

creating "The Smart City"

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**“Architecture is the will of an epoch translated into space.”**

- Ludwig Mies van der Rohe

## THEME: Empowered Spaces

"Throughout life, in order for us to communicate who we really are, we must make the most of our tools. The result of this ability, once gained, is power... the power to represent and reinforce who we are today and who we want to be. Through developed skills and a refined sense of character, we will mold the environments in which we live, work, and play into clear projections of personal and public identities."



## Defining the Problem

What is the problem and how do we solve it in an innovative and careful manner?

How does one create an empowered space?

Define an empowered space?

## ABSTRACT

The world is a heavily segregated place where we are first separated by the seven continents, broken down into many countries, then by cities, trickling all the way down to towns branching off into neighborhoods and individual homes that house different cultures, religions, races, genders, and political views, which ultimately create segregation. Of course there are many reasons as to why our world has come down to the -oh so- apparent separation between individuals and their cities.

Empowered spaces can be the cause of flourishing environments and some times even entire countries. The focus of my investigation will be on cities, studying their characteristics and what makes them segregated and what unites them. Bridging together two different entities can make for an interesting space of empowerment. Using architecture to transform segregation into unity is the new way of acceptance of the unusual. When borders are crossed unnoticed because of architecture we can say that an empowered space was created and it bridged two spaces together unforced. The first step will be to identify the city's strengths and weaknesses by locating physical characteristics. While the second step will be to identify the issues, asking questions like; Do heavy populated cities have empowered spaces? If so, to who are they targeted to? Do cities with great economic growth have empowered spaces? If so, to who are they targeted to? The ultimate question in the first phase while investigating these great cities will be; do these cities have empowered spaces that target everyone creating diversity and culture? If so, is that the cause for less segregation within the city, leaving room for more success? Are cities like London, New York, Los Angeles, and Hong Kong (just to name a few) cities that just happened to become desirable cities and have fast growing economies? Or do their strengths outshine their weaknesses because of more spaces of empowerment?

Another question to bring up that may spark future ideas is; are cities like London and New York as far as cities can expand? Are these cities in need of bigger and better empowered spaces?

It's time to focus the attention on places in need of identity and culture, and whether they exist in cities or not there is never an end for the need to create spaces for those to learn, share ideas, and connect with other individuals of common interests.

## Thesis Statement:

A city is a cultural center and a place for diversity. It holds a seat for a variety of interests and specific needs for all of its dwellers. It houses millions of people and acts as a canvas for art expressions, iconic skylines, and most importantly allows the phenomenon we know as architecture to express itself. These are definitions of what I would call a smart city.

## TITLE: creating "The Smart City"

A Smart City is a city that gives inspiration, shares culture, knowledge, and life, a city that motivates its inhabitants to create and flourish in their own lives. A smart city is an admired city, a vessel to intelligence, but ultimately an incubator of empowered spaces.



This painting is an expression of diversity "My designs arise from the diversity of the earth." -Byron Wille  
This shows an example of how diversity feeds the mind with new ideas.

## How Do We Apply Architecture?

In order to achieve a total experience in a space we must first know when and how to apply the right characteristics of architecture to the existing. Architecture is more than monumental buildings that stand tall to house businesses and people, it's a science, a theory, a spark of creation and innovation. As architects it is our duty to be instigators, we look for a problem, build on that problem, then solve it. So in my case I found the flaws in several major cities and narrowed it down to what it is that is not allowing this city to flourish like some others such as London, Las Angeles, and New York City. Cities must have points of interests and spaces that people need, which can be defined as empowered spaces. Places like major museums and libraries where individuals go to learn are important, great places of dwelling, like unique residential communities are vital in establishing a city's characteristic. Once a city has found its own identity through diversity and culture, it shows that the application of architecture was successful.

## THESIS PAPER



An intellectual is a man who doesn't know how to park a bike.  
- **Spiro T. Agnew**

Is it possible to acknowledge and take action of a problem if it has not yet been identified or defined? In our current time, we do face an identified problem of segregation and so the question is how do we go about fixing this problem? Segregation comes with the lack of connectedness with people, which filters into the unsettling cracks of a broken city. Because cities are the running force to a strong economy, it is important that we as humans use our invigorating power to make our cities the leaders of the future. We must build our cities from our talent, create spaces of empowerment, and set trends that become our identity. A city must have individuals who are motivated, skilled, talented, and most importantly those who want to be innovative leaders. So the question that arises is, how do cities capture and retain these desirable people?

As I start my investigation of cities and how they grow into strong environments, the main goal will be to figure out how architecture can be applied to solve the problem of segregation. Architecture is more than monumental buildings that stand tall to make a pretty skyline, it's a science, a theory, a spark of creation that if executed correctly can have a great impact on its environment. As architects it is our duty to be instigators, we look for a problem, investigate the problem, then solve it.

So in this investigation I chose and dissected several major cities and compared their strength and weaknesses to each other and discovered what it is that is not allowing a certain city to flourish like others. I first looked at cities such as London, Los Angeles, and New York City and soon realized that because of their abundant amount of strong architectural spaces, their inhabitants are allowed more opportunities to experience greater spaces. Cities must have places that people need and want to use, these places are equipped with up to date resources, community interaction, and are place that inspire the mind. Places like museums and libraries where individuals go to learn are important to building a smart city, creative places to live attract people to a city, like unique residential communities and when you have several of the types of places a city become more identified. Once a city has found its own identity through diversity and culture, it shows that the applying the right type of architecture can make a city successful and smart.

The challenge I have set up for myself is not easy nor is it impossible, but in order to achieve the goal of revitalizing a city through empowered spaces, I must go through the process of selecting the exact site, the exact program, and be complete with regard to every detail of every decision I will make. But first, what is an empowered space? To answer that, I would have to say that there is no specific program to define an

empowered space, it can be almost anything, a library, museum, theater, school, but it certainly is a place that allows for individuals to become creative. It is a place where people get educated, become connected with their community, learn from each other, and share common interests with others.

Choosing the site can be one of the most critical parts of the process. It is the space that will be the vessel to your design so just choosing any site could make for an unconvincing proposal. I have specifically chosen the site to be in Detroit, Michigan. Sitting in the heart of the city where once stood the famous Statler Hotel, this site is four-sided located across from Grand Circus Park. It's east side faces Washington Blvd., while the others border Bagley Street, Park Avenue, and Clifford Street. Now a vacant lot, it is a neighbor to several successful buildings that house retail, residential, businesses, and fortunately is in route of Detroit's city transportation, the People Mover. Also in close proximity is the Detroit Opera House, Ford Field, Tiger Stadium, Fox Theater, and of course Grand Circus Park. This site is filled with opportunities and is perfect for a space that can be used by several people at a time, can be easily accessed from the people mover, and a space that is inviting to its citizens.

As I begin to think of the type of program suited for this area, I must keep

in mind throughout the entire process the characteristics this building has to have in order for it to be successful. By the end of this process I will have created a space for individuals to learn, artist to express their thoughts, and for people to be more educated about art and architecture and be able to apply their knowledge to their own city.

My research showed that in order for cities to prevail they must have a certain level of identity to stand out from the rest. One, a certain level of motivation must be achieved to create greater spaces in their dwellings, two, a certain level of inspiration must be achieved to become entrepreneurs, three, a certain level of innovation must be achieved to reinvent themselves, and four, a certain level of identity must be achieved to set the latest trends and be the leading resources for the rest of the world to use. Once all these characteristics are added together to the levels that qualify, then you have a powerful city. Powerful cities are smart cities and smart cities are admired cities, so it is my duty to develop a program that will make sure Detroit has these four qualities and to the highest levels.

Knowing that I wanted to take my project in the direction of collaboration between designers, artists, and citizens of Detroit, I started to think about redesigning the work space environment for designers. I believe that it is

extremely important for employees in any field to have total access to the most up to date resources to better prepare them for the future. Vibrant work spaces motivate employees to constantly continue thinking of new ideas, the modern work spaces being created today are specific to the business it houses. One example is the renovation of "Derwent Valley's Tea Building in Shoreditch by Clive Wilkinson for the advertising agency "Mother" in London. Wilkinson thrived on the idea of the space growing as the agency grew, so to cater to that he designed a large communal concrete 100' wrap around concrete slab that every employee worked at. This created a collaborative atmosphere and constant interaction with each other sharing ideas. There is no sense of hierarchy amongst the individuals because with Wilkinson's design the intern could be sitting next CEO of "Mother" while the junior designers are collaborating with project managers across the table. This sort of space achieves every aspect of collaborative community. Another example is Jump Studios in London, they have made a considerable contribution to our new generation of creative work spaces with their innovative design for the Red Bull Headquarters. "Ideas about work environment design centered around feelings associated with adrenaline and energy – directly associated with the brand itself. The offices are spread across three floors in a nineteenth century building in the West End. Visitors are received at the main reception from the top floor – an area that serves as the social space for the employees complete with a bar, café, various meeting areas, as well as the central boardroom. A continuous carbon fiber feature links the entire space

together – starting as a canopy outside the building, winding inside and around the boardroom, through the reception area, enclosing space for an actual slide between floors, and finally forming an additional informal meeting area on the lowest level. This ramp-like feature is a direct reference to the various extreme sports associated with Red Bull.” (Jump Studios)

My initial research study was taking a trip to the Herman Miller West Michigan GreenHouse Gallery in Holland, Michigan. This was one of the most exhilarating learning experiences I could have ever asked for. Herman Miller is a prime example of how an office designed for designers should be. There was a space for anything one may ask for; a space for design, a space for sitting, relaxing, reading, a space for building, a space for material inventions, a space to talk, meet, eat, etcetera. Anything an employee needed, guaranteed it was in that facility and this was most inspiring to me because as a designer I could see myself working there and never wanting to leave. So this proves my theory that it is possible to capture people and retain them just through innovative architecture. The Herman Miller GreenHouse Gallery is not located in the most desirable city in the nation, but all that seems to be forgotten when you step inside this space of empowerment.

So going back to the initial idea of bringing the public and artist together under one roof, I now had to create a space that not only catered to designers of all types, but also catered to the rest of the public. Galleries,

museums, wireless cafes, libraries, and green spaces are places where people go to see other's creations, get work done, gather information, and relax. These are all spaces that will be incorporated into my proposal for a Resource and Design Center for Detroit. The resource part of the project will be the gallery space which will house all the designs from the designers of the work space, the computer lounge will act as the wireless café, the library will have resources on architecture and design, while I bring in several areas of added green space. While all these spaces are focused on inviting in the public, the designers will also have access to these spaces, ultimately giving them an unlimited amount of work space.

Why is it so important to give employees great work environments? In an article recently written on the importance of creative work environments it put it in best words saying, "Chances are if you talk to any CEO within the traditional corporation model they will most likely agree that productivity is primarily measured in monetary terms (i.e. Profits and margins). If numbers continually rise or remain stable, then change within an organization should be avoided at all costs. If, at any time, productivity declines, the CEO will undoubtedly be the first to take notice, and a top-down chain of events could result in layoffs and downsizing and consequently evoke fear and panic from the bottom up through the ranks." (The Cool Hunter) However, what about changes to the physical environment within which people operate,

create, and innovate? The latest study turned to trend is the adapted “open-plan” enhancing the interaction amongst individuals in the office. Although the cubical was the designed solely for the purpose of saving space and giving privacy to employers, it has become sort of a burden to any one person thinking about entering the work force. The cubical is not a designed space, so the return to an open-plan office layout is now taking over the creative work environments.

As I come to the end of my investigations, I have realized that there is no right way to create an empowered workspace. It must be custom made to fit the business and people working inside. Once upon a time all that mattered was the appearance of the work space on the exterior, and no one would pay any attention to the interior, but times are changing and people are realizing that in order to make a community grow you must use the right resources. This analogy goes hand in hand with making any business, city, or individual grow. The city of Detroit will be affected by every thoughtful decision that is made. Detroit is a fragile city, it is on the border of being made into a prosperous city or being broken down to an unidentified speck on the map. Having said that, introducing vibrant livable work and public space will in fact imbed Detroit with more motivation, innovation, inspiration, and help define its identity so much more. My theory proves that bringing people together to connect and share ideas about art and architecture is the first step in building Detroit into a smart city.

**“If the facts don’t fit the theory, change the facts.”**

- Albert Einstein

## PRECEDENT STUDIES

- **the internet**

its ability to connect people through interests and ideas

- **Herman Miller - work space + logistics**

the idea of focusing on the individual's needs to produce efficiently while enjoying the practice of creating

- **The Pittsburgh Cultural District**

constructing a space that creates diversity and culture and building a city at the same time



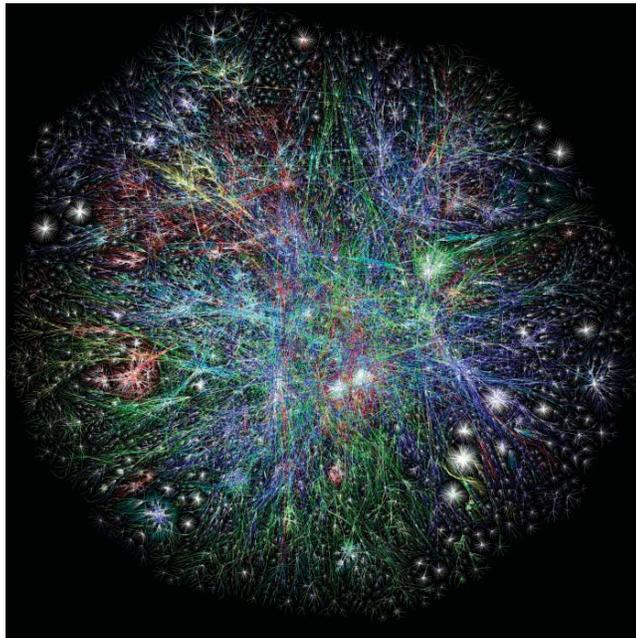
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## The Internet

“The Internet is based on a layered, end-to-end model that allows people at each level of the network to innovate free of any central control. By placing intelligence at the edges rather than control in the middle of the network, the Internet has created a platform for innovation.”

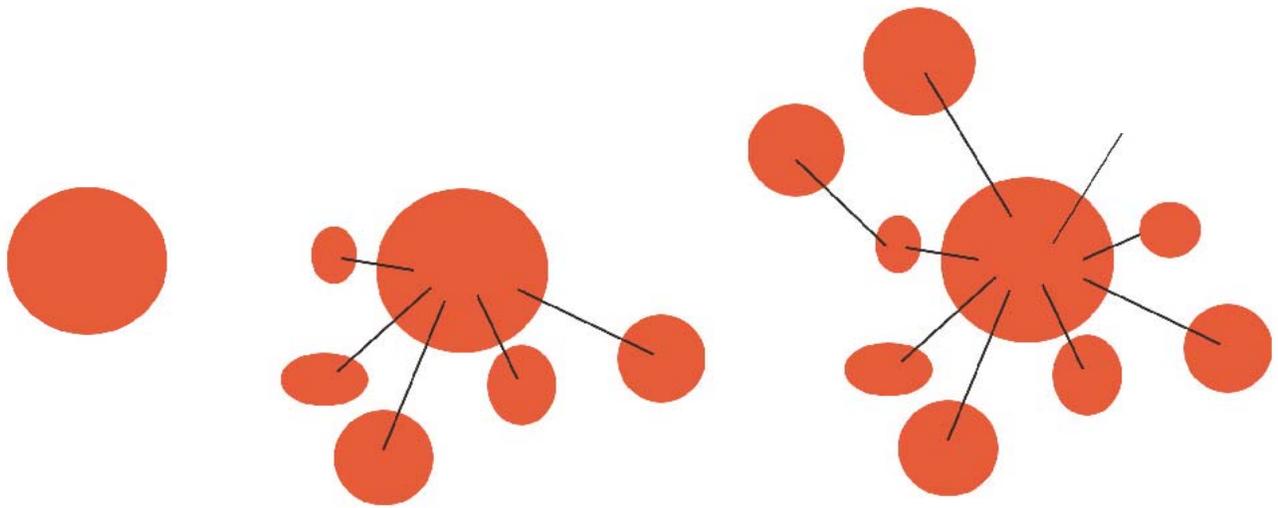
- Vinton Cerf



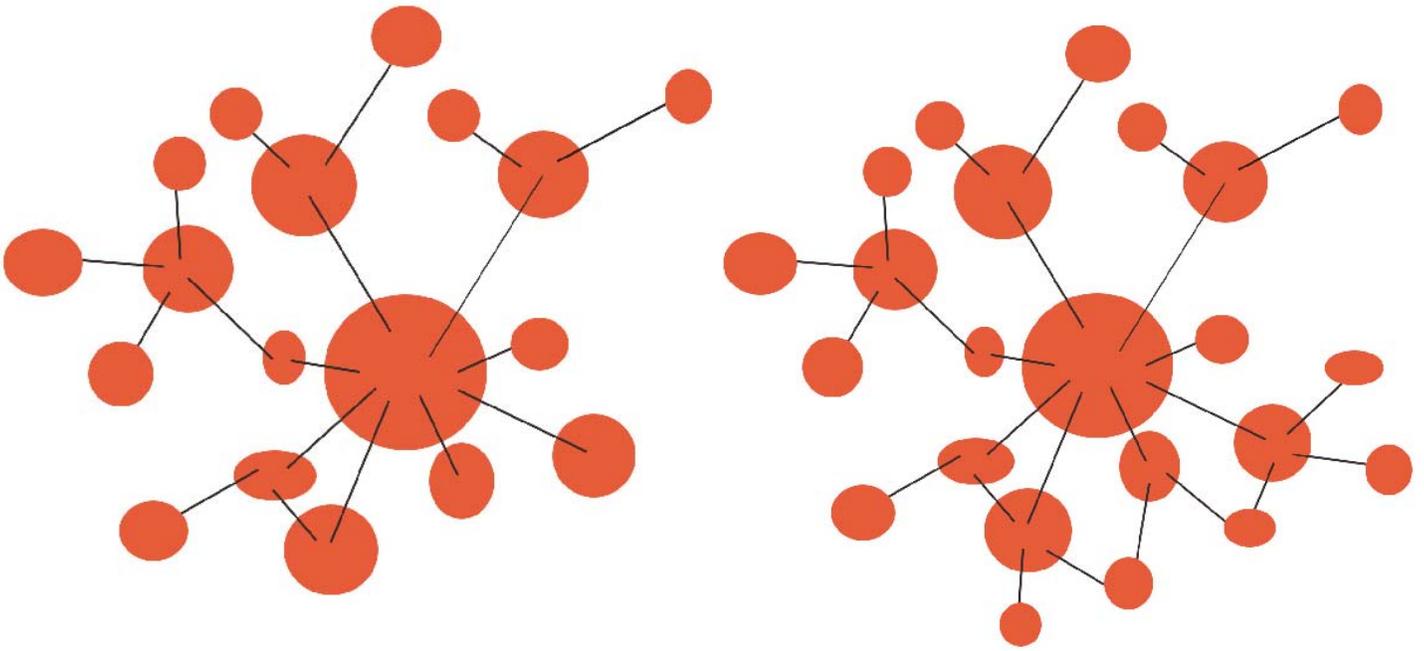
## “A PLATFORM FOR INNOVATION”

This is an image showing the mapping of the internet. It is the linking process of those using the internet around the world at one moment. Can this be applied to architectural mapping? This map shows the power people have to connect to one another and create ways of sharing knowledge and gathering new information.

Why the internet one might ask? If we look at the internet and analyze its characteristics we find that it is a place where almost every person in the world goes to look up information on almost any topic man can think of. Web sites are created for this exact reason and competition arises from getting the information displayed on the internet as fast as possible because in this day in age we are all about speed. The internet is home of conversations, businesses, money making, relationship finding, research gathering, and so much more. It is available to us at all times, it never sleeps, it never takes a break from the global news, nor does it have time to be outdated of the latest and fastest versions of anything. I look to the internet for inspiration to build my project. I find the internet to be the most empowered space on earth. Nowhere else can a person go to find a pair of shoes, send a greeting card to their mother, talk to someone across the world, and buy an airline ticket to Dubai all in one hour. Its resources are unlimited and it is the cause for advancement of the world as it is today. Without the internet we would be in a slower pace not reinventing new products or saving lives from the advancement of research that is out there, we would be in a state of standstill, instead of 600,000 new businesses opening each year we may not even reach half. So in this investigation of how cities can grow into a thriving metropolis, I turn to the internet for inspiration.



How do we link a city together through the education of art and architecture?

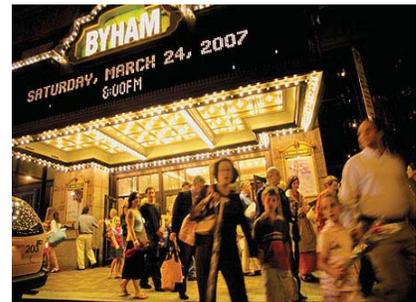


Is it possible to think a city can change its identity and reputation through one building?

## The Pittsburgh Cultural District

The Pittsburgh Cultural District is one of many culture districts being built throughout the United States. City representatives have found that building such districts is a great way to pan-out a city's future. The PDC is estimated to create over 9,200 jobs within the six-acre stretch. It focuses on the arts and educating its visitors with the city's unique talent in the arts. Since the development of the PDC the city has seen much improvement in being able to get people back downtown to the local theaters, restaurants, and shops.

I look at the PCD as a way to collaborate what Detroit has to offer and what Detroit needs to offer. Do I need to design a large cultural district to revitalize the city? Probably not, but there must be an place to start this revitalization and what this place will be, I am not sure of yet, but it will be a place of culture, art, design, education, and diversity.



**“Working together, we’re funding projects that will draw people back downtown to live, work and play. It’s the same successful approach we’ve used across the state over the last four years to bring new investments to our cities and towns. By supporting the re-birth of Pittsburgh’s cultural district., we’re opening the doors to a better quality of life for local residents and stirring new opportunities for the city.”**

*- State Governor Ed Rendell*



There must be an initial place where the ideas will be sparked to light up the entire city. Where this place is... is will be the beating heart to the city of Detroit.



establish  
identity

As the knowledge grows and the ideas spread there will be an established identity to the city. People will begin to have the confidence in their city to start new innovative businesses.

## Herman Miller - work spaces + logistics

### Herman Miller National Design Center Received the First LEED Gold CI Rating in New York City.

The New York National Design Center is a 15,400 SF sales and resource center for the architecture and design community, including conference rooms, hospitality areas, product display, open office and support. Like other NDC's it is an expression of Herman Miller design and corporate values, putting the individual at the center of a total design experience, which is built upon simplicity, functionality, sustainable, attention to detail and the honest use of materials.

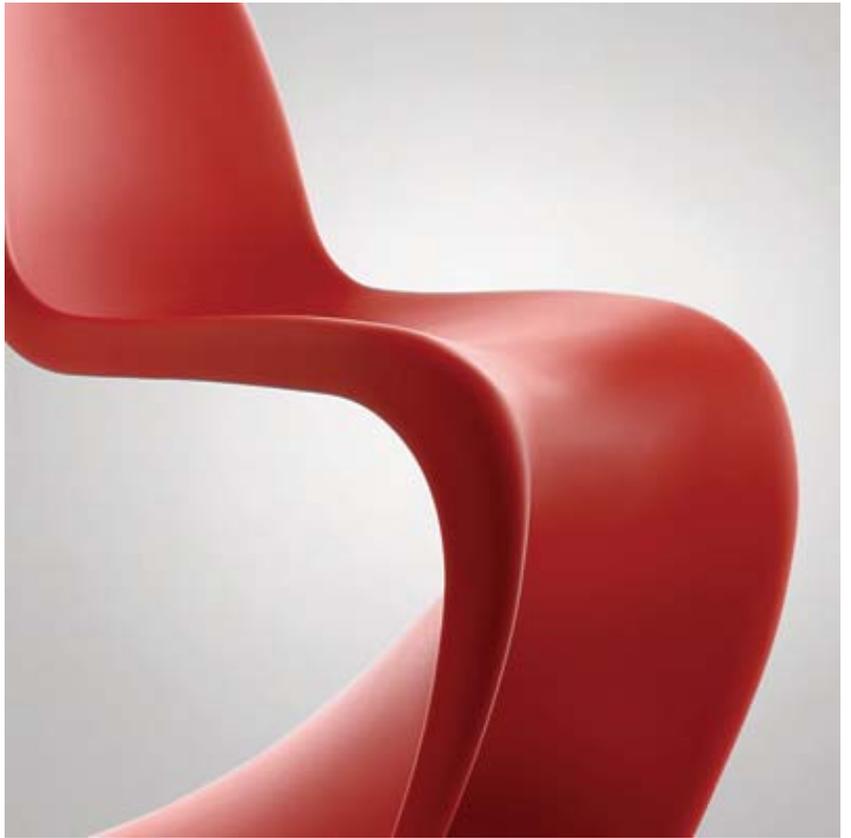
Herman Miller helps create great places to work, heal, learn, and live by researching, designing, manufacturing, and distributing innovative interior solutions that support companies, organizations, and individuals all over the world.



“We want our customers to be inspired by this facility,” said Ray Kennedy, Director of Corporate Merchandising, who oversees the development of Herman Miller’s National Design Centers.

These images show the unique individual work spaces within the Herman Miller offices that allow the designers to be their own person and create their own ideas and apply them to the real world to make it a better and more interesting world.





Verner Panton: The Pantone Chair, 1960  
Made by Herman Miller/Vitra. Plastic



Verner Panton: Wire Chair, 1971  
Made by Fritz Hansen. Steel wire and fabric

## Analyzing the Site - Innovate or fail!

Because cities face the challenge of keeping up with new technology it is important for them to have these new resources, but most importantly for people to be able to operate these new technology systems.

If we take a minute to think of all the contributions a city has to offer, what is the one indispensable asset? The answer would be, people. People are ultimately the root of all inventions that create admired cities.

The main goal in building an admired city is all about attracting and retaining desirable talent. Without this cities will not thrive. With these intelligent people, a city builds different levels of innovation, connectivity, motivation, and character.

“Cities are the economic engines of the nation”

- Carol Coletta



Innovation is the pulse of a city and it is what keeps it alive. Having knowledgeable individuals be the leaders of a city will allow for greater products and the need for more business. Cities like Detroit are in desperate need for fresh young ideas, so what can be done in order for the city to attract these young minds? Our generation is so use to the fast pace life style that not having a space available for putting our ideas to use is wasteful.

Creating empowered spaces and motivating communities increase the probability that young innovative minds will move to smaller scale locations and create stable foundations for themselves.

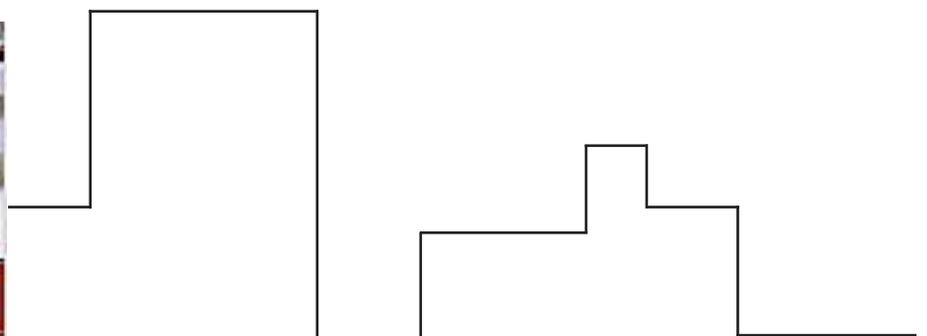
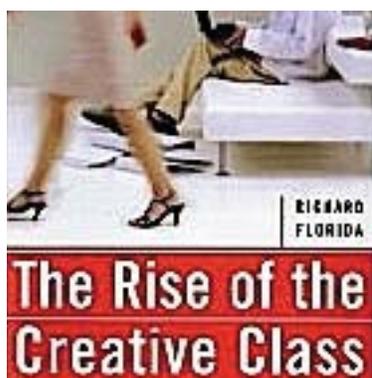


## THE INNOVATIVE CITY

How do we know if our cities are innovative enough to withstand the fast pace society? We must look around to see if there are growing businesses, entrepreneurs, and patents because this is a clear indication of how the citizens are using their talent as the foundation of the city.

## THE CONNECTED CITY

What once was identified as physical connections such as roads and highways, in today's time we have taken a different path to achieve the level of connectivity we once thrived for. As we stand here today what we find to be most important is how connections are created through people and their thoughts; linking people together through the fourth comings of art and architecture may be the way of the projected future.

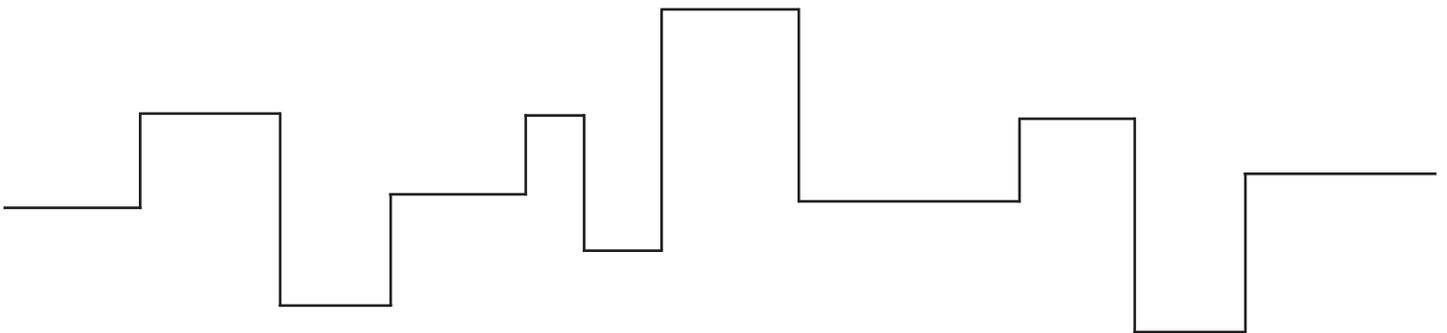


## THE MOTIVATED CITY

Having a city that is motivated in helping itself continue to grow is a major factor in creating a unique space. Not only do motivated people allow a city to grow, they increase trade amongst businesses from across the country to around the world. Another aspect to look at is that a motivated city keeps its inhabitants content and its population from declining.

## THE IDENTIFIED CITY

If every city had the same qualities and characteristics we would not be able to identify its people very well. Because every major city has its own sense character how can we make cities have their own sense of style? It is our job as inhabitants to find its identity. Cities like Detroit have a lot of history and it is important that we do not lose that great quality. How can we all be trend setters?



When you take these four components and add them together you have created an admired city.

INNOVATION

+

CONNECTIVITY

+

MOTIVATION

+

IDENTITY

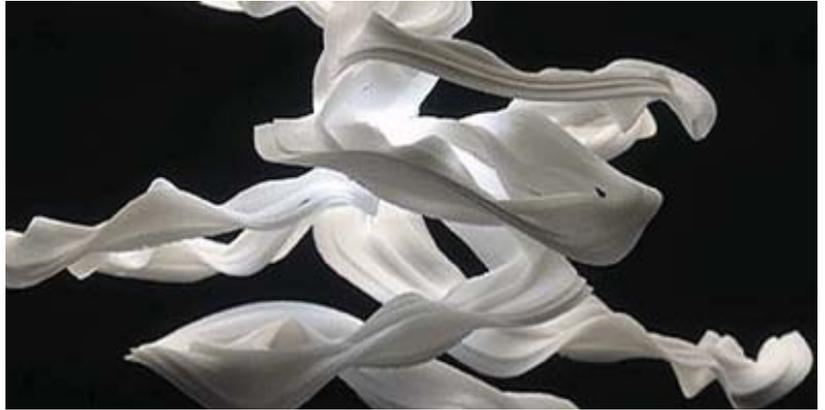
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“The Smart city”

## What motivates a human?

Looking at other's creations can and will most of the time lead to new ideas. When an individual puts a part of themselves in a creative piece it becomes something totally different.

(Installation: by Goeffrey Mann)



## Perceptions + Interpretations

An interpretation of another's piece of work can charge a mind's innovative sense to connect it to a personal interest. This results in a new perception of what the piece's meaning may be.

(Installation: "Clouds" by Tokujin Yoshioka)



## Flexibility in Form

Having flexibility in an architectural setting can enhance levels of diversity. Diversity is a form of flexibility and an increase in diversity leads to growing cities.

(Installation: "Black & White" by Arnaud Atchiman)



## **Proposal:** A Collaborative Community

### **PROPOSAL STATEMENT:**

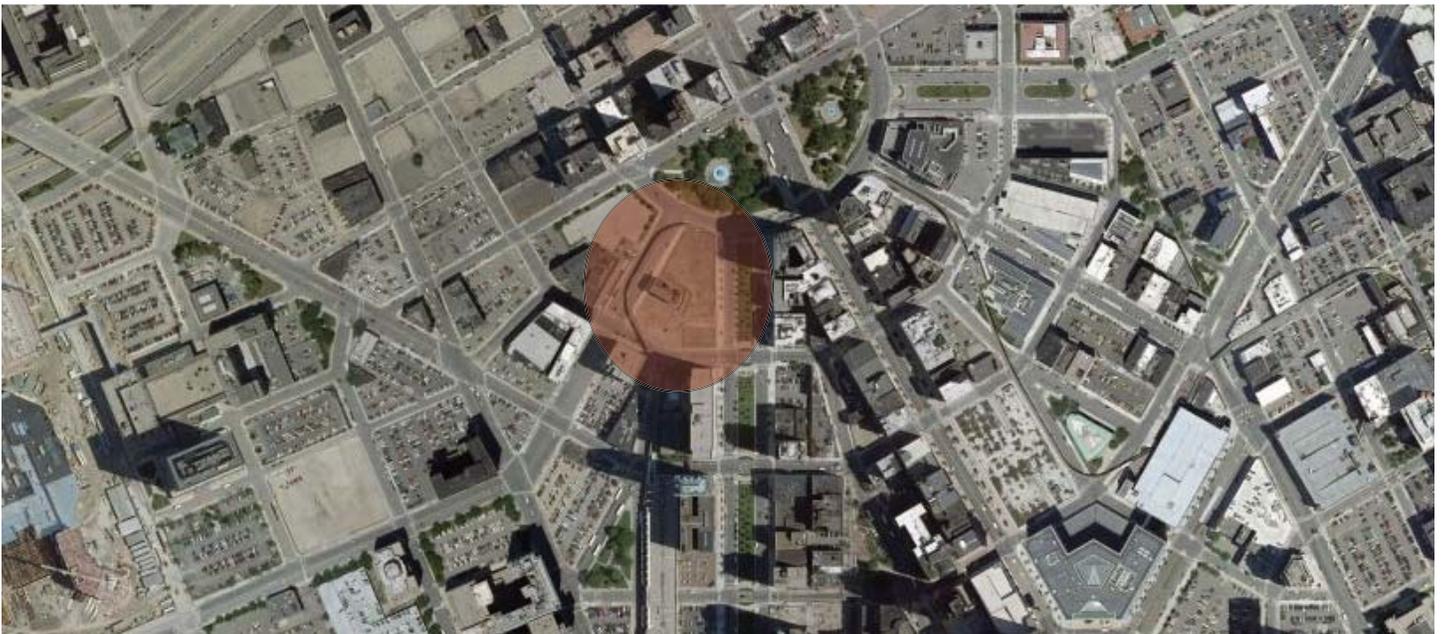
Having a strong sense of culture, diversity, and knowledge in a city is a must. Creating a place which hold these valuable traits is necessary in constructing a smart motivating environment and the first step to an empowered space. Having a place like a cultural district in a city that is not accustomed to having available resources to share ideas and gain knowledge will indeed make for a great impact over time. The cultural district will be the post for innovation and inspiration to the city's inhabitants and visitors.

### **LINKING A CITY:**

- displaying creations
- share thoughts + ideas
- connecting through interests
- house creative businesses
- people become the links to developing their city
- thoughtful work spaces that inspire individuals to create.

## SITE CIRCUMSTANCE:

- population decline
- lack of enforced education
- increase in urban sprawl

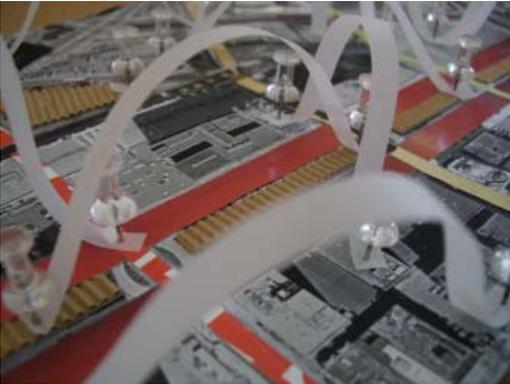


## SITE CRITERIA:

- easy access
- available transportation
- close proximity to residential locations
- high density area
- developed surrounding space

# DIAGRAMMATIC SITE ANALYSIS

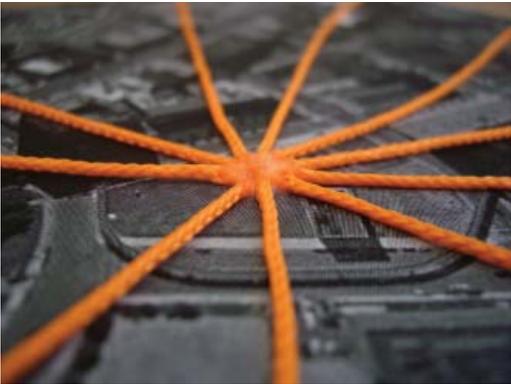
Identifying that a disconnected city can be brought together through diverse architectural spaces

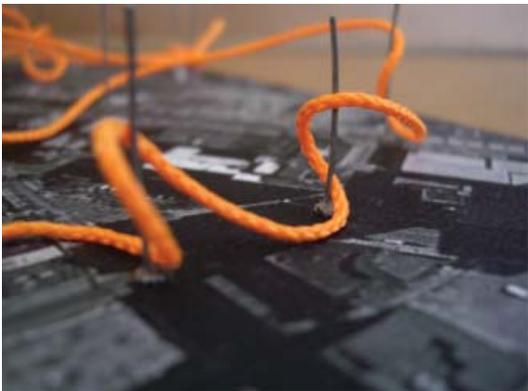
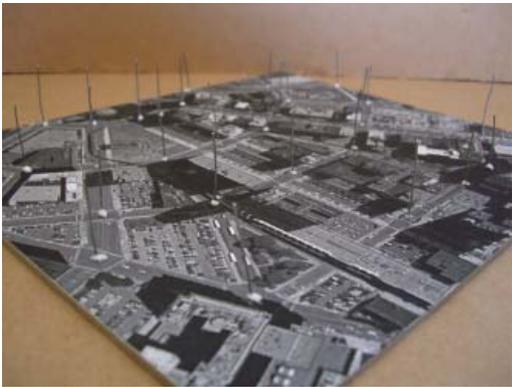
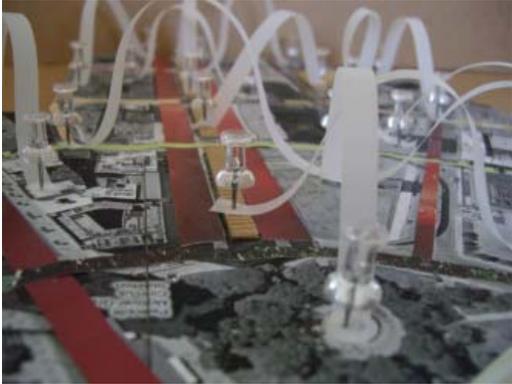


What is it that forces an individual to go either left or right at a light? What motivates us to go in the direction that we do in life? Can architecture influence these decisions?



The notion of creating a web-like effect to revive a city in need of culture and character relates back to the concept of the internet.





PROGRAM DEVELOPMENT



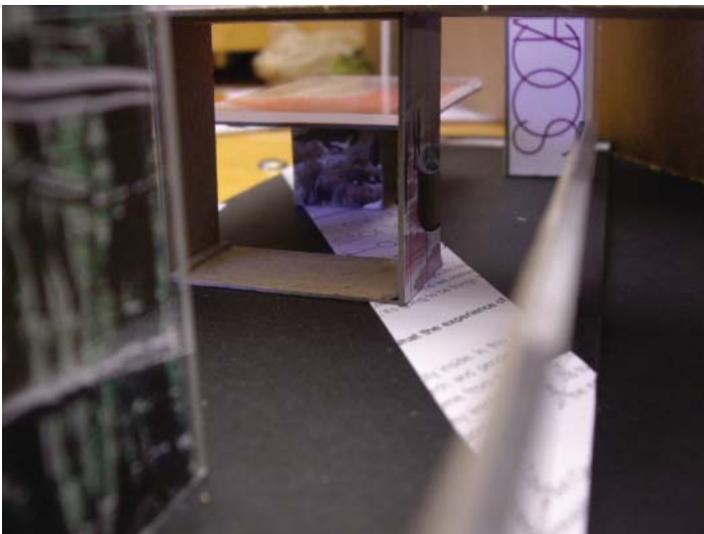
**“Any architectural project we do takes at least four or five years, so increasingly there is a discrepancy between the acceleration of culture and the continuing slowness of architecture.”**

- Rem Koolhaas

## INSIDE VS. OUTSIDE ACTIVITY



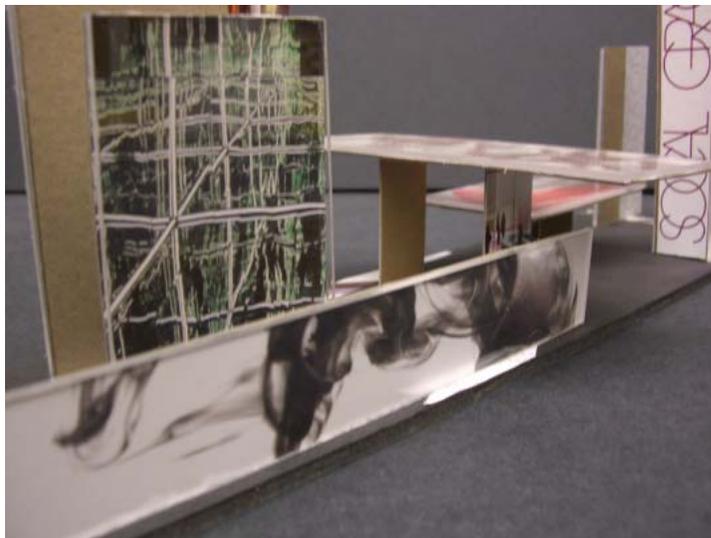
In order to captivate a true experience that relates the inner qualities to the outer skin there has to be a distinct connection between the architecture itself and the activities being held within.



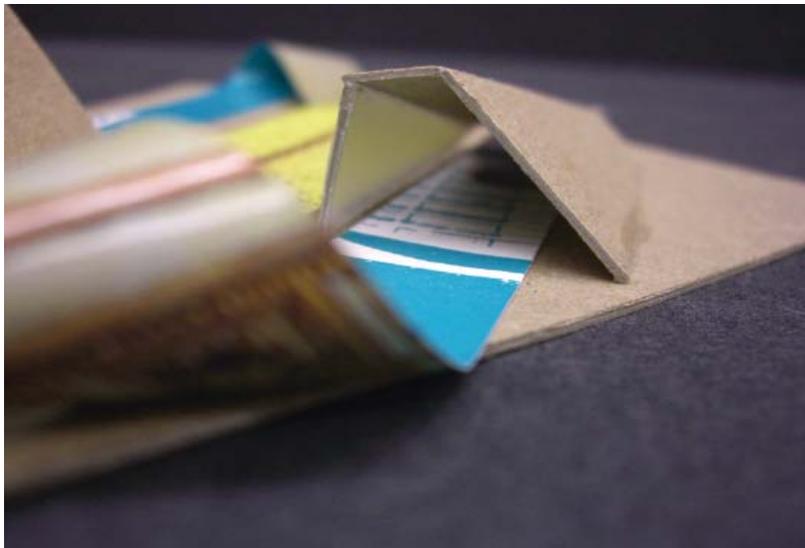
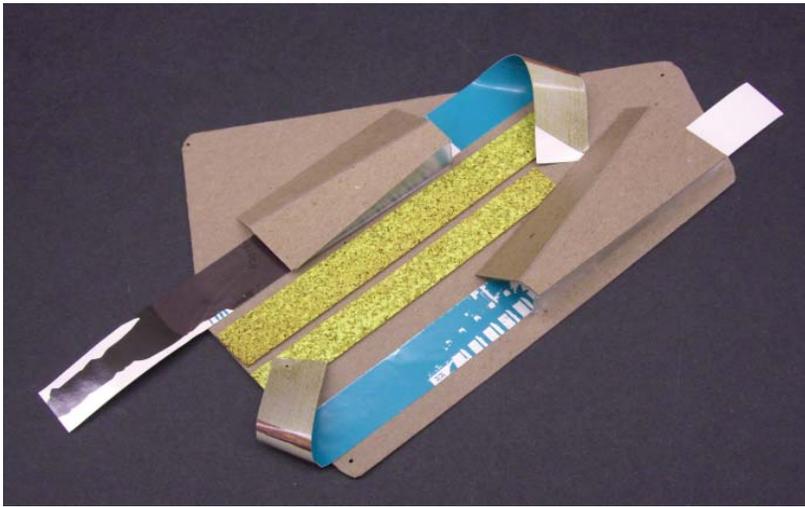
Building a program for a space that is potentially going to be a place for a motivated individual can be spawned from the most conceptual view point. One of the most important factor to consider is the interior function.



This model is the first of many conceptual models that start to describe the programmatic scheme of the projected "empowered space"

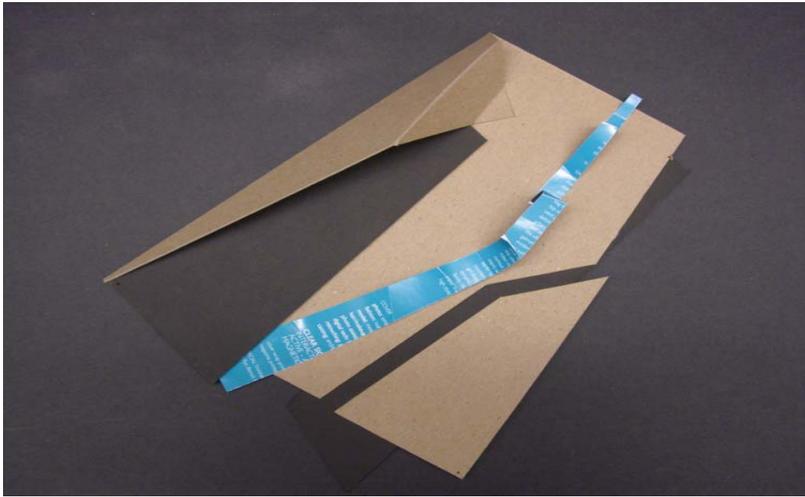


A designed program comes from the need for space and the usage of space. What may seem like a street-side front, may be a work space on the reverse side.

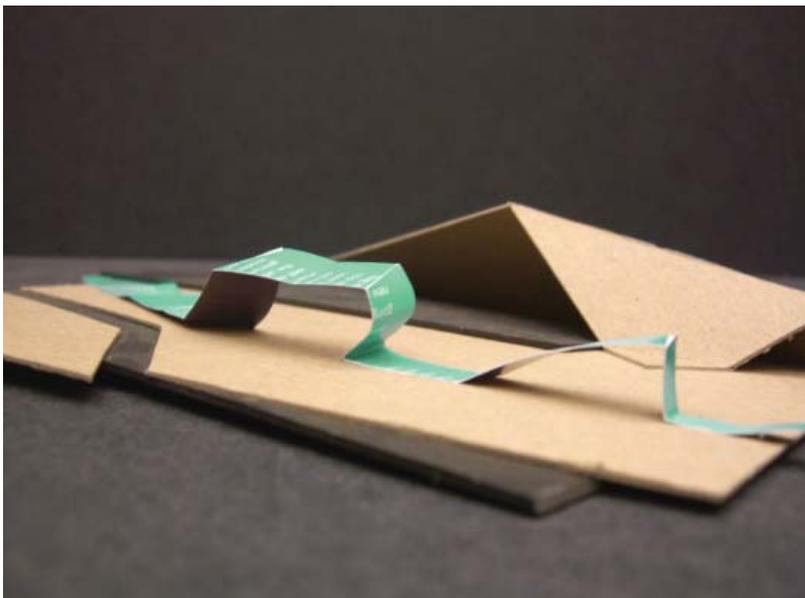


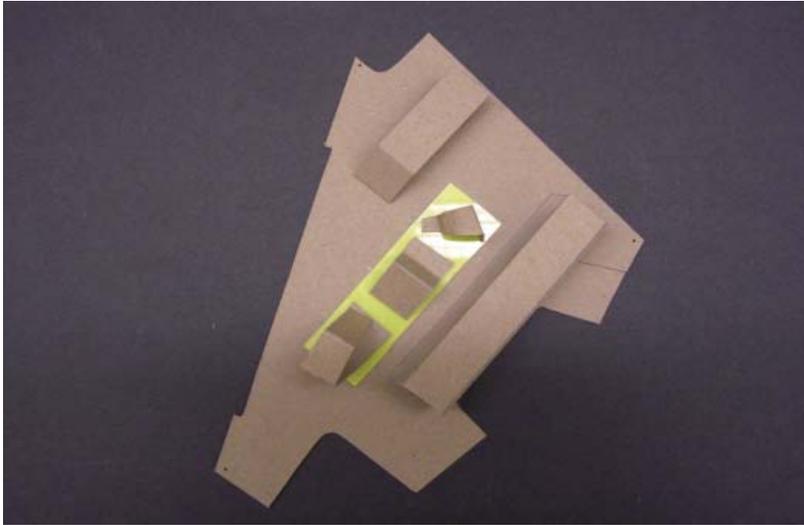
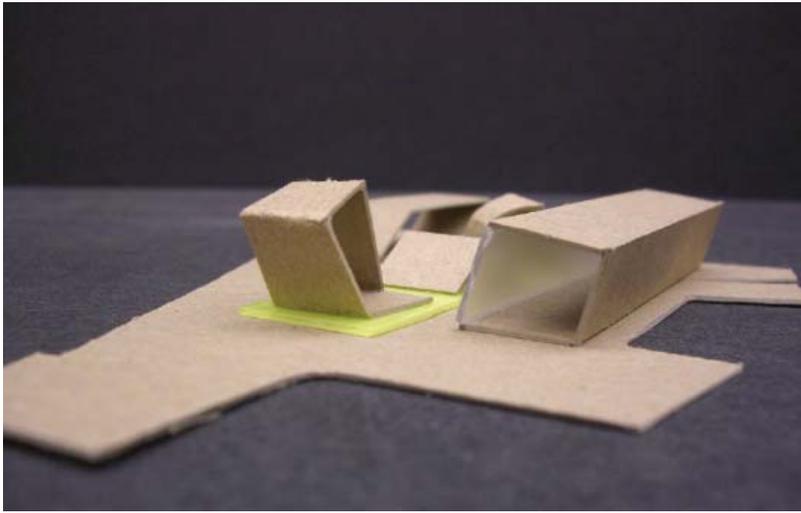
Discovering the exterior parameters of the entire site was a vital process throughout the first phase of designing.



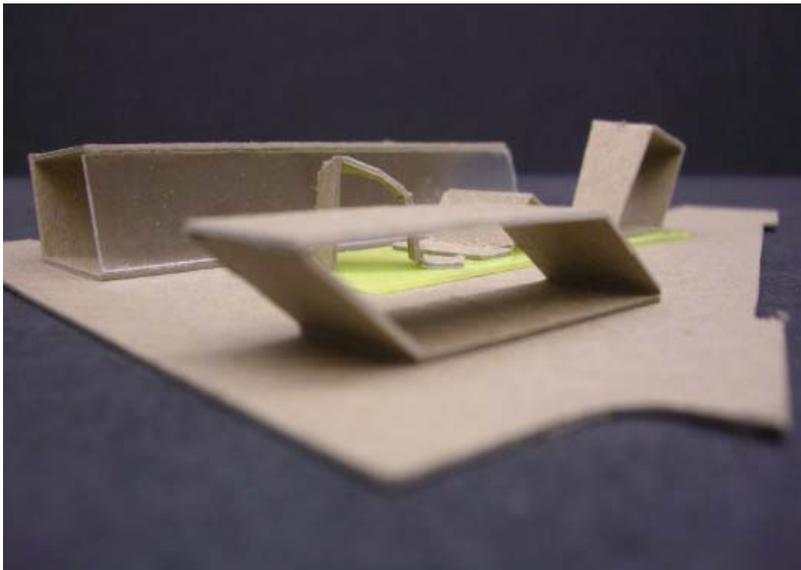


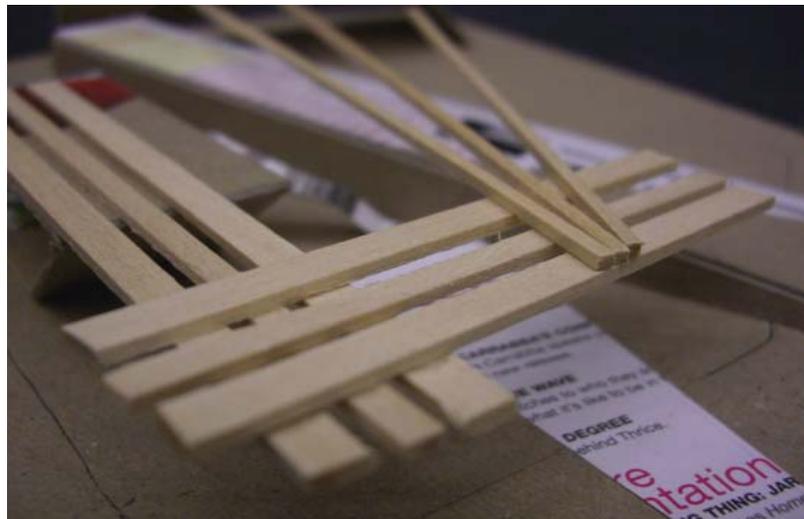
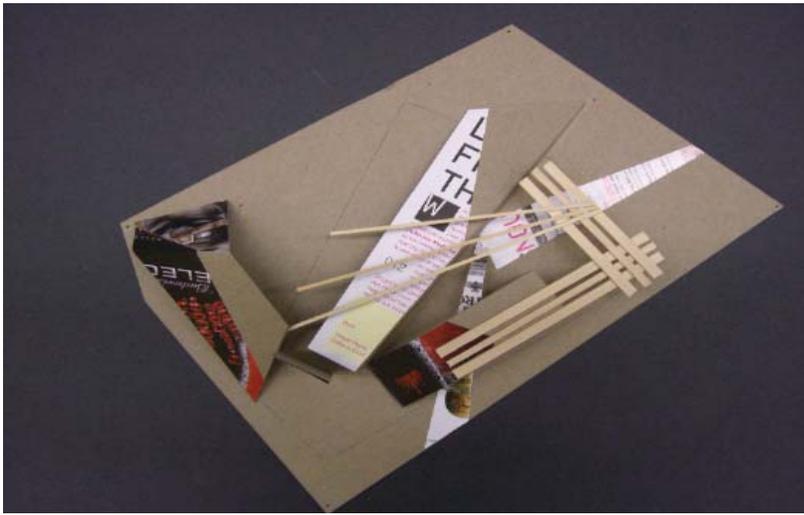
Learning how the inside activity of a space affects the outside of the structure began to formulate the language of the collaborative space.



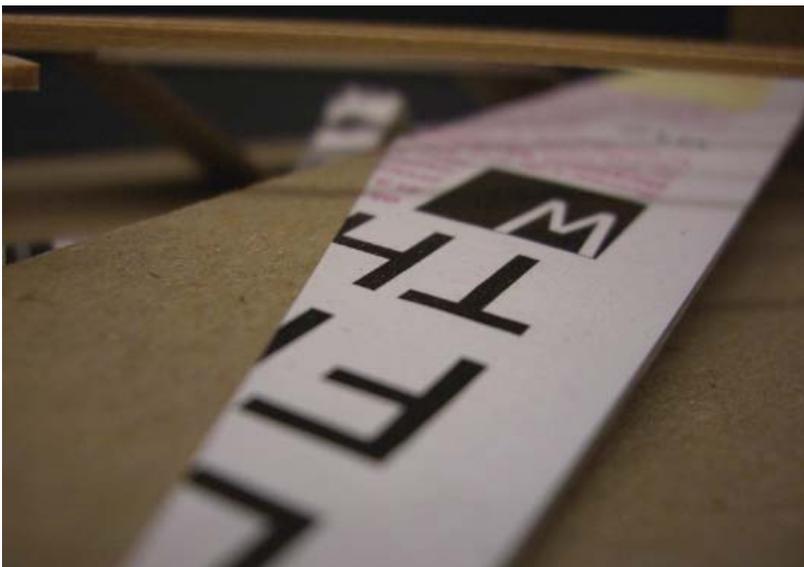


Studying the site in parts allowed me to become aware of its physical qualities and opportunities.



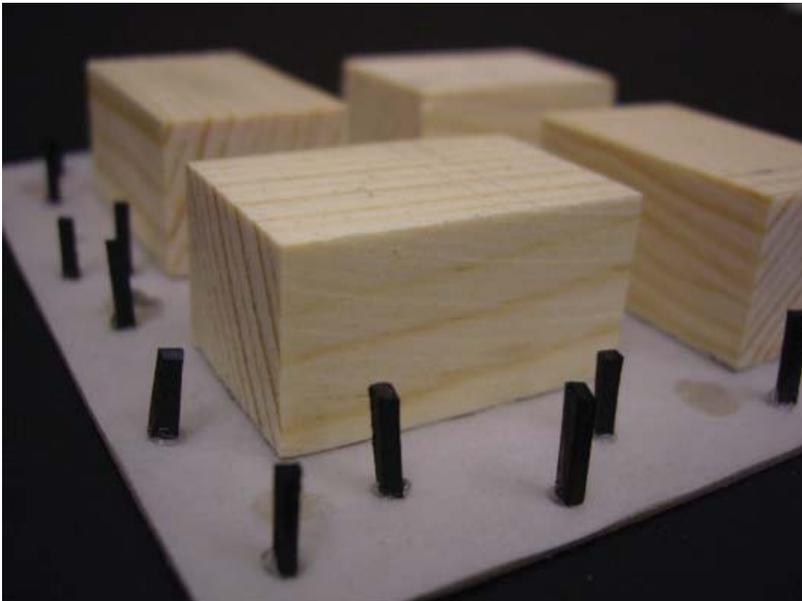


Urban sites require much attention to its citizens and passers-byers, so having a physical connection to Detroit's unique qualities was very important to incorporate, in this case the People Mover.



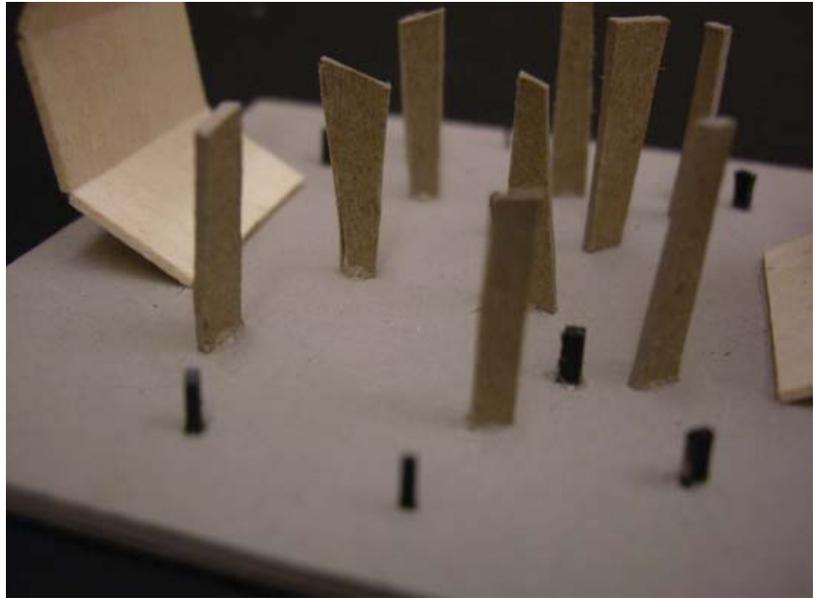
## Design Priorities

Priorities in a structure can range from the number of parking spaces to the direction which the windows face. Once the idea of redesigning the workspace for designers became clear, the design priorities evolved into creating individual spaces for each individual space.

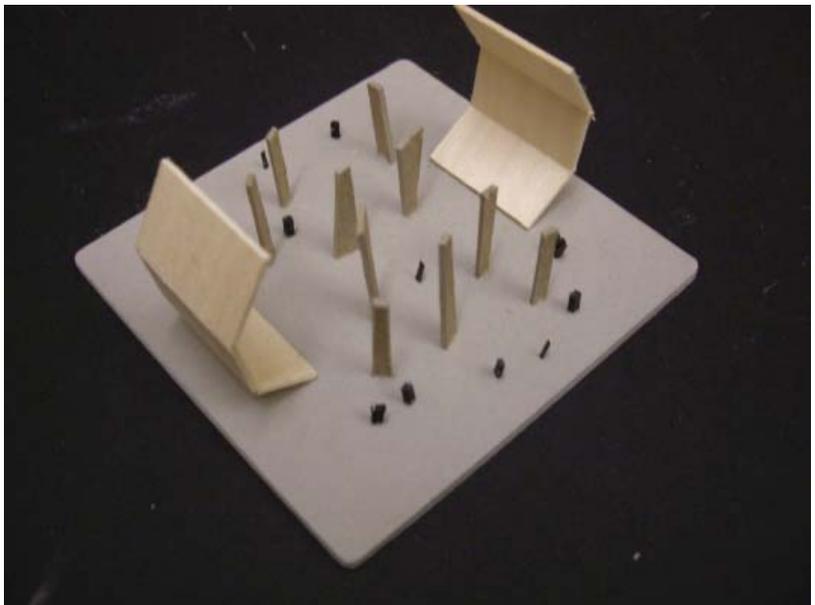


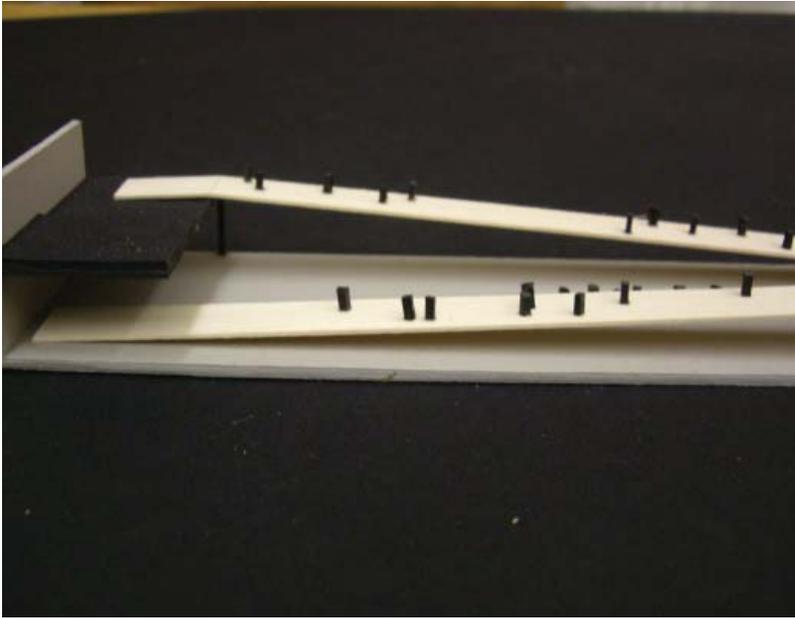
These series of conceptual models begin to speak of the connection between people in the spaces and how each space will be the inspiration of new development.

I started to think of the work-space as green space also. Expanding the mind and taking it to a new environment can help develop any unborn ideas.

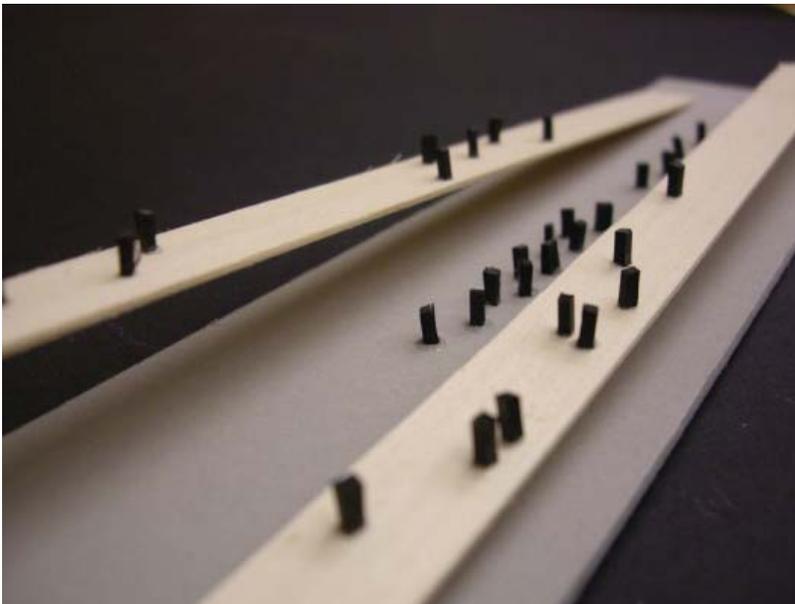


Green space, people, and architecture can become work spaces. Resting in a calm setting can be a new spot for designers to catch their thoughts and create new ones.

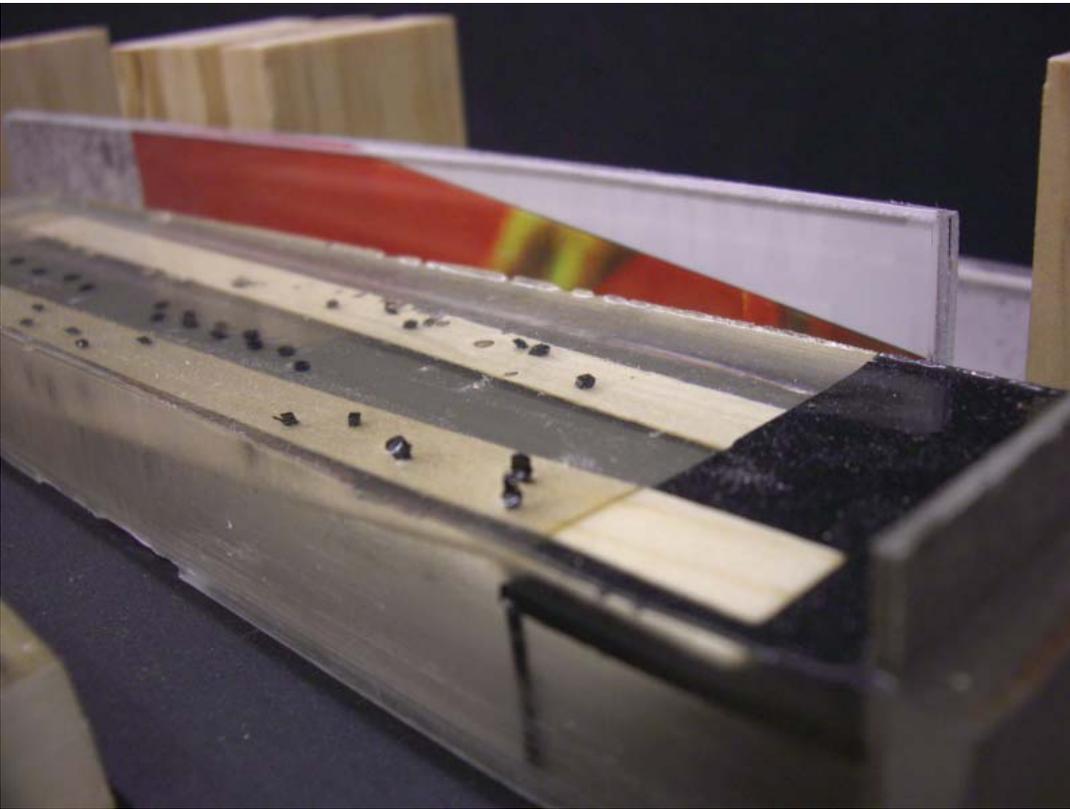




Unique architectural elements which allow people to move through a space easily, allows for an ease in the mind and body.

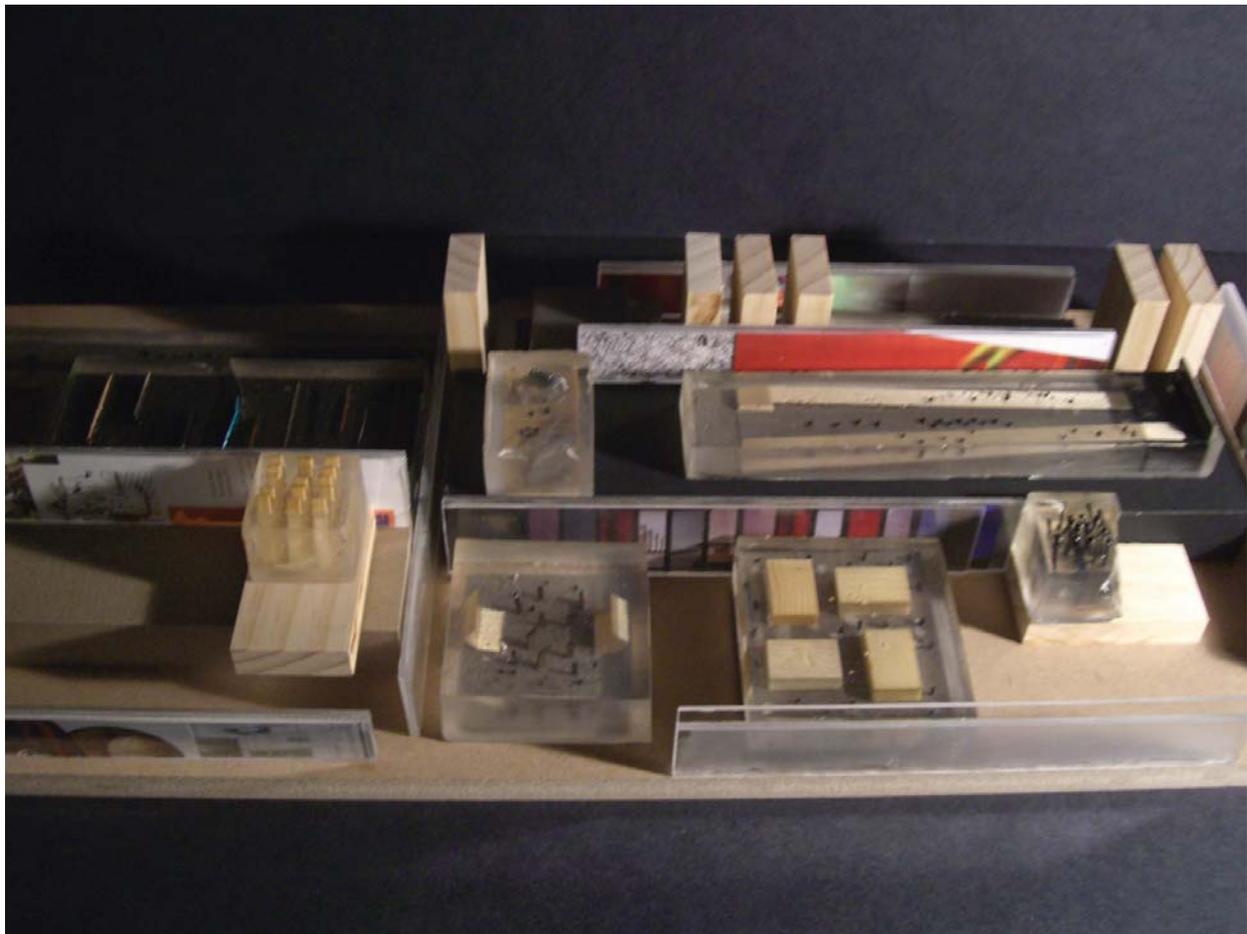


This area for example is the Computer Lounge/ Research Library section of the Design Center and it can be used as a work space. The ramps can be used as a place to stop and read books or just to take a walk along Washington Blvd.



## Planning Scale

Earlier, when I talked about creating individual spaces for individual spaces, I was speaking in terms of the idea of what activities will be taking place in each space. Each space in the Design Center has its own function and to focus in on each section is a large part in organizing the design priorities. After creating several series of models which focused on people and activity in the building I started to think of ways I could cast each space into its own zone. These two images show each modeled space cast in resin to demonstrate the notion of individualism working with connectivity.



The image below is a conceptual development of the possible program layout. All thirteen models casts in resin were set accordingly on a 32"x14" platform, showing relation to circulation, activity, and organization. The long colorful strips of images you see represent the notion of activity throughout the building, not just inside of each space. It is a priority of mine to make sure no spot is forgotten. The Design Center is about connecting individuals in every way possible and giving the people spaces to create and share ideas.



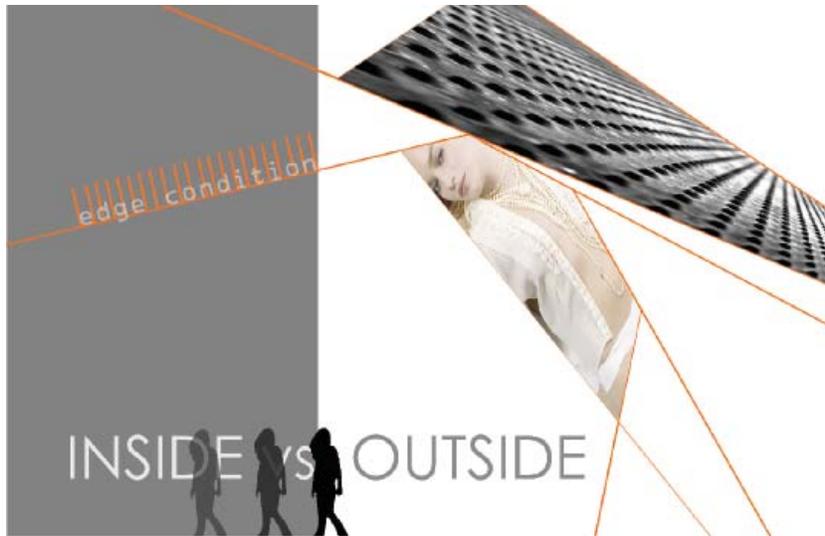




## The Scope of the Project

How do you take someone else's ideas and make them your own?  
Is it possible to spark innovation through perspective?





**A graphic design exercise that focused on the development of the program.**

How can we bring together qualities of something and create one object? In this project we were given an assignment to take a 2D idea and turn it into a 3D creation. We had four words, each of our own choice;

1. Edge
2. Modularity
3. Perception
4. Folding



Each word had to connect to our thesis project and the way I executed it was by developing a series of senses that described each word in a progressional manner. Starting with edge condition, I felt this is where the urban site would come into play. Because my thesis project creates a strong edge along Washington Blvd. the 3D object 's form explained an edge condition.



If you look at the images to the right, modularity takes the form in the different types of paper. While you run your hands across the 5 foot edge, your perception of feeling will begin to sense the change in texture of the squares. This process is implied to be repeated with the folded piece at the end. The project gives a sense of experience and can be perceived in any way, but the main goal was to combine these four words into one consistent object allowing someone to walk away with a new thought.



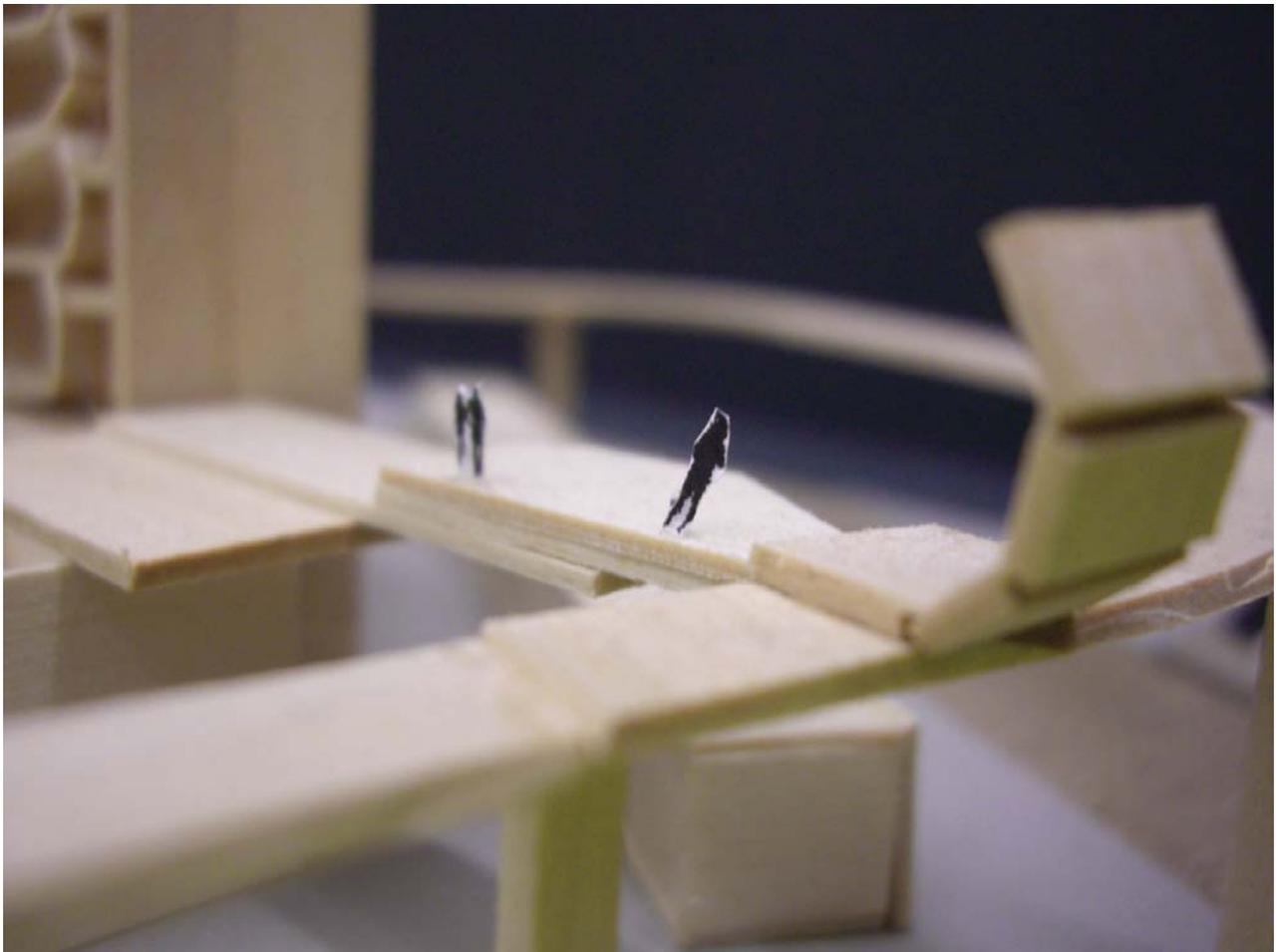
Program: **Resource + Design Center of Detroit**

Factory.....	5,500 sq. ft.
Gallery Space.....	42,900
Work Space.....	20,000
Lecture Space.....	8,000
Computer Lounge.....	6,000
Storage.....	6,000
Materials Library.....	4,500
Prototype Lab.....	5,000
Green Space.....	8,000
Lobby/Entrance .....	3,500
Cafe .....	3,000
Retail .....	2,800
<b>Total</b>	<b>115,200 sq. ft.</b>

## Defining the Project - Urban Scale

“There are three forms of visual art: Painting is art to look at, sculpture is art you can walk around, and architecture is art you can walk through”

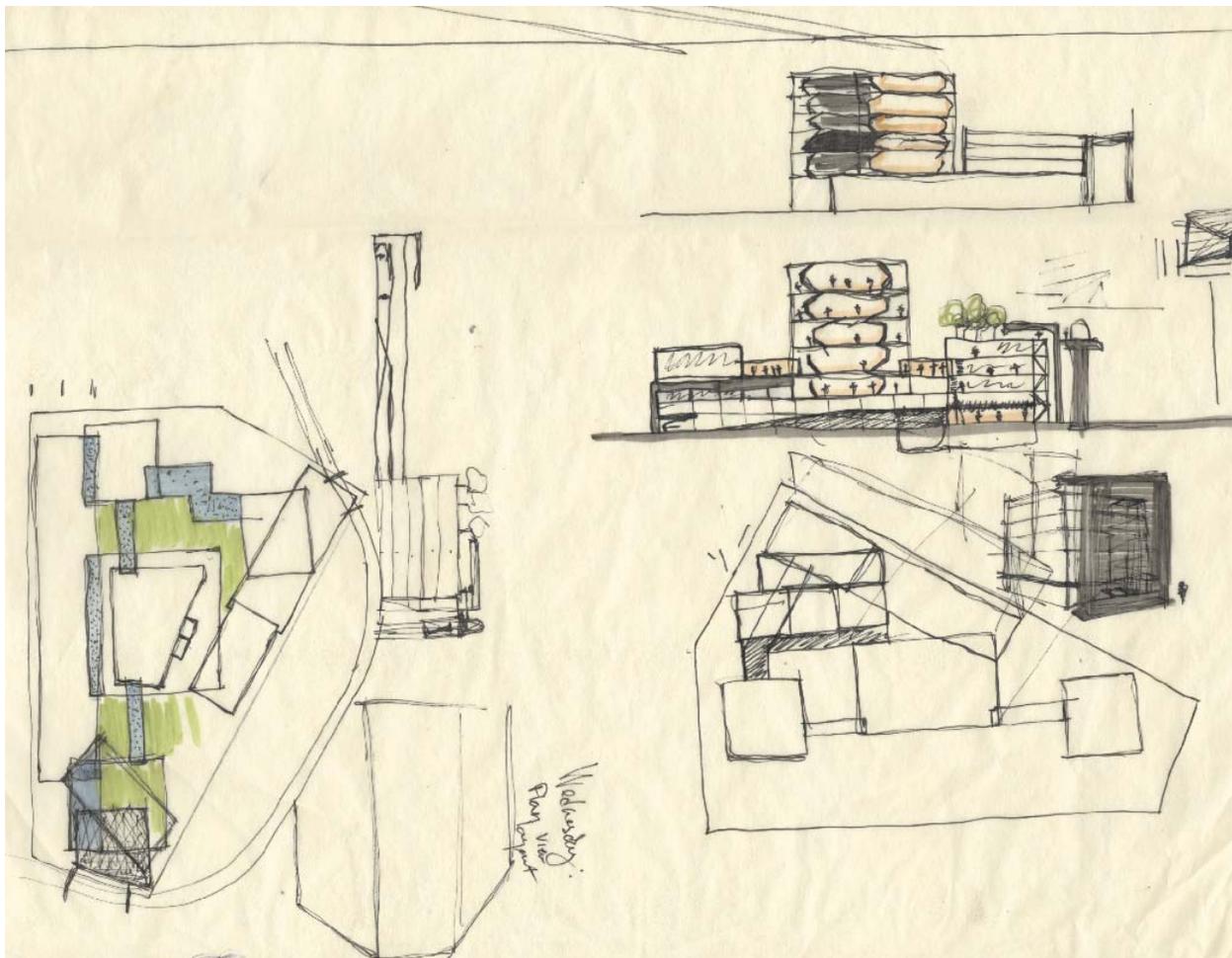
- Dan Rice

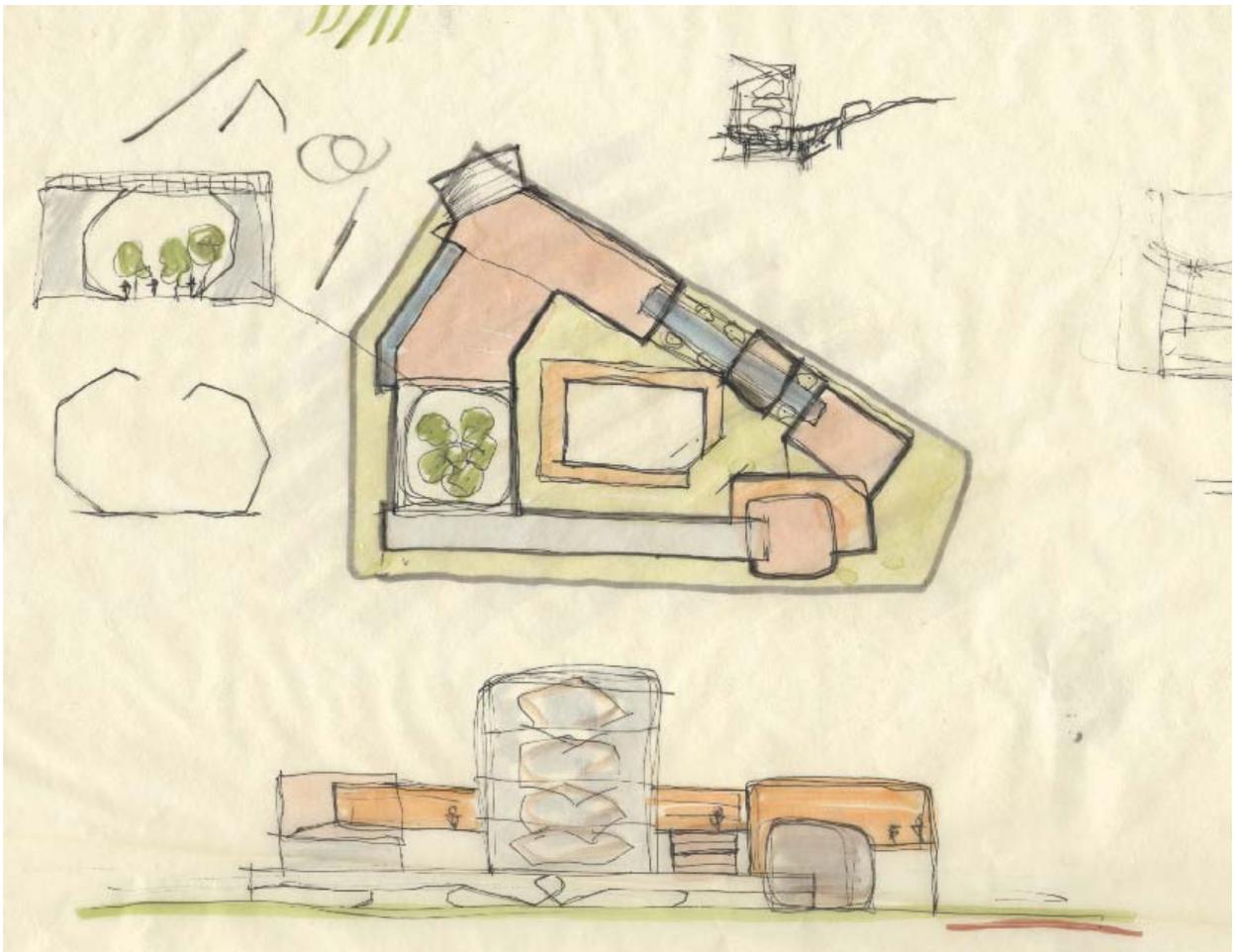
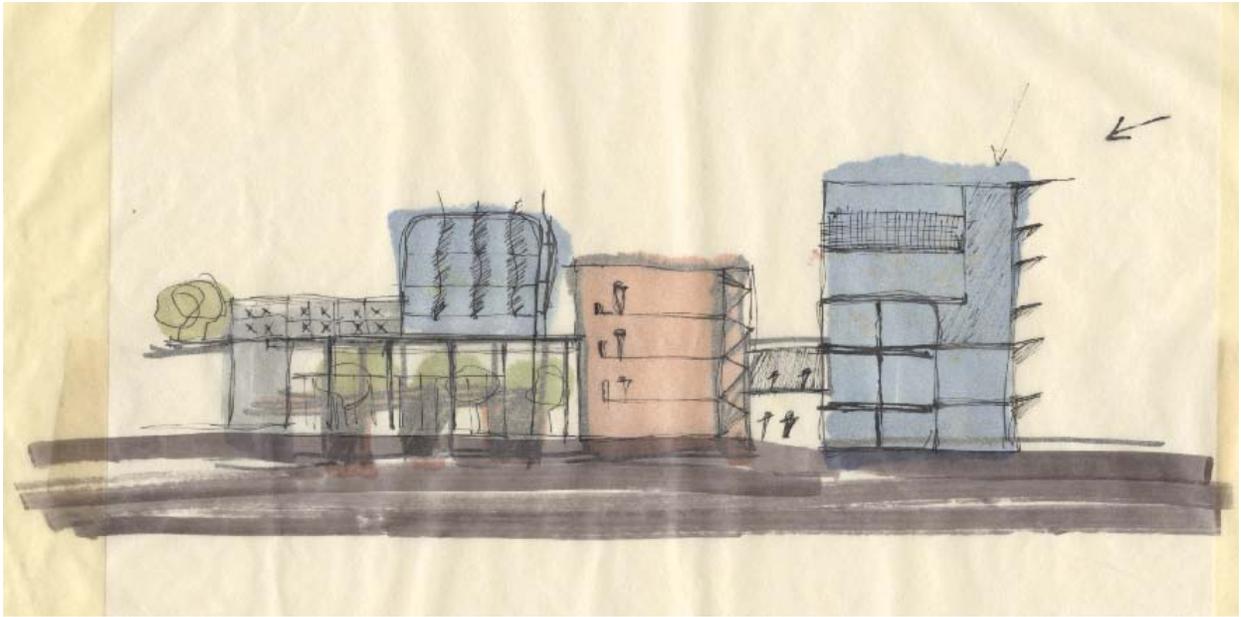


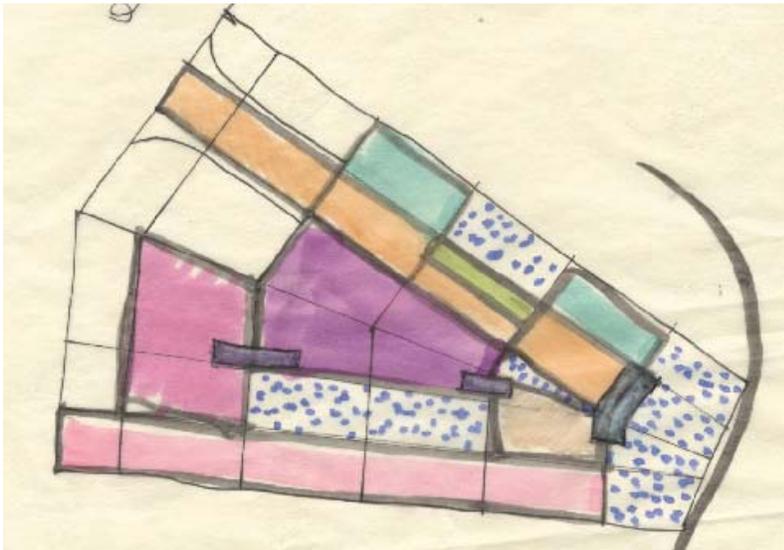
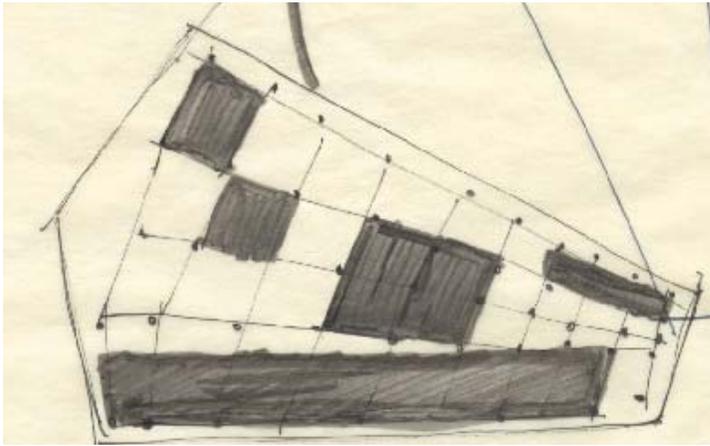
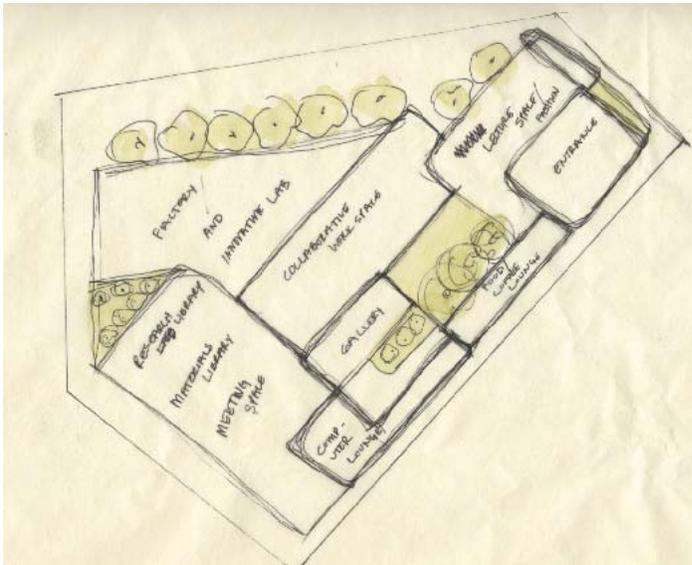
You must be the instigator of activity and allow the environment to breath its own culture through function.

Once the process of designing architecture became the foreground it was time to make this building come to a real life scale. After the site analysis, conceptual models, and graphic exercises were thought to be over and done with, it soon became a reality of applying those creations to the urban scale.

These sketches are the beginning of what I call instigating activity, going back to the idea of creating an individual space for every function. I began to lay my building out in accordance to the functions and activities of the projected project.

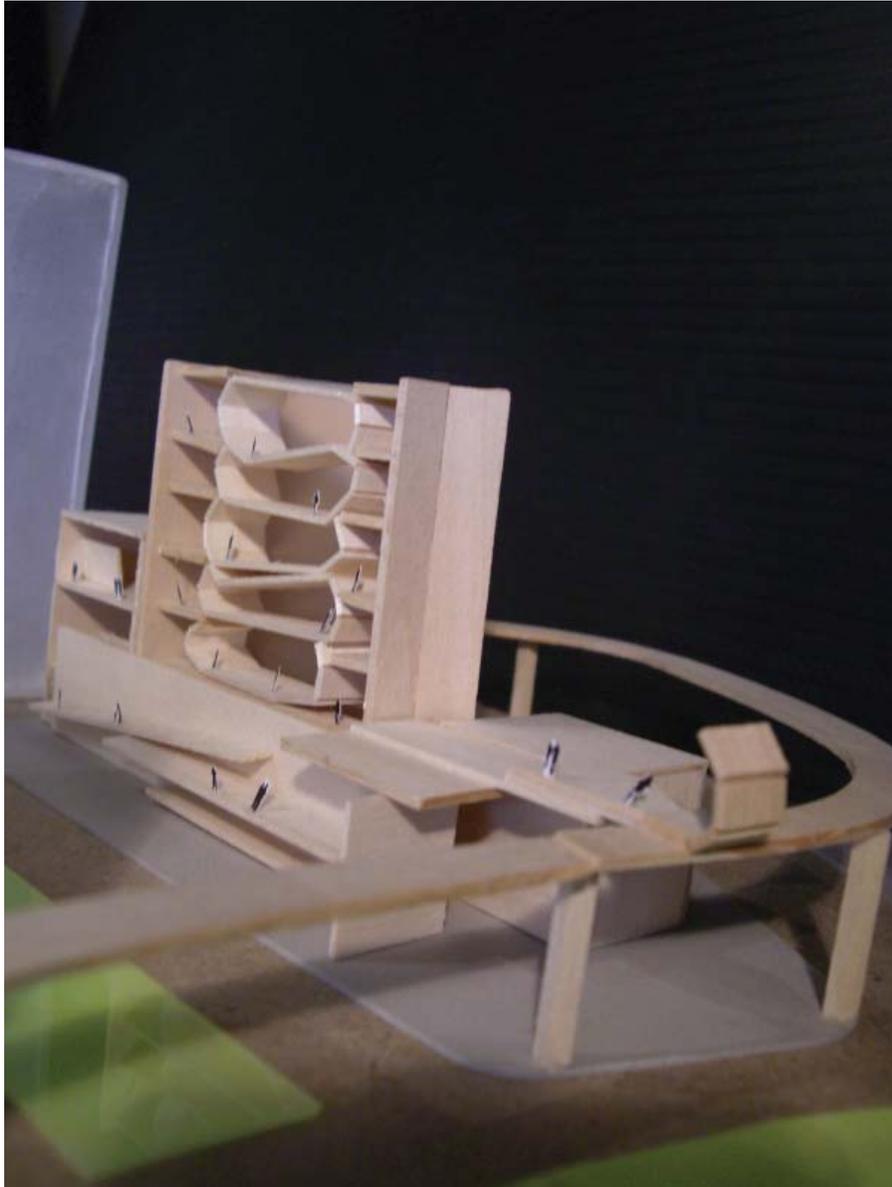








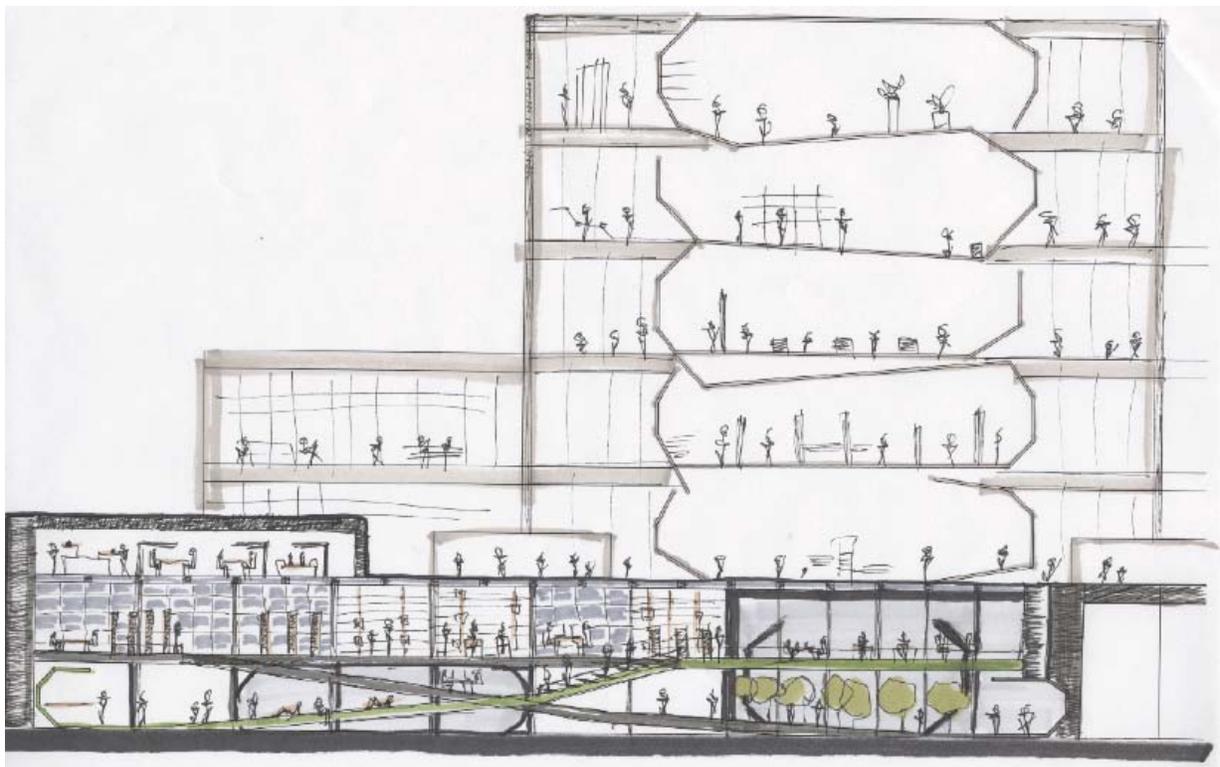


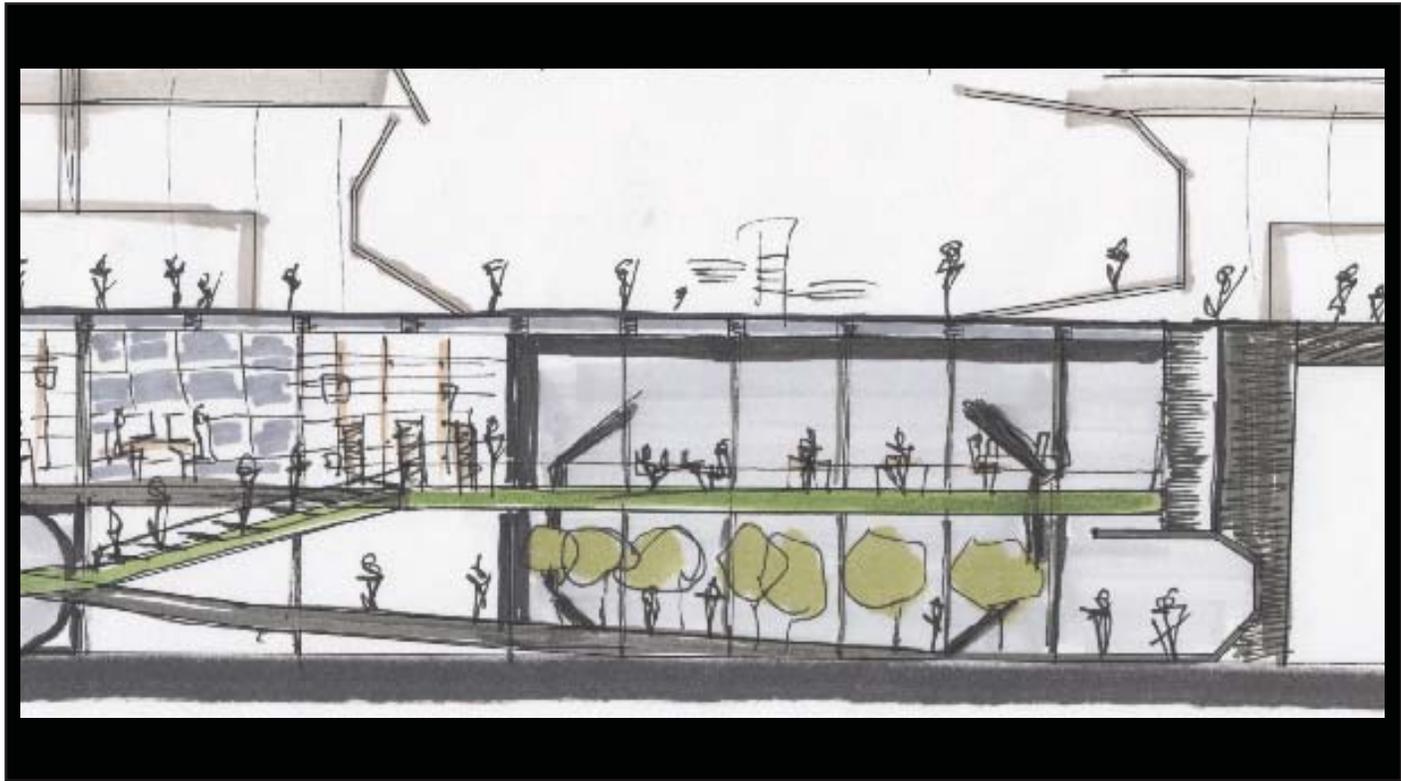
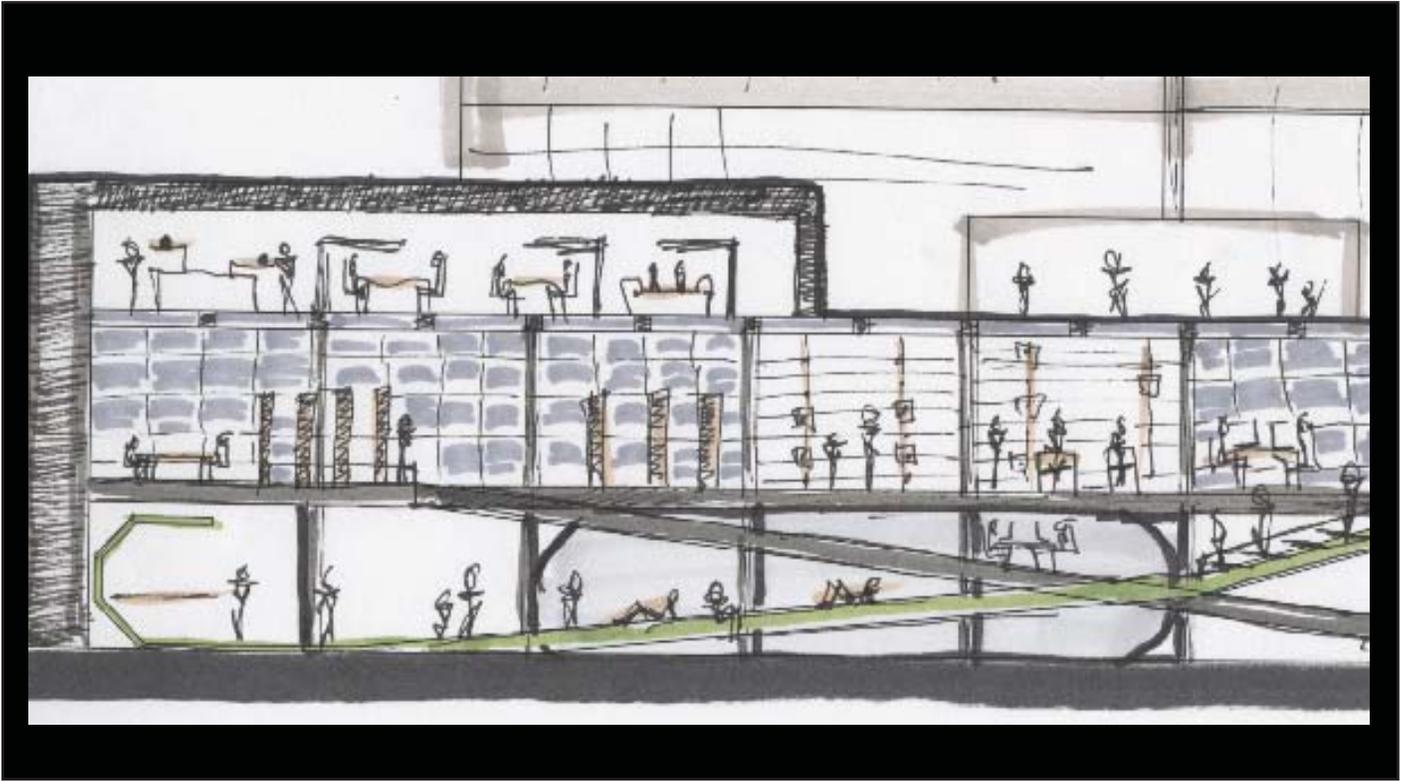


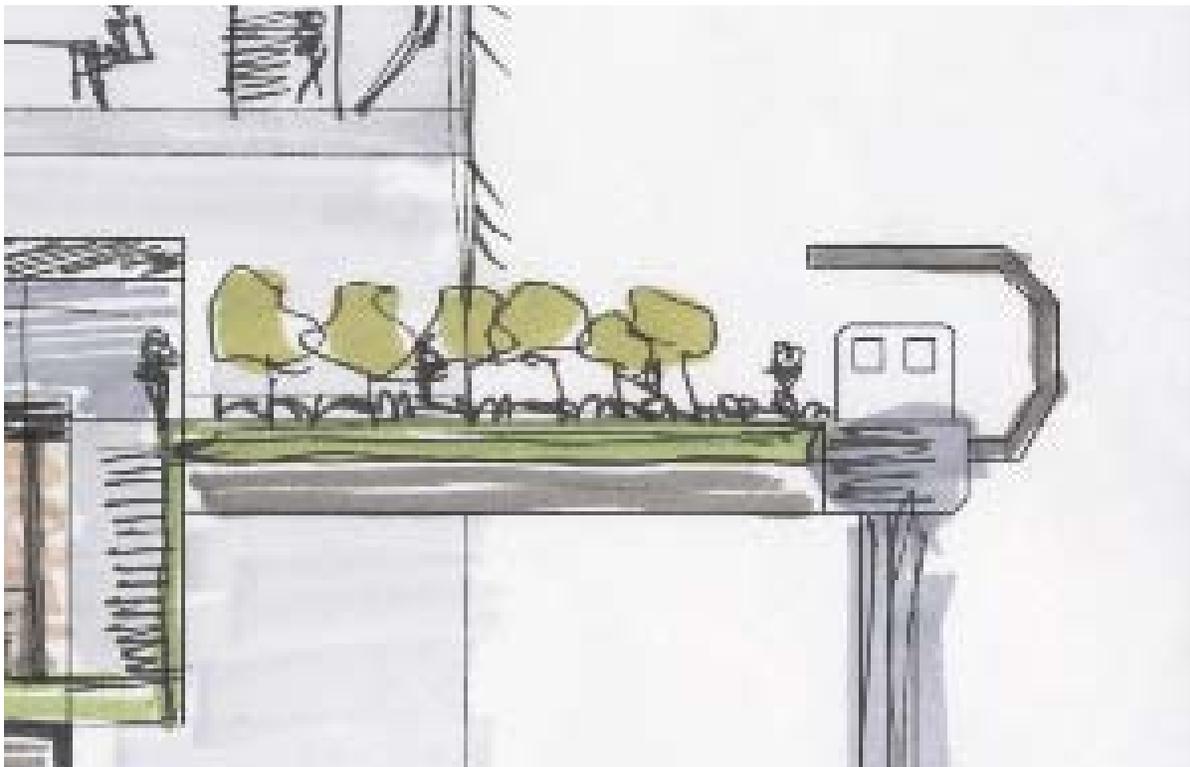
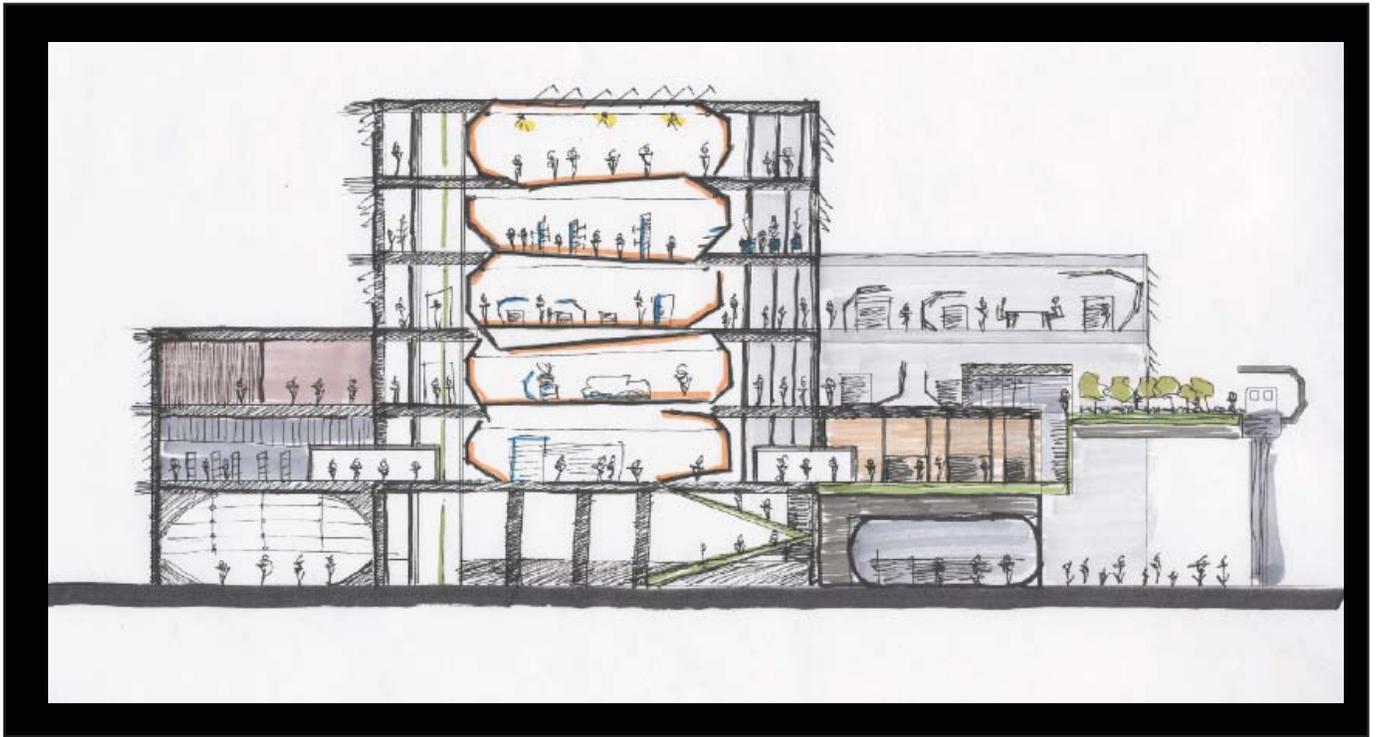
## Defining the Project - Architectural Scale

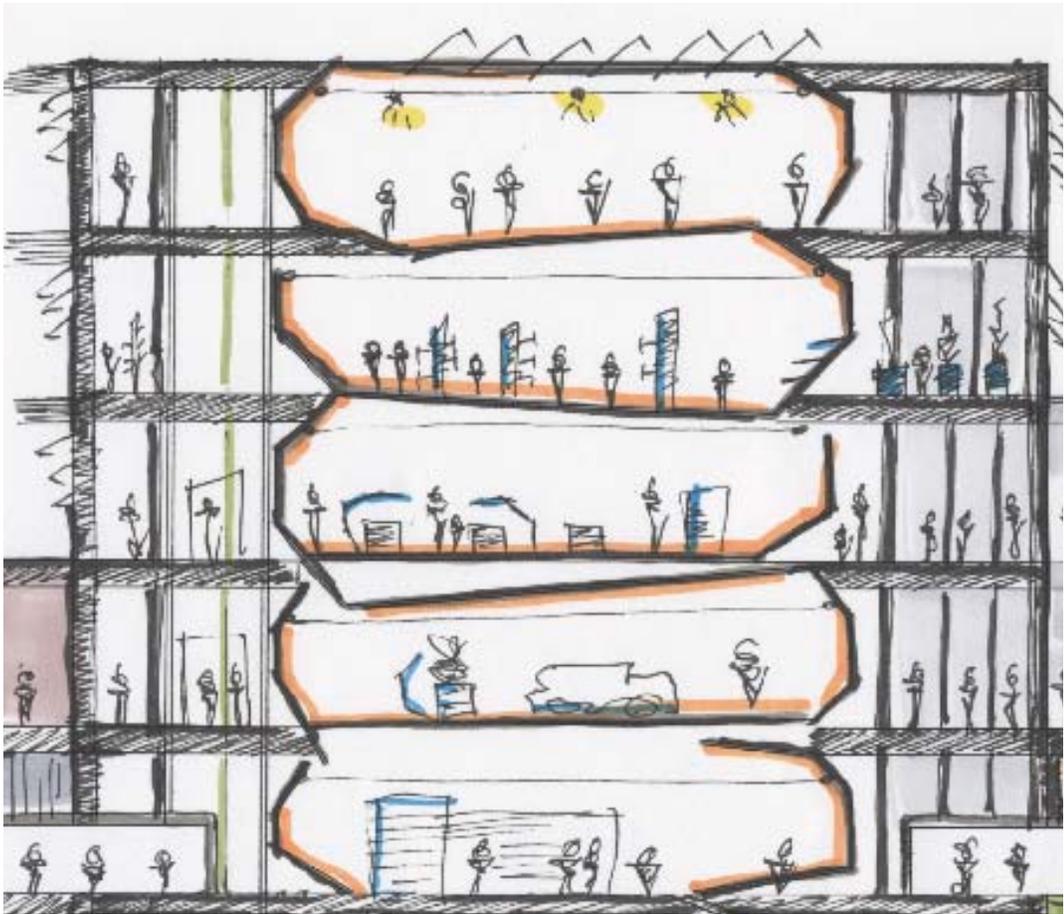
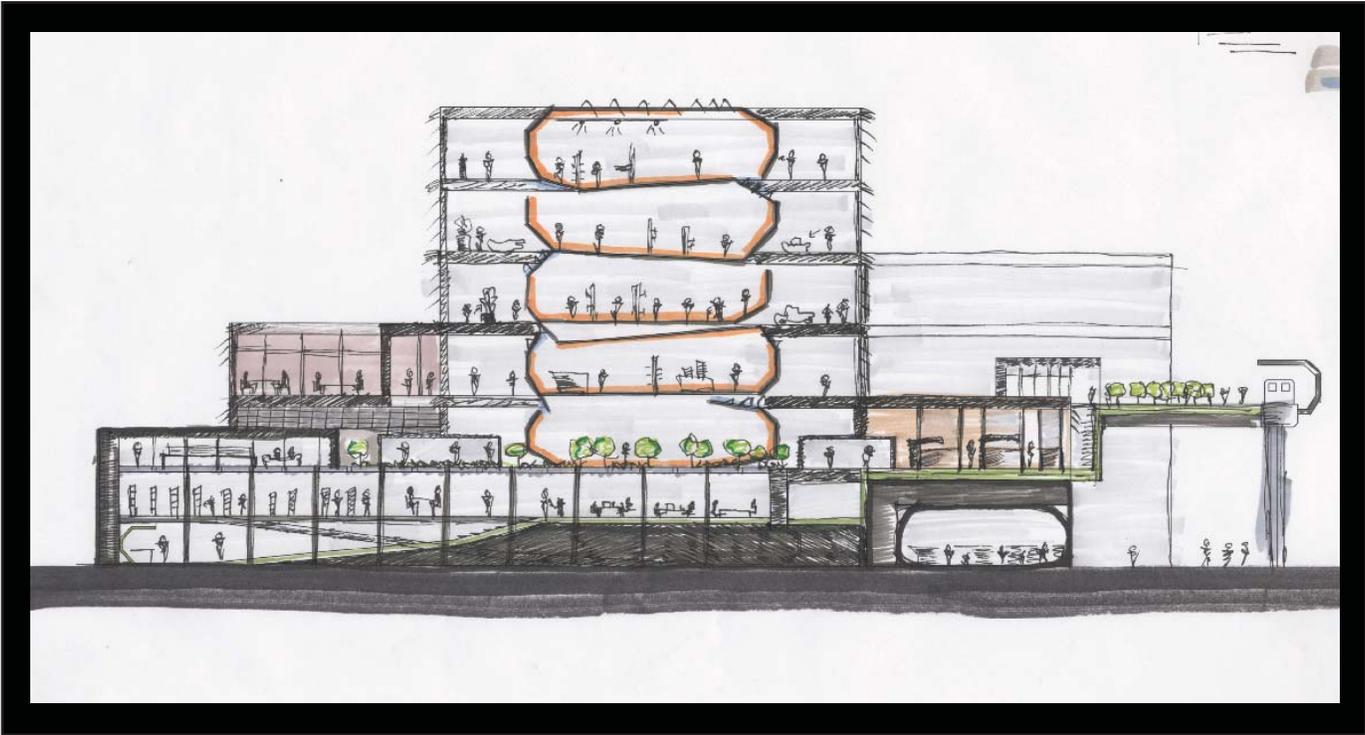
**“Architects are pretty much high-class whores. We can turn down projects the way they can turn down some clients, but we've both got to say yes to someone if we want to stay in business.”**

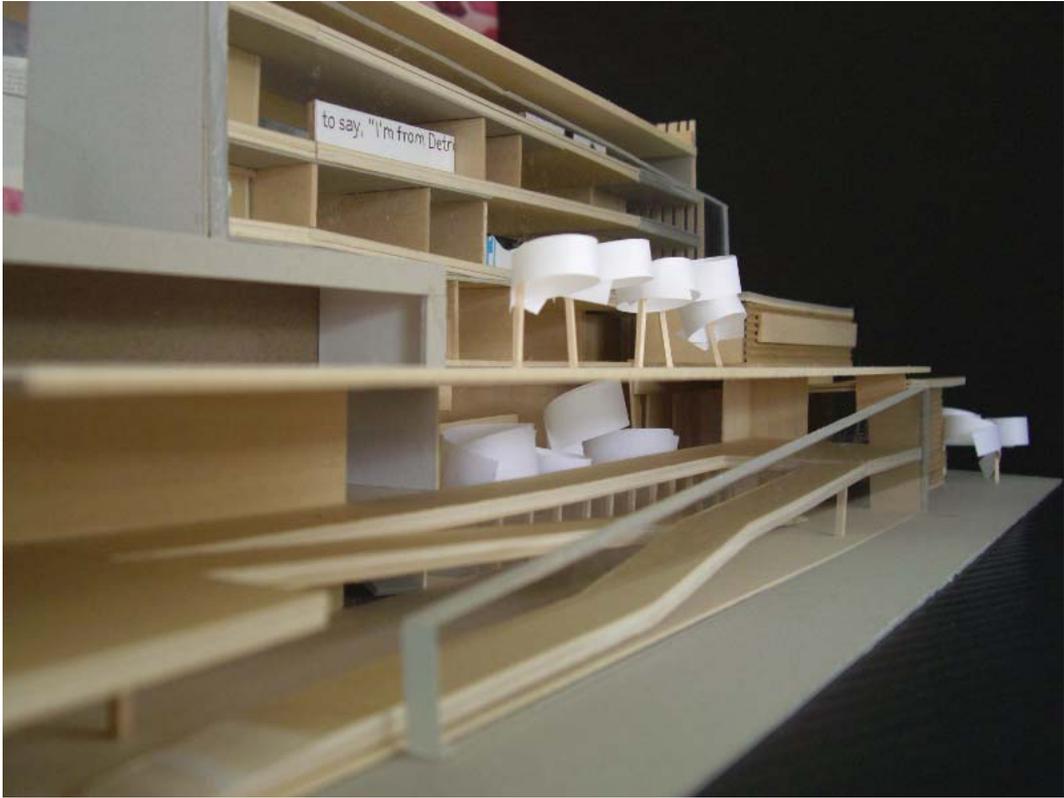
- Philip Johnson

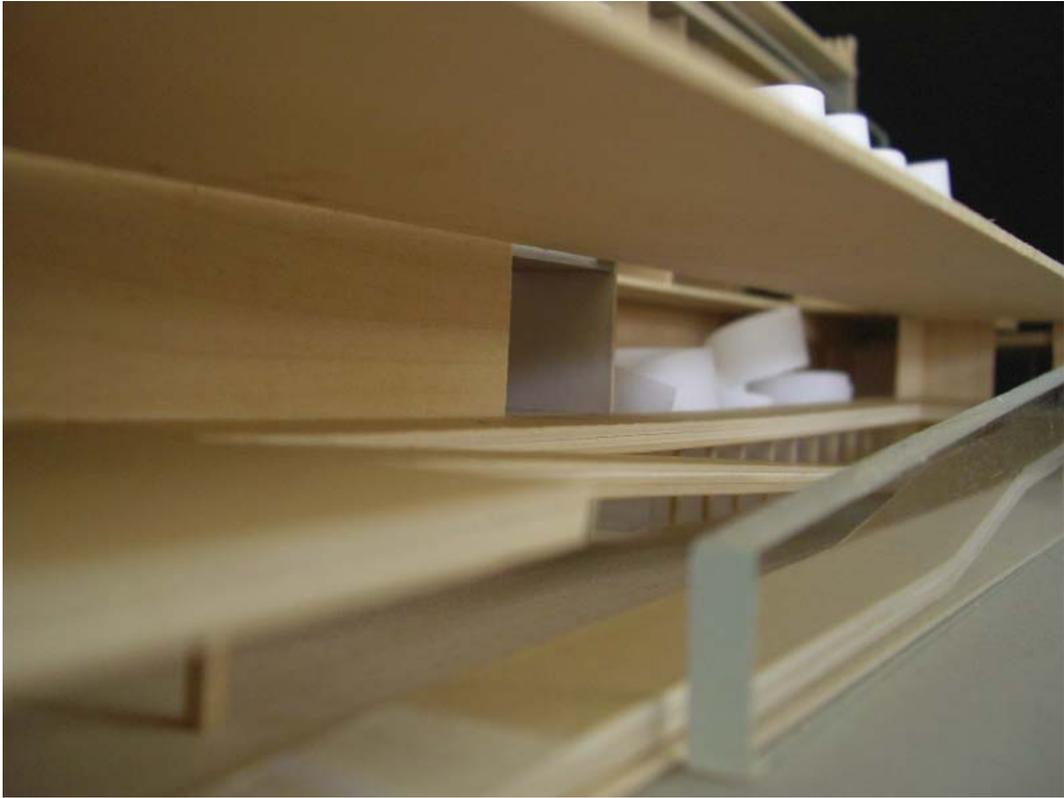




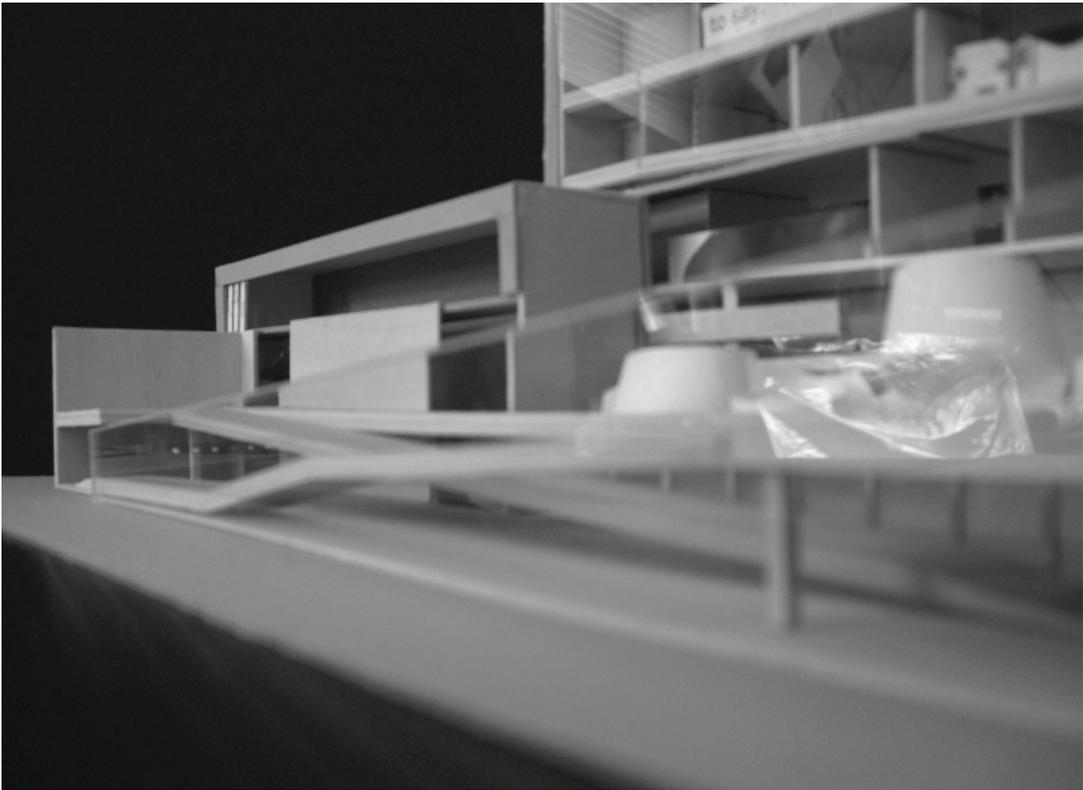












## The Final Stages

**“Architecture is the learned game, correct and magnificent, of forms assembled in the light.”**

- Corbusier



As I finish up the design phase of my building I move on to the technical aspect and begin to figure structure and definite square footage for each space. The structure will be a steel frame system with several large curtain walls. The ramp floors that span across the computer lounge and gallery space will be held in place by appropriate sized columns to fit the specific height at each point. Two of the main curtain wall facades will face the east, which will be a strength for capturing plenty of natural sun light. During the last few presentations it became aware that there could be potential for retail space to be placed along Bagley St. and with more analysis of the area I came to a decision of adding the retail space to bring in more visitors on all sides of the building. During the last phase of designing I now I had time to work on the location and layout of the workspace. This being the most important of all the spaces I had to make sure everything else was in place before I could begin to fill the voids of what was left to be accomplished. As you are about to see in the final floor plans, the work space is in its own separate side of the building while at the same time still in conjunction with the rest of the spaces. As a person (one of the designers) walks into the space from lets say the people mover, they are soon amerced into the gallery space where they will be found in a mixture of people heading to their work space which is connected directly to the gallery space. This was a conscious decision that allowed for further interaction between the designers and the visitors.

If we start out at the north end of the structure we can either enter the space from the main entrance into the lobby or if you park at a nearby parking lot you can be connected through the people mover. The two main parts of the project that are considered resource spaces are the computer lounge and the gallery space, both of the areas are open to the public and can be used by the public at any time. The computer lounge is a wireless library with stacks housing reference materials relating to art and architecture, this space is designed for individuals who are students who need a vibrant place to study, maybe designers from the work space need a quick reference from a magazine or just a local citizen needing to use the internet. The computer lounge as you will see in future images is a two level 220' x 35' long space with an additional quiet reading room to the left. The bottom level is layered out with working tables while the upper level is where the stacks and reading materials are located. The ramps are also designed to be areas or relaxation while working on your laptop or reading a book.

Adjacent to the computer lounge is an outdoor courtyard that can also be used as a space for collection your thoughts and relaxing. Like any other place in the world there must be a place to eat! There is a cafe that both employees and visitors can use, it was located in its exact place to also be used for gatherings and receptions for guest speakers coming to speak at the design center's lecture space. The lecture space in another long space that was designed to be used at not only a lecture space, but also as a runway for small fashion shows.

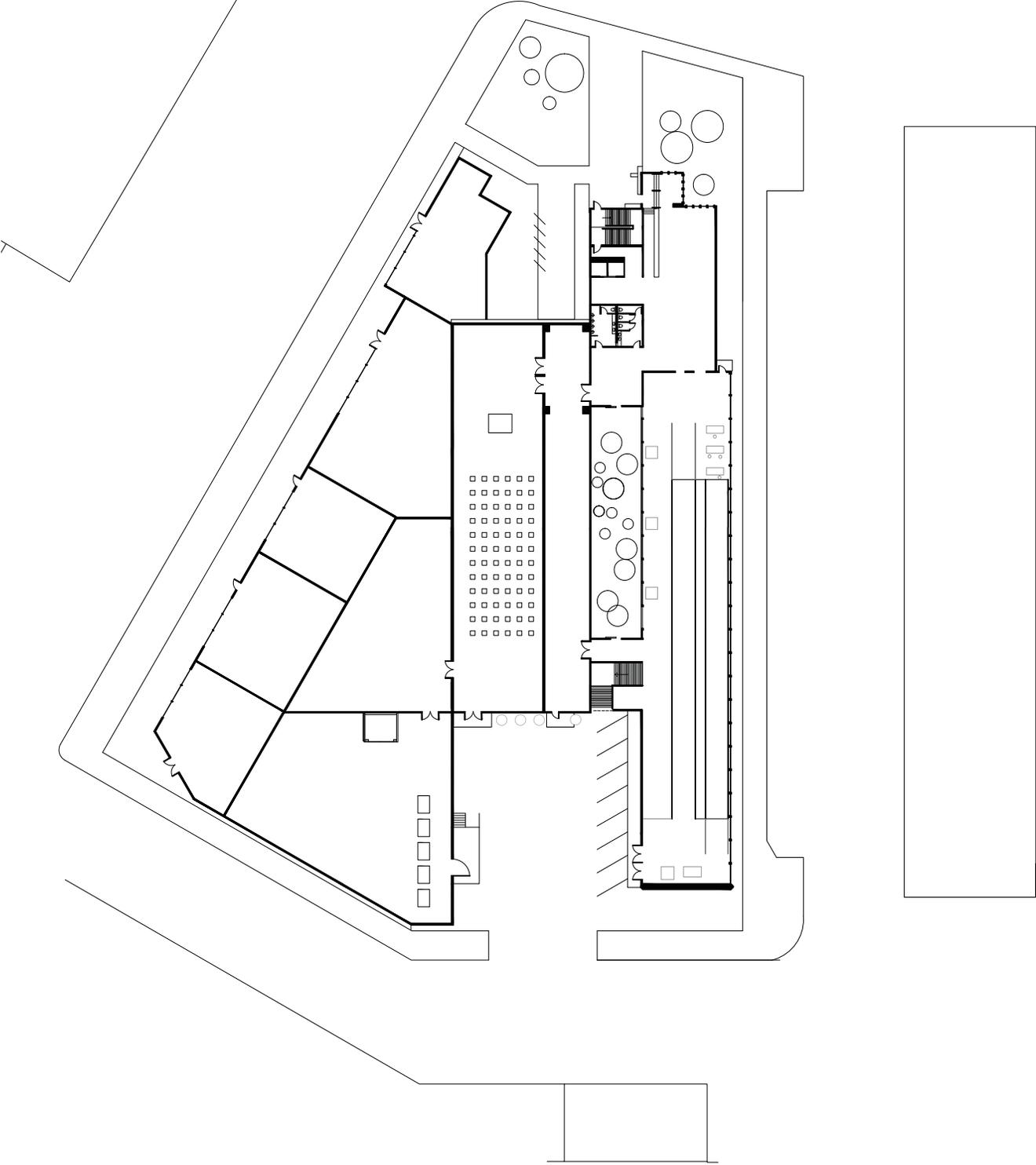
Directly above the lecture space is the gallery where the actual work of the designers is displayed for the public to view. This is the core of the site and it is important to have this space because it is where people will come together to get new ideas, share their thoughts, and connect with other individuals of similar interests. Like the computer lounge, the gallery space connects its floors through a series of ramps, with the ramps being the floor space for display. The gallery sits in the middle of two 50' tall curtain walls allowing all natural light to spill in from both sides creating a natural and peaceful environment. People coming in from the people mover have direct access to the gallery.

As we move on to the work space, the design of the entrances were intentional in making the visitors be able to see what was going on behind the scenes of the designer's life. As the designer enters one of the three entrances, they have several optional spaces to work at. There is a large portion designated for studio space, interior design space, a conference room, a production prototype lab, a factory for large items to be built, a computer lab for graphic designers, and several mini walk out roof courtyards bringing as much green space into the facility as possible. The designer's work space has large windows letting plenty of sun light in with views of the city facing south and west.

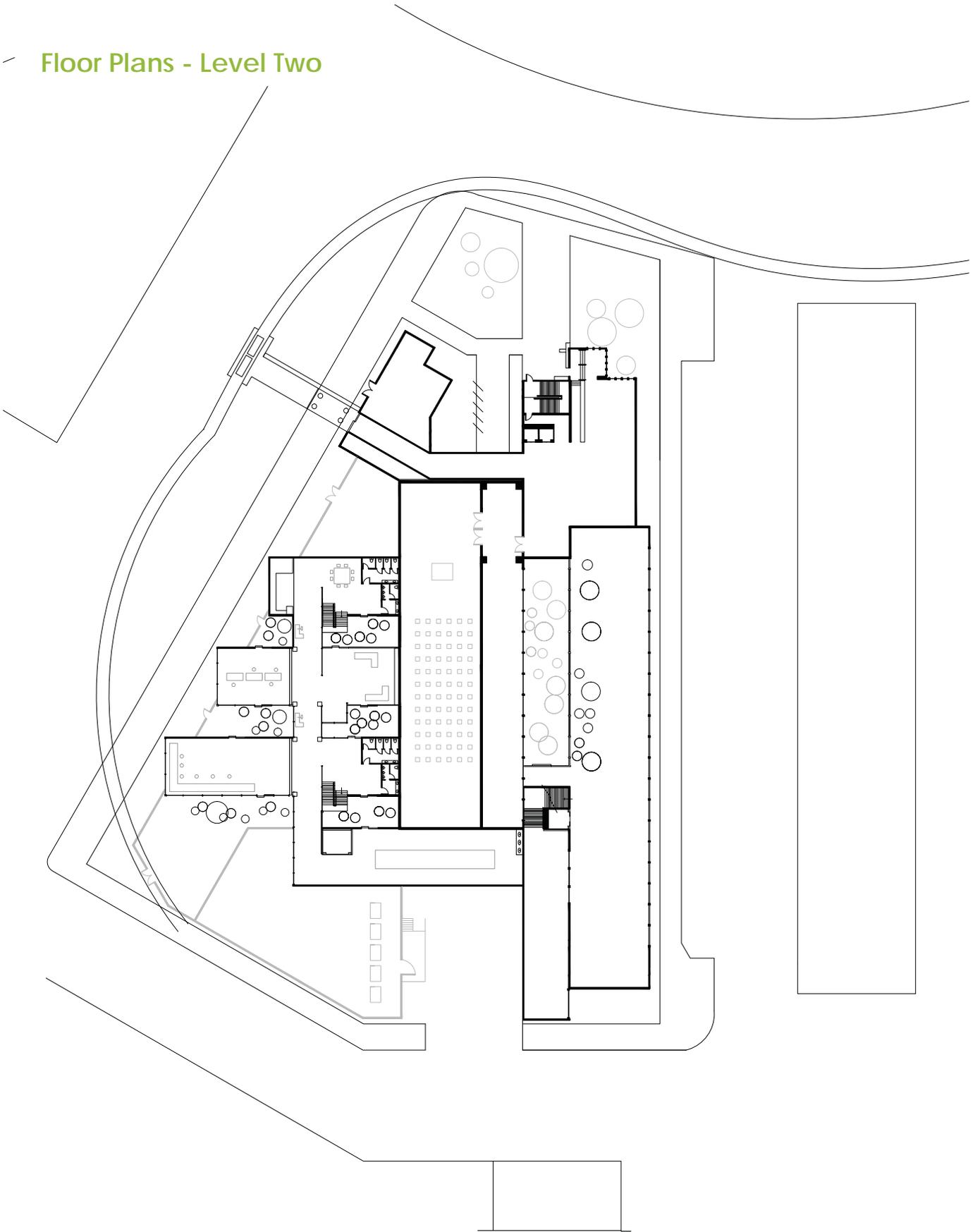
The goal of the project was to have an entire space capture the essence of art and design from beginning to end. Beginning being the initial thought sparked by the designer and carried through to the end being the actual product displayed in the gallery space or constructed in the city.

The resource and design center is a place for a total work of art to be constructed. The resources are what keep the building afloat and the people are what help the building expand into its original intentions... to create culture and diversity, innovation, and identity in Detroit.

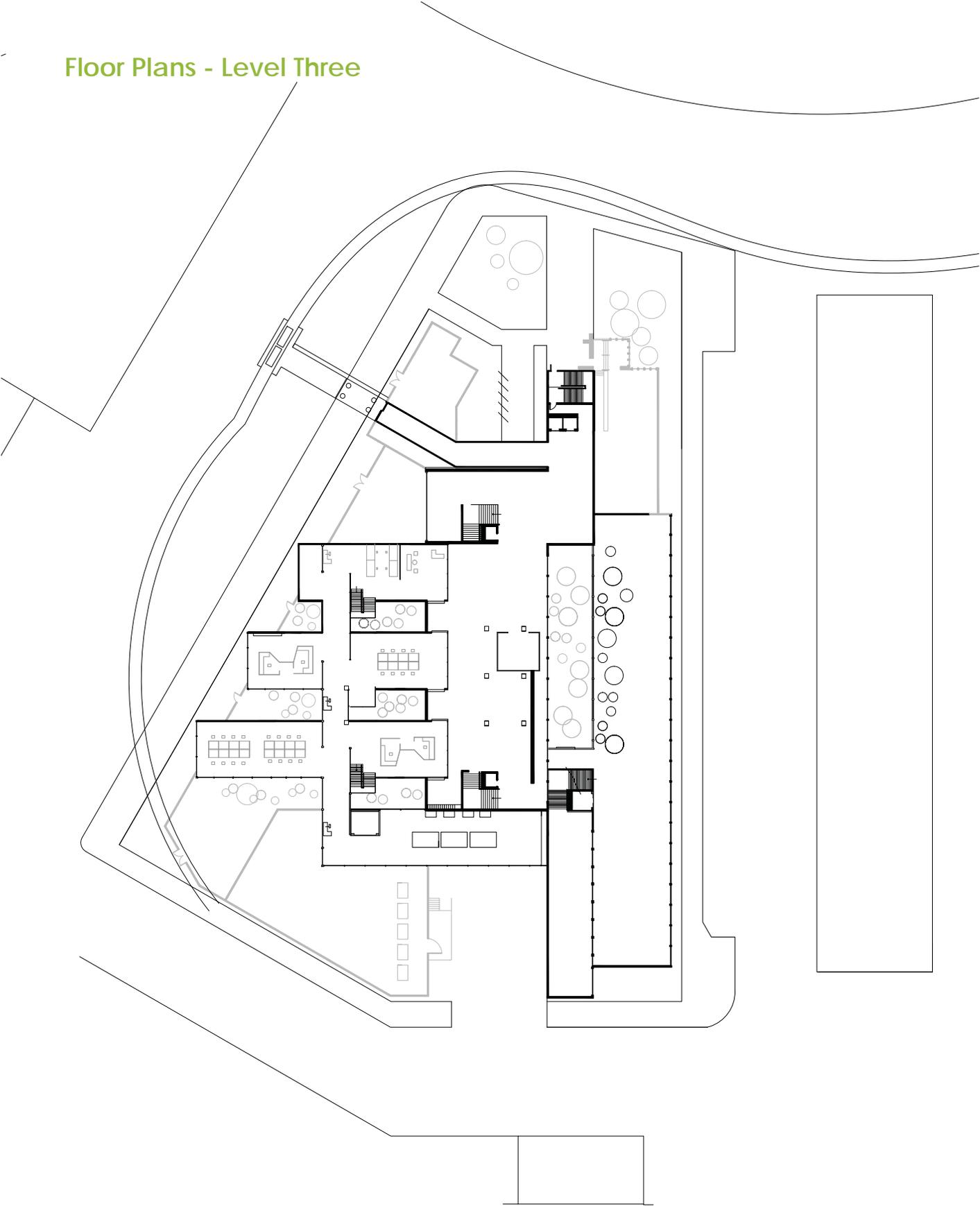
Floor Plans- Level One



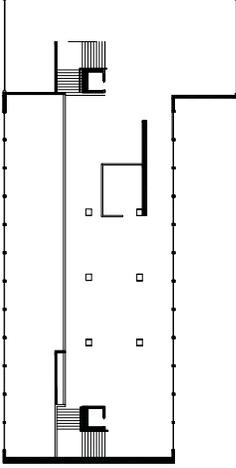
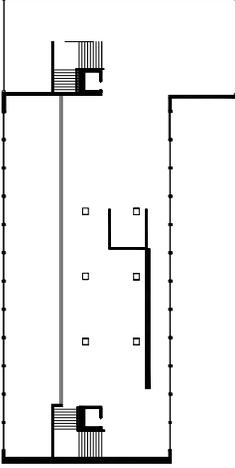
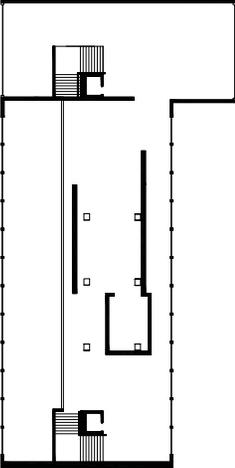
## Floor Plans - Level Two



Floor Plans - Level Three



Floor Plans - Upper Three Level of Gallery



Elevations

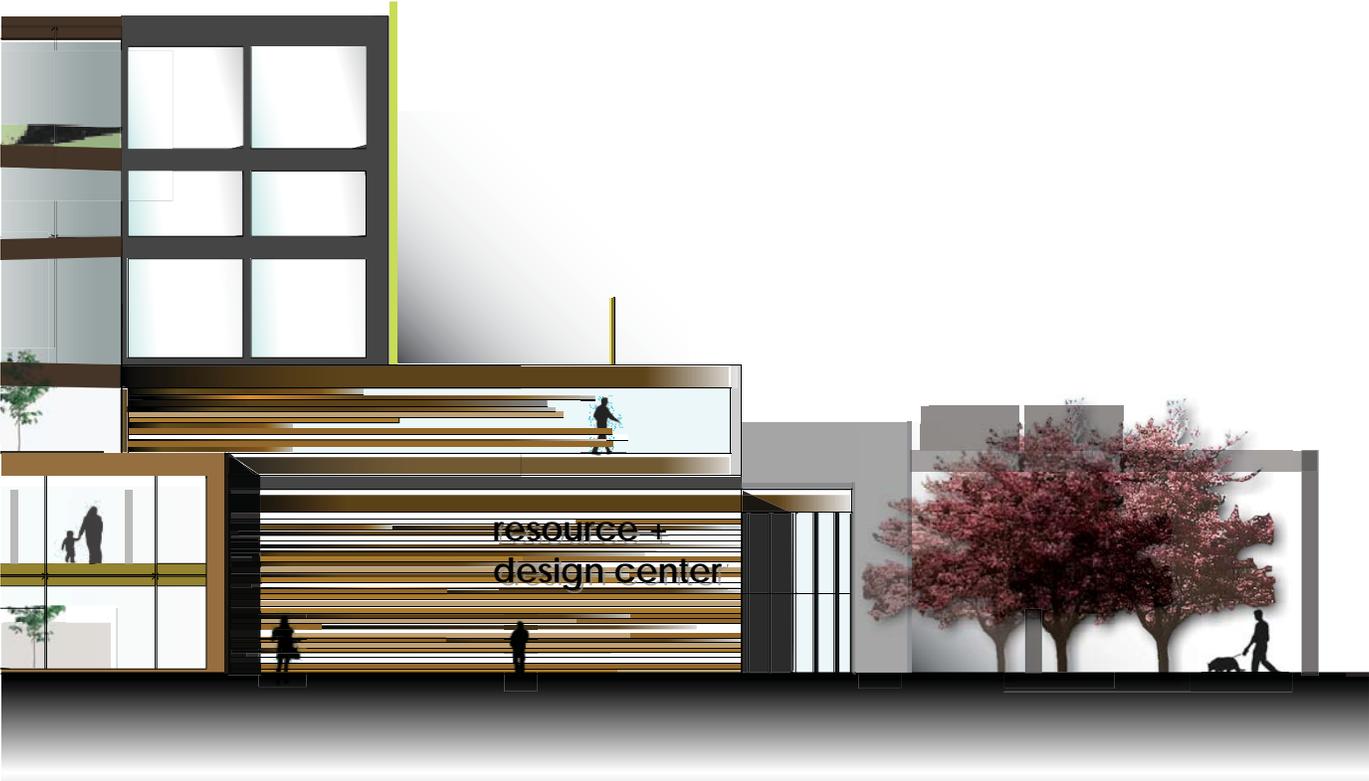


East Elevation

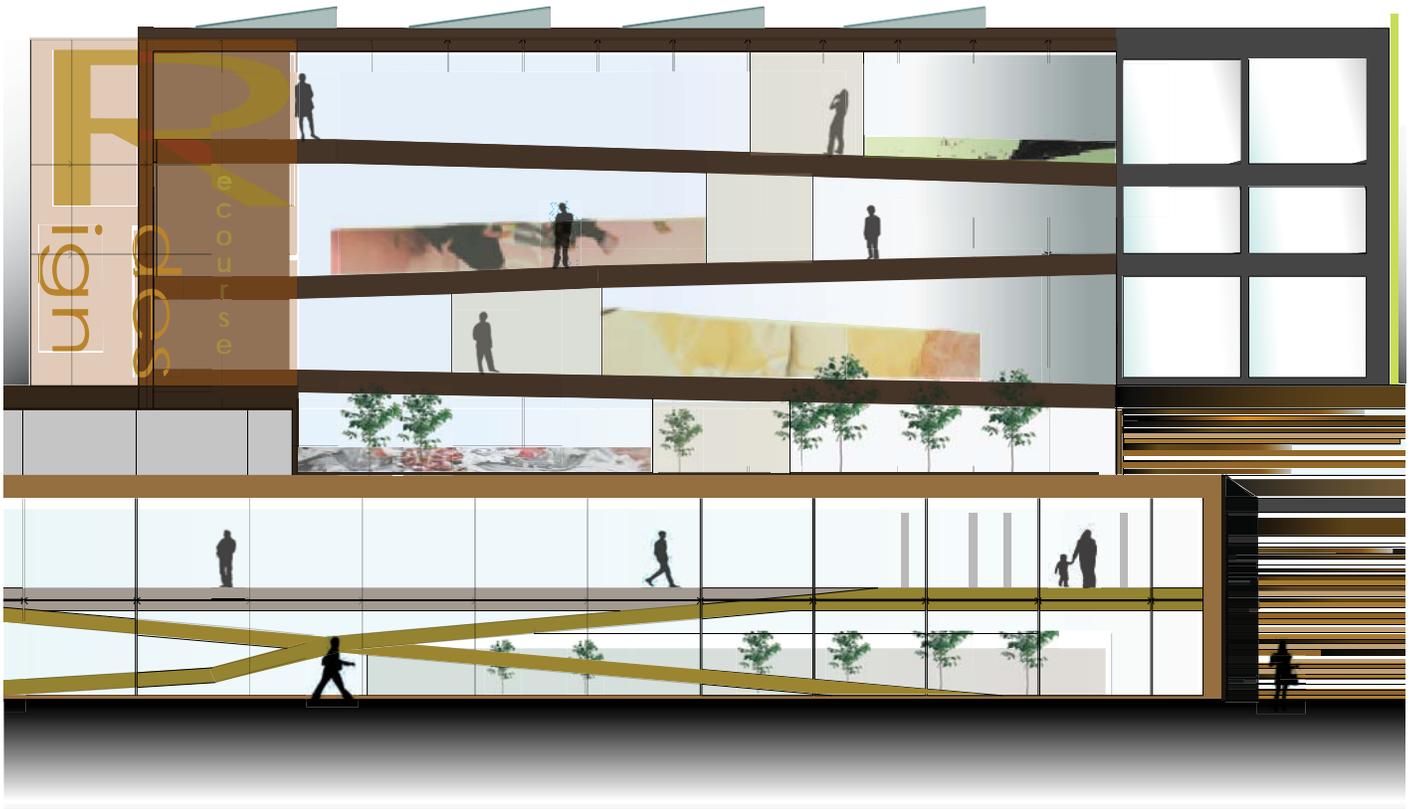
**"There is a lot of interest in the arts, music, theatre, filmmaking, engineering, architecture and software design. I think we have now transitioned the modern-day version of the entrepreneur into the creative economy."**

- John Baldacci

Elevations



-North entrance of the resource and design center



- east elevation of the gallery showing the graphic wall panels with the computer lounge below and the courtyard on the lower level with one of the many green roof gardens on top

# Elevations

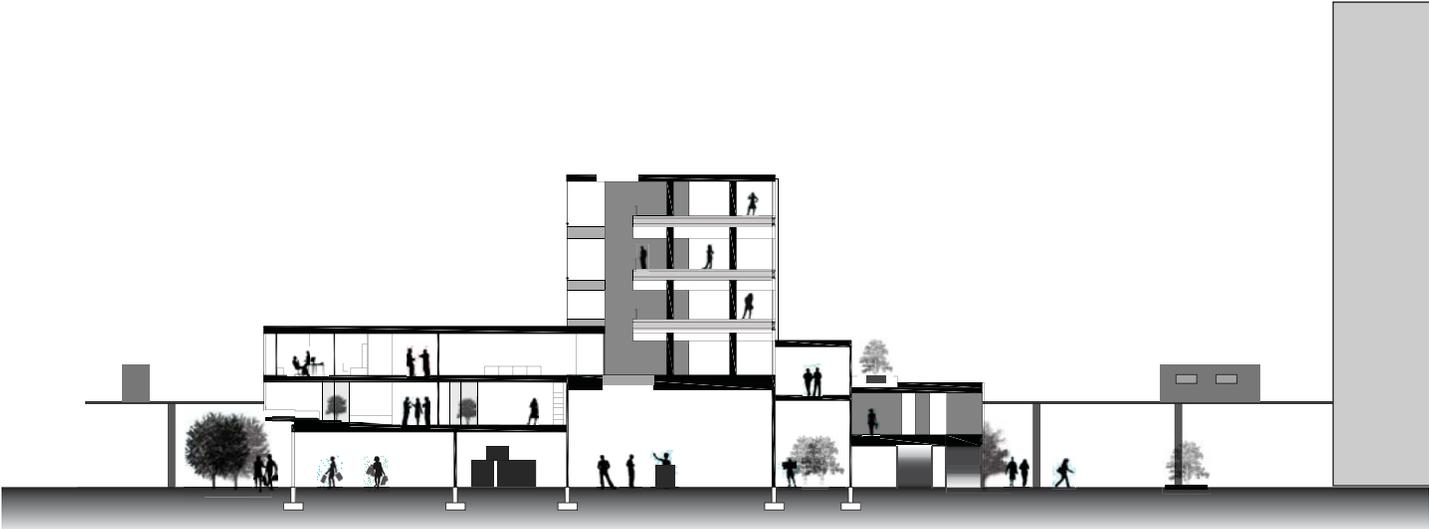


North Elevation

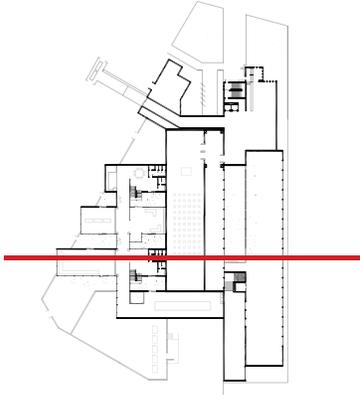


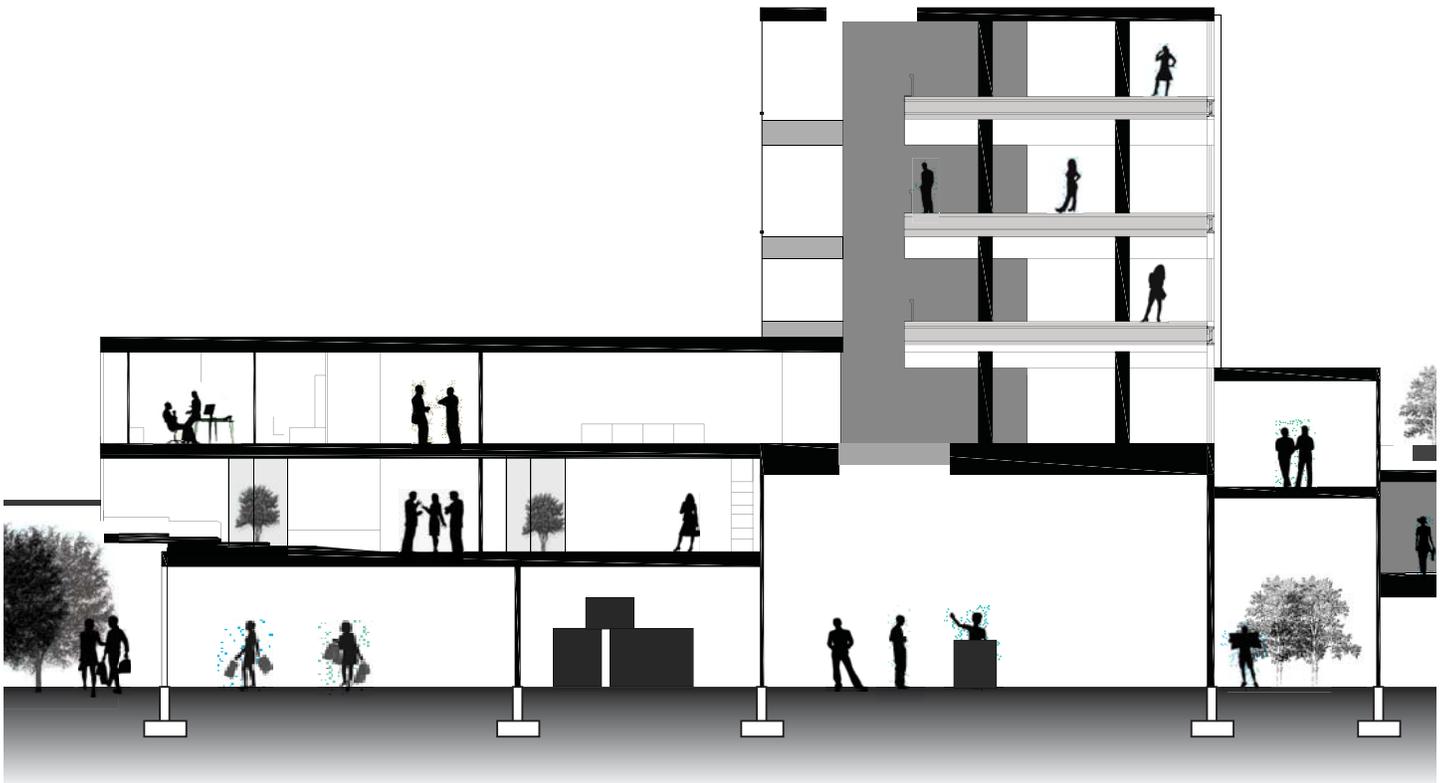
- north elevation showing the connection to the people move over the large graphic wall that displays changing information, the retail on the lower level, and the three modular wooden facade work spaces above the retail space

Sections



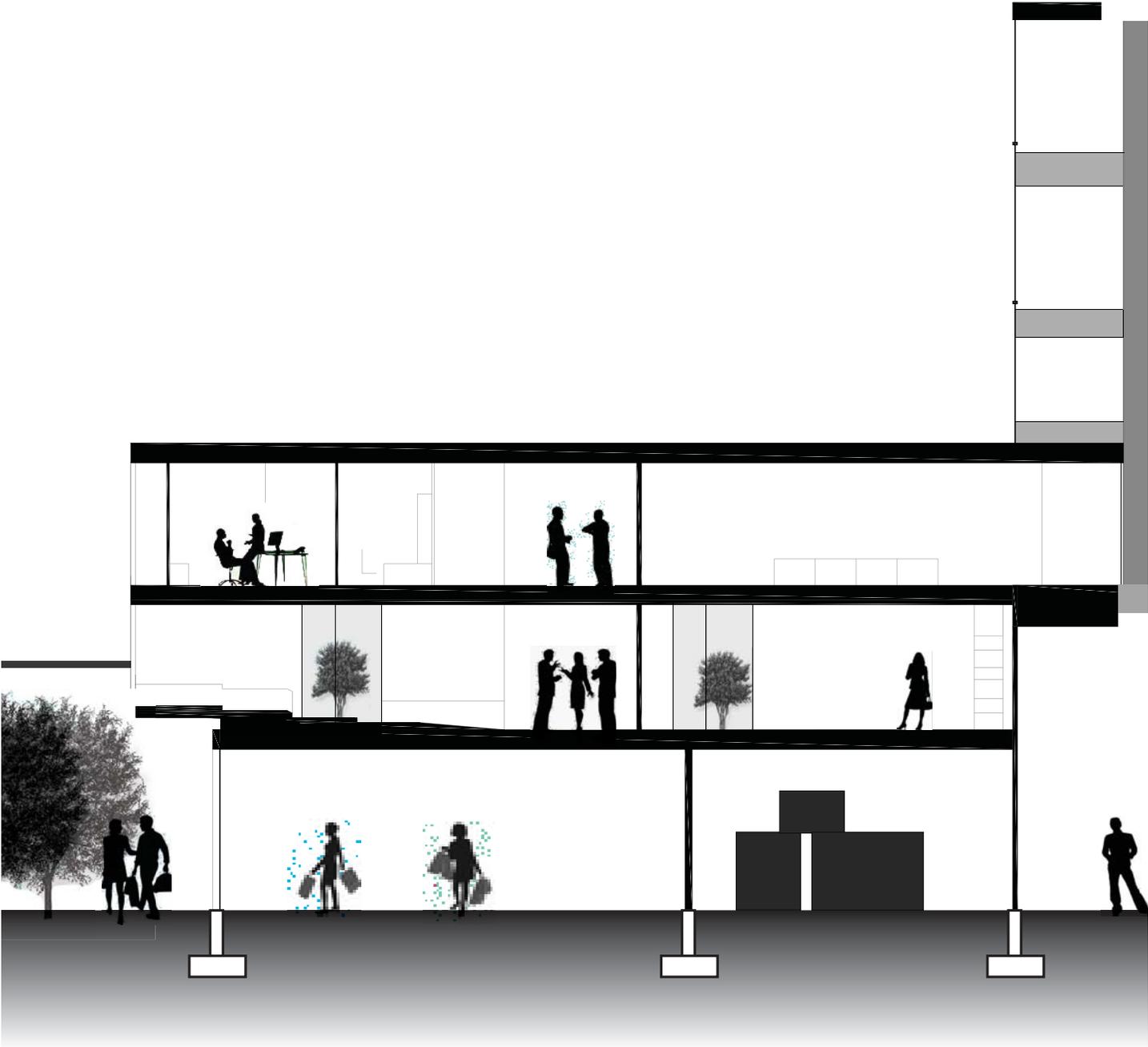
South Section

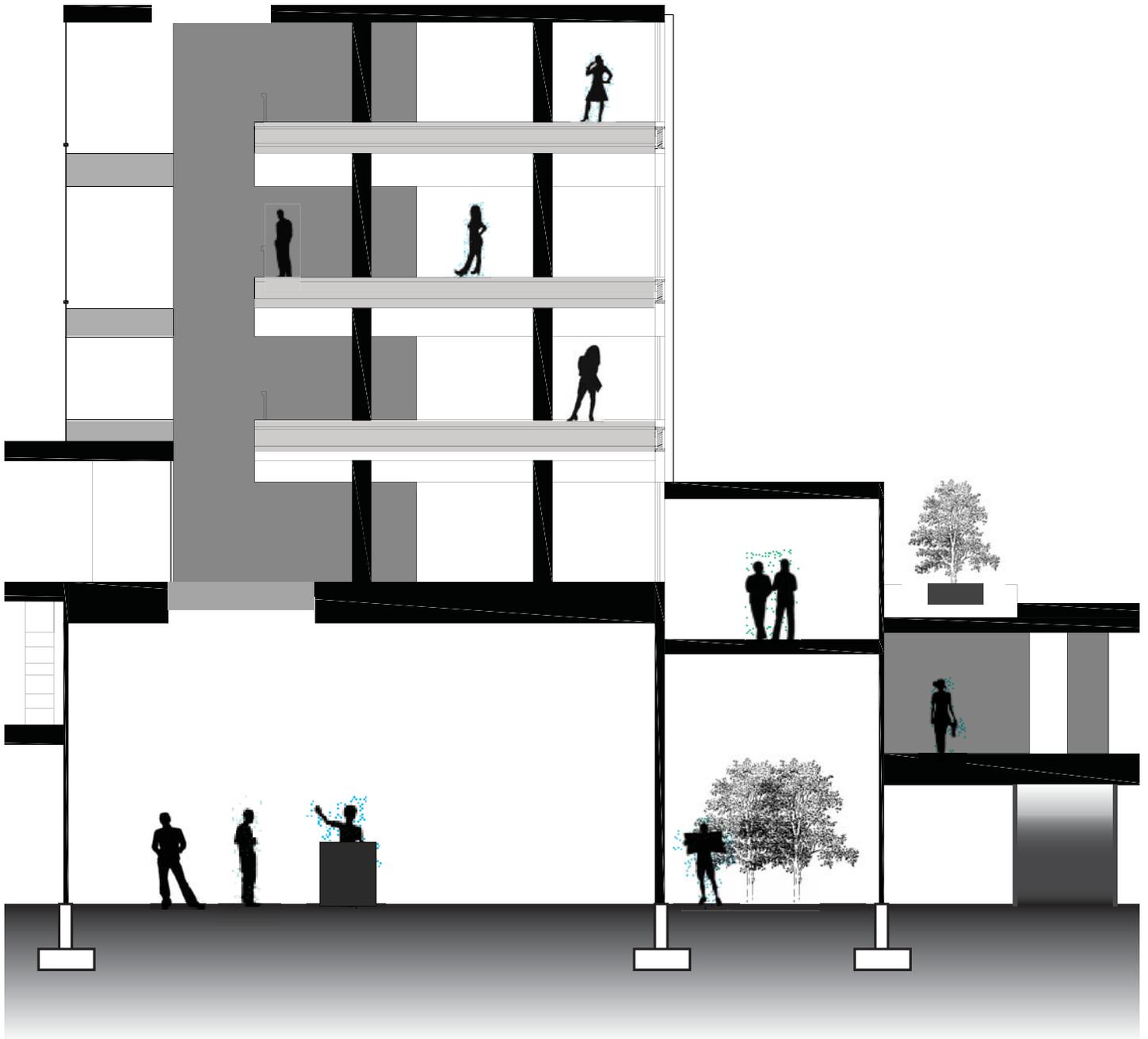




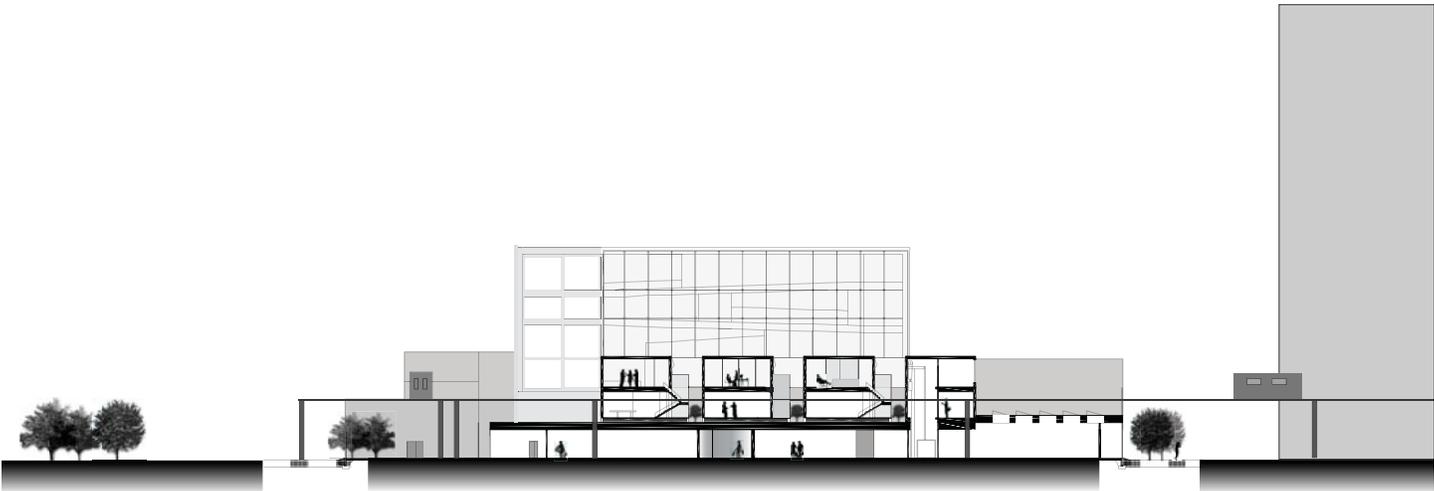
- south section showing a cut through the gallery, storage, retail, lecture room, workspace, and courtyard. Each space shows its own function and intentions

Sections

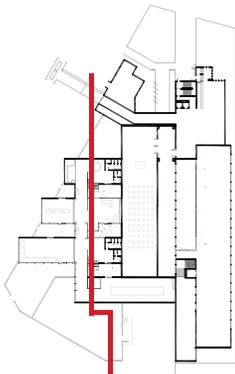


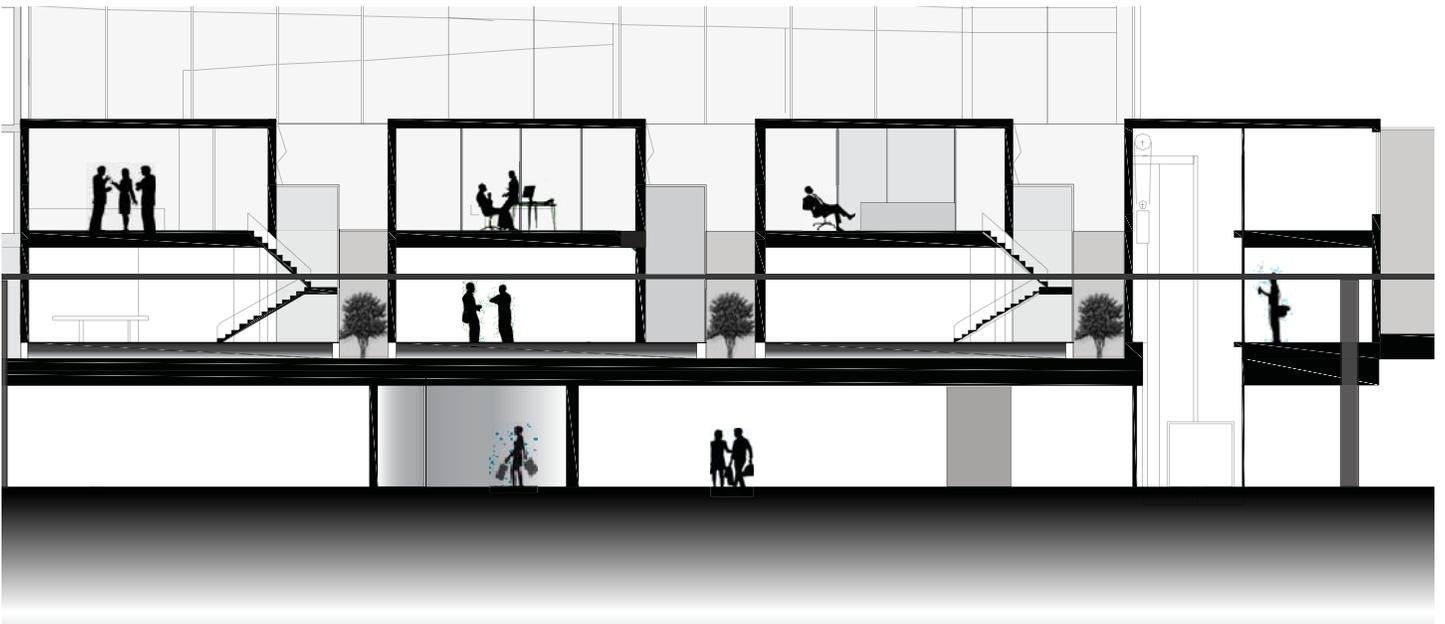


Sections



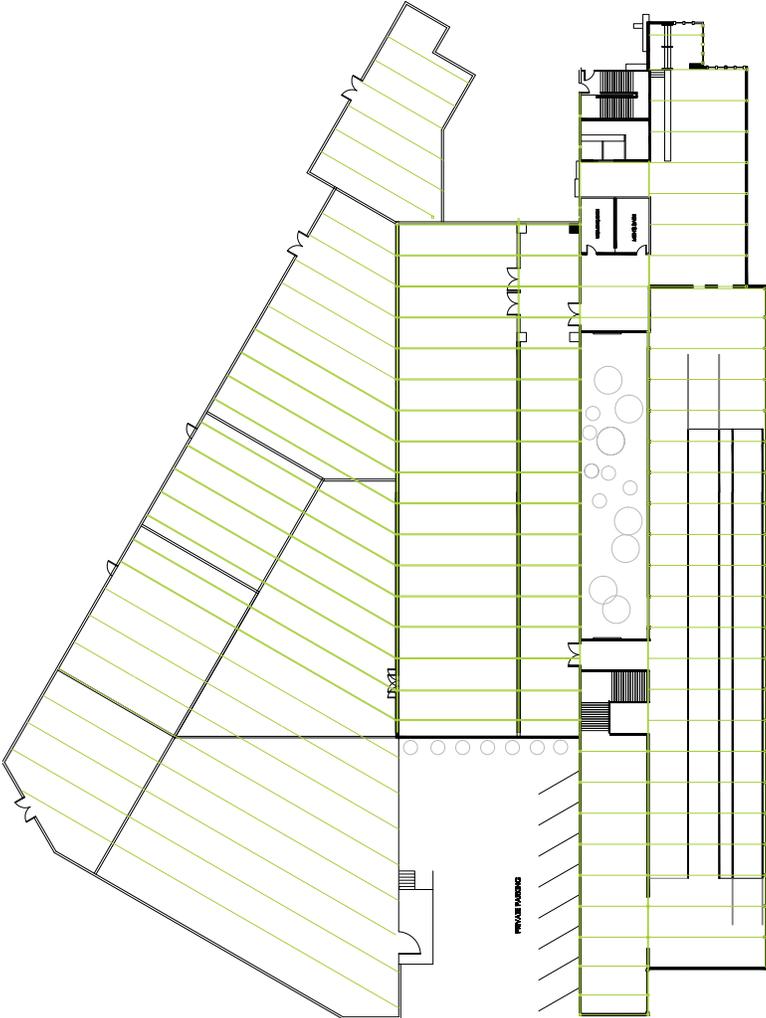
West Section

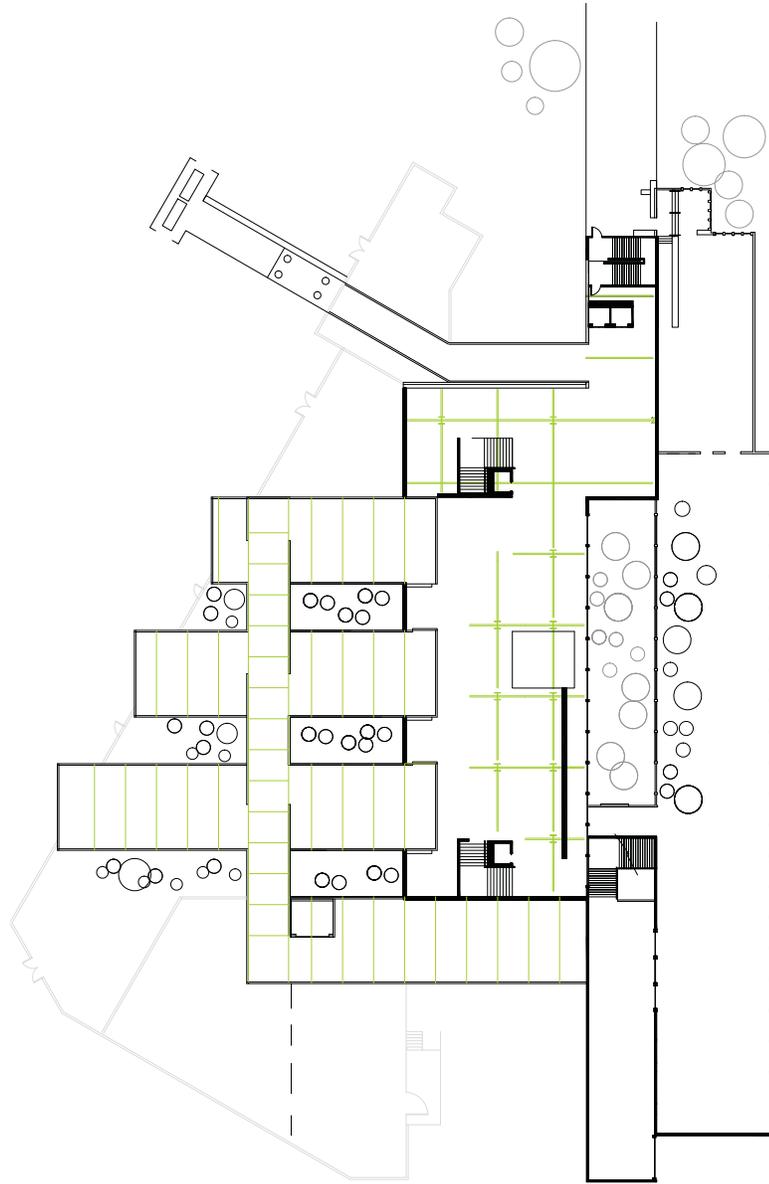




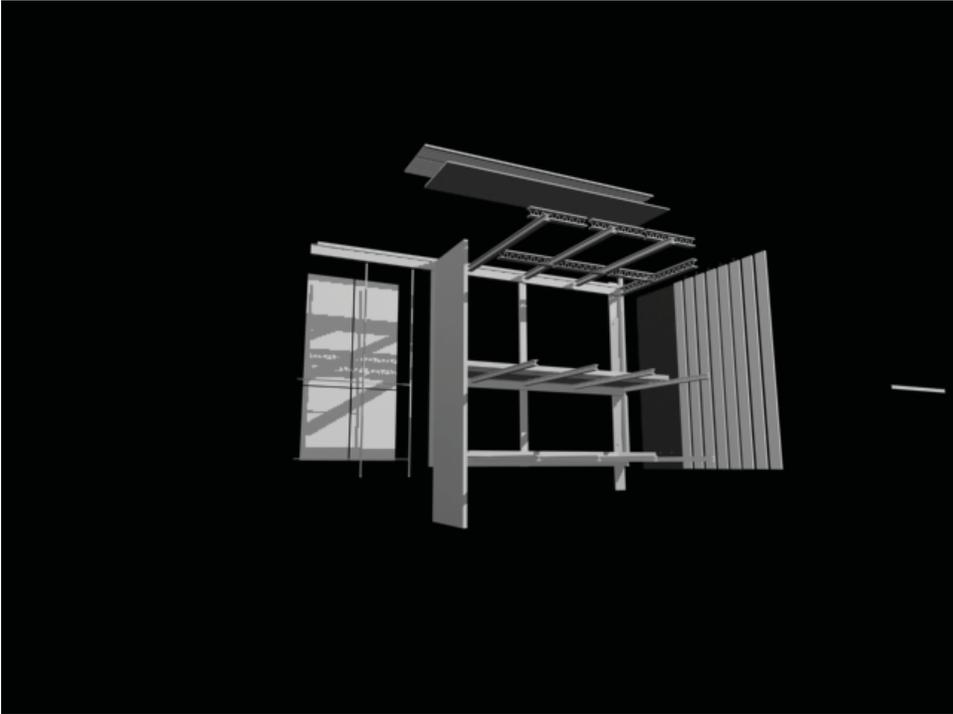
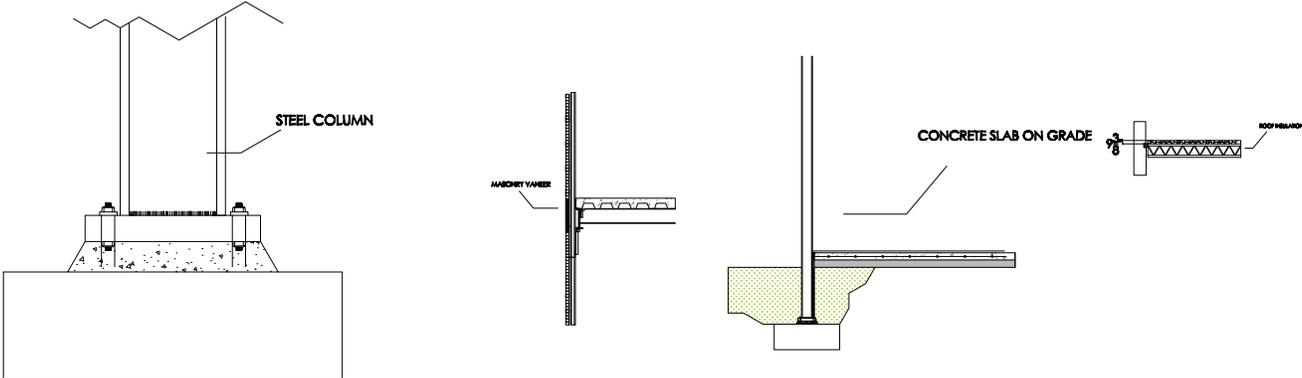
- west section focusing on the workspace and its individual functions and circulation

Structure + Detail construction





# Structure + Detailed Construction





This detail model shows how a portion of the gallery space would be constructed of a steel frame system. The detail cuts through the large graphic wall you see on the North elevation. The graphic wall acts as a billboard displaying information in an artistic way.



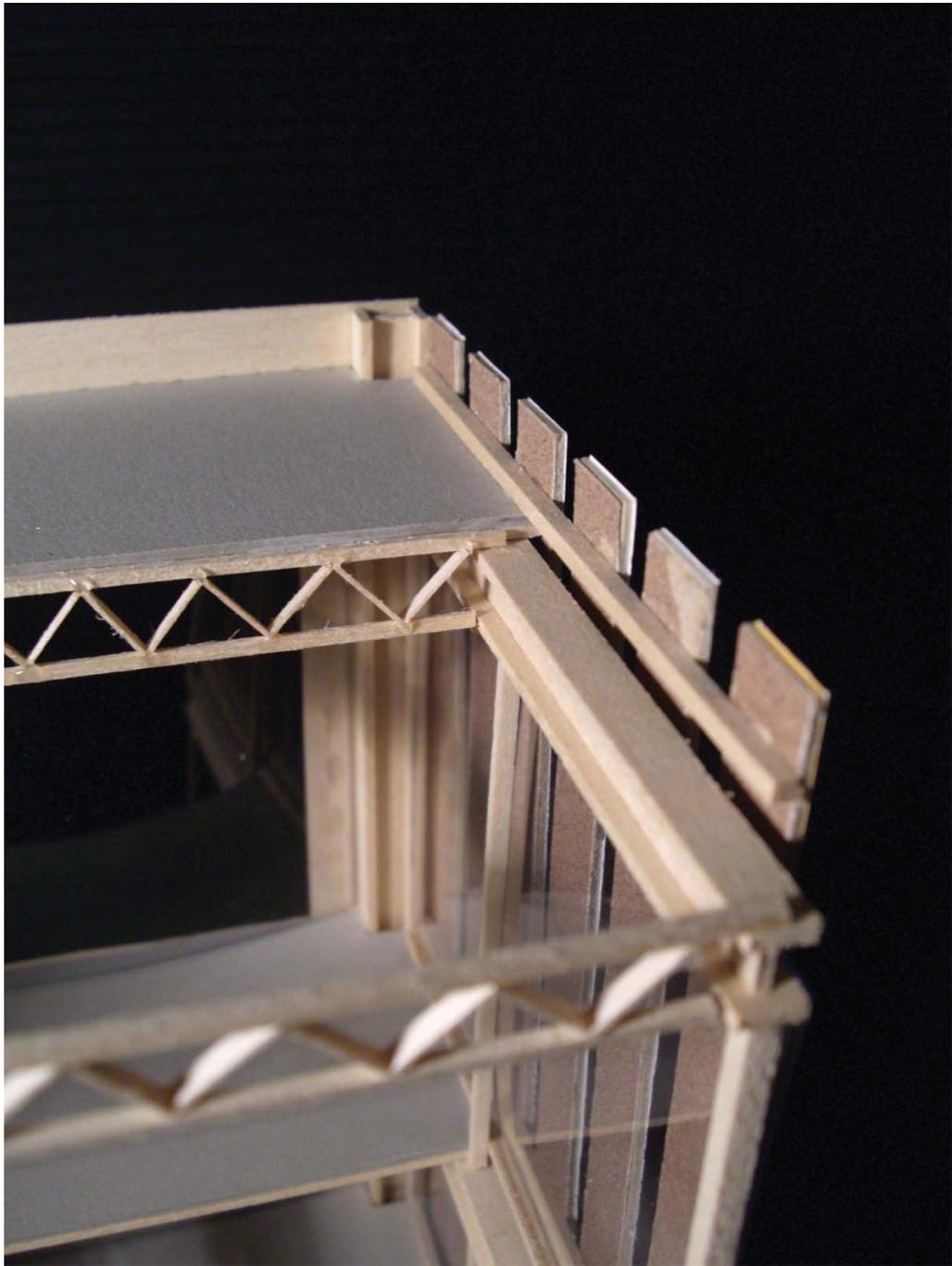
Adjacent to the steel framed windows is a 100' span curtain wall. This curtain wall is the west side of the galley space. It is a double pane energy efficient Low-E-Glass selected windows to keep the heat out in the summer and keep it in during the winter.



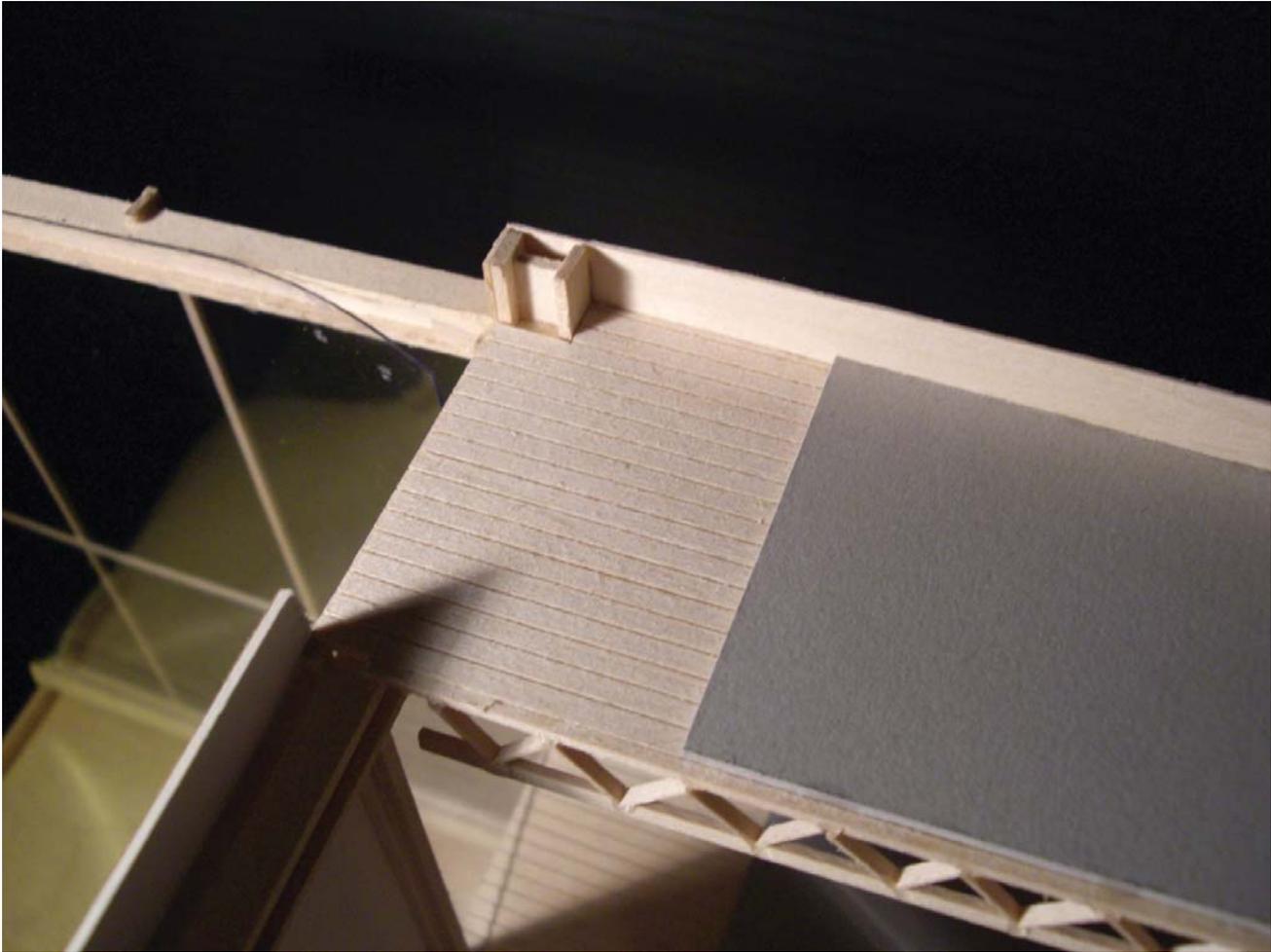
Holding the roof up are the steel columns and beams with the open-web steel joists. On top of the joists is the metal sheeting and insulated concrete to achieve the desired flat roof top.

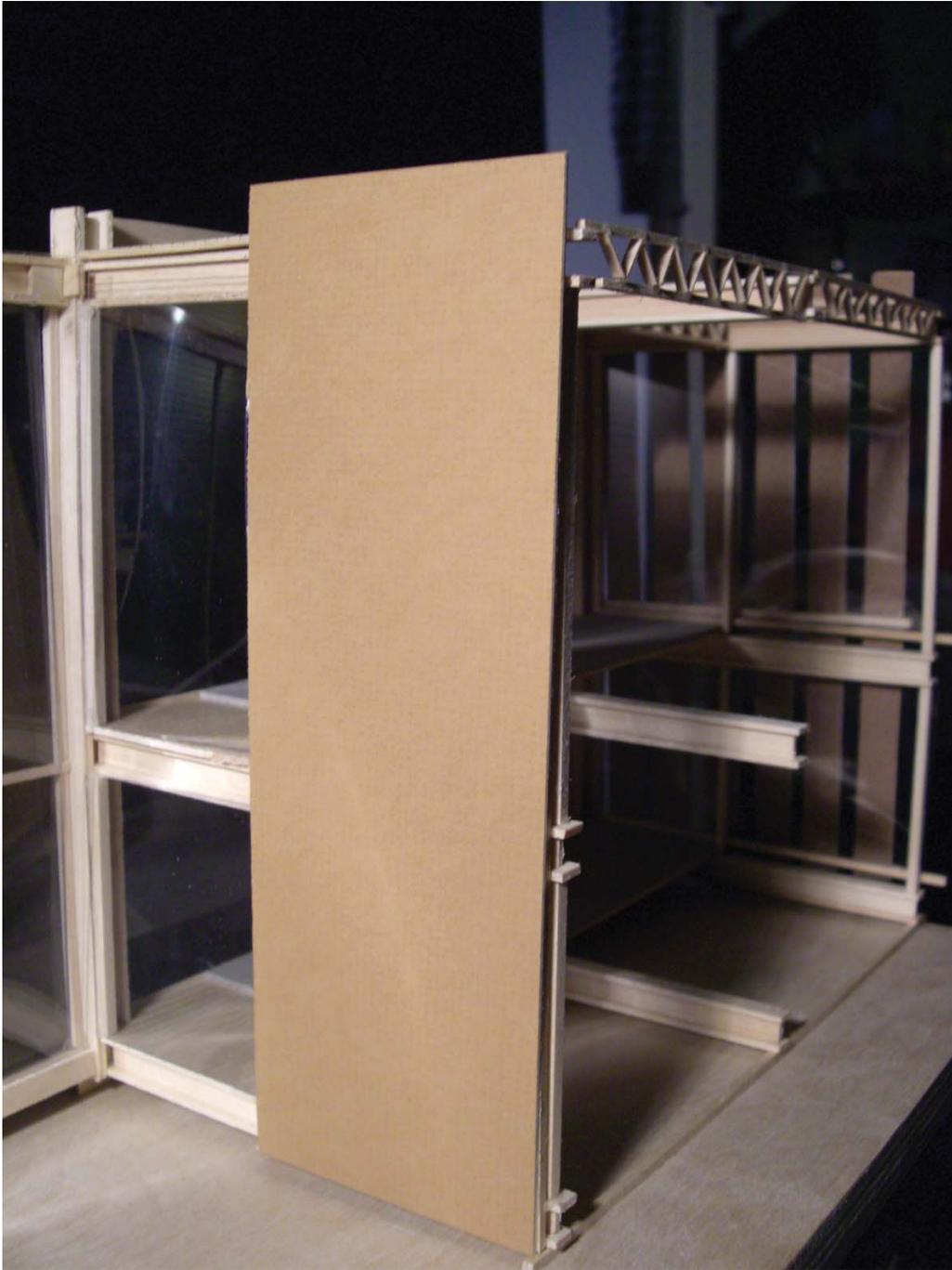
Detailed Construction





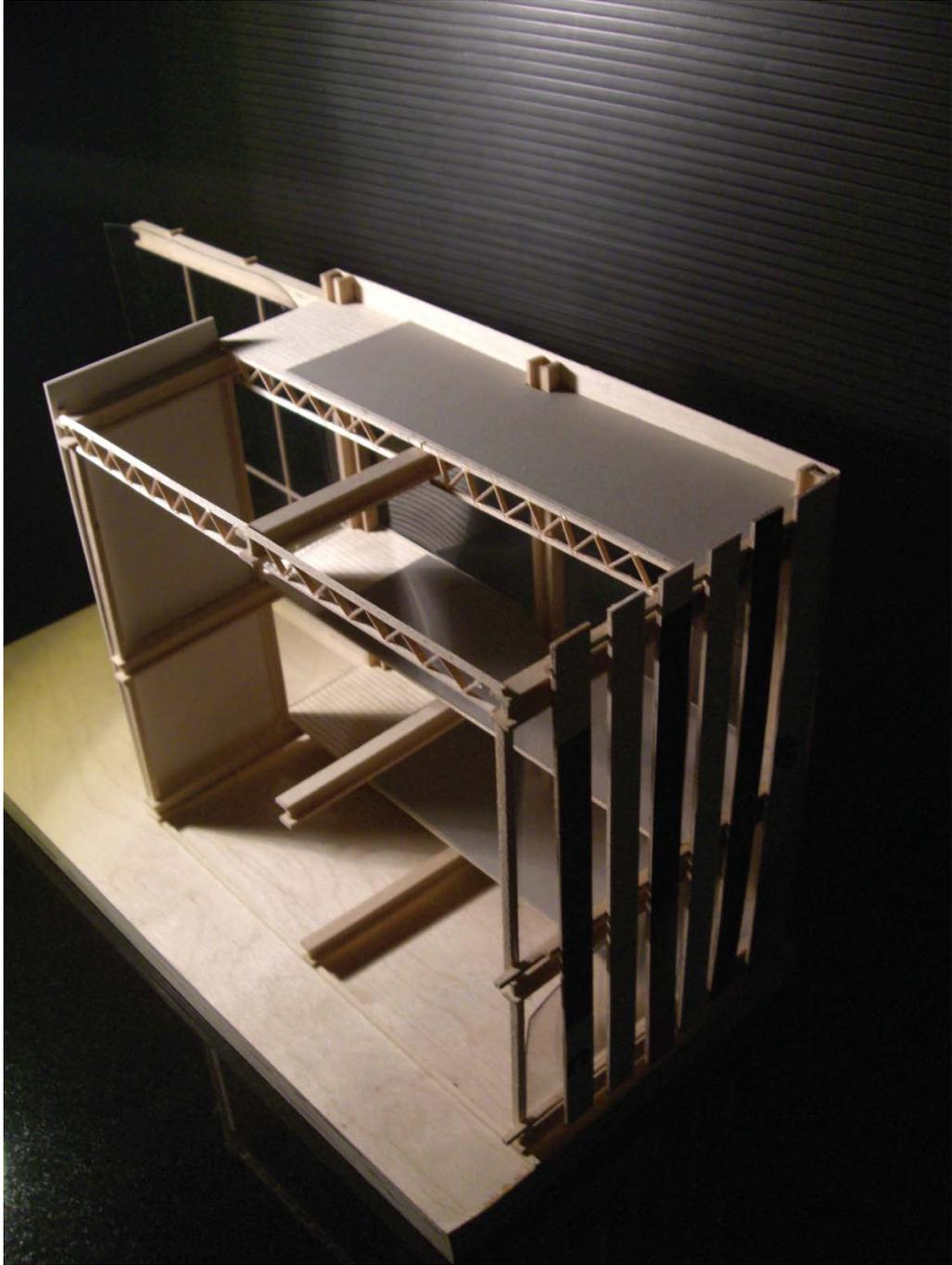
Detailed Construction



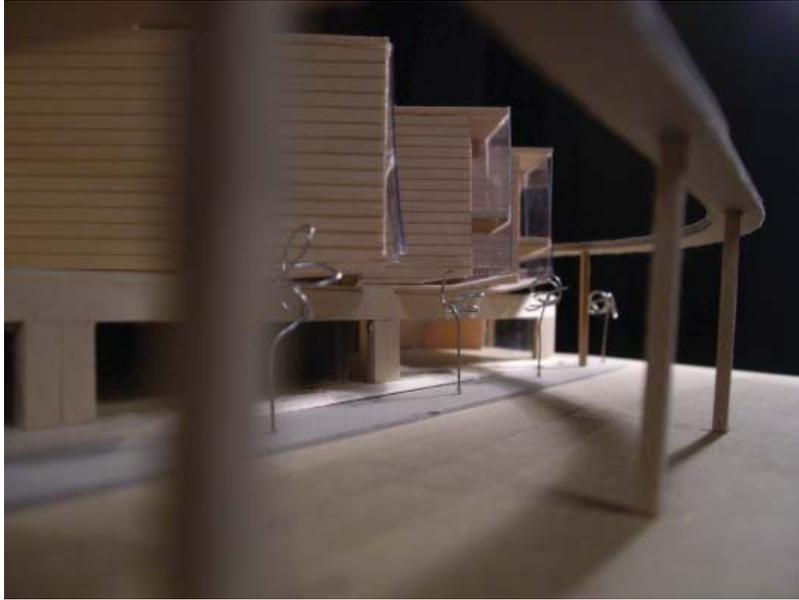


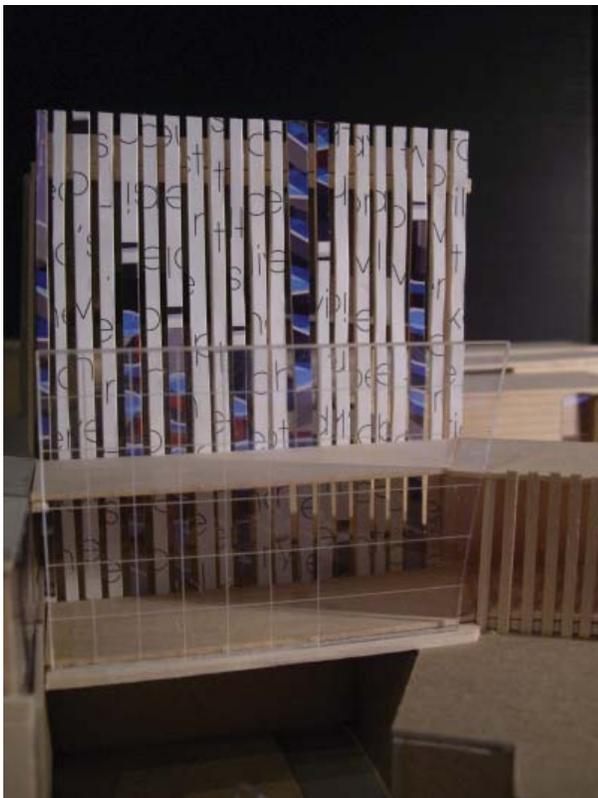
Detailed Construction

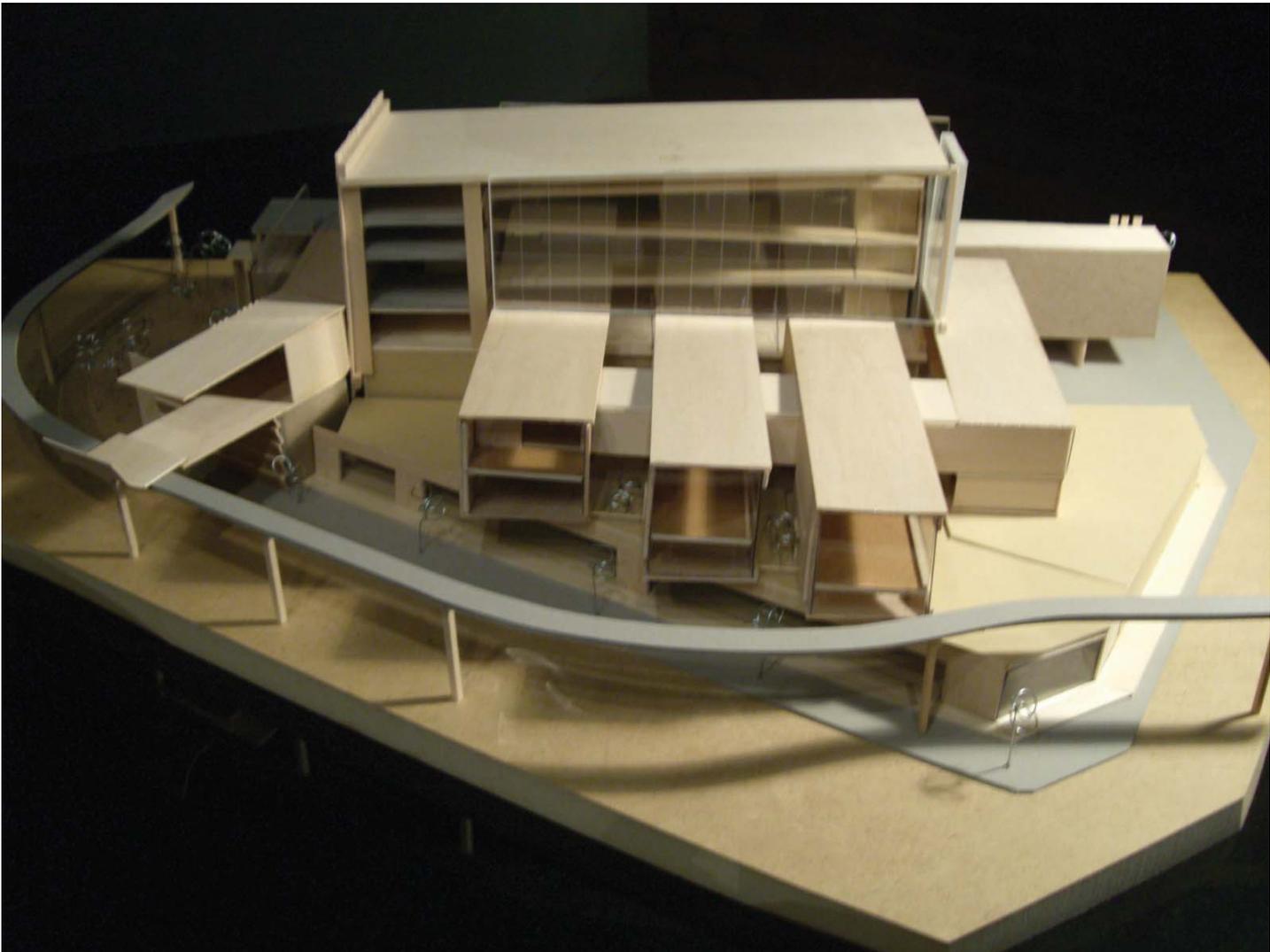


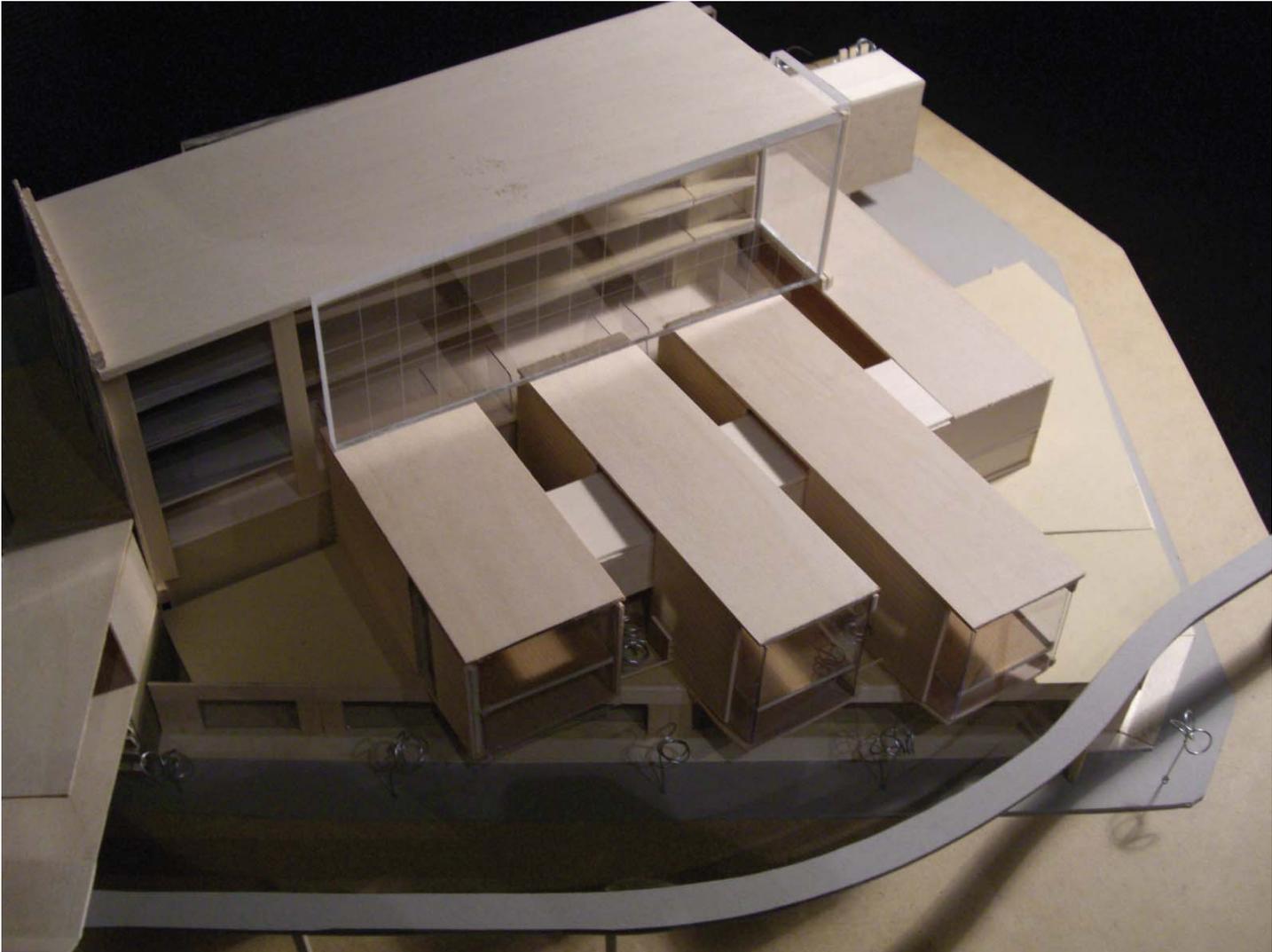


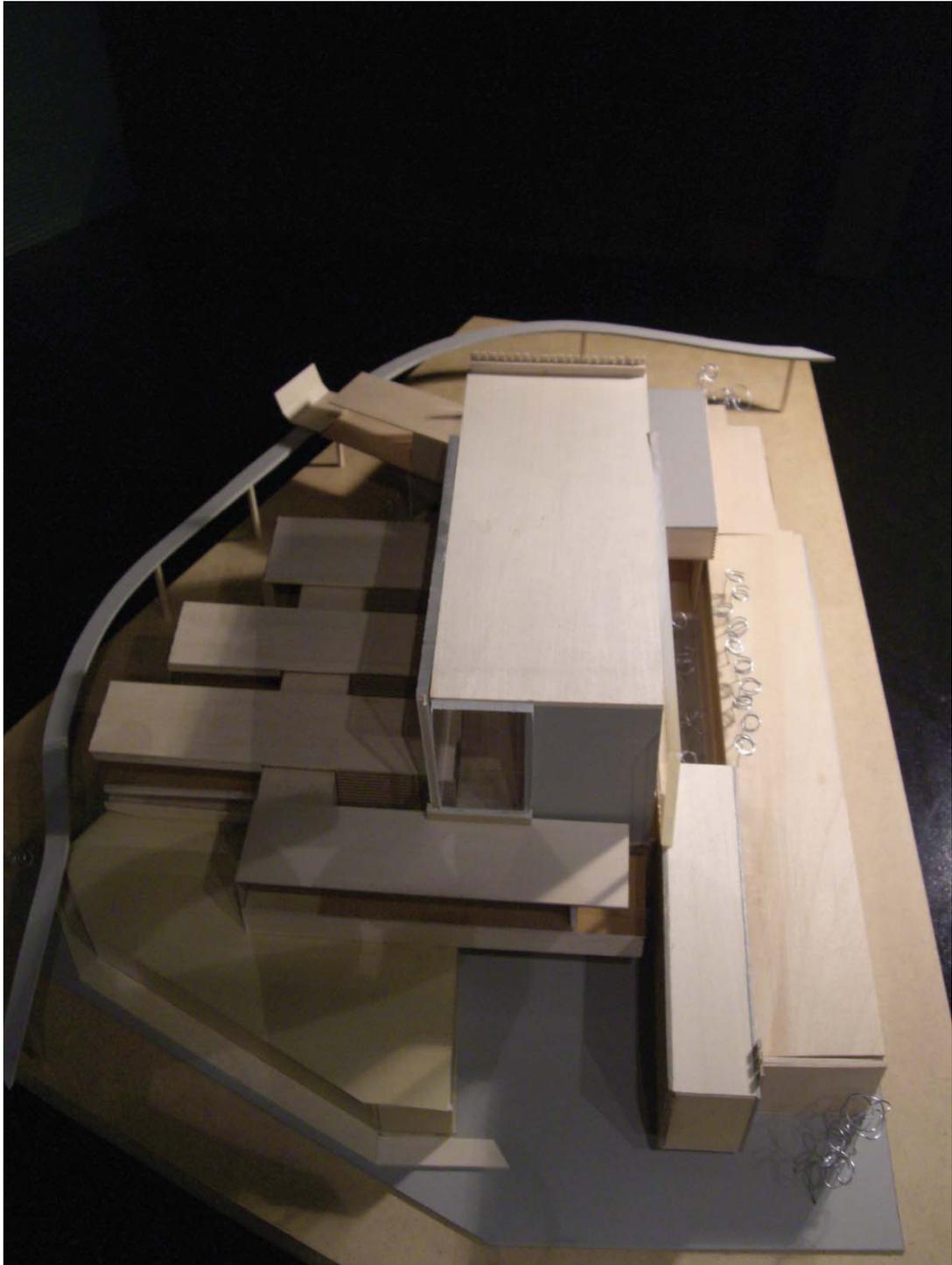




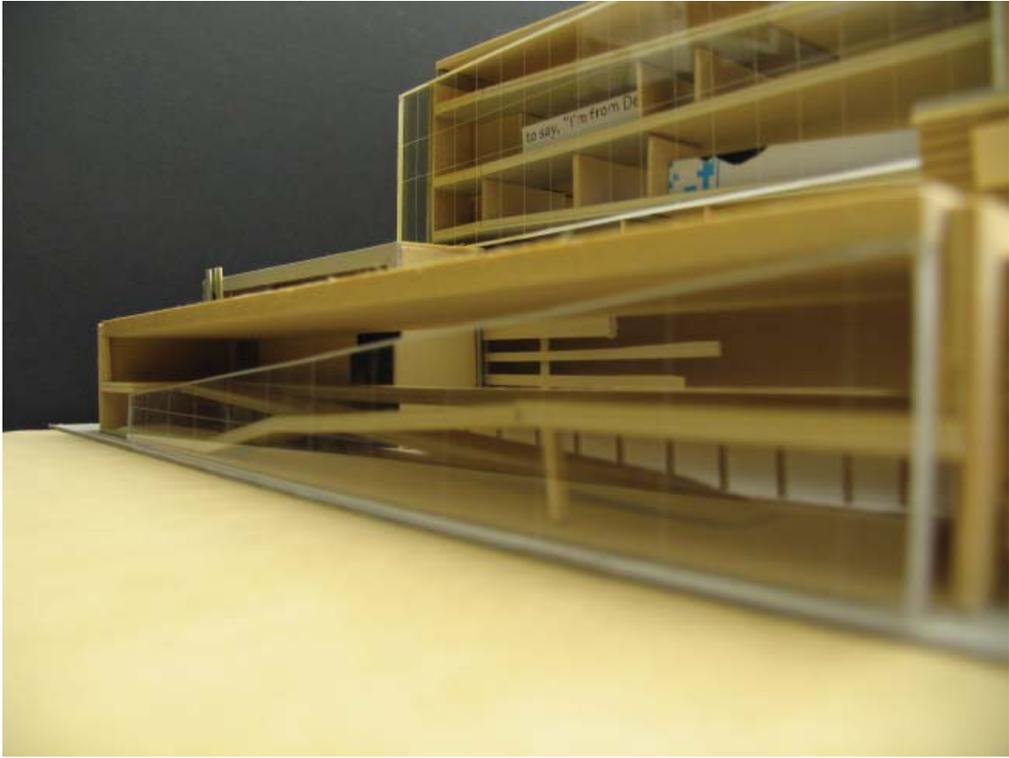














Interior Design Work Space



Conference Room/Collaborative Space



Recreational Work Space



Individual Work Space + Outdoor



Gallery/Display Area



Level three of gallery



Computer Lounge public/designer work space



A perspective of how a space can be woven together by two entities.

## Conclusion

Cities are the economic engines of the nation, and it is our job to make sure that our cities are doing what they must in order to succeed, be competitive, and innovate in the global economy. Educating people with the knowledge in art and architecture can enhance the mind and stem creative ideas that can be applied to cities. If people were to do a quick mind exercise everyday and drive by an existing building, abandoned building, or a vacant lot and image something better taking its place, we would all begin to educate ourselves in becoming more talented and innovative people. Everyone should ask themselves... what is my identity?



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