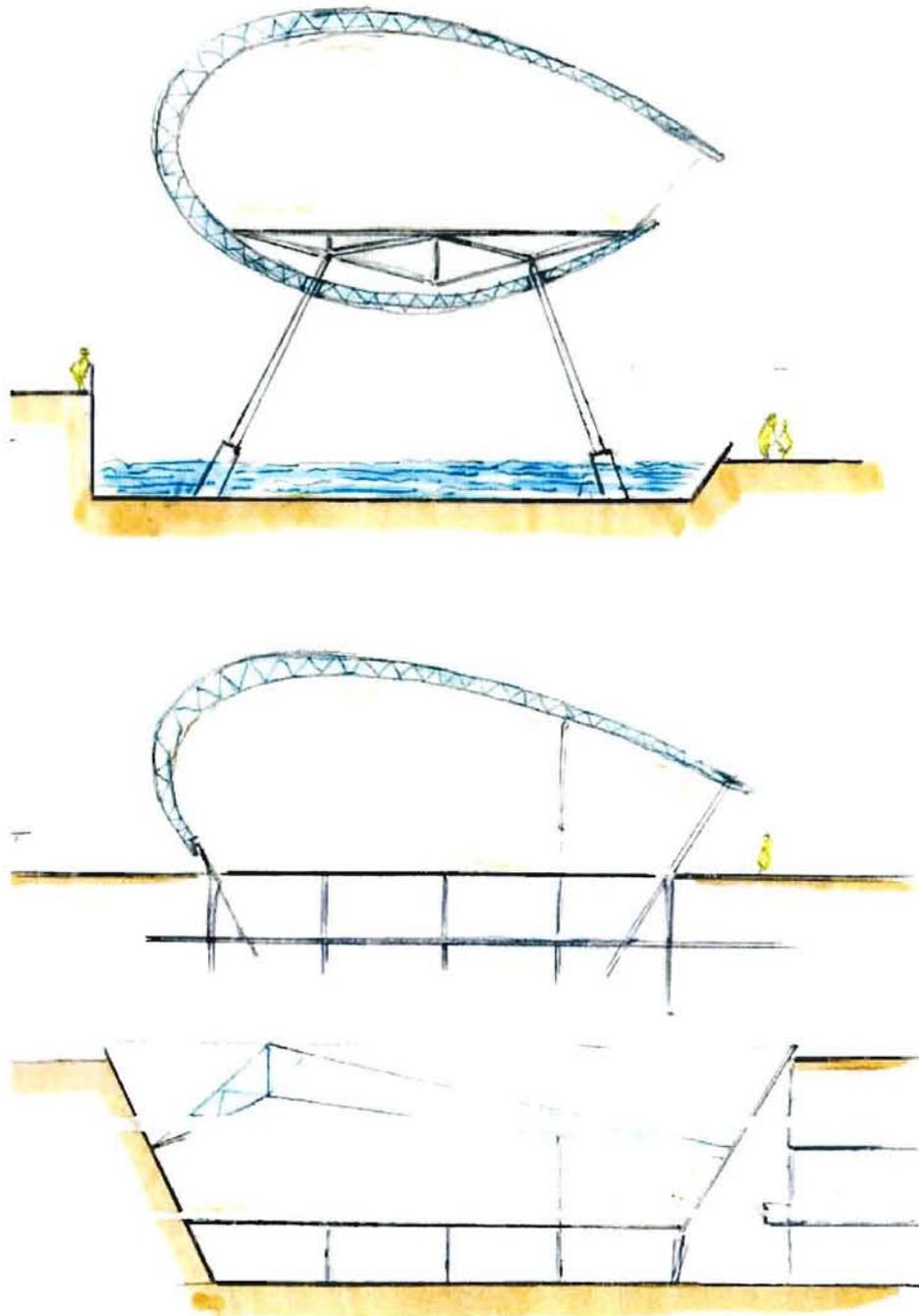
Sections



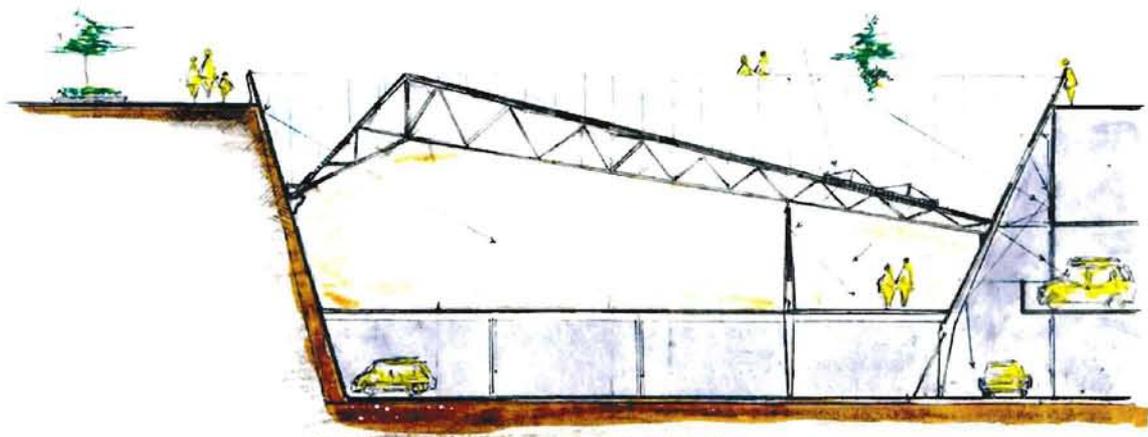
Plan Development



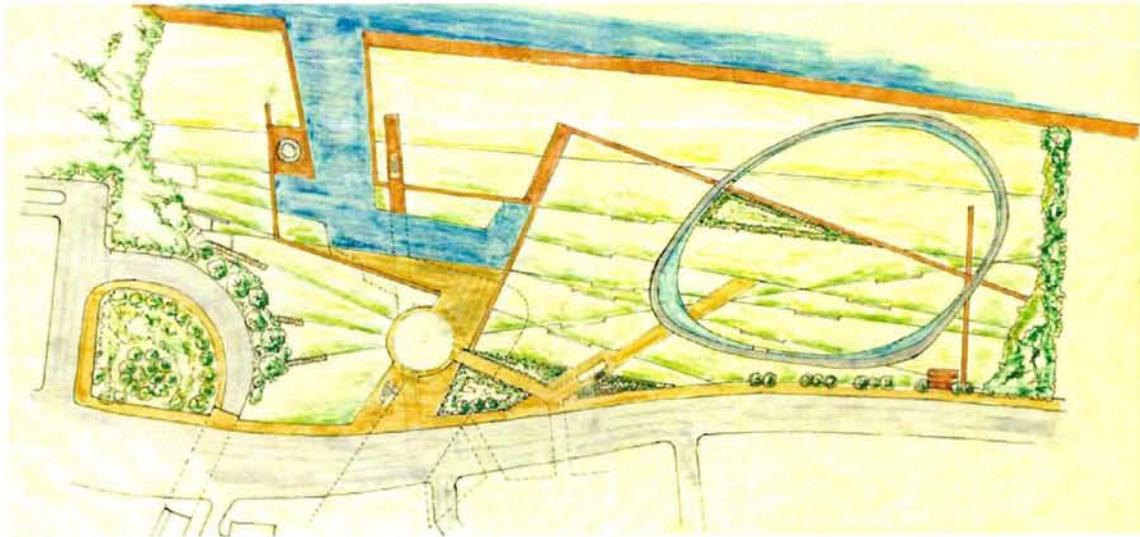
Plan Development



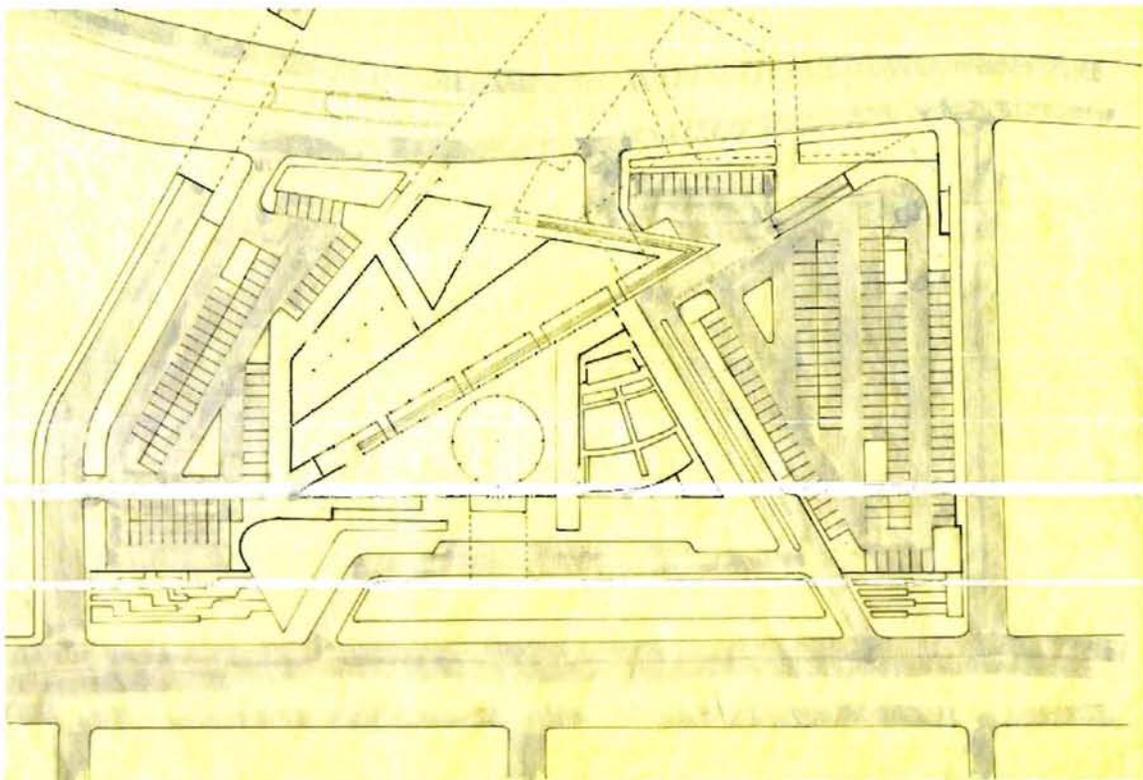
Building Sections



Enlarged Section

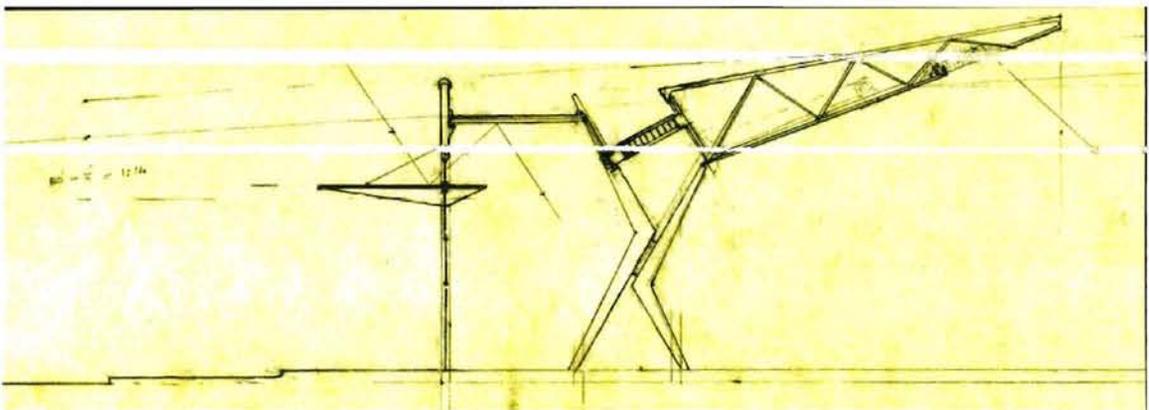
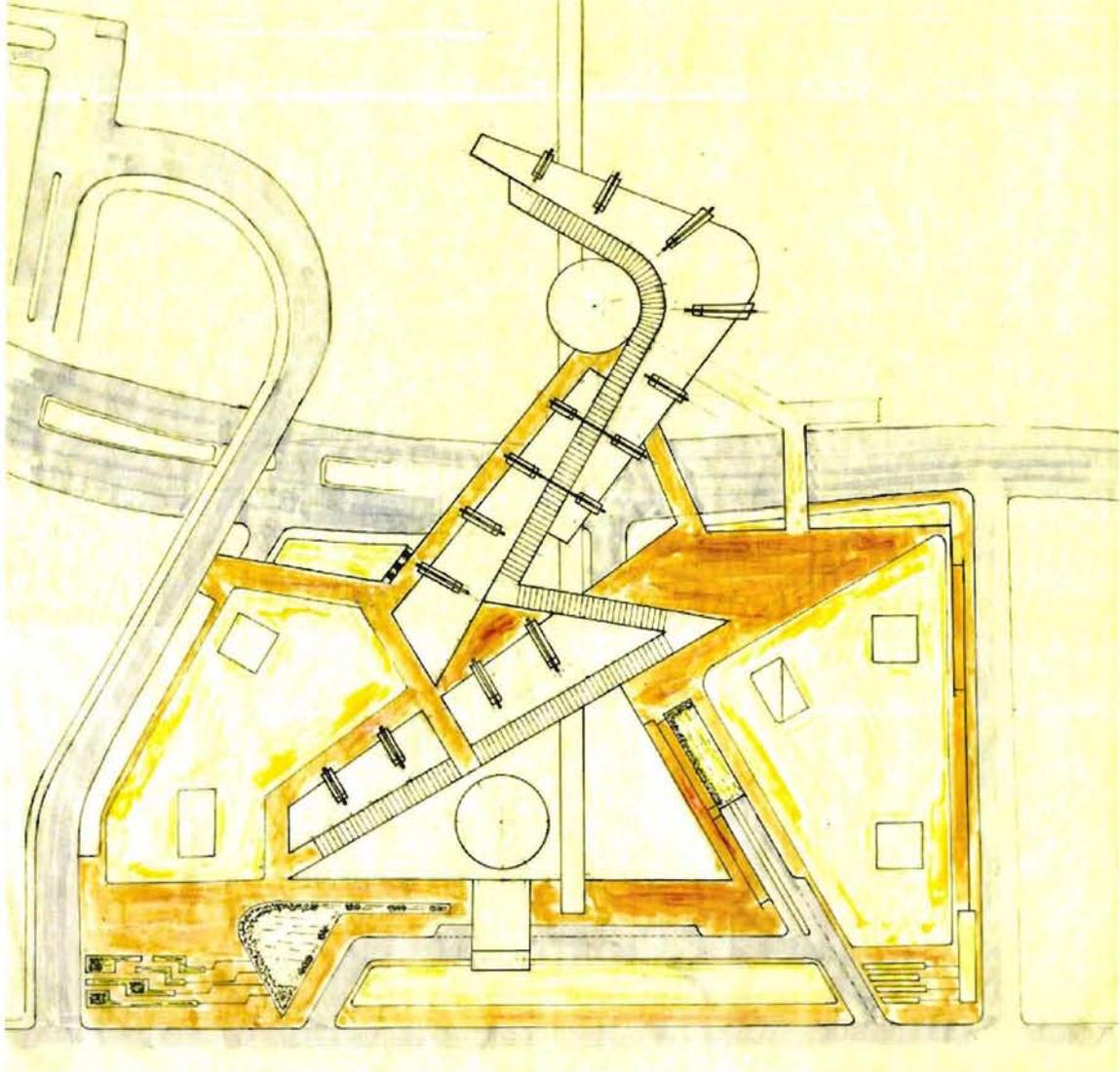


River Development Plan



First floor Plan

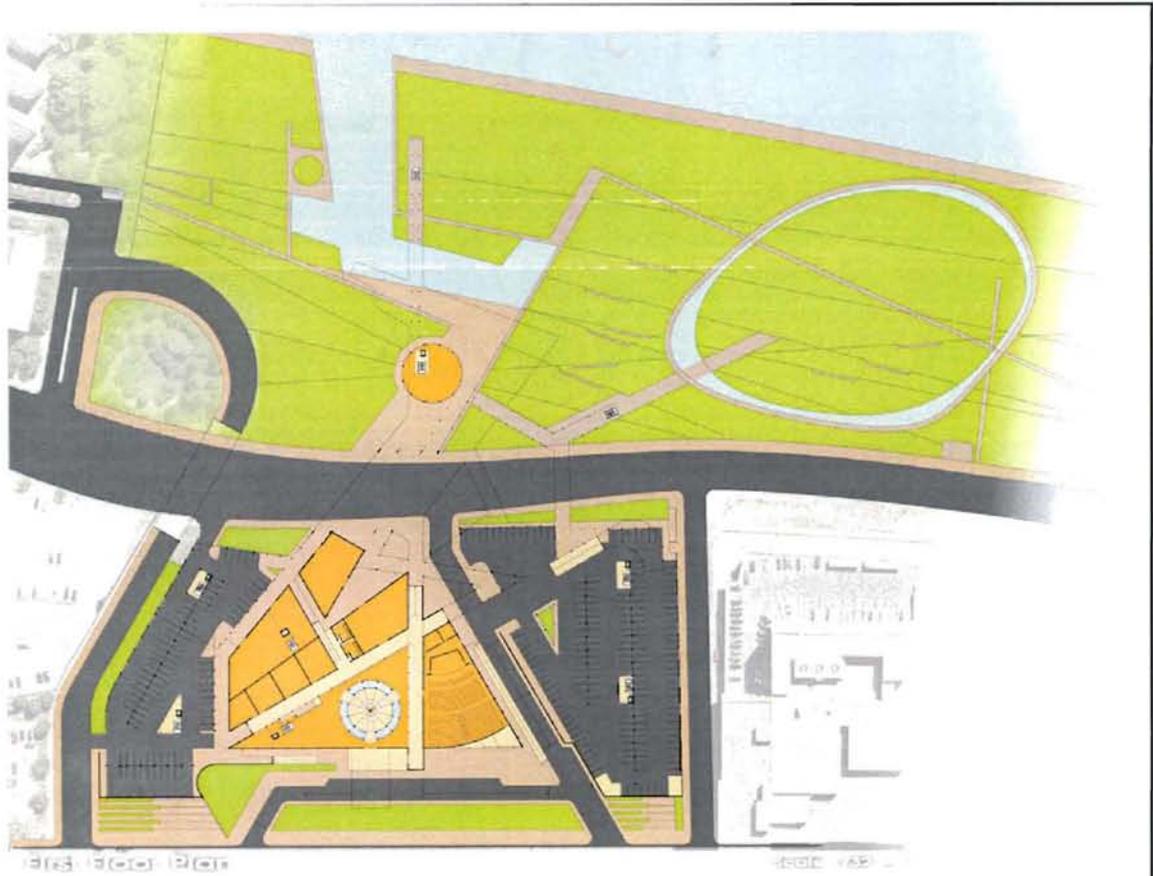
Roof Plan





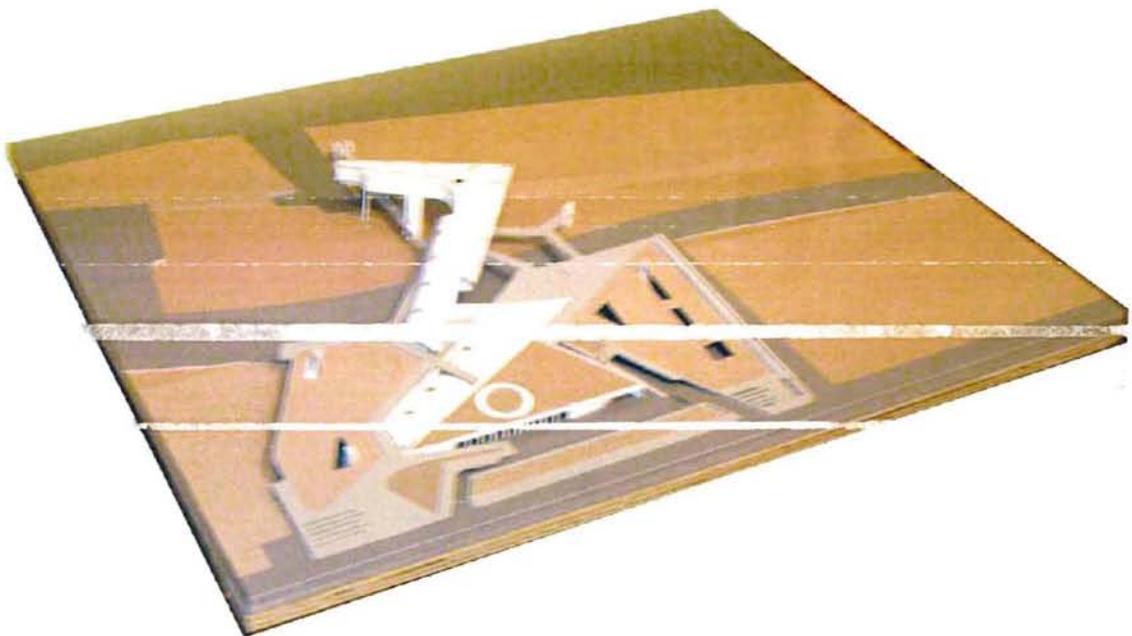
Final Project





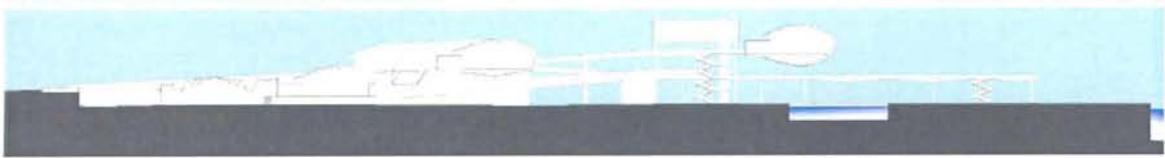
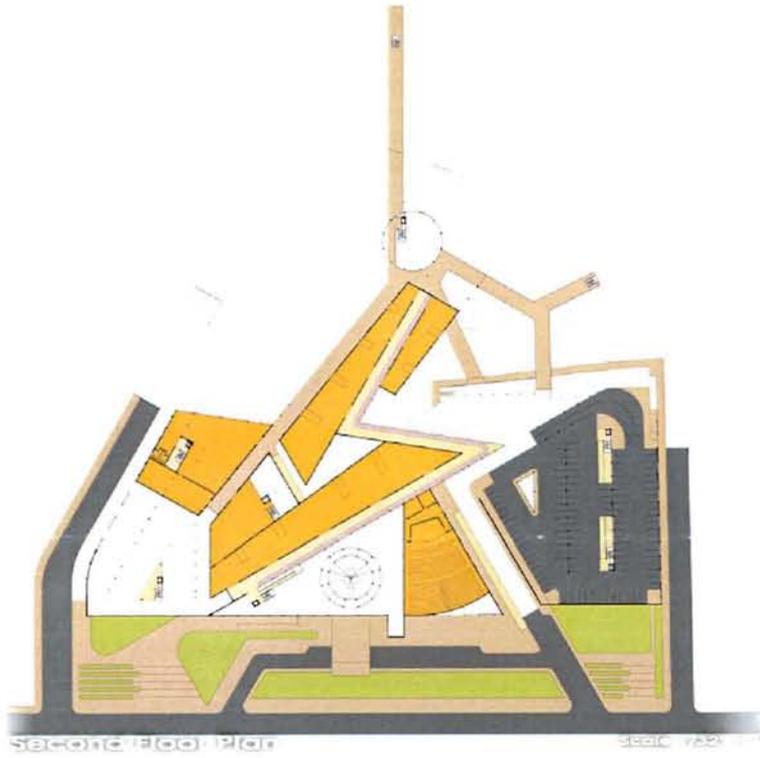
Site Plan

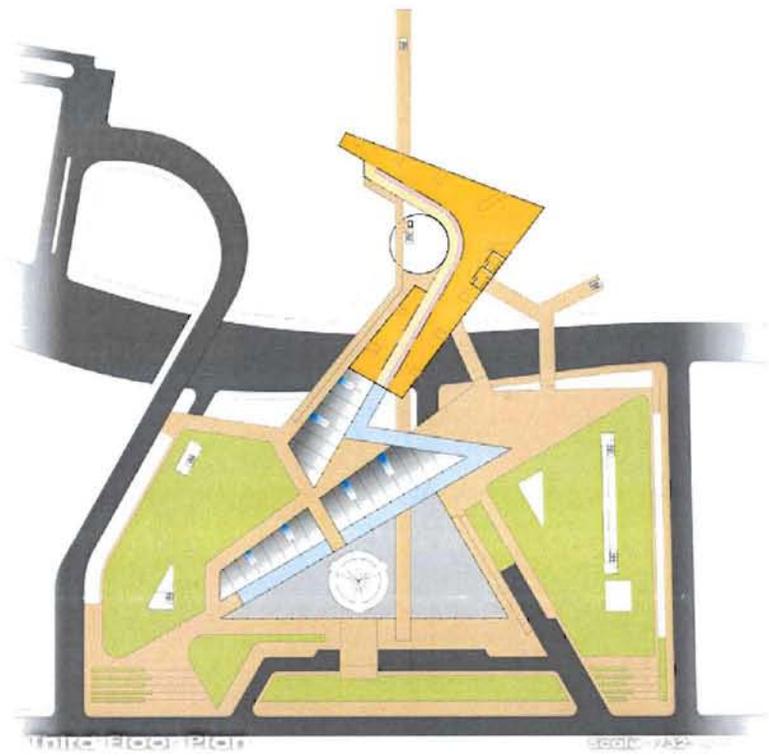
Site Plan



Handwritten notes and sketches on the right margin:

- Top: *Handwritten scribbles and lines.*
- Middle: *Handwritten scribbles and lines.*
- Bottom: *Handwritten scribbles and lines.*

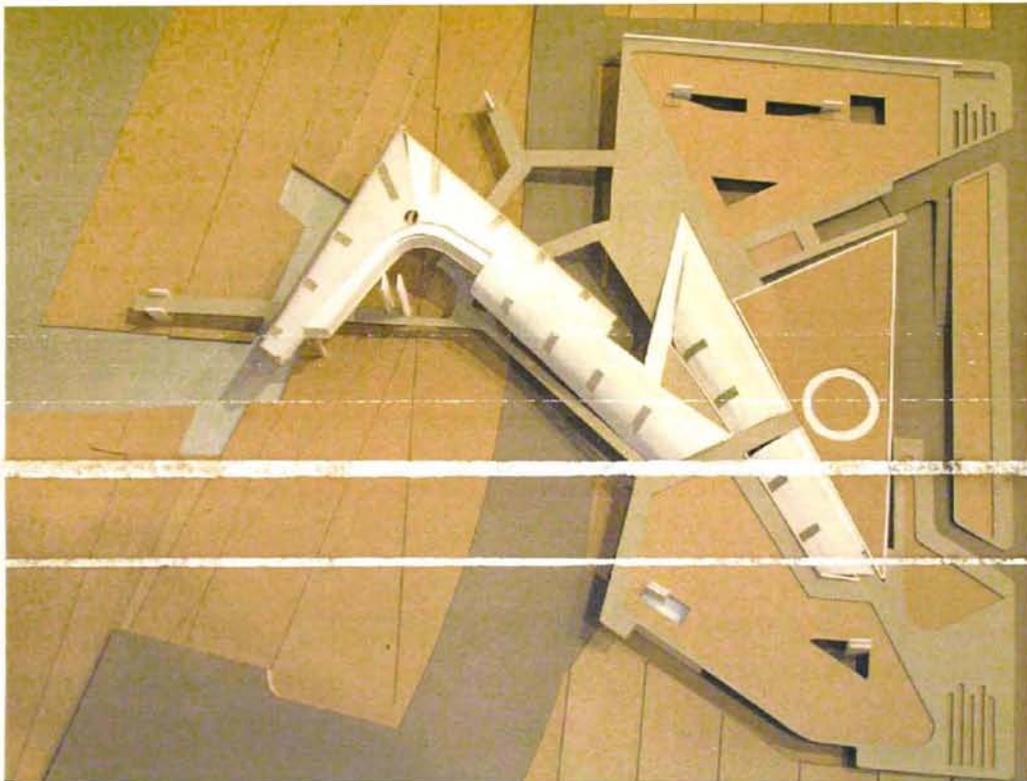
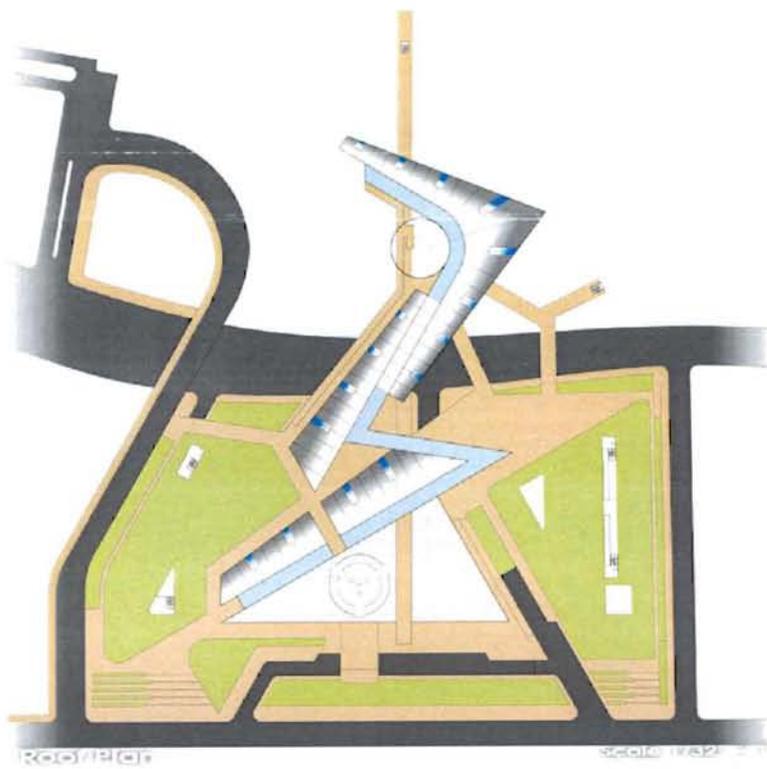




1:100 (R100) (R100)

1:100 (R100) (R100)





Handwritten notes in a cursive script, likely describing the architectural details or construction process. The notes are written vertically along the right edge of the page.

Endnotes

Terzidis, Kostas. "Hybrid Form." *Design Issues* 19(2003): 76-80.

Wilkin, Karen. "Art: color painting of the 1960s--dynamic abstractions by five American masters." *Architectural Digest* 51(1994): 76-81+.

Marchesini, Marco. "Educated unrest = dynamic shape. sports and hospitality center, Bologna." *L'Architettura* 38(1992): 166-81.

Gamero, Alessandro. "Adynamic space in rationalist garb.." *L'Architettura* 40(94): 12-17.

Lewis, Michael J.. "Renzo Piano and the Morgan Library.." *The New Criterion* 24(2006): 56-8.

Ferro, Luisa. "Steven Holl: the experience of space." *Architettura* 48(2002):

Coleman, Cindy. "unfreezing the music." *Interior Design* 76(2005): 38-42.

"Commercial building, Atene.." *L'Architettura* 48(2002): 114-16.

Terzidis, Kostas. "Hybrid Form." *Design Issues* 19(2003): 76-80.

Guy, Battle, and McCarthy, Christopher. "Multi-source synthesis: shape, texture and flow.." *Architectural Design* 65(1995): 2-3.

Tzonis, Alexander. *Santiago Calatrava: The Poetics of Movement*. New York: Univere Publishing, 1999.

Bak, Richard. *Detroit Across Three Centuries*. Chelsea: Sleeping Bear Press, 2001

Greenstein, Rosalind and Wim Wiewel. *Urban-Suburban Interdependencies*. Massachusetts: Lincoln Institute of Land Policy, 2000

Poremba, David Lee. *Detroit A Motor City History*. Charleston: Arcadia: Publishing, 2003

Annotated Bibliography

Terzidis, Kostas. "Hybrid Form." *Design Issues* 19(2003): 76-80.

Wilkin, Karen. "Art: color painting of the 1960s--dynamic abstractions by five American masters." *Architectural Digest* 51(1994): 76-81+.

Marchesini, Marco. "Educated unrest = dynamic shape. sports and hospitality center, Bologna." *L'Architettura* 38(1992): 166-81.

Gamero, Alessandro. "Adynamic space in rationalist garb.." *L'Architettura* 40(94): 12-17.

Lewis, Michael J.. "Renzo Piano and the Morgan Library.." *The New Criterion* 24(2006): 56-8.

Ferro, Luisa. "Steven Holl: the experience of space." *Architettura* 48(2002):

Coleman, Cindy. "unfreezing the music." *Interior Design* 76(2005): 38-42.

"Commercial building, Atene.." *L'Architettura* 48(2002): 114-16.

Terzidis, Kostas. "Hybrid Form." *Design Issues* 19(2003): 76-80.

Guy, Battle, and McCarthy, Christopher. "Multi-source synthesis: shape, texture and flow.." *Architectural Design* 65(1995): 2-3.

Tzonis, Alexander. *Santiago Calatrava: The Poetics of Movement*. New York: Univere Publishing, 1999.

Bak, Richard. *Detroit Across Three Centuries*. Chelsea: Sleeping Bear Press, 2001

Greenstein, Rosalind and Wim Wiewel. *Urban-Suburban Interdependencies*. Massachusetts. Lincoln Institute of Land Policy, 2000

Poremba, David Lee. *Detroit A Motor City History*. Charleston: Arcadia: Publishing, 2003

