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PRESENTED BY: Salvatore Sergio D'Aleo

ACCEPTED BY:

Julie Ju-Youn Kim
Assoc. Professor, Masters Studio Instructor

5/07/04
Date

Stephen J. LaGrassa
Assoc. Dean, Director Masters Program
School of Architecture

5/07/04
Date

APPROVAL:

Stephen Vogel
Dean, School of Architecture

5/17/04
Date

21st century identity: Downtown Detroit

*a thesis investigation

University of Detroit Mercy / **School of Architecture**

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Professor Julie Kim
Director of Graduate Programs, Steve LaGrassa

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Salvatore Sergio D'Aleo

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Abstract / Circumstance

What is architecture's role in challenging conventions of mixed-use in downtown Detroit? This thesis investigation seeks to explore and challenge the idea of the mixed-use urban environment in downtown Detroit. To understand how it might be rethought and articulated in a vehicle dominated urban fabric - at the scale of an individual intervention as opposed to a city district ("master planning") scale that attempts to act as a catalyst for improvement. How does one perceive the notion of how a mixed-use building is truly mixed-use? How ultimately does this allow an identity to begin to become established in the 21st century downtown Detroit?

The omnipresence of technology and the internet playing an active role in the architecture and uses the architecture holds is what dictates the circumstance. Programmatically, uses of dwelling, exhibition, education, and entertainment in this thesis investigation can be translated into a private / individual (solid) vs. public / collective (void) study. The issue explored is not about blurring the edges between uses, but about articulating how they might directly inflect one another. The circumstance and architectural vehicle used to explore this question of mixed-use will place itself within the context of the heart of the downtown Detroit.

designed (kept at the scale of a single, yet critical location as opposed to the entire downtown)?

An urban hybrid intervention will act as the architectural vehicle to explore the issues. As a prototype, in attempt to address these issues in the context of our present time, it is appropriate to juxtapose them with the omnipresence of technology and the constantly moving or shifting life of today as well as the future – the visual, interactive, and communicatory medium of technology, as an omnipresent element in our lives, interweaving with the architectonics of an urban space. This architectural vehicle will consider the notion of balancing a hybrid of residential, educational, exhibition, and entertainment / café uses, promoting a 24-hour schedule that the city seems to lack ("The city never sleeps") –The focus is not to necessarily dwell on technology or visual media, but rather to interweave technology with these conventional uses, and to alter the conventional views associated with them. Furthermore, celebrating the notion of live, work, and leisure, incorporating both physical (literal) and figurative technology. This architectural vehicle will be located on a critical site to allow for the possibility of other important elements in the city to come into play in some manner.

This investigation is a critical exploration of challenging conventions of "mixed-use"- *what does it mean or could mean.* As a whole, the focus is to encourage interaction while preventing social disconnection and allowing for a richness of experiences that move with Detroit and its 21st century.

The critical position

In this architectural thesis I will attempt to apply or rather use architecture as a medium to not only express my architectural philosophies in general, but also to address a certain critical question utilizing them. This investigation will focus on the city of Detroit and strive to uncover certain special possibilities, in an effort to make evident where the city stands as it moves through the 21st century.

Detroit

Detroit has influenced the world immensely throughout its history and as well as in recent times. The "motor-city" as we know it, has a rich history that makes it one of the most referenced cities in the world. One would think it would be a striving successful city full of benefits for both residents and tourists alike. However, the situation is not so, as many people not familiar with Detroit are slowly beginning to realize. It is the city that spawned the auto age and is the place where everything that could go wrong with a city did go wrong, mainly because of the influence from the automobile industry as James Kunstler states. The automobile industry has been the main, but not the only, cause of Detroit's "emptiness", or rather its sort of abandonment. In order to situate this thesis investigation it perhaps takes a brief understanding of Detroit's history to understand the current condition of its urban fabric.

Not to focus too much on the details of Detroit's history, I want to allow for a fundamental understanding of its evolution. French colonial settlements began to spring up in the 1700's with Antoine de la Mothe Cadillac being the first to occupy the area with his settlement (Fort Ponchartrain du Detroit) in 1701. The city's plan evolved quickly due to strip farm and ribbon farm establishments that define major streets that still exist today (such as Chene, Beaubien, and Riopelle, named after their owners). However, in 1805 the great fire destroyed the French colonial past. This prompted Judge Augustus Woodward's plan of the city. Woodward, arriving from Washington, where he had been influenced by L'enfant's plan for the capitol, proposed a plan that would ultimately create what is know today as the necklace district, but was based overall on the subdivisions of a pie configuration. Thus Woodward's plan was very much nodal, and also it was a plan that radiated completely from the river. Existing property owners opposed the plan and were not willing to adapt to it. Because of the struggle to adopt a clear plan, there exists the plan that Detroit has currently today – an inconsistent plan that is a mixture of Woodward's and the randomness of settlement and development evolution. In 1827 as riverbank forts where demolished Lewis Cass (governor) had widened major arteries that radiated from the riverfront northbound, begging the allowance of easy access north and out of the city center – an effort that prompted large amounts of development. The 2nd 100 years of the city's existence was dominated by the industrial revolution and mainly the railroad and as a result changed the face of the city to one of a lesser beauty and coherence. In the automobile age (the 20th century), Henry Ford and Albert Kahn created a functionalist architecture that would impact modernists such as Mies van der Rohe and

Le Corbusier. Detroit was at one point a leader in terms of a city of architectural significance, however, the combined efforts of Cass, and Henry Ford's advent of the car ultimately created the mass exodus that left the pockets of emptiness. In around 1900, the city was only developed to Wayne State University (located about 2 miles from the river front) in 1930, development of the city spanned to 8 mile road. There existed a chaotic kind of pattern to development – a random pattern. Hence the introduction of zoning laws that were to organize and make sense of rapid development (ultimately this strongly aided the city's decay because of its lack of diversified mixed-use areas). The central core of the city or what is known as the central business district flourished with skyscrapers in the 1920's. As mobility was increasing due to the auto industry and the great depression, the need for random acts of financial increase generators began – such as the widening of Woodward to create a larger capacity artery in and out of the city as well as the highway system. As a result, the sort of internal tension (one of the most influential being the racial tension – riots) began and continued up until recent times and ultimately lead to the almost complete abandonment of the city which is left behind for poverty stricken slum conditions in residual spaces as the physical city deteriorates. Within 40yrs, the city loses half of its population.

The city has been left at this decaying and empty state up until the 21st century for the most part. Currently efforts have been turned to revitalizing the city and increasing its density. While these efforts are positive ones, they still lack a sort of permanence. They seem to be efforts that work to quickly beautify the city without considering long term implications, however, not to say that these efforts are necessarily negative. At our present time (the early 21st century), the city is in a very unique condition as society becomes interested in its future. We must examine the positive and negative character of the city as it currently exists (in this pivotal point of revitalization) before we can understand the scope of this thesis investigation.

At the moment, there exists a kind of awareness, in that people of the Detroit metropolitan area understand that the city is one of a great deal of potential. This stems from such things as realizing its historical impact on the world (the automobile, mo-town, techno, etc.). While it seems that the plan of the city from the time of Woodward's proposal until now, has many inconsistencies and may not be what most planners would call a successful plan, is still one that offers, with its odd intersections and pie shaped blocks, the ability to allow unique architecture – it is the spatial quality of the city formed by its arteries that offer it a unique potential. The major avenues and boulevards such as Woodward Avenue, Michigan Avenue, and Gratiot Avenue that radiate from heart of the city and ultimately the riverfront offer direct access into the city via potentially vibrant "strips" of city life. As a result of all of this, there is a large interest currently for mass developing in the city. Lofts are beginning to dominate the lower Woodward corridor for the reintroduction of residences in the downtown region and also the investment of businesses. These moves are beginning to generate a sort of push to consider Detroit as a possibility for residing oneself and/or their business.

Detroit is a city that lacks the notion of the human interaction – it is non-inviting, a disconnected city. The car in the city of Detroit is more important than virtually anything else, hence the disconnect between the human and the city. It is a city of islands that only functions as a private place of work (the office building) or night life – a 9 to 5 city. Because of this single-use condition of the city, there exists a carelessness of the

adjacencies within the city itself. In other words, businesses or rather the people who own and/or work in Detroit (both in the entertainment aspect and the business aspect) obliviously, and most importantly, have no concern for the context in which they are located in. This means that everything outside of their particular location bears little meaning, to the degree that tenants within a building rely heavily on the wall plane that provides use separation. The point here is that the city, in large part, is only based on business or money related, and seemingly single-use, nodes because the notion of coexisting (mixing use and architecture) or a shared urban environment is absent. The fabric of the downtown landscape offers little to give one an understanding of some kind of critical relationship to humans and the structures that house their uses, both in the collective to public and the private to individual. The notion of creating a sense of belonging is what is lacking and it seems that the current revitalization efforts do not address that at all.

The Issues

This thesis is not about attempting to understand how to fix the city nor is it about dwelling on the judgment of its revitalization efforts. All of what has been said so far revolves essentially around the notion of mixed-use. Since mixed-use essentially exists in downtown Detroit because of the simple fact that it is an urban condition, the question then becomes, what does it truly mean to be mixed-use? The focus is to understand the fact that mixing uses can physically merge together different logics of architecture, but how is something truly mixed-use if it literally becomes a cluster of *separate* buildings located within one large building? There seems to be no mixing occurring at all (in the condition of downtown Detroit). What affects can one use have on another? How do uses truly mix? The issues of thesis question examine mixed-use in terms of what it means and what could it mean in downtown Detroit – ultimately to begin to understand how notions of identity can be associated with a construct of diverse uses. The downtown landscape is very "zoned" regardless of its amount of building code labeled "mixed-use" buildings. In the true realm of mixed-use, the very essence of its meaning calls for fundamental notions of interaction, in both human and tectonic language – ultimately the notion of how sharing can be associated with a construct of diverse uses. *What is architecture's role in challenging conventions of mixed-use* in downtown Detroit?

Because of the car, Detroit's overall culture is one based on the notion of sprawl, but more specifically, the notion of Detroit having too much space. As Doug Kelbaugh demonstrated in a lecture at the University of Detroit Mercy, many of the world's grandest and most successful city centers can fit within a single area of the central business district of downtown Detroit. This completely displays the notion that the Detroiter culture has the ability to easily spread out. People seem to search for space, and there is plenty of it, but while this seems as a being a good thing, it actually diminishes the Detroiter culture by creating a cultural disconnect. What seems to be the tendency for Detroiters is to build or produce first, and then try to rationalize what they have created. This is the case that is made evident when we try to understand the reason for such need

for space. The diversified ethnicities of the city have no chance to intermingle in this condition. Differences and similarities have no place to be realized in a sense. Not to say that culture lacks in Detroit, but rather it is ignored by its built environment. The culture described here is not so much about understanding the historical significance of Detroit's art, theater, etc., but rather to demonstrate the everyday culture. Detroiter culture is also a constantly shifting culture with the influence of many ethnicities either doing business, studying, or even residing in the city, just as many other urban cultures, except it can not be realized in this case because the built fabric of downtown makes no reference to it. With the condition of downtown Detroit, culture or allowing the city's culture to be evident depends on being rooted within it. The evidence of a specific culture cannot take form unless it has the notion of place, but not isolation. The fact that a Detroiter culture encompasses the idea of large space, being rooted within a place cannot occur – following conventions of zoning laws allows for a culture to remain static, therefore hindering a culture's *image* – "a physically present human environment that expresses the characteristic rhythmic functional patterns which constitute a culture" (Tuan, 1977). When uses become mixed instead of zoned or physically separated (by even a single partition), it is should be understood that identity occurs at a level where a place is dedicated and responsive to its context rather than inserted selfishly to exist as an element that could be placed in any downtown all while having an identity of its own by maintaining a unique character – a unique and recognizable icon.

A sense of home in the city of Detroit is blurred by emptiness (vacancy) which may be obvious given the scope of this discourse thus far. However, many other factors contribute as well. The notion of time and place are at work in this condition as well. To put it abstractly, the idea of Detroit in some sense is static movement. "Place is whatever stable object catches our attention" (Tuan, 1977). If uses simply butt-up against each other, it can be said that they are "stable"; the issue is that the stability is a sort of redundant stability in which there exists characterless connections between city elements and therefore there truly is nothing significant that catches our eye – thus lacking a sense of place. The issue here is the notion of permanence. Permanence is required for a sense of place; we require a sort of existential foothold to give us the sense of belonging – in order for us to understand what use or space we belong to in respect to others. In Detroit, it can be said that permanence is related to the architecture of the high-rise office building. However, this means single-use work functions in other words, and there is nothing these static elements have to address responding to downtown as "home" (an identifiable place that responds to its adjacencies), in fact they do just the opposite. Naturally this permanence associates attachment into the equation. Attachment to a place not only exists in a person's sense of identity, but also within the notion of a familiar place – activities and sense qualities. There also must be an understanding of familiarity giving a value to a place. To give a place value exists not only in the attachment of the physical place itself, but more importantly in the intimacy of human body relationship. Furthermore, this can demonstrate that duration does not completely give a place its true value in identity (or realizing it within a larger construct). Rather, it is the quality and intensity of experience that is greater than duration – the simple notion of crossing the threshold from one use to another associates identity, etc. This should apply to mixed-use structures in downtown Detroit and should be a key consideration in the fact that identity lacks in the urban fabric. Furthermore it must be said that experience is greater

than even the physical artifacts that make up a place - "action rather than mementos will support his sense of identity" (Tuan, 1977). The condition of downtown Detroit is one where the urban environment is disorienting or rather way finding can be difficult given its condition. Identity depends on learning – learning to know the downtown that requires the identification of significant localities, and so the importance in the diverse tension between a certain type of use and another type, create moments of contact that allow a critical movement in the urban condition – more specifically, an awareness of adjacencies that communicate a continuum of diverse and interchanging parts of the urban condition. In general, modern architecture caters to the eye, but what does it do to create orientation and movement in the city? When examining Detroit, it must be understood that cities are long lived artifacts, they must be attended otherwise they remain in the kind of decayed state Detroit is in. "When we look outward we look at the present or the future… look inward (introspect) we are likely to reminisce the past" and thus the static connections between uses offer little or no possibility to truly encompass a city landscape, and a city landscape (the exterior urban environment) holds the present and the future – if ignored, or if we introspect too long, the critical relationship between humans that keep cities alive does not occur – hence Detroit's condition. This refers to the notion of public and private space to individual and collective space – that there is a distinct separation between them in that they do not *mix* – there exists either or, and seemingly never both at the same time.

The notion of sharing or a shared environment refers to public space in downtown. In public space the physical space belongs to all who occupy. In general there needs to be a distinction made between private and central public space (what belongs to a public group and what belongs to the city as a whole). One question that arises is: is there a difference between a building public space and city public space? It may seem ideal to organize public space, but if public space is about the notion of sharing, it seems that organizing public space contributes to the single-use realm that zoning endorses. It maybe beneficial in downtown Detroit for a distinction between building public space and city public space not to exist or in other words allow for the notion of mixture to occur – the element of *mixture* refers to the notion of a program element being mended / blended with another (exchange of properties) which makes up the notion of sharing or mixed-use. This brings about another point of public space, in that it refers to the notion of a shared density that has been lost in downtown Detroit. This idea consists of the fact that in the general public domain, perhaps the unrealized and simple desire is the want to watch other people – to observe, to be part of the collective. Whether or not interaction occurs or not is unimportant, rather it is the simple awareness of the sharing of space (or views into) that is desirable – as made evident earlier, this dose not occur downtown. The notion of mixed-use can allow a kind of intimacy to occur as well. Shared intimacy does not require knowing the details of each others life, rather it glows in moments of true awareness and exchange (although exchange is not a requirement in order for intimacy to occur). It is up to architecture to create the spaces for, at minimum, awareness to occur.

The value of understanding that participation does not simply mean interaction with others, helps to bring to the surface that the urban landscape has to be able to accommodate for passive elements of the collective. Architecture must be a tool in allowing the person that is not interacting to have awareness of the fact that simply their

presence is a certain addition to the participation of a public space. For downtown Detroit, this may be a critical. Generating a sense that simply being downtown is a participatory act reintroduces a kind of pedestrian initiative. Mixed-use brings about the idea of diversity in a congenial environment. In general, culture fracture is a standard trait in any urban fabric. What I mean by cultural fracture is the fact that diversity in culture exists in every urban fabric to the degree that it produces a healthy tension. This healthy tension is simply the notion of diversity in people that an urban environment is dependant on. Thus, this tension becomes what the public space, the congenial environment, is dependant on. Downtown Detroit is in need of this diversified congenial environment, but at the more permanent scale – an everyday scale that introduces an architectural language that gives the expression of differences and similarities – between humans as well as architecturally. It may exist already in mixed-use programs downtown, however these programs are so governed by their characterless partitions between uses that this notion is impossible to realize. This refers to the expression of opposing styles or forms – tectonics and tactile differences. Furthermore, it must be said that gestures such as laying a cornerstone or planting a tree in a public square are beautifying acts that busy and skeptical citizens attach little meaning to – not to say that these acts are useless, but there needs to exist more. In other words, in the city there needs to be bigger efforts towards critical regionalism – an association applied in human to building relationships.

We must keep in mind that there is no such thing as an inanimate object in the city – all artifacts have meaning which can only mean that all have a part in human interaction and individuation. The notion of diversity in a congenial environment yields a true mixed-use agenda for downtown Detroit. This may mean, to put it simply and bluntly, that zoning needs to be eliminated, with certain exceptions that rely on common sense (safety and well being issues). The fellowship of a multitude of cultures creates a new and original product specific to a city – a new product that is constantly self sustaining and self updating. The architecture of a city is the lens thorough which we can view this.

The Architectural Vehicle

The architectural vehicle is a circumstance that is based on technology, leisure and research, living and working, and exposition in order to explore the preceding issues. As a prototype, in attempt to address these issues in the context of our present time, it is appropriate to juxtapose them with the omnipresence of technology and the constantly moving or shifting life of today as well as the future – the visual, interactive, and communicatory medium of technology, as an omnipresent element in our lives, interweaving with the architectonics of an urban space. The focus is not to necessarily dwell on technology or visual media, but rather to interweave technology with these conventional uses, and to alter the conventional views associated with them. In order to truly challenge the conventions of mixed-use, it is critical to explore through a program that takes into account leisure and educational uses because their qualities are almost completely opposite. The notion of living is critical to include in this investigation

because the very essence of mixed-use is situated between the coexistence of private and public realms. And so the intimacy of a dwelling space juxtaposed to openness of a public space is crucial to challenge – in large part, this forms the basis of the private to public (individual to collective) relationship in this investigation. Also, associations of a live / work condition refer to and rely heavily on the notion of mixed-use, and it is important to challenge them – to discover a 21st century identity for the daily rituals of living and working. Exposition refers to public display in that it will challenge what it means to hold this activity amongst the edges of private or individual spaces that ultimately define the space(s) of exposition itself. This circumstance overall will challenge conventions of mixed-use by applying the deep notions associated with these uses (technology, leisure and research, living and working, and exposition) to a construct that physically and visually mixes them. Again, the basis of the architectural vehicle and the program it encompasses is to challenge the dichotomy of private or individual vs. public or collective space.

It must be said, however, that it is too much and almost impossible to take on the task of attempting to "fix" Detroit. Furthermore, it seems almost impossible that a single project or proposal can be placed within the decayed city that fixes all of its problems. The goal of the architectural vehicle overall is to introduce a prototype into the downtown urban fabric that begins to suggest a redefined way of thinking about how the urban environment of downtown Detroit could be designed. This of course is kept at the scale of a single intervention on a single yet critical location in the city. The issue of site (as well as specific programming) will be discussed later. To put it simply, the architectural vehicle will look at downtown Detroit through eyes of the 21st century begin to apply an architecture that goes beyond new urbanism - to apply an architecture that is sustainable in terms of it being a self updating program, in other words allow it to have a critical permanence.

Precedent Analyses

Saynatsalo Town Hall: (*Saynatsalo, Finland*)

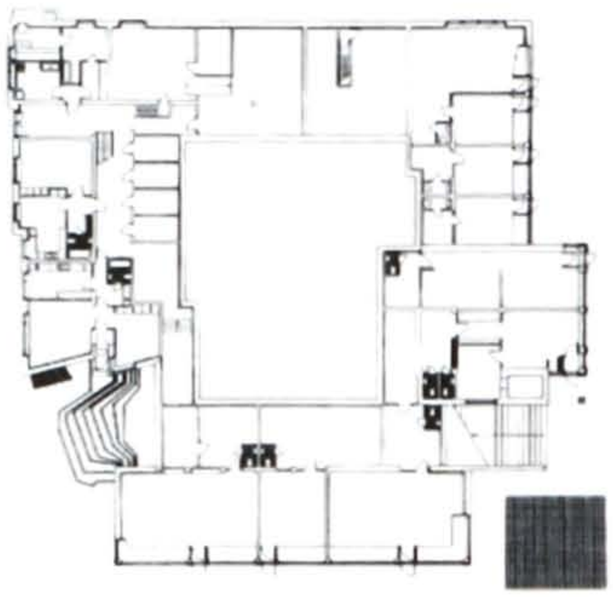
Alvar Aalto

-A 1949 competition, built in 1952 that contains government offices and city hall including a public library located in a small town center. There also are residences for employees and retail at the ground floor – a multiuse facility. This project, occurring just over the mid-point of his career, is one Aalto's most fundamentally traditional and archetypal buildings.

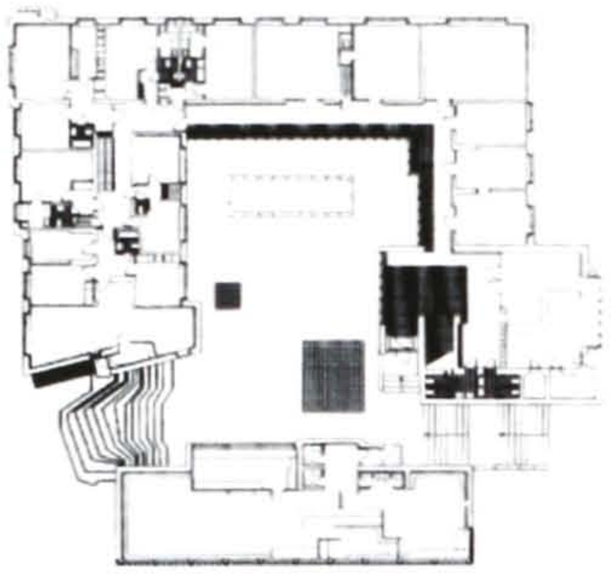
Set in a more rural condition the building surrounds a central raised courtyard and takes into consideration, while emphasizing, the natural conditions of the site – all in an effort to intensify the almost romantic wooded scene it is set in. Aalto utilized a courtyard/tower typology for this governmental program that is said to link modern democratic tradition with many European precedents. The project is a formal paradigm that is common to Finnish architecture (especially in the area) such as typical Finnish farms. The project is also a play in the "juxtaposition of scales; monumental, governmental, and urban against humble, domestic, and rural – multitudes verses the individual." This issue relates back to the fact of the raised courtyard acting as a podium creates scale shifts between the exterior of the building and the interior of the courtyard. There also is a distinction and emphasis on the site that dictates the procession of entry. The rear steps, facing a more natural land formation, are very much fluid and are contoured to almost exactly map the contours of the land. On the opposite, more urban side, the entry steps are the typically rigid and hard edged steps that match the fact that it is indeed an urban type entry procession (less organic). Both of these conditions of the courtyard entry process are very much indeed responsive to the site. The issue of Aalto reintroducing the various building typologies in this project, and unifying them at some level, is a very basic yet powerful move. The simplicity helps us understand immediately how the human interacts with the composition and it also works well in accomplishing what it was meant to accomplish – and that is, to put it very abstractly, an understanding for both community and individual concerns. It can be said that the project as a whole is a city within itself – building typologies that come together and house a mixed-use program. Most importantly, the building is a composition that celebrates the notion of edge. The building is a constant overlapping of forms that create dynamic edges and keep the visitor constantly in motion (in a sense). The building is a strong device in allowing the notion of movement to be expressed, especially on the rear entrance to the court yard. In terms of detail issues, the council room is a focal point. The two splayed, three-dimensional trusses can be read as organic transformations and also "as symbols of growth, of energetic movement, and, in their large number of radiating supports, of community and civic responsibility." This quote (and the previous) from *The Alvar Aalto Guide*, demonstrates that it is also within the small moments that attention must be paid – the micro scale. At perhaps the smaller scale again the materiality, more specifically the

brick exterior, is one that displays a certain sensitivity. The rich texture of the brick and the joints between demonstrates a play in materiality as an element addressing the human concern of warmth perhaps. Although the building is not set in an urban environment, it can be said that it is mimicking an urban condition, through again its use of building typologies, but also the window sizes and placement give it an urban quality as well.

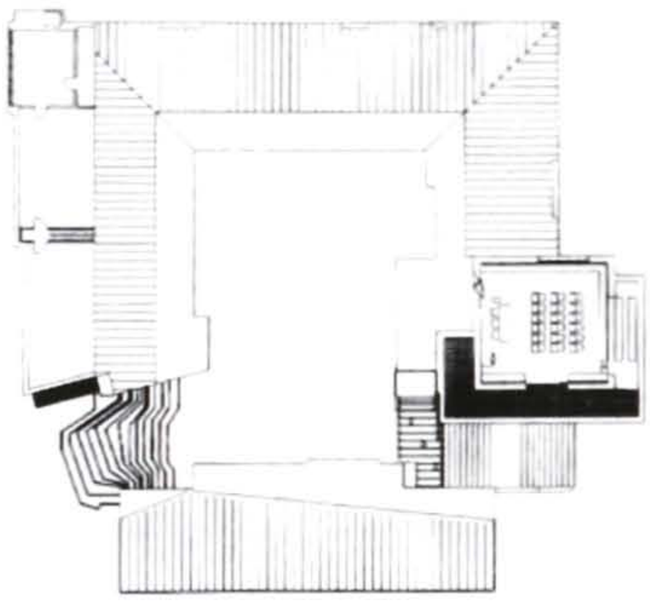
The Saynatsalo Town Hall is relevant to this thesis in a number of small ways. A town hall for some other location is not going to be designed nor will it be in a sort of rural condition as Aalto's is. In other words, this exact project type is not what I am thinking of as an architectural vehicle to explore the questions. Rather, it is within its architecture and the concepts driving it that are relevant. The project undertakes a series of issues I want to consider when conceiving this thesis project. These relevant issues include: understanding building typologies to create the juxtaposition of scales (mainly multitude verses the individual) and understand human interaction and movement through space, emphasis given to the natural condition of the site and environment (references to the specific site), the care and emphasis of the small moments of architecture, a criticality towards materiality, and an understanding of a hybrid living (mixed-use facility) amongst, residential, financial, communal elements and so on.



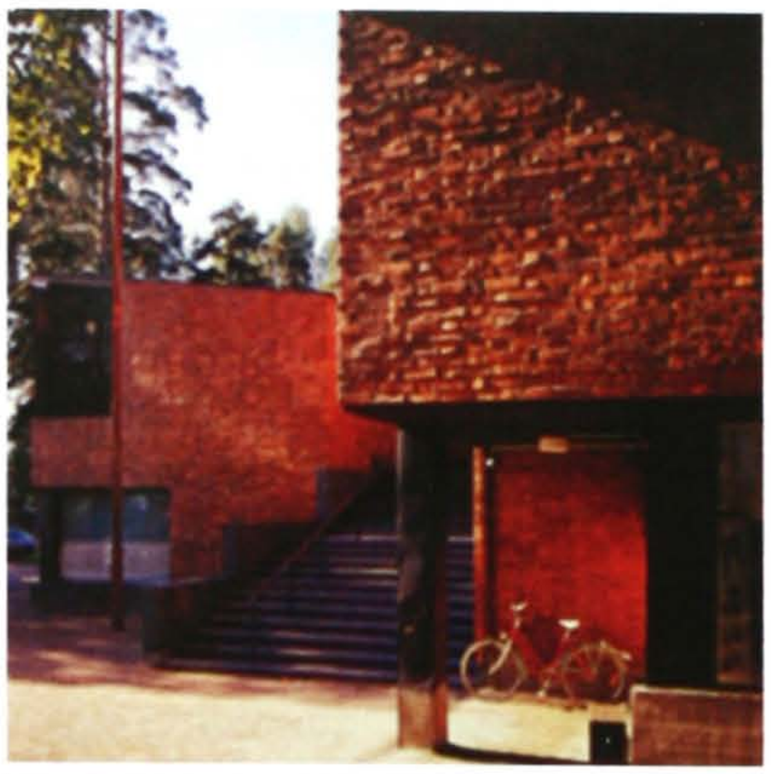
Plan at ground floor level



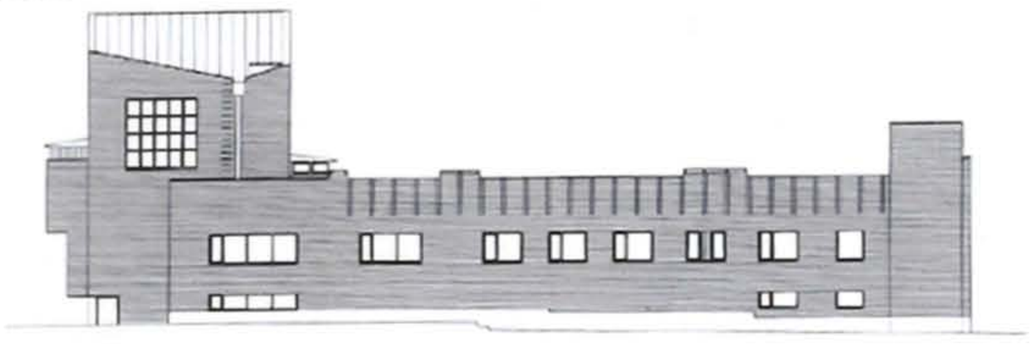
Plan at court yard level



Plan at council chamber level



North elevation



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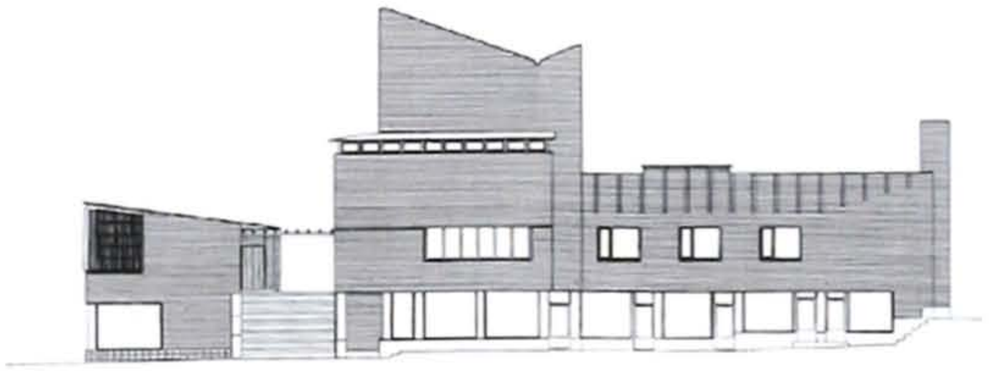

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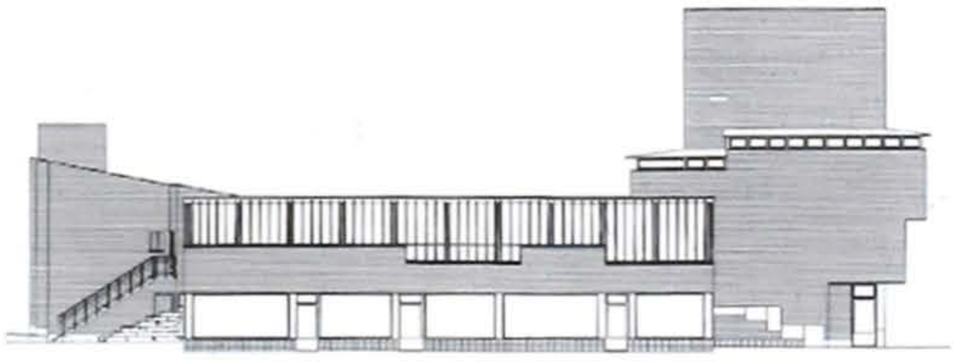

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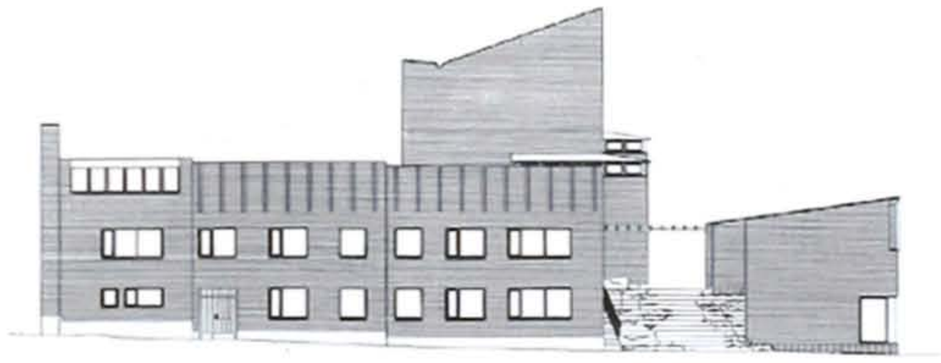
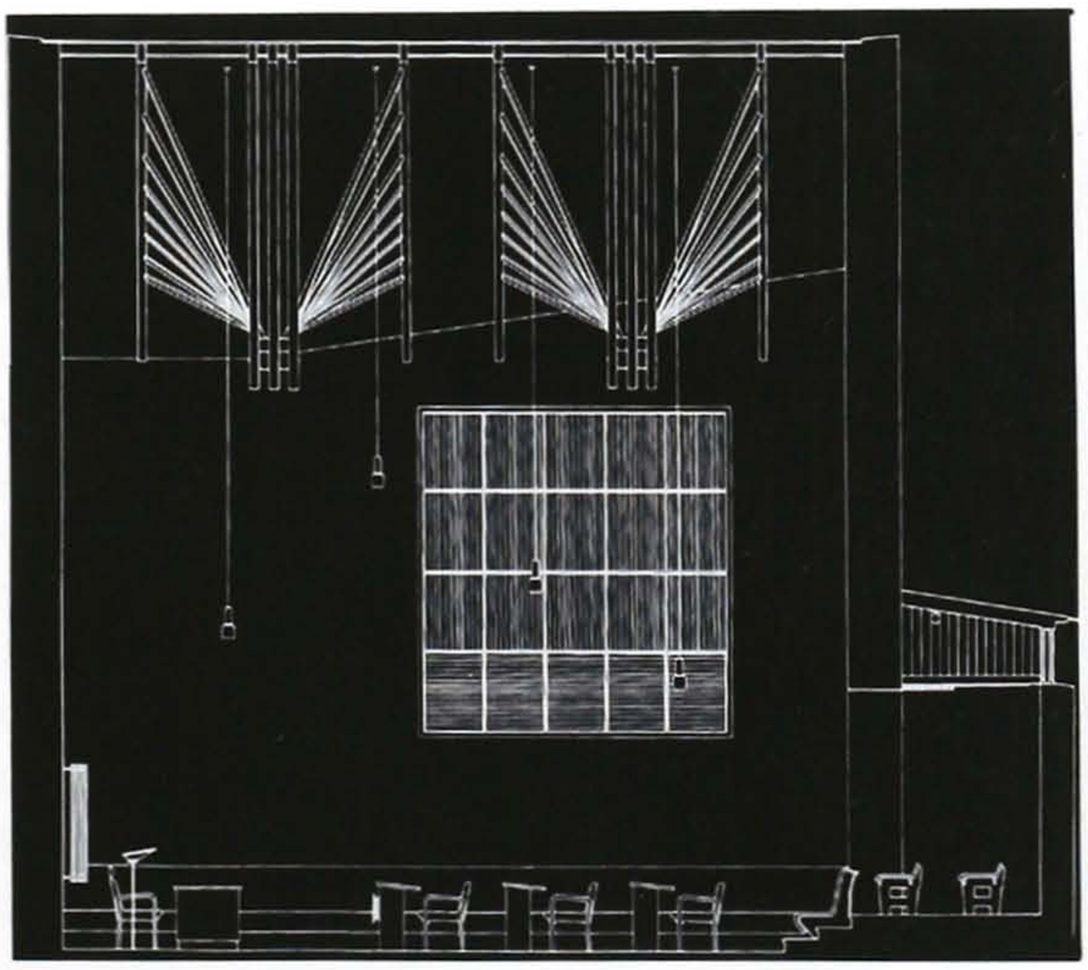
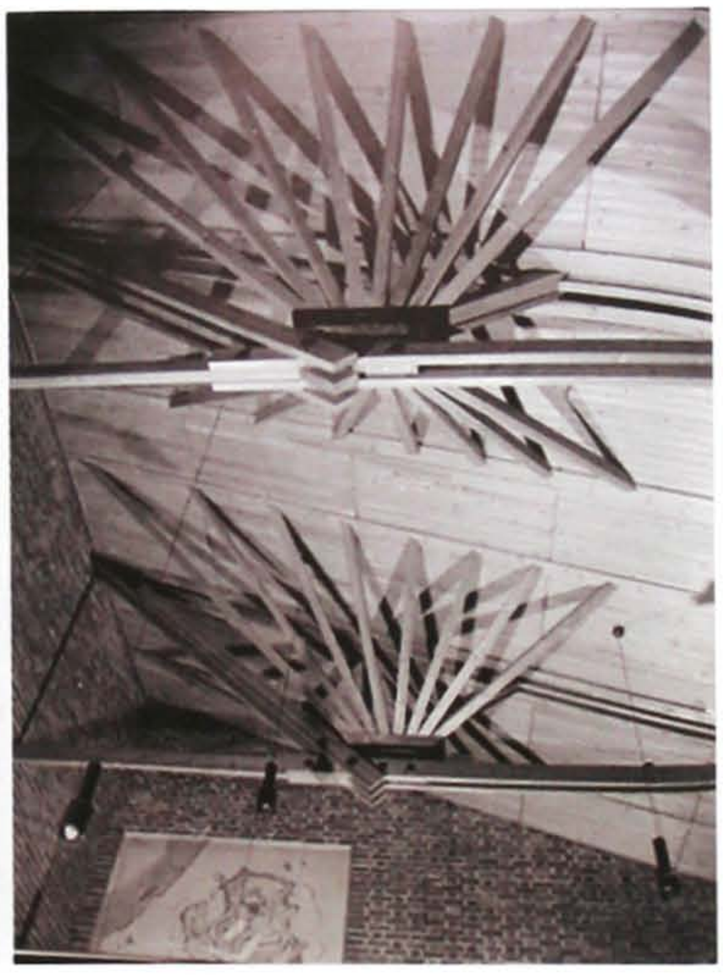
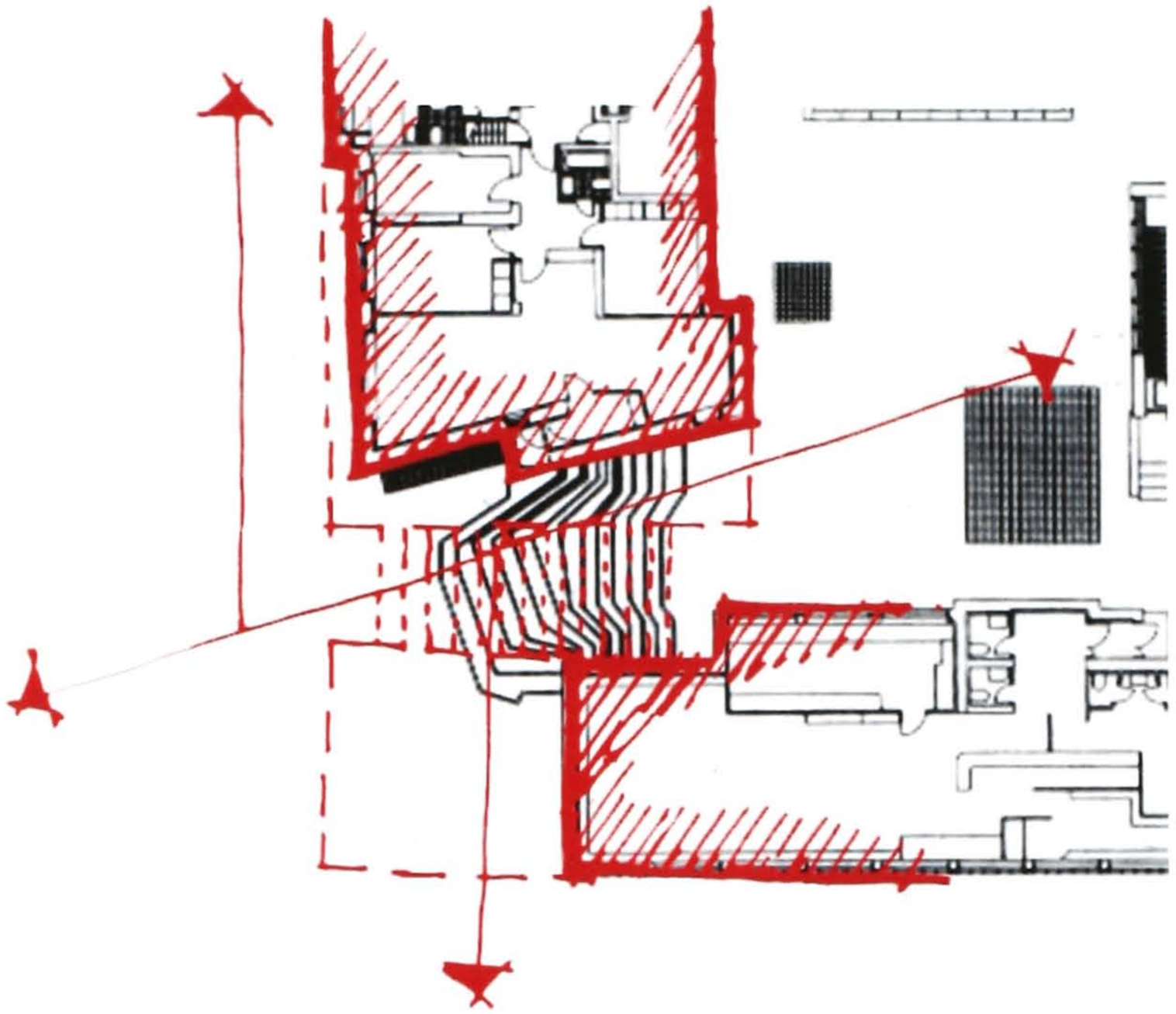
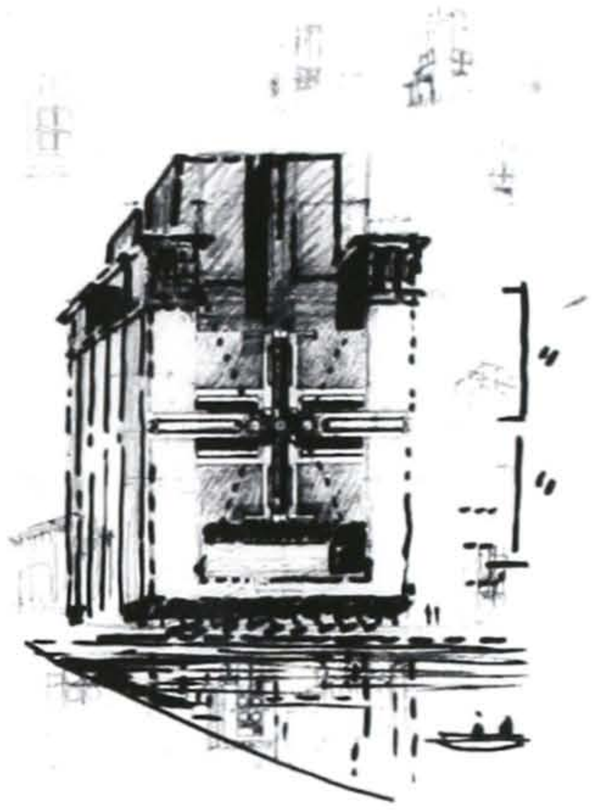










Kirin Plaza Osaka: (*Osaka, Japan)*

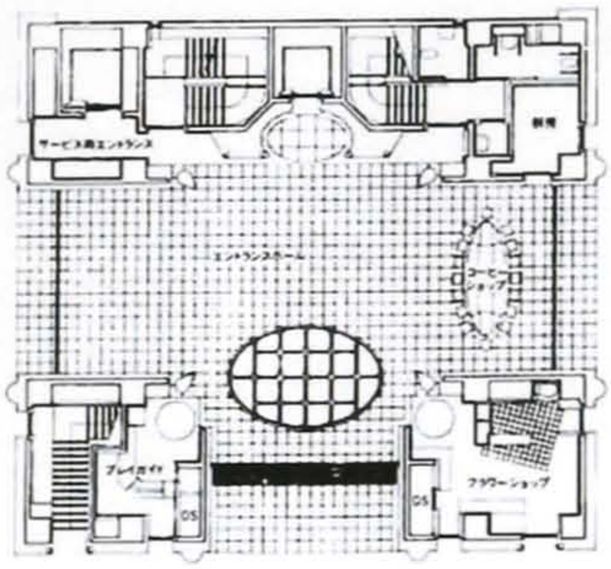
Shin Takamatsu

-Designed between 1985-86 and built in 87, Kirin Plaza Osaka (KPO) functions as an art gallery/café and brewery, or "art + beer complex", located along the Dotombori River in the busiest, most crowded district of Osaka (Shinsaibashi). This project, which is said to be the most prestigious, and possibly, the riskiest project of Shin Takamatsu's career, covers 356 square meters of surface area – a building commissioned by the Kirin Brewery Company.

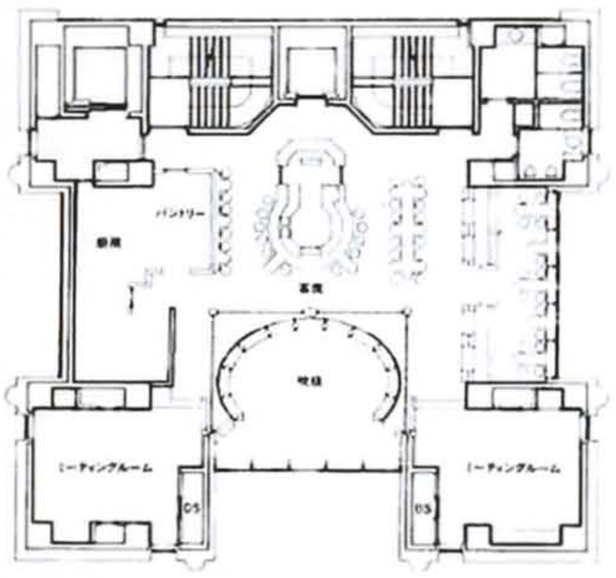
In the context of an incredibly dense and dynamic urban fabric of Shinsaibashi - a chaotic mix of brightly lit signs and jumbo screens in a dense fabric of shops and pedestrian/vehicular traffic – the building's site is a logical choice given its program. The building is definitely tolerant of "the chaotic mixture of textures, color, and noise" that surrounds it. Takamatsu is comparing the colorful chaos with a structure that has a relatively uncluttered exterior. The building is a large solid mass that seems "vague" against its urban context but acts as a monument. A horizontal axis, defined by an almost continuous metal tube structure, is used as a device to organize and separate the building mass from the sign mass - the building mass being the lower portion or the actual occupied cube that houses the functions, and the sign mass being the upper portion that contains the 4 light towers. The focus here seems as an attempt to relate the building to the scale of its neighbors and to allow a quiet abstraction of the pulsating signage of its surroundings and absorbs their complexity. Basically, these gridded towers act a sign for simply emitting light, and during the day, mimic the curtain walls of nearby office buildings. It seems that the exaggeration of the height of the towers is a bit much, however, a shorter height may have suggested a uncertainty in whether the towers should be there at all. The surface of the voluminous building is textured and very dynamic with the faint grid of black granite tiles and the interruption from inlaid metal elements which include the horizontal metal tubes and mirror polished hemispheres. The building seems to take on a technological quality, or in other words, its play in materiality, the shiny and matt metal elements juxtaposed with a solid mass of a grid of solid and opaque panels, seems to suggest a machine-like quality that seems very appropriate in regards to its surroundings and its building program. As stated and said best in *Shin Takamatsu,* a book edited by Paolo Polledri containing a documentary on the Kirin Plaza Osaka, the shiny metal elements on the buildings surface "reflect light and movement, absorb the context into the structure of the building, and create an enduring but dynamic relationship between building and urban setting… reflecting movement… the surface becomes animated, sparks and images energizing metal and granite surfaces with an electrical charge." In this building Takamatsu also makes classical references and it seems quite evident. More specifically, he makes Palladian references. The building is based on a

strong symmetrical order with no defining of front, rear, or side – a 4 sided building with each face having equal importance, however, it seems that one particular entrance is communicating itself as the main entrance. It is said that the four massive corners, from the base to the metal elements, represent columns and capitals. The hierarchy of parts, starting form the light towers down to the base, seems to perhaps suggest a classical language as well. It must be noted that Takamatsu did not design the interior of the building, except for the entrance lobby which was made into a "portico, a space that is neither indoors or outdoors", and it is easy to see why. The lobby feels as open as being outdoors because of the large amount of glazing and the multistory height, but it also give reference to the fact that one is indeed in an enclosed space because of perhaps the treatment of the thick mullions of the glazing grid. In terms of the how successful the building is in addressing the needs of its functions, it seems completely appropriate. For an exhibition of art and the mixture of a café and brewery as well as restaurants, the building is a very successful intervention. The Kirin Plaza Osaka is to this day arguably noted as the most successful of Takamatsu's designs.

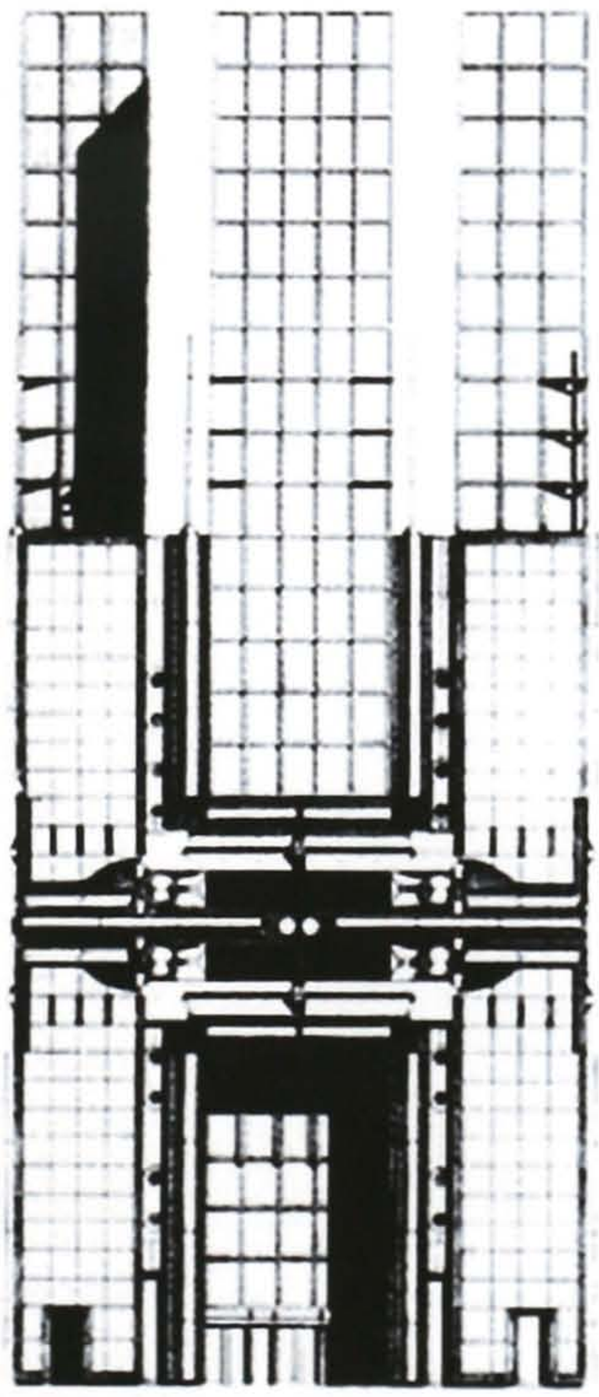
The Kirin Plaza Osaka is relevant to this thesis in many ways. It is similar to a building program type that this architectural vehicle for exploring the particular critical position is – a mixed-use program utilizing culturally influenced activities. It is also within its architecture and the concepts driving it that are very relevant. Its criticality in reacting to the urban environment is crucial. The fact that it creates a sort of energizing movement in the urban edge and suggests a machine like, almost technologically influenced, motif is an issue I also am interested in exploring. Furthermore, its sensitivity in materiality, creating its dynamic texture - how important texture is in achieving what its design goals are - is influential. The reference to a sort of classical (Palladian) language, although not particularly thought of as a major influence of this thesis, may be beneficial to consider so that I may be conscious of maintaining order and avoiding awkward proportions in my designs.



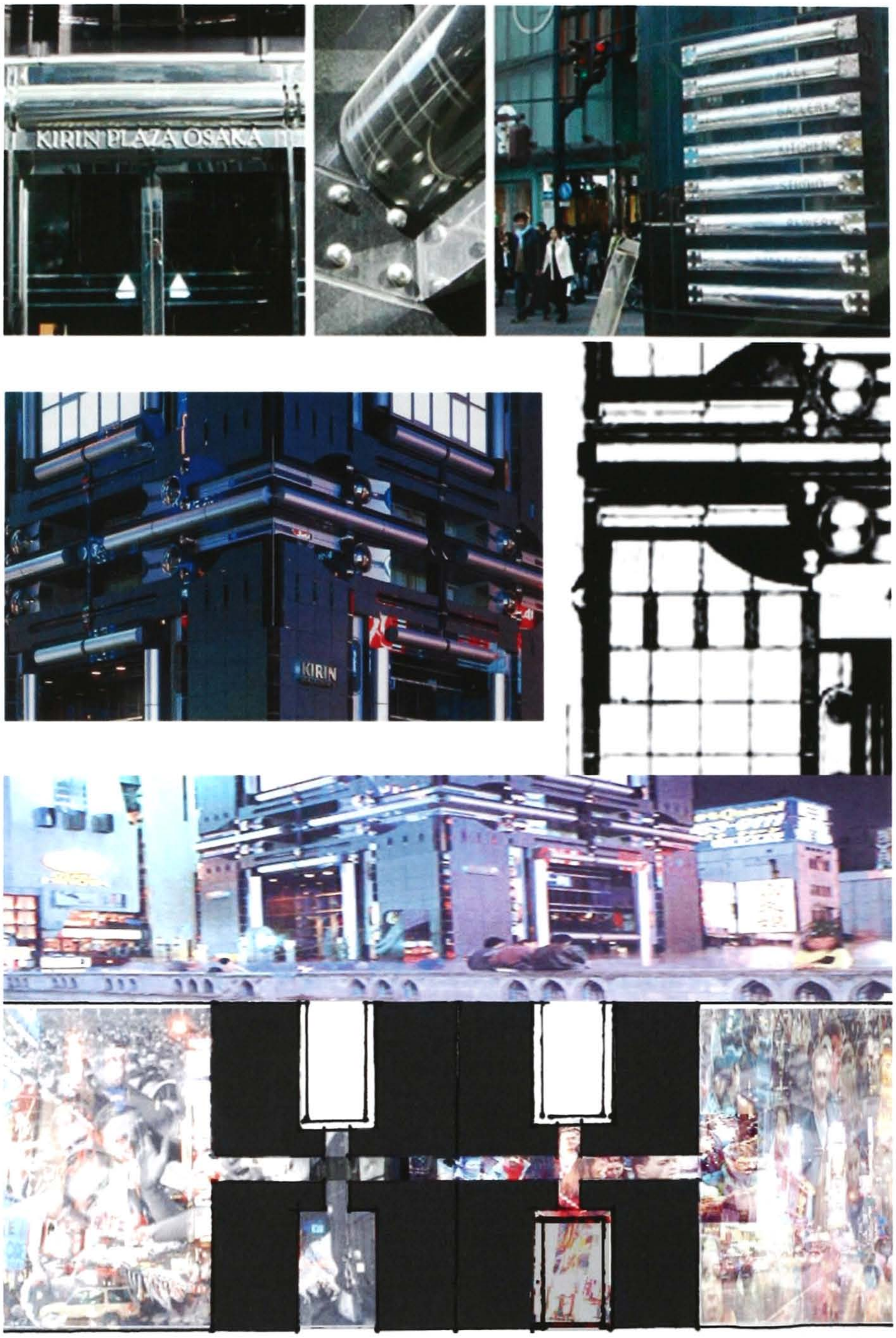
1階平面　縮尺1／400



2階平面



西立面　縮尺1／400


KIRIN PLAZA OSAKA
KIRIN

Sketch Problems

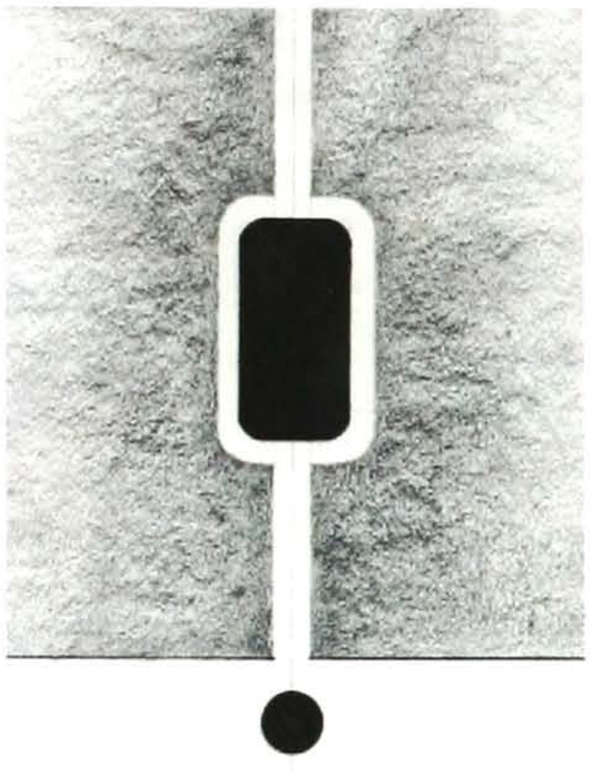
The sketch problems offered on the one hand ([re]looking) a "warm-up" before engaging in the thesis investigation – to learn to explore on a more critical level, learning to see through a different "lens" – and on the other hand ([design] thinking) to think of a single, abstract idea of the thesis question and explore it in full-scale, built form.

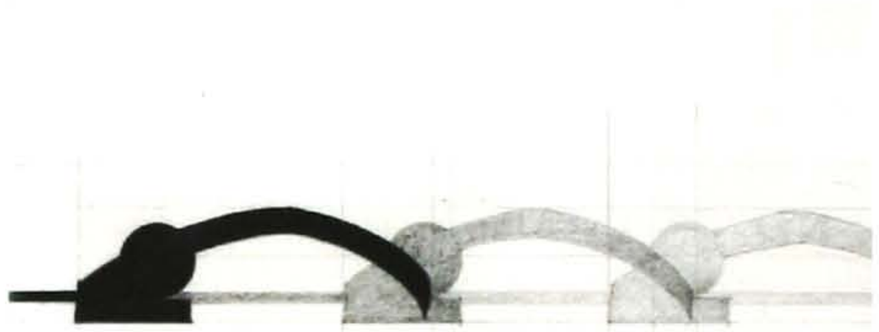
[re]looking:

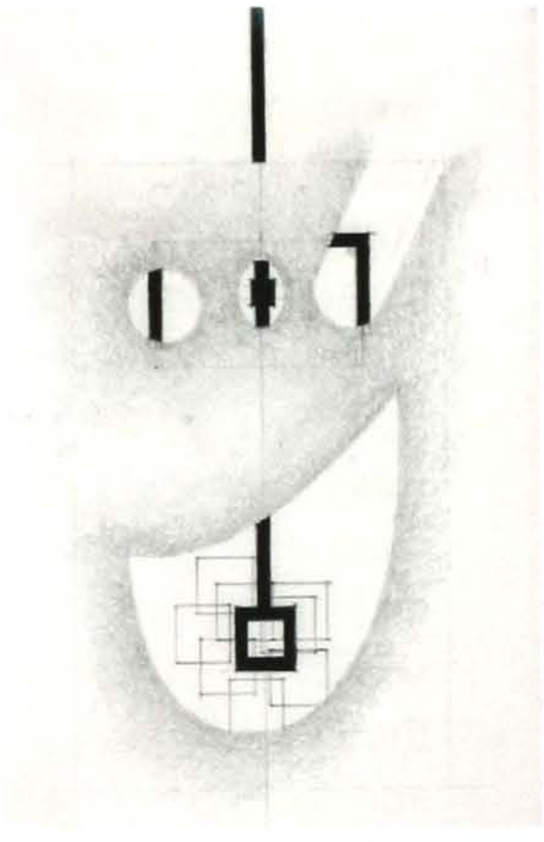
The structure is not large. However, how it engages the human and enhances or amplifies the body both physically and experientially (mentally) is quite significant. It is a shell or even a warped dome structure with clearly defined edges. Its shape can read as something that fills a void. The shell is a blue, metallic color that gives it a diffuse and bright reflective surface that perhaps calls attention to the structure. The shell is opaque, yet the clearly defined edges of the structure almost translucent. There is a clearly defined separation between top and bottom – between the opaque dome shell and the semi-transparent edges. A thin continuous joint defines the separation and suggests the fact that the shell can be lifted off - almost a distinction between a roof structure and the walls supporting it. Two grey and completely independent and slightly curved panels in the front of the structure terminate the shell. There are larger and more defined continuous joints that suggest that the panels have an independent function. The joints at the top of these function panels are tighter and suggest a pivot point – panels rotate along the pivot point. Between the two function panels a smooth rubber wheel exists, set in or inserted into the structure that disturbs the clean continuous curve of the shell and function panels. Slight indentations on the surface of the function panels that exist in front of and behind the wheel suggest not only movement or rotation of the wheel (back and forth), but also the fact that the wheel (with its physical implications on the panels) works in conjunction with the panels. Extruded from the front of the structure, just below the function panels on axis with the joint between the panels, indentations of the wheel, and the wheel itself, is a cylindrical wire. Wire location seems critical, and suggests an information carrier path - relaying the results of function panel movements and wheel movements into another system perhaps – a higher source. There is not only a color difference between the shell and the function panels, but a tactile difference as well – texture. A smooth curved shell terminates into the very subtle bumps of the function panels and then the very sticky, rubbery texture of the wheel. On top of the dome a clear oval shaped material is set (almost melted) into the surface in an almost fluid manner. The structure's maker or rather its fabricator, is displayed – an advertisement or the "artists signature." When looking at the "front elevation", a red light source is visible through the joints. It is the suggestion of the fact that the structure contains a certain space within, but furthermore suggests perhaps the function elements power source. In profile (or "side elevation") the red light is better visible, illuminating the interior of the

structure. However the see through walls are slightly frosted therefore our vision is blurred all in an effort to only realize the light and not the mechanics driving it. There is a sort of ambiguity that exists because of the fact that we can only see the light source and what remains are the dark blobs of what structural or mechanical elements that may exist beyond. Visible residue of use is evident on the edges (side walls) in that there exists a subtle transition of a matt and frosted texture of the walls to a shiny and very smooth surface of worn out pressure or contact points. The point of physical engagement (the residue of human grip) is made clear by the simple change of texture. As a result this worn out area has made the walls even more transparent to the interior, thus providing a glimpse of the interior mechanics - a natural implication that allows us to make some sort of assumption of what the light's function is. With every movement of the structure the light intensifies then dims when at rest – a clear correlation between function and movement.

The physical structure as a whole (its shape and form) suggests a purpose – to engage physically the human. There is the residue of the comfortable repeated use of it that suggests this. Furthermore its social purpose is the human's vehicle for moving through the digital world – our second world (cyberspace). It engages our physical body while our mind travels and searches –physical movement of the structure equals virtual movement. It has evolved into a tool that has become as common as the pencil or pen, however undersupplied with one of humans most critical and unique feature, our style – the disconnect between humans and the ability to craft.



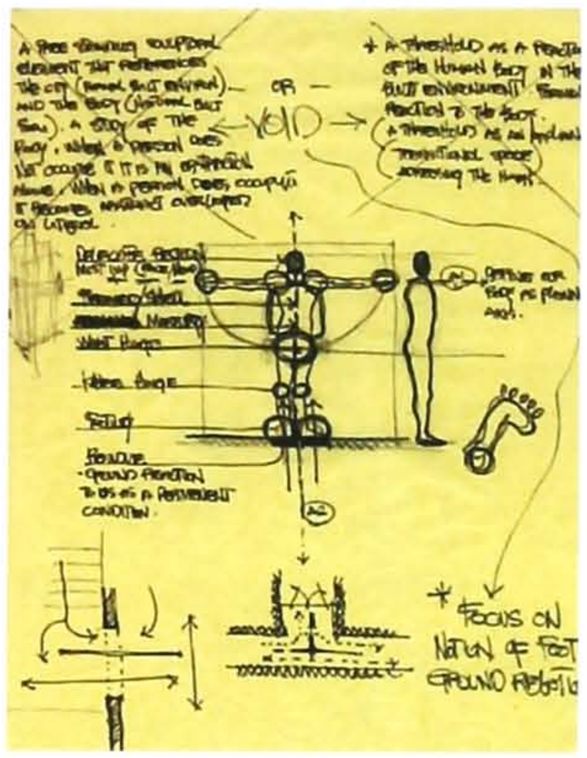


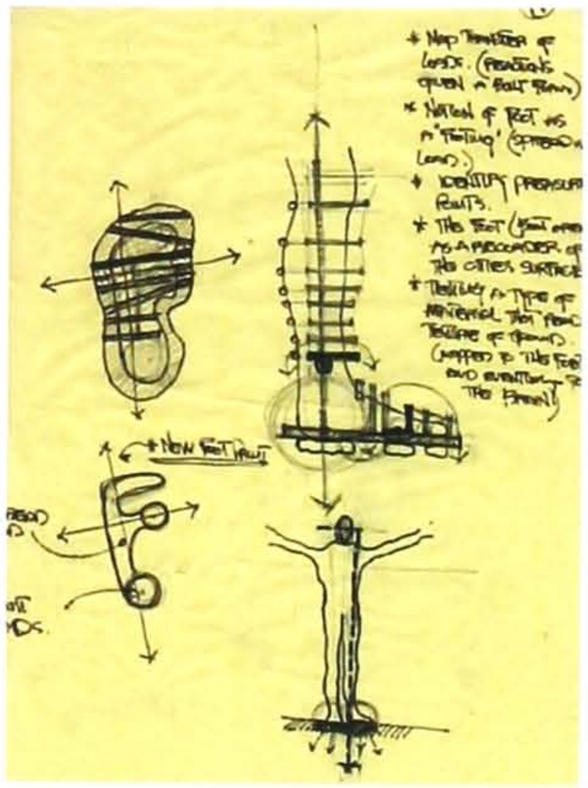


[design] thinking: "the city inside/outside our bodies"

The human body is a structure full of moments – structural moments more specifically. A series of hinges that move and make it function; a complex system of structural components that our buildings or built form seem to almost mimic. The body also is a structure that is a series of axis definers (some more formal than others), both symmetrical axis and non-symmetrical axis.

The purpose of this study is to understand the micro landscape of our bodies. Moving from head to toe and analyzing each major component to understand how they work, how they feel, how they look, and why they are the way they are, (mapping the body as a landscape) in order to begin to realize the way our built environment – in general the textures of the city - can respond or begin to have a sort of sensitivity towards the micro landscape of the human body. The goal is to create an appliance that interfaces between the built condition (the city) and the body in order to demonstrate how this detailed micro landscape can be addressed. It is almost impossible or rather it goes beyond the scope of this study to create an appliance that addresses absolutely every issue that the detailed analyzing process that I have gone through does. Rather, the question becomes how can a single moment, a special moment of the human body interacting with the city, be the focus, and an appliance be created to describe its micro landscape relationship to the city? Of all the critical areas analyzed, what single area of the body seems most important in regards to the relationship of the pedestrian to the city? In my opinion, this area is the foot, more specifically the notion of the foot being the only true and almost constant physical link between pedestrian and city. We touch the city with our feet; it is our literal connection to it. The notion of the pedestrian is defined by foot to ground relationships. If we do not want to engage the city we still can, and almost have to, touch it. Our relationship to the city (in terms of the pedestrian), no matter how we want to experience it (action or inaction) always is defined by touch, that is, our feet to the pavement/pavers/stones/grass/etc… But this is not limited to the actual foot itself; rather it is the idea of the leg acting as a column resting on the

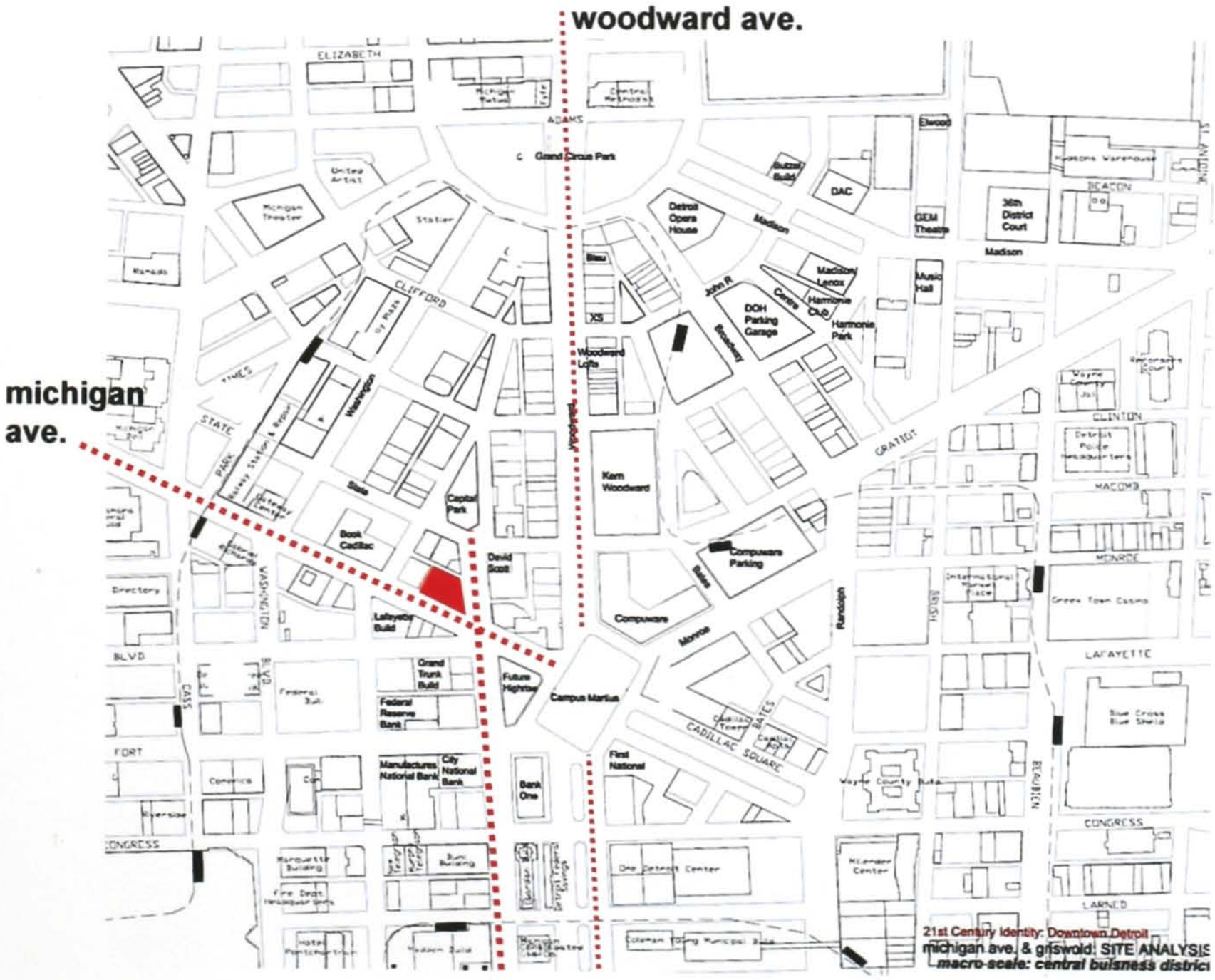




foot, acting as a footing that is important. As a result what has been designed is a device that celebrates the condition of foot to ground relationships, taking into account the physical form of the foot to ankle, and ankle to leg. Furthermore the functional conditions of the foot, in terms of the rotational moments or the hinge conditions of the foot and leg are emphasized - our bodies as a series of structural hinges is also important in the foot to ground relationship. The hinges of the foot, toes to arch connection, and the ankle, foot to leg connection, are specifically defined as crucial elements on this appliance. Also, in terms of the column to footing analogy, it is important that the appliance give a built form to the issue of the load of the body to the ground and the reaction of the ground to the body. Finally, the appliance allows or rather enhances the sensibility of the foot. In other words, the sole of the appliance is not only contoured to the true shape of the human footprint, but also it's material allows the texture of whatever ground surface that exists below to be read almost as precise as when walking barefoot.

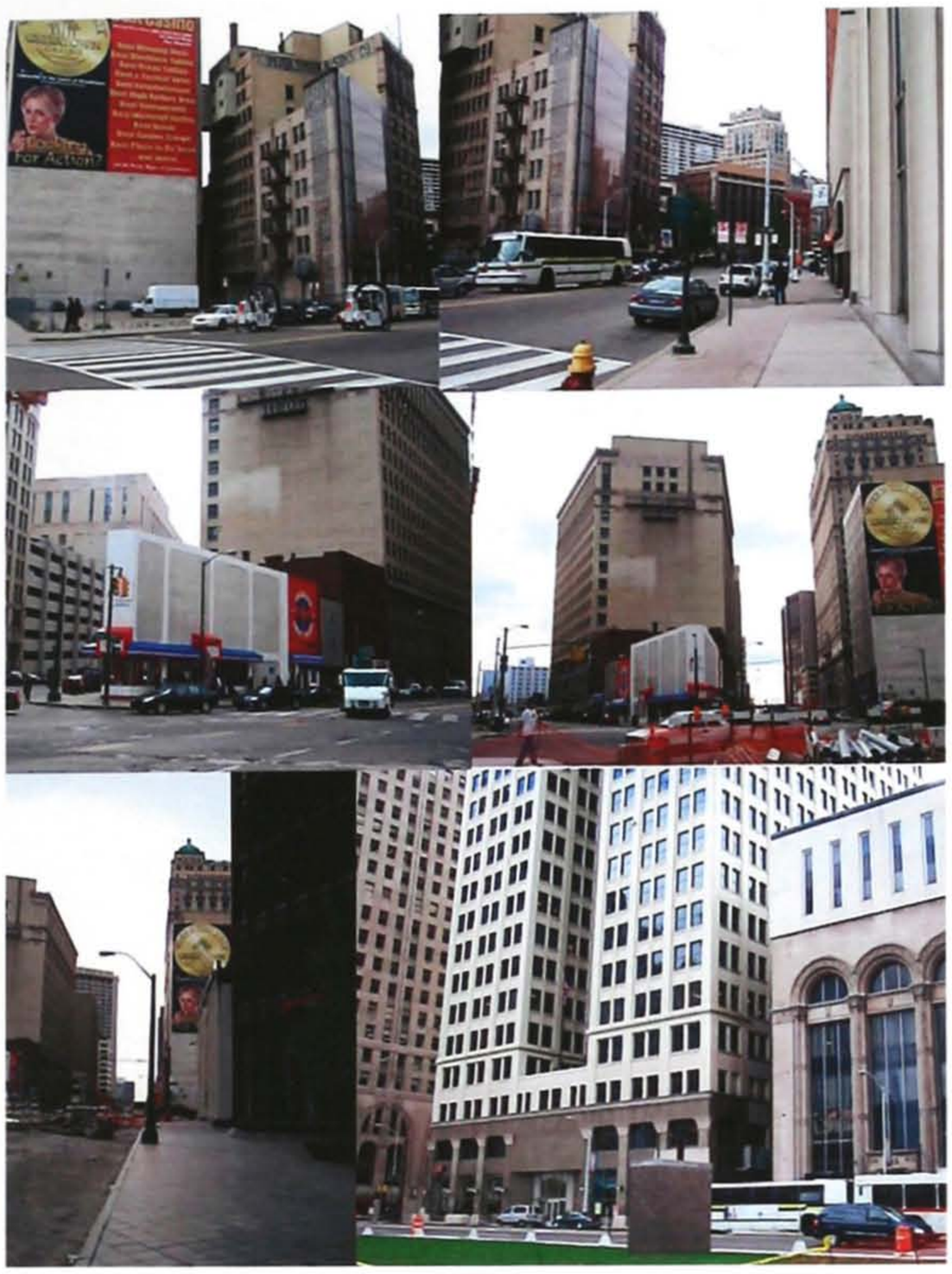
The Site:

For this architectural vehicle, the site is completely critical. While it is a prototypical study, it will be specific to one particular site. The site is located at a critical juncture in the heart of downtown, in a crucial location of major street intersections or framings. This makes the most sense given the scope of the issues I've examined. The site is adjacent or rather on axis to the major downtown parks, which sets the stage for this intervention to address and focus on street design efforts as well. The sites chosen are at the northwest corner of Michigan Avenue and Griswold. In brief, the site is a hybrid condition in terms of influences from elements that abut it. These include direct influences from the financial district and its tower typologies, the hustle and bustle of successful "mom and pop" shops with the major one being the American Coney Island restaurant that strives in the area, the fact that the streets become strong axes that terminate at successful urban parks – Michigan terminating at the new Campus Martius park that marks the city's center and Griswold terminating at the near side at Capitol Park and at the far side Hart Plaza and the river front, and the influence from lower Woodward corridor and its new and somewhat existing residential units bringing density to the area. As a result of these major influences, the site immediately demands, in a sense, the notion of mixed use. Its nodal quality created from the intersection of Michigan Ave. and Griswold give it the opportunity to become a focal point in terms of the procession on these major axis – the site is strategically framed within the edges of the downtown that already exist. Furthermore, the void of this site juxtaposed to the masses of its abutting neighboring buildings amplifies the very notion of a void in the city's fabric – a crucial void indeed.



-location map: site within central business district

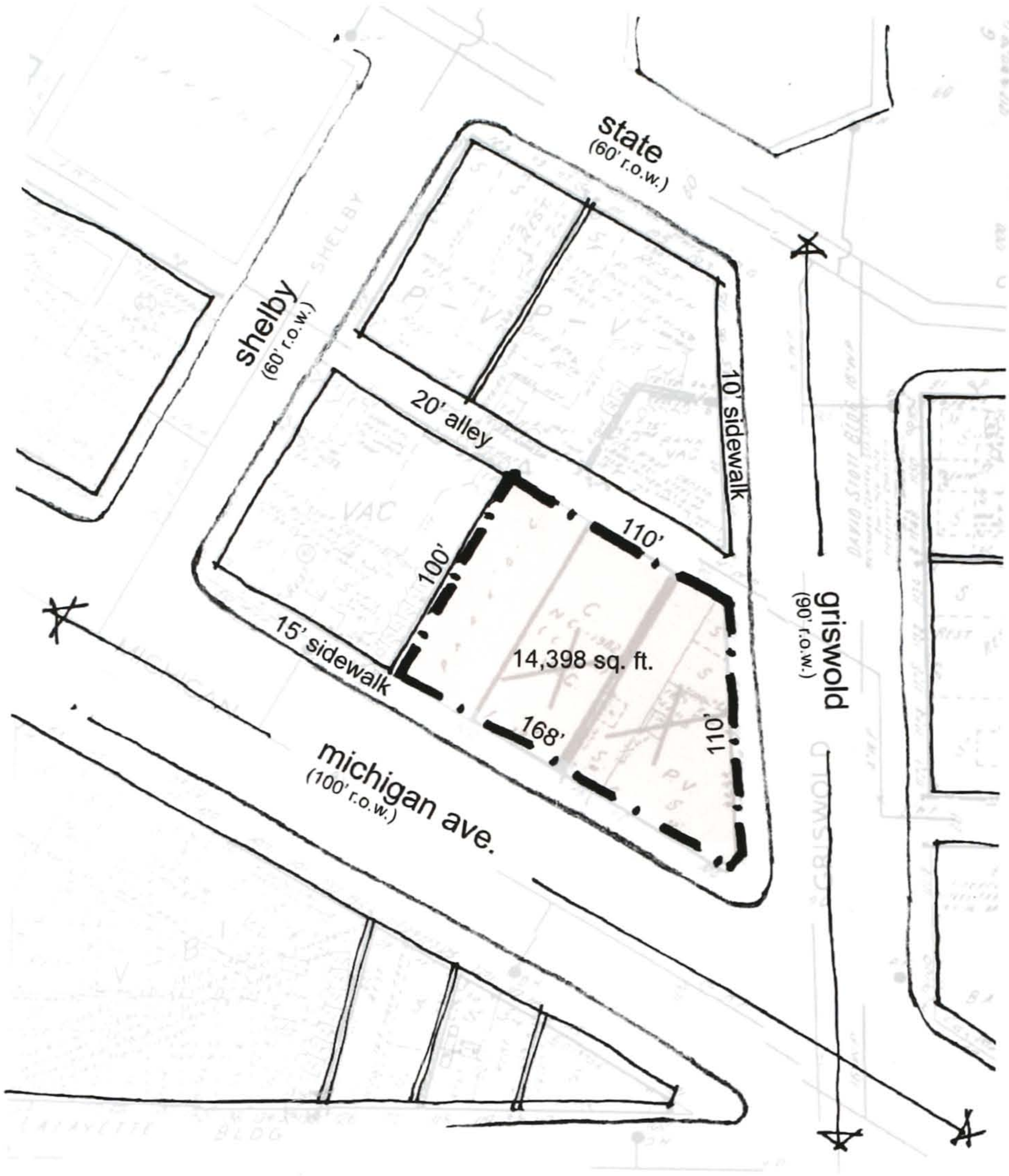
-site context panoramas:
griswold condition
looking to the site
looking from the site



-site context: collages of critical site moments that depict character and quality.

Site Analysis:

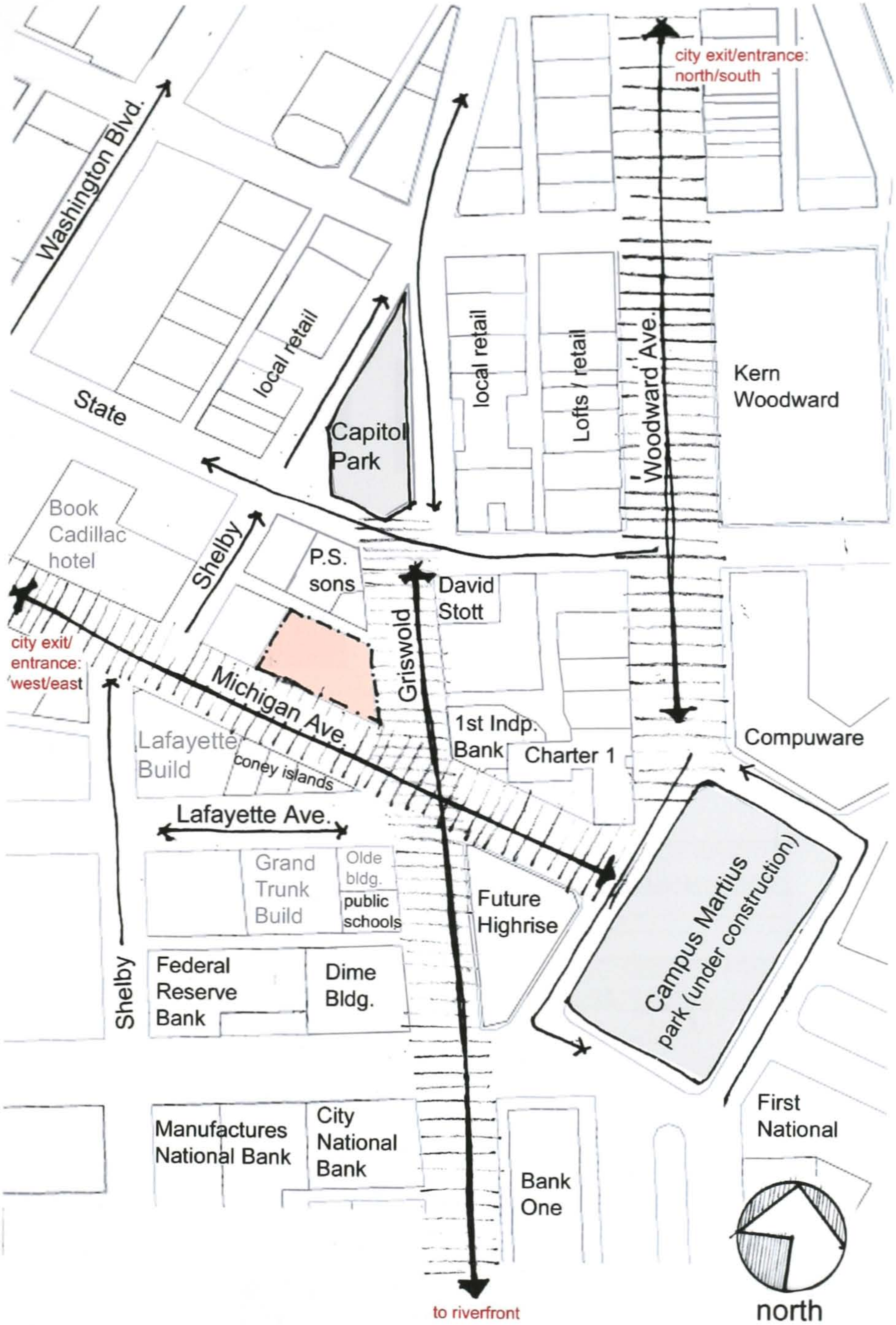
The following is a site analysis that focuses on 5 critical areas of observation and intent: adjacencies, context density, sectional quality, light, and movement.



north

21st Century Identity: Downtown Detroit
michigan ave. & griswold: SITE ANALYSIS
site plan

-immediate site context and dimensions

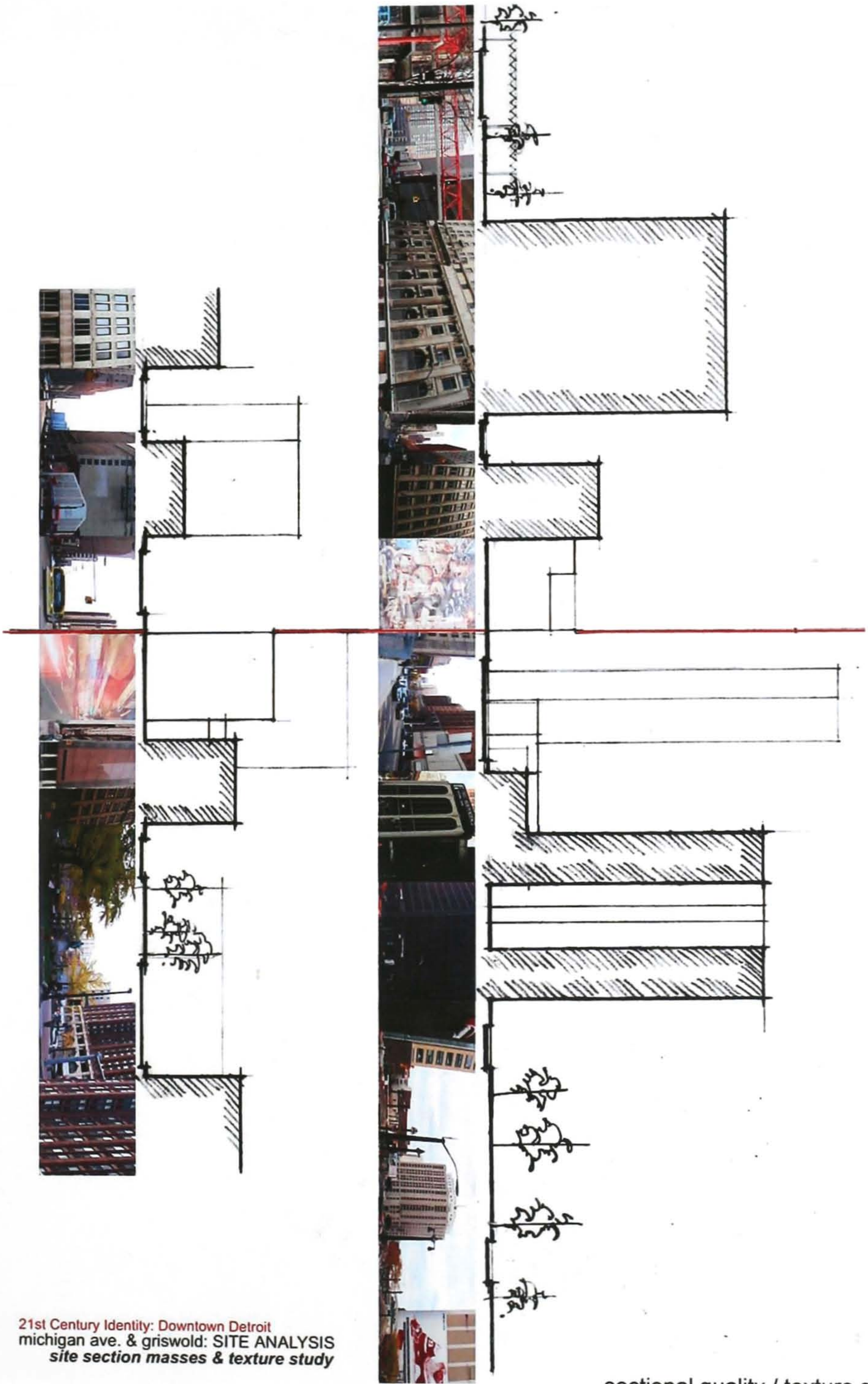


21st Century Identity: Downtown Detroit
michigan ave. & griswold: SITE ANALYSIS
site context

-site context and axes

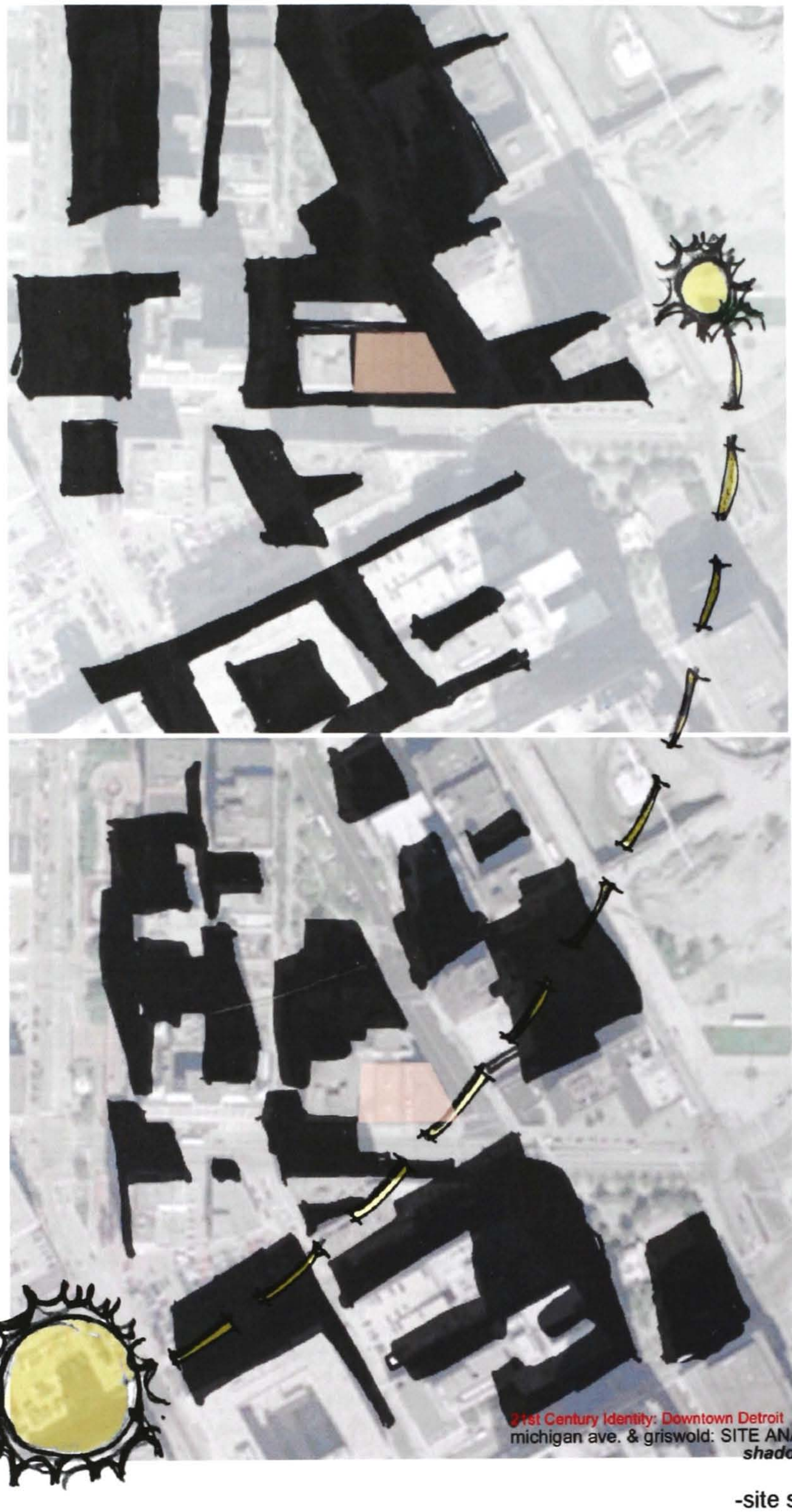
21st Century Identity: Downtown Detroit
michigan ave. & griswold: SITE ANALYSIS
figure ground / occupied figure ground

-figure ground / occupied figure ground



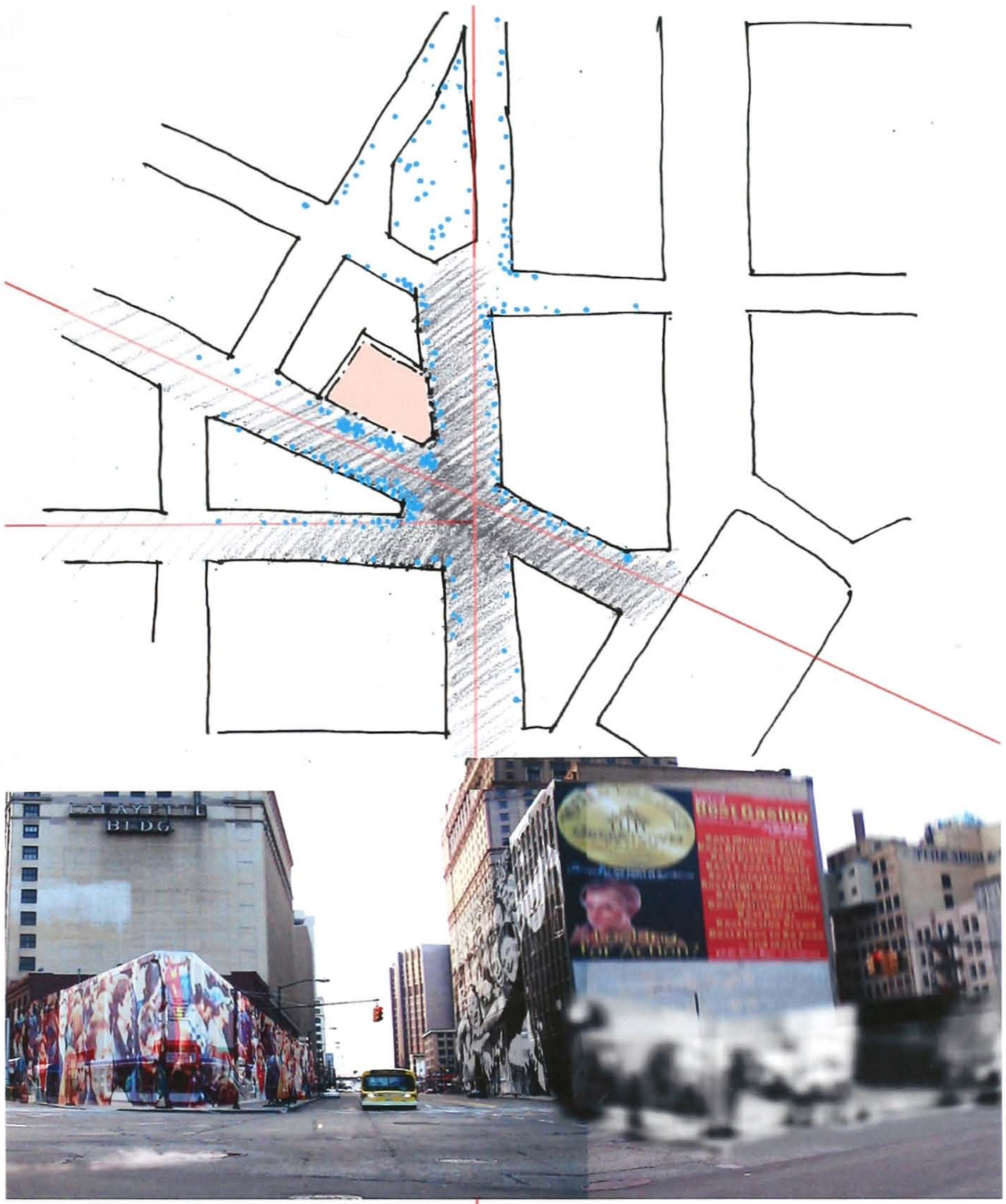
21st Century Identity: Downtown Detroit
michigan ave. & griswold: SITE ANALYSIS
site section masses & texture study

-sectional quality / texture study



21st Century Identity: Downtown Detroit
michigan ave. & griswold: SITE ANALYSIS
shadow map

-site shadow map



21st Century Identity: Downtown Detroit
michigan ave. & griswold: SITE ANALYSIS
movement - memories - technology

-movement / memories / technology

Programming:

Program Statement:

The program for this investigation will be based on the proposal of a "cyber hall" (for lack of better word). This vague term refers to the notion of not only the influence of the computer literally, but rather technology referenced from the computer integrated into the architecture of a public space. This investigation refers to the realm of multi-use and so the program will be a mixed-use complex incorporating the following overall amenities: an exhibition hall, cyber café, library, photo / print-shop and small living units. This mixed-use program will function on a 24-hour schedule to allow unlimited access. Overall the program relates to an interior/exterior or transparent condition so that public spaces have the qualities of being indoor and outdoor virtually at the same time. Public uses will be displayed rather than hidden behind the conventional idea of a public "building façade". There will be a strong commitment to employ social connections and richness of experiences by also allowing the urban (exterior) context to be of equal importance to the contained space (an interactive urban typology study). The indoor condition will reference certain conditions of the urban exterior and the urban exterior will reference conditions of the indoor – activities, spatial qualities, movement (street pedestrian to building occupier, as well as the presence of the automobile). Strong emphasis will be placed on a play in materiality, or in other words, the intent is to have a certain criticality when choosing materials to apply to the construction. Understanding what textures the building will have as well as in its exterior streetscape are crucial elements. For example the type of paving material for such elements as the sidewalk or building threshold become devices for determining the quality of experience when engaging the site.

The intervention that is being proposed attempts to allow a location in downtown Detroit for the Detroiter vehicular culture to be expressed perhaps – since it is an element that is impossible to simply eliminate in Detroit (it has to be dealt with). Experiencing one another refers to the fact that this intervention will be the prototype stage for an otherwise disconnected population that makes up the social fabric of Detroit to be realized. The revolving of this mixed-use intervention around the omnipresence of technology and the internet is to allow for an adaptation to the constantly shifting life of today as well as the future. The notion of this intervention being "transparent" is intending to be a part of allowing for a sense of place to be established. To rephrase, this mixed-use building, in a critical location in downtown Detroit, becomes an intervention where one understands that they are in downtown Detroit by the buildings immediate reaction to the site, addressing downtown directly through the nodal quality of its location (using of its dynamic energizing urban edge created from electronic media and materials as well as the notion of cultures in a congenial environment as mentioned before). In the issue of dwelling (living units), the goal will be to not only passively, but actively, display the notion of identity (home) in such a way that the dweller has the opportunity to physically make his or her mark on the building – the dweller given the opportunity to

alter the skin for shading reasons or viewing reasons for example. The juxtaposition of past and present forms will play major role in order for the intervention to truly fit within its context. This will be attempted through a play in massing elements and detailing of the building skin to critically frame elements of the city as a structure existing in a natural landscape (to frame the landscape of the city). Examining the program intent in terms of usage, the program components create, in some phenomenological sense, the idea of a shared condition aware to the user or occupant. To put it briefly, the notion of a participatory condition is intended to be evident at all scales (at the micro: the freedom of action and in action - exhibition space vs. cyber café for example; and at the macro: Detroit responding to the global concern of shifting technology).

The enumeration of the actions of this program can be determined by the general breakdown of the major program components. The exhibition hall is to be subdivided and consisting of gallery spaces for temporary exhibits of virtually anything from art to architectural work, with conference spaces that can be reserved to support gallery functions. Viewing, in terms of the gallery spaces, is a major action in the exhibition component. Thin partitions or floating panels keep the viewer moving throughout a space as they view. Viewing is ultimately decided by the author of the displayed work - since they will be able to rearrange the exhibit space as they need (i.e. movable benches wall panels, building skin, etc.). Gathering within the exhibition hall, refers to the notion of meeting or conferencing. Chairs of conference rooms will be mounted on wheels as will the tables and reference areas so that gathering, in this sense, is based on flexibility and specificity and as a result, the space itself is based on altering and disassembling per audience needs and preferences. Adjacent and intertwined with the exhibition hall is the cyber (web) café/lounge, with the café referring to public internet access and the lounge referring to a digital entertainment component (not as a theater use but rather as an open lounge that has a certain dialog with the exterior urban landscape). The actions of sitting and standing are crucial for this component. They refer obviously to the computer, but the distinction is that sitting and standing are about long term versus short term usage. As a result, quality of space differs. Sitting at the computer, an action where freedom of posture will be allowed, will give the long term occupant a sense of a shared containment. Grouping of computers either in a pod like configuration or simply setting the adjacencies in a certain manner will allow the user to be distinctly separate from his or her neighbor, yet be able to interact with them and/or simply be aware that a space is being shared with another user. Viewing is also important here because there will be a strong emphasis on allowing world (internet "surfing") views to be juxtaposed with Detroit views. The café space will be set up in such a manner that emphasis will be placed on not only viewing one's screen, but also viewing the framed elements of the city (as mentioned before). Furthermore, the web café will place a large importance on interacting. This is in terms of computer world versus the café life, private to shared – the web café is both private and public in that the private refers to a research use and the shared as the café/lounge use. The printing / photo shop will function in collaboration with the web café for printouts and etc. This use is self explanatory, in terms of what its actions consist of. The focus is the action of exchange where this ritual is somehow framed. In terms of the library, the idea is to keep this component small scale – it is simply a reading area. The library refers to the fact that a small, more quite area of the intervention be reserved for "manual" reading, or in other words non-computer,

traditional knowledge gaining where the material is random – supplied by occupiers of the building or passerby who, in a sense, donate used books of any type to a series of shelves accessible by all (based on the honor-system). Sharing is the encompassing essence of this component as well as reading – sharing reading material and reading space. The space itself is comfortable yet rigid, meaning it offers an area for study and leisure. Furthermore, browsing is an action that will take place here. The goal is to provide a release from the chaos of the digital media to the serenity of traditional media. The living units are components that ultimately would give the structure, as a whole, its sense of massing. In summary, the units are residential spaces, small in square footage, which offer a diverse living condition amongst a 24 hour schedule. It is intended that a live/work condition will be utilized in this case (technical support staff for the building would make up a portion of the population). In theory, though not the focus of this investigation, these spaces are intended to be low-income which can set up an opportunity for student / intern housing. The program as a whole revolves around a main multi-story common space that acts as a transitional element before accessing any program component. This space acts as the main entrance, however in a sense is the node where an occupant is completely aware of all the uses in the building when he or she occupies this space. Every program component has an element that physically engages this space so that it is made evident where each use of the building is located in respect to the entrance (without the use of word signage). The action of revolving, where it is evident that this space functions as the buildings core, is the main emphasis here. Each major program element will maintain its integrity while revolving around the core, so that some order can be maintained to organize the entire composition as well as emphasizing the section of the site that will act as the main entry (the orientation point of the building). The exterior environment, its place in the downtown fabric of Detroit, or rather the immediate vicinity, will be based on the following actions: sitting, viewing, moving/pausing, hearing, smelling, feeling, interacting, laying, and ultimately understanding (interior functions and its relation to exterior building tectonics). It is difficult to try to specify these actions and explain them in great detail because the intention here is to allow for the randomness of them to occur – a characteristic that downtown lacks. The intention is not to design for a specific type of sitting (for example), rather it is to allow the notion to be rediscovered by the population of this urban fabric.

Program Precedent Analysis:

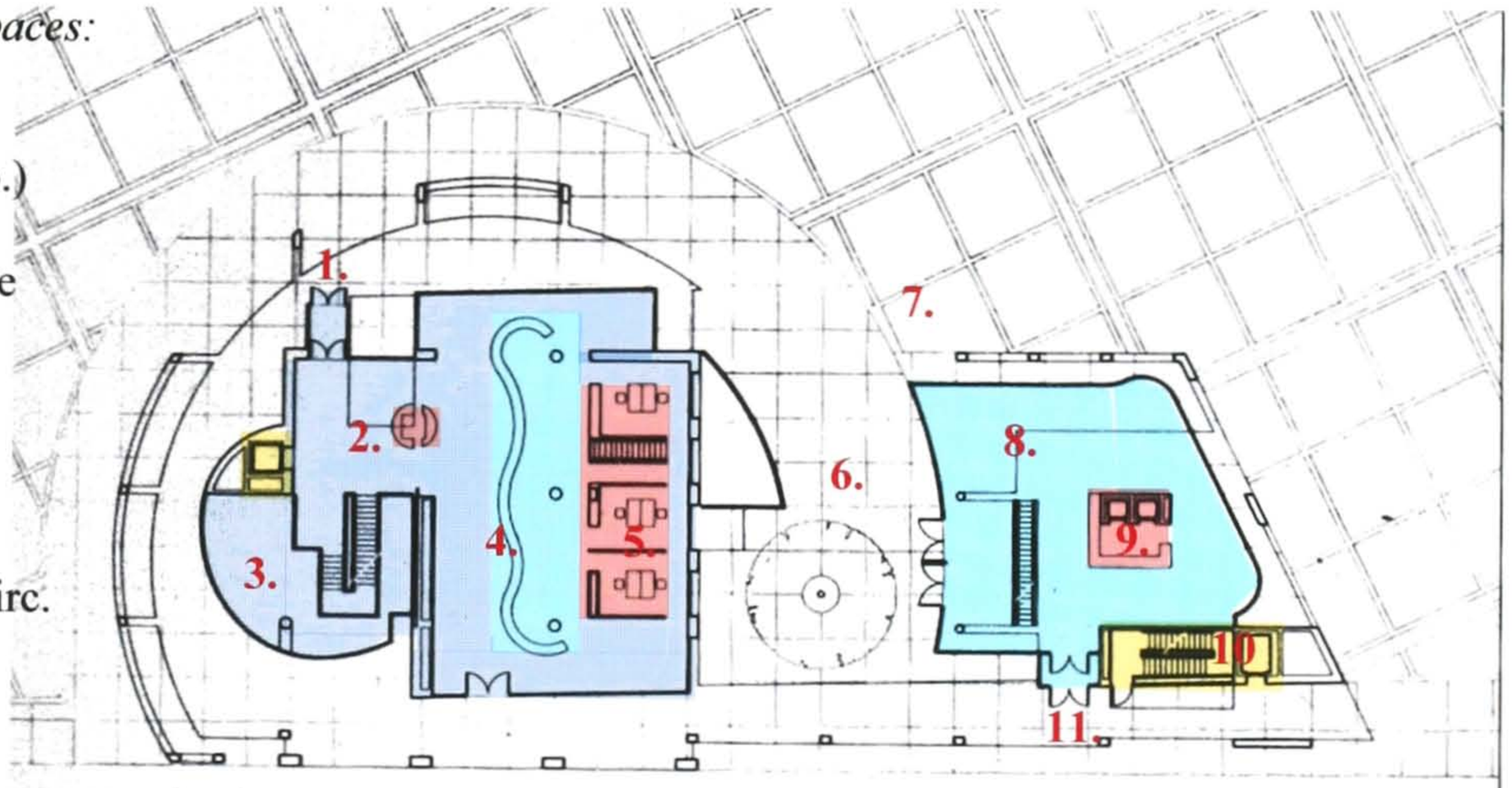
Stadthaus - Exhibition and Assembly Building: (*Ulm, Germany)*

Richard Meier

-As a cultural compliment to Ulm's Munsterplatz and its cathedral, the Stadthaus is a civic amenity in the truest sense. The building was designed to provide strategically framed views of the cathedral and the square from the interior and exterior. The building houses a visitors information centre, a ticket office, a café, terrace on the ground floor, and a "top-lit, multilevel gallery space -cum – lecture hall on the floors above.

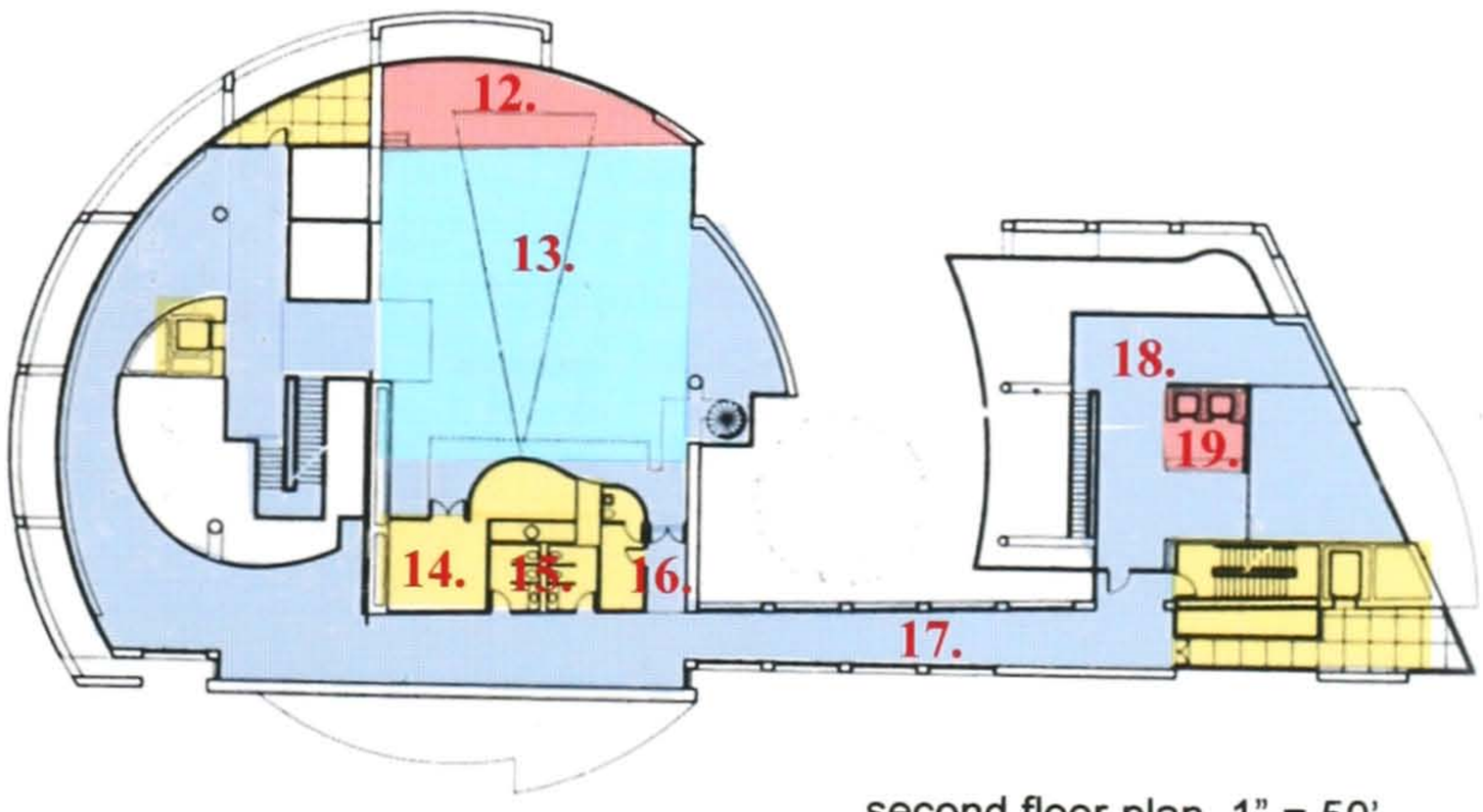
Overall program spaces:

1. main entry
2. entrance lobby (info.)
3. vertical circulation
4. visitor / tourist office
5. ticket office
6. court yard
7. outdoor café space
8. café / restaurant
9. food prep. Area
10. secondary vertical circ.
11. secondary entry



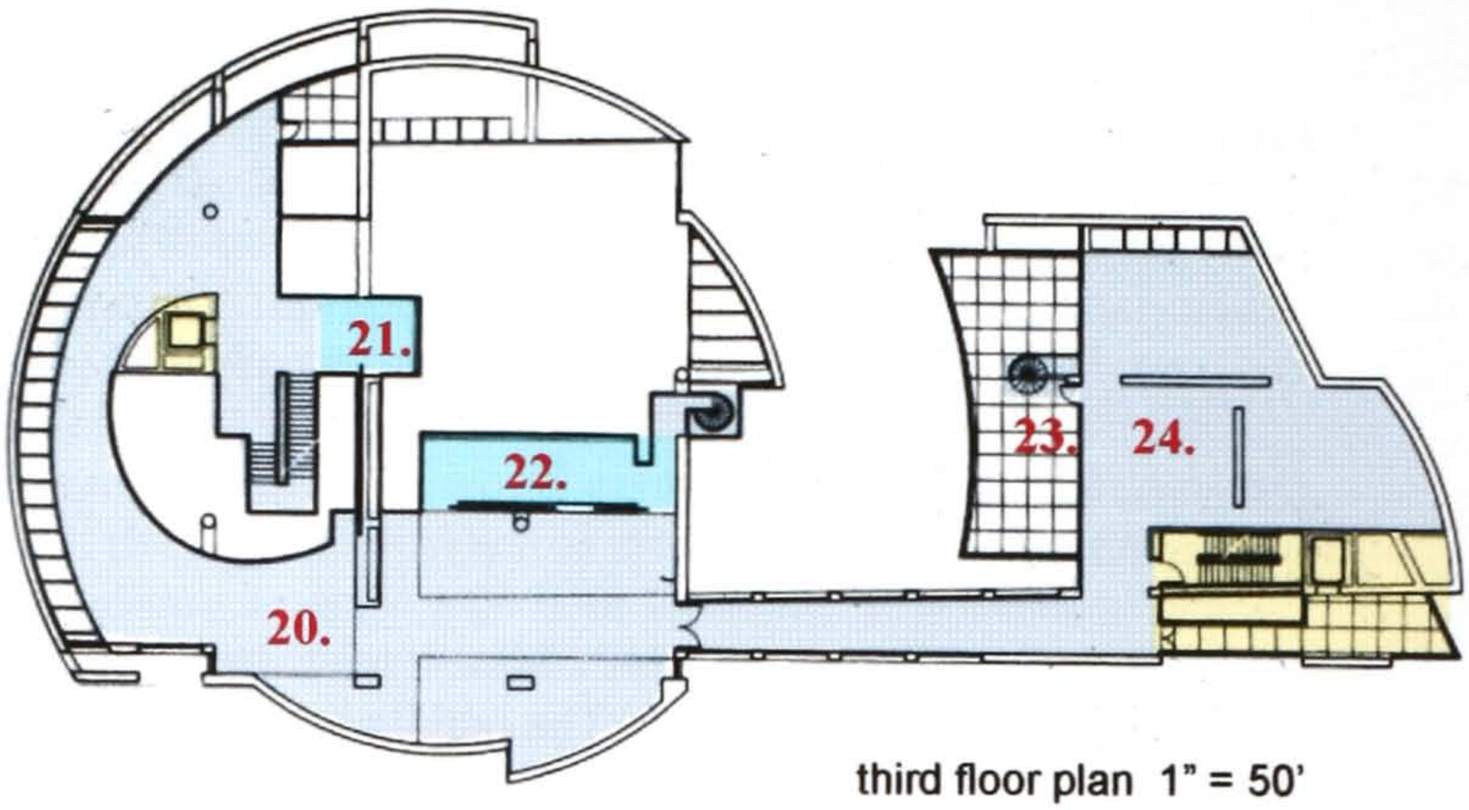
ground floor plan 1" = 50'

12. stage area
13. lecture hall
14. projection / storage
15. washrooms
16. lecture hall storage
17. loggia / bridge
18. restaurant / café balcony
19. secondary prep. area



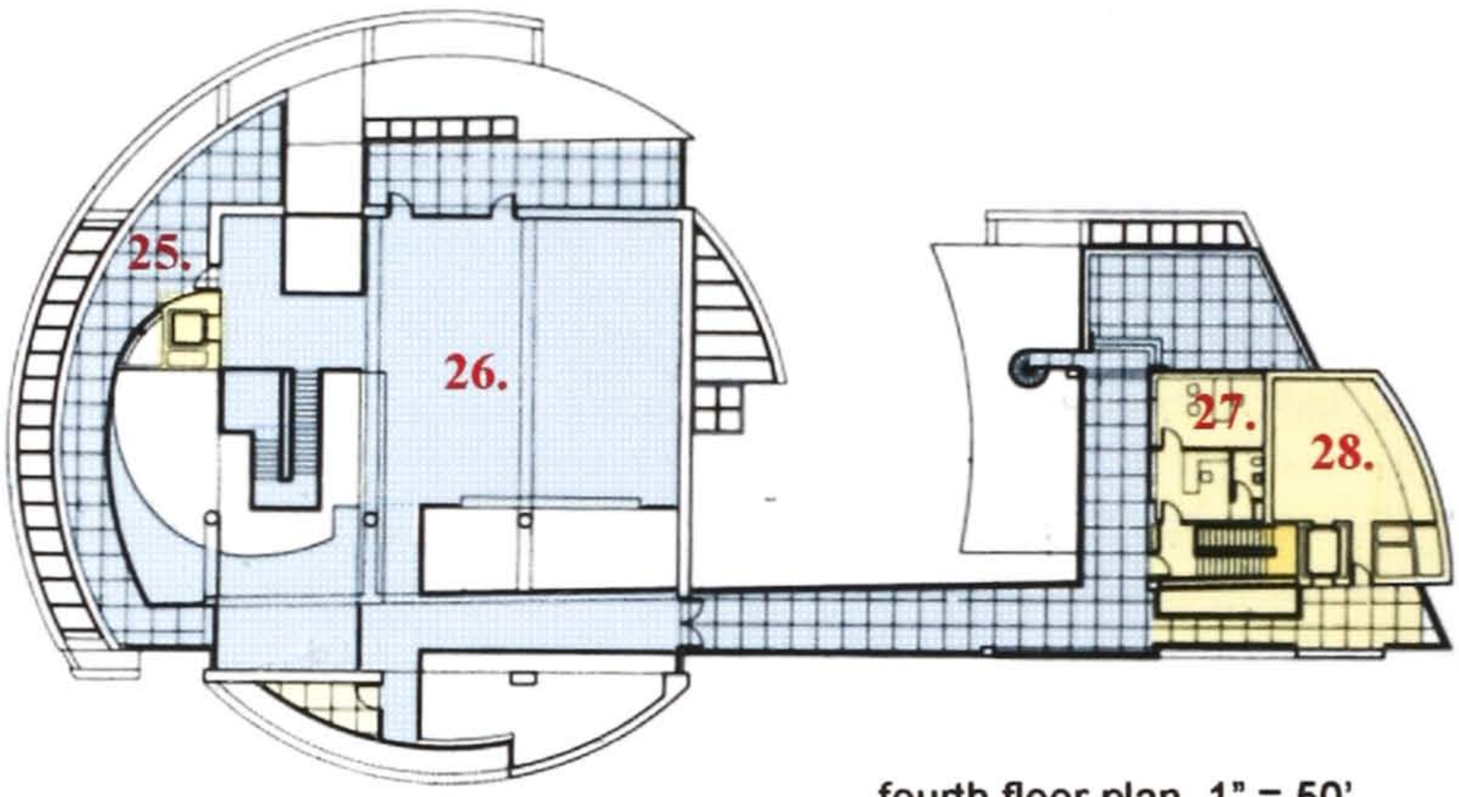
second floor plan 1" = 50'

20. miscellaneous gallery
21. lecture hall balcony 1
22. lecture hall balcony 2
23. gallery / courtyard terrace
24. 1st floor east gallery



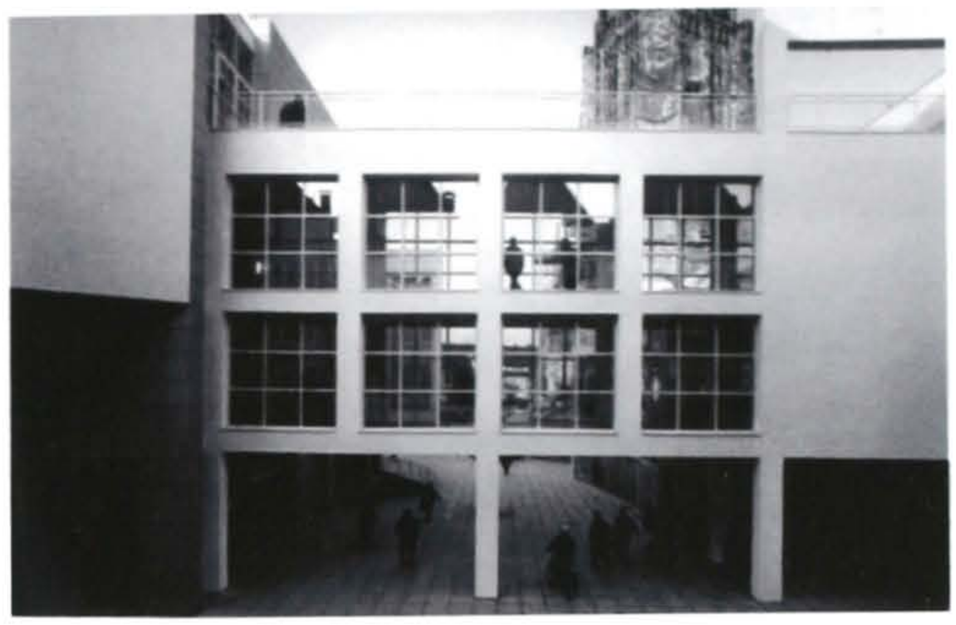
third floor plan 1" = 50'

25. roof-top / gallery terrace
26. main gallery
27. miscellaneous offices
28. 2nd floor east gallery



fourth floor plan 1" = 50'

cross section 1" = 50'



Categorized program spaces:

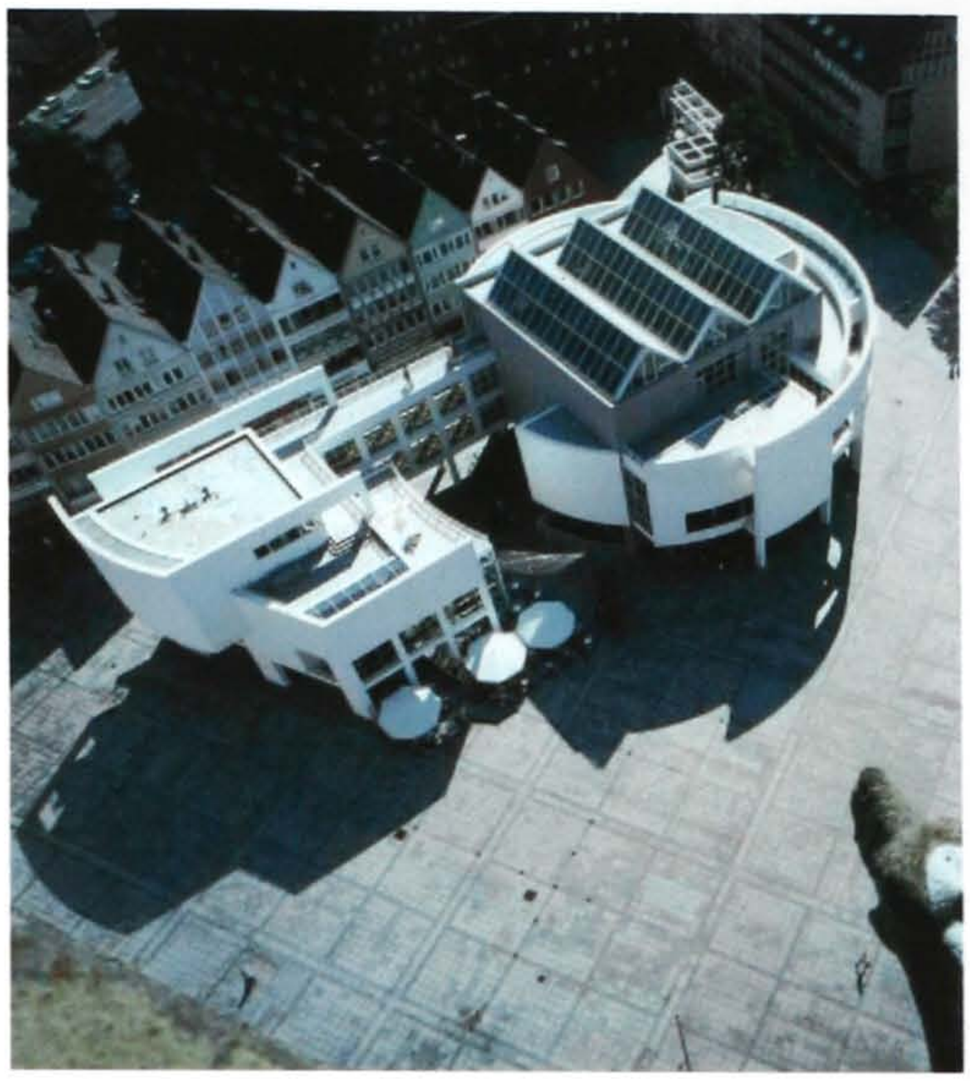
Public -- or -- Served -- or -- Collective:	
1. main entry	*n/a*
2. entrance lobby (info.)	*25'x25' – 625 sq.ft.*
3. vertical circulation	*35'x35' – 1225 sq. ft.*
4. visitor / tourist office	*30'x70' – 2100 sq. ft.*
5. ticket office	*20'x60' – 1200 sq. ft.*
6. courtyard	*45'x60' – 2700 sq. ft.*
7. outdoor café space	*n/a*
8. café / restaurant	*40'x45' – 1800 sq. ft.*
11. secondary entry	*n/a*
13. lecture hall	*45'x55' – 2475 sq. ft.*
17. loggia / bridge	*- 2100 sq. ft. total (all floors)*
18. restaurant / café balcony	*45'x30' – 1350 sq. ft.*
20. miscellaneous gallery	*- 3500 sq. ft. total (all floors)*
21. lecture hall balcony 1	*20'x10' - 200 sq. ft.*
22. lecture hall balcony 2	*40'x10' – 400 sq. ft.*
23. gallery / courtyard terrace	*20'x50' – 1000 sq. ft.*
24. 1st floor east gallery	*50'x50' – 2500 sq. ft.*
25. roof-top / gallery terrace	*- 2000 sq. ft. total*
26. main gallery	*50'x60' – 3000 sq. ft.*
28. 2nd floor east gallery	*25'x25' – 625 sq. ft.*
Servant:	
9. food prep. Area	*12'x15' – 180 sq. ft.*
12. stage area	*50'x15' – 750 sq. ft.*
14. projection / storage	*- 375 sq. ft.*
19. secondary prep. area	*12'x15' – 180 sq. ft.*
Individual -- or -- Private:	
10. secondary vertical circ.	*n/a*
15. washrooms	*20'x10' – 200 sq. ft.*
16. lecture hall storage	*7' x 10' – 105 sq. ft.*
27. miscellaneous offices	*30'x20' – 600 sq. ft.*

Graphic analysis study:

To further understand and discover the opportunities in this precedent study in respect to applying them to my thesis investigation, it is critical to what the significance of how the program space relationships exist and why. In other words, to graphically articulate the categorized program spaces mentioned previously and physically see how they interrelate with one another. And so not only the plan but the section becomes the critical lens in which to view and truly understand these relationships in Meier's project. Through this view it can be demonstrated how the interrelation forces a depth to be read through the building both in drawing and in the real life structure (the third dimension). This will be critical to my investigation in terms of how I plan on interweaving program elements and why. More specifically, the color coding on the previous drawings are studies that juxtapose the two following fundamental relationships:

Public vs. **Private**

Servant vs. **Served**



Key spatial relationships:

In terms of identifying key spatial relationships the almost immediate sense we understand is the focus on the building as a whole demonstrating the ritual the engagers of the square experience whether they are inside or out. In other words the space inside or the volume outside allows one to be engaged (a participant) with the site rather than simply occupying the boundaries of a city square. The main drum form is understood to function as the catalyst to the various functions – it is what the functions almost revolve around because it catches the engager(s) and distributes them through either formal and literal axes, such as the loggia / bridge, or though framed views above, behind, and even below the user. In brief, the courtyard functions as a way to open the commercial frontage to the openness of the square, while the flat (south) facade of the building mimics the commercial frontage allowing the streetscape quality to be continuous. Furthermore when looking at both plan and cross section, the notion of vertical space in crucial in the design. The notion of allowing strategic cuts in the floor planes and allowing spaces to continue upward or downward demonstrates that the focus overall is for the building to communicate collective quality. One can see a lecture being presented while viewing people in the ticket offices below for example. Finally, and in general, the building completely communicates itself with only some critical ambiguity perhaps, a move that all truly civic buildings should have.

Critical program spaces:

The program spaces of this precedent study have key purposes that address not only the functional needs of the clients / city, but are critically intertwined to communicate dynamic literal and non-literal functions as well. In brief, the public spaces are obviously considered the most crucial to the program. The main entry (**1.**), though not directly celebrated from an elevation stand point, is crucial because of how internally, it becomes an insertion that leaves a void the entire height of the building leaving an open vertical shaft – directly depicting the notion of input (framing it). People entering the building are framed from all levels. The entrance lobby (**2.**) functions to orient the user or, give a preview to him, and is on axis to the open vertical circulation space (**3.**) that is completely open to above. The stairways of the space are major celebratory elements that overall are meant to give equal importance to the spaces above. Stairs and landing are formal expressions of movement and place. As mentioned before, the courtyard functions as a carrier of pedestrians from the street condition to the square condition – the central portion of the building overall is the transition point and gives a perpendicular axis of movement. The café component offers leisure to art and exhibition. Whether inside or outside, the space is meant to feel complete permeable with the café balcony being another way of demonstrating the transparency of layered activity spaces. The

secondary entrance (**11.**) functions as the more individual process of engagement. It is based on a backdoor quality where the user is given confinement and non celebratory access through the traditional fire-stair condition; the elevator immediately adjacent functions more as receiving access. The lecture hall (**13.**) on the second floor functions as a multi-use presentation room that can either be open as is to the rest of the building, or can function privately with the separation of movable partitions. This space can also function as theater space – again the notion of layered spaces is continued here with allowing the lecture hall to be opened and visible from virtually all other spaces. The gallery / courtyard terrace (**23.**) is the intermediate terrace level that allows for the gallery space to become outdoors but also carries the element of the spiral stairs giving visual relief to rigidity but also to act as an element articulating the sense of layered and intertwined spaces by becoming link to the roof top / gallery terrace (**25.**). The terraces overall function to allow outdoor circulation on top of the building itself, and for balcony conditions to occur in order to allow the building, overall, to literally function as a piece of its context; in other words to be an extension or even an extrusion of the civic quality of a public square condition. The main gallery (**26.**) mimics the gable roofs of the adjacent building on the perimeter of the square. They function as the main focal points of exhibition in the building. They are alterable spaces that reinforce the notion of user defined exhibits – the building becoming part of the exhibition in a sense rather than a means to house it.

Project Program:

21st century identity: Downtown Detroit

Site	
Total square footage	*(0.3 acres) 14,398 sq, ft*
Receiving area	**1000 sq. ft**
Refuse area	**600 sq. ft**
Parking	**Assumed to exist sub grade**
Public	
-Cyber Café / Lounge	**9840 sq. ft**
Cocktail area with tables and moveable seats	5000 sq. ft
Casual research area	2220 sq. ft
Stand-up temporary cyber stations	300 sq. ft
Bar / Service area	2000 sq. ft.
Food storage	320 sq. ft.
-Exhibition Halls	**8000 sq. ft**
(3) Gallery spaces sq. ft. each	6000 sq. ft.
(3) Conference rooms	2000 sq. ft.
-Photo / Print shop	**900 sq. ft.**
Billing / service counter	100 sq. ft.
General print / copy area	800 sq. ft.
-Library / "manual research area"	**3000 sq. ft**
Private	
Computer Technician / Consultant's office	**600 sq. ft**
Storage, and workroom	350 sq. ft
-Living units (each unit to contain necessary micro-programmatic dwelling components)	**7500 sq. ft.**
(5) 950 sq. ft. units	3800 sq. ft.
(3) 650 sq. ft. units	1950 sq. ft.
Dorm units (7) 250 sq. ft. unit	1750 sq. ft.
Administrative	
Curator's office	**800 sq. ft**
Conference area	600 sq. ft
File / material storage	200 sq. ft
Manager's office	**300 sq. ft**
Receptionist/s area, Secretarial space	**500 sq. ft**
Sitting area for visitors	300 sq. ft
Support	
Mechanical	**See tech. system summary below**
Washroom facilities	**1000 sq. ft**
General	950 sq. ft
Support staff unisex:	50 sq. ft
Backup facilities	**200 sq. ft**
Copy / printing facilities	**250 sq. ft**
Circulation	
Entrance Lobby	**1200 sq. ft**
Elevators / Stairs	**1000 sq. ft**
25% circulation	**12422 sq. ft.**
Total Square Footage	**62113 sq. ft**

-note: see the following space details pages for specific program space qualities.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Cocktail Area	333	1	5,000 sq. ft.	5,000 sq. ft.

Purposes / functions:
To allow leisure use of computers and the internet while utilizing café and bar amenities for light snacks and drinks.

Activities:
The users of the space will have the option of using the hybrid café and computer table as a means to surf the web while eating snacks and/or drinking (in both group and individual), or simply using the space as a typical café without the direct engagement with computers. Tables and hybrid table and computer, can be moved per occupant(s) needs – in terms of group usage for example. Occupants are encouraged to interact in an informal and loose lounge atmosphere.

Spatial relationships:
The space should be adjacent to or visibly articulated from the building entrance, and will be broken into different areas adjacent to one another – either vertically (above) with balcony like spaces or horizontal with other program elements intersecting it. Direct access should be provided to bar and service area.

Special Consideration:
While space is to function as a leisure amenity, attention must be given as to how its activities and noise stay somewhat within itself as to not disrupt the casual research areas, since the program elements as a whole will interweave with one another.

Equipment / furnishings:
400 movable seats, 50 movable café tables, 60 hybrid café/computer tables, 50 single computer stations 20 bar-counter computer stations. 130 pc's with wireless internet connection (to be determined). Ceiling mounted flat-panel screens for public viewing of television, web broadcast, building events/exhibits, etc. - minimum 5 required.

Behavioral considerations:
Since the building as whole is to function on a 24hr schedule, staff will be responsible to be aware of taking certain security measures to be determined by city law enforcement. Pre-purchased passes will be required for use of computer and internet usage time.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Casual Research Area	148	1	2,220 sq. ft.	2,220 sq. ft.

Purposes / functions:
To allow research use of computers, the internet, and certain standard programs, with the option of utilizing café and bar amenities from the Cocktail area

Activities:
The users of the space will research in a quieter yet casual atmosphere allowing all types and purposes of computer researching. It is intended that this area be reserved for longer term usage. There will be staff that provides printing and network assistance. A small portion of the space will be reserved for occasional internet courses that will be offered to the public.

Spatial relationships:
The space should be adjacent to or visibly articulated from the building entrance, and will be broken into different areas adjacent to one another – either vertically (above) with balcony like spaces or horizontal with other program elements intersecting it.

Special Consideration:
While space is to function as a research amenity, attention must be given as to how it remains loose and not library like.

Equipment / furnishings:
150 movable seats, 100 computer stations including reference surface for research materials and/or snacks and beverages. 100 pc's with wireless internet connection (to be determined).

Behavioral considerations:
Since the building as whole is to function on a 24hr schedule, staff will be responsible to be aware of taking certain security measures to be determined by city law enforcement. Pre-purchased passes will be required for use of computer and internet usage time.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Stand-up temporary cyber stations	10	1	300 sq. ft.	300 sq. ft.

Purposes / functions:
To allow a quick, stand-up use of the internet for "on the go" type situations.

Activities:
The users of these stations will use them only for fast web searches for finding directions, addresses, and any other short term internet use, for example. This is intended to take place while on their way in or out of the building, or a pedestrian can stop in for a quick search as well (these stations becoming a "pause" in a person's activity during a day). These stations will also allow free usage for building information services.

Spatial relationships:
The space should be adjacent to or on axis to the building entrance/exit, and will be arranged in a linear fashion while integrated into the physical building structure (i.e. mounted on the structural columns or recessed into a wall structure).

Special Consideration:
It is important that these stations be part of the building entry sequence, however, they must not overpower views or movement into the building. Since these are "on the go" computer stations, attention must be given to protecting them from damage.

Equipment / furnishings:
10 compact computer units with wireless internet connection integrated into small, stainless steel keyboard and writing surface with flat panel 17" LCD monitors mounted independently above.

Behavioral considerations:
Since the building as whole is to function on a 24hr schedule, staff will be responsible to be aware of taking certain security measures to be determined by city law enforcement. Special consideration must be given to ensuring the protection from deliberate damage. Pre-purchased passes or credit card swipe at the stations themselves will be required to purchase time for use.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Bar/Service Area	133 (from Cocktail Area and Casual Research)	4	500 sq. ft.	2,000 sq. ft.

Purposes / functions:
To provide an area for beverages and snacks to served – the central service hub per café space or level.

Activities:
Users have the option of using the counter space as a traditional bar and/or using it while sitting at one of the bar-counter computer stations, or simply for stand-up ordering.

Spatial relationships:
The space should serve the Cocktail Area most importantly. However, a portion of it will directly serve the Casual Research Area as well, allowing for a somewhat direct connection to the two spaces and for the activities to sort of blend together to a certain degree.

Equipment / furnishings:
20 bar-counter computer stations with flat panel 17" LCD monitors mounted independently on counter surface (similar computer units as stand-up stations – located below counter surface and accessible from behind bar). Typical plumbing fixtures (sinks and refrigerators, etc. – to be determined per design) required for bar service, drink and product types will be displayed behind bar, and 50 bar stools total will be required.

Behavioral considerations:
Bar must be directly accessible (both service staff and users) without having to maneuver through café space.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Gallery Space	133	3	2000 sq. ft.	6000 sq. ft.

Purposes / functions:
To allow space for viewing of virtually any type of display (although ideal for artistic display) with the user(s) to determine organization of space.

Activities:
The users will arrange and display work on a series of movable and permanent partitions panels and stands, incorporating optional projection screens, and network plug-ins for digital work. Benches, movable seats, and tables can be arranged as required. Viewing can be public or private as desired.

Spatial relationships:
The space should be adjacent to or on axis to the conference rooms for exhibits to have the allowance of meeting or office type support if necessary. Spaces will be multi-story as to allow for increased surface area for larger works and allow complete flexibility of viewing from other program components (to support conceptual qualities).

Special Consideration:
Users have the opportunity to allow gallery space to be included or in a sense advertised on the buildings exterior skin via electronic or digital media. The request for bar/service is an option per exhibit needs.

Equipment / furnishings:
Walls are to be clad in a self-healing "pin-up" material as well as certain portions in metal to allow for magnetic "pin-up". Space separations and/or additional display panels will consist of theses two materials as well. Screen type paneling and or opaque display panels will provide separation as required. A minimum of 5 wood benches and 20 movable seats per space are required – additional can be requested. 5 wood display tables are required per space – additional can be requested. Projection systems will be ceiling mounted yet be able to revolve to project images on any wall surface and/or display panel.

Behavioral considerations:
Since the building as whole is to function on a 24hr schedule, staff will be responsible to be aware of taking certain security measures to be determined by city law enforcement. Users are responsible for work that is damaged for exhibits that are intended to stay open on a 24hour basis.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Conference Rooms	20	4	500 sq. ft.	2000 sq. ft.

Purposes / functions:
To allow space for meeting and conferencing that is open to the public for reserving as well as for supporting the gallery spaces.

Activities:
Typical conferencing and meeting will take place per needs required. Again alterable space (i.e. furniture and equipment) is essential.

Spatial relationships:
The space should be adjacent to or on axes to the gallery spaces for exhibits to have allowance of meeting or office type support if necessary, as well as easily accessible from building entry as the spaces can be used independently from any other building function. Spaces will be single story with special consideration given to allowing views to the exterior street landscape and also within the building itself in an effort to display the ritual of meeting. The space, by default, will be arranged in the typical conference room format, but this can be altered based on meeting needs. Conventional separation will be allowed (i.e. closed door meetings).

Special Consideration:
Spaces will emphasize to some degree a hierarchy of presenter to audience conditions so that they may function as small lecture spaces. Support staff will be available for conference room equipment assistance.

Equipment / furnishings:
Rooms will be conventionally equipped with both digital and analog (physical) presentation means via large flat panel screen for PowerPoint presentations and digital sketching and large dry-erase boards for manual sketching/writing, for example. A main computer will drive the room's digital amenities as well as the conference table itself, utilizing laptop network plug-ins per conference member – thus creating a local network within the conference room itself. The conference table itself will be able to be disassembled to allow for multiple (4) tables. A minimum of 15 chairs will be required.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Photo/Print Shop	20	1	900sq. ft.	900 sq. ft.

Purposes / functions:
To allow space for the purchasing and collection of printouts and copying to support the web café' in general.

Activities:
The users will pick up and pay for printouts (per type), and allow and arrange for special printing/plotting and copying as well as conventional printing and copying. The user can specify type of paper, size, etc. per their needs. Staff will run and collect print-out and copies as well as the billing and service counter.

Spatial relationships:
The space should be adjacent to or on axis to (easily accessible) from all computer usage areas. Therefore, emphasis will be placed on locating the space somewhat central in respect to the spaces it supports.

Special Consideration:
The space in general will be a support space yet its functions will be put on display to some degree to allow its use to be a public one as well (critically frame the ritual of exchange for example) – in other words, for a pedestrian to come in and be able to make simple copies and not utilize the web café.

Equipment / furnishings:
At minimum, 3 conventional copy machines and 1 color, 1 36" plotter, 5 laser printers (typ.) - 3 color, miscellaneous cutting and sorting equipment, 5 person seating for waiting, supply cabinets.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Library/"manual research area"	100	1	3000 sq. ft.	3000 sq. ft.

Purposes / functions:
To allow space for a release from the chaos of digital media and the computer and allow for a traditional (manual) means of leisure and research information gaining.

Activities:
Users of this space will utilize it similarly to a conventional library in that they will be able to pull out books and journals and read, browse, and skim as desired. Staff members will periodically reshelf books in alphabetical order and by general subject.

Spatial relationships:
The space should be a separated entity. It will function as the solid and formal anchor to the entire building and program. Critical views should allow a direct connection to the rest of the building composition, both on the exterior and the interior. There will be a completely separate connection to the library from the other program elements to emphasis its opposite media.

Special Consideration:
The library will function on the "honor system", in that books and reading material will be donated by the public and left in the space for use only in the space with no security measures taken to prevent theft. Material can be searched through manually by browsing the shelves (the use of computer searching will be omitted to encourage manual/human means).

Equipment / furnishings:
Bookshelves will be arranged in rows and be provided as necessary since the growth of the library in terms of reading material will depend on time through book donation. Tables and chairs will be provided in somewhat the same manner, however the type of furniture will be based on allowing for both leisure reading and study – couches vs. table and chairs. Emphasis will be placed on lighting conditions and allowing sun light to be a major source of day lighting.

Behavioral considerations:
Since the building as whole is to function on a 24hr schedule, staff will be responsible to be aware of taking certain security measures in terms of public safety to be determined by city law enforcement.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Computer Tech./ Consultant's office	10	1	500 sq. ft.	500 sq. ft.

Purposes / functions:
To allow the main computer technicians to have their own administrative spaces.

Activities:
Coordinate and administer services or repair and maintenance for the computers and networks throughout the building.

Spatial relationships:
This space is meant to be private in terms of being a "behind the scenes" functioning of the building. Materials and documentation contained within are to remain private thus storage and workroom spaces are to exist immediately adjacent.

Equipment / furnishings:
Typical office equipment to be used in this space. At least 2 desks are needed to accommodate for 2 technicians being in the building at all times. Computer equipment will be applied per networking needs (to be determined). Cabinets for file storage reference material are to be included as well. Lock mechanisms will be emphasized to allow adequate security.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Living Units (+dorms)	n/a	15	varies, see list	7500 sq. ft.

Purposes / functions:
To allow living units for the general public and also to emphasize live/work conditions.

Activities:
General living conditions – to be determined by occupants. Units will consist of the following amenities: 1 or 2 bedrooms, 1 bath, living room, kitchen, storage, utility space, link to building network. Dorm units are to consist of a simple living space and bathroom.

Spatial relationships:
Units are to be scattered and interwoven throughout the building and its program components. Yet, consideration will be given to allow for efficient circulation paths and organization to be able to understand where a living unit is located in respect to the rest of the other program components. The interiors of the units themselves will be based on allowing for an open plan. No living unit will be located at the ground floor.

Special Consideration:
The main goal is to allow these units to maintain alterability to satisfy the occupant's needs and concerns. Much attention will be paid to providing an overall living unit where the building skin becomes the occupant's unique mark in terms of being part of the collective transparent public spaces of the rest of the building. Emphasis will be put on alterable skin, in terms of shading devices, panels to alter opaque to transparent qualities in that the user creates his or her own windows or frame of the exterior.

Equipment / furnishings:
All spaces are to be equipped with plumbing fixtures and appliances. Living spaces are arranged per occupant.

Behavioral considerations:
Since the building as whole is to function on a 24hr schedule, separate entrances for occupants and building visitors must be defined. Security will be based on occupant.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Curator's Office	10	1	800 sq. ft.	800 sq. ft.

Purposes / functions:
To house the general administrative functions and materials and to be the central hub for administration staff and activity.

Activities:
Coordinating building activity from living units management to exhibition hall reserving. Also, to hold staff and customer meetings or conferences and to provide a place for documentation storage.

Spatial relationships:
Unlike the technicians' office, this central office is meant to remain very public and open to visitor or customer interaction. Therefore, spatially it is meant to appear, voluminous and transparent, and the only solid components are file and material storage. The space in general should be somewhat adjacent to the entry.

Special Consideration:
This office must be arranged as the last element of the administrative component of the program as a whole. The receptionist and waiting areas be the 1st elements of the administrative hierarchy, followed by the manager's office and then the curator. The conference area will be located within the curator's office.

Equipment / furnishings:
Typical office equipment to be used in this space. At least 1 desk and a small conference table are needed. Computer equipment will be applied per networking needs (to be determined). Cabinets for file storage reference material are to be included as well. Lock mechanisms will be emphasized to allow adequate security.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Manager's Office	5	1	300 sq. ft.	300 sq. ft.

Purposes / functions:
To house the general administrative functions and materials of the manger of the administrative office.

Activities:
Coordinating and supervising administration office activity and to work in conjunction with the curator.

Spatial relationships:
This central office is meant to remain private and open to administrative staff only. Therefore, spatially the space as a whole is meant to function only in support. Its location should be such that it has direct and immediate access to both the curator's office and the reception areas.

Equipment / furnishings:
Typical office equipment to be used in this space. At least 1 desk is needed. Computer equipment will be applied per networking needs (to be determined). Cabinets for file storage reference material are to be included as well. Lock mechanisms will be emphasized to allow adequate security.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Receptionist(s) area, Secretarial space	20	1	600 sq. ft.	600 sq. ft.

Purposes / functions:
To allow secretarial space and waiting area for building administration.

Activities:
Appropriately receive visitors and answer the telephone, as well as, the organization of files and storage per manager's or curator's requests. Customer/client waiting in terms of meeting with curator/manager to discuss business, from renting a living unit to discussing advertisement deals, etc.

Spatial relationships:
This central space is meant to remain very public and open to visitor or customer interaction. Therefore, spatially the space as a whole is meant to appear voluminous and transparent. Furthermore, it is crucial to locate this space adjacent or directly accessible to the entrance lobby.

Special Consideration:
At minimum the waiting area should be an element that becomes literally a threshold from public to administrative areas. Architecturally it should be articulated with emphasis on verticality and intersection with other public program spaces.

Equipment / furnishings:
Fixed seating for at least 10 people and multiple secretarial desks that are built-in or rather integrated as a formal building element instead of placing desks in as furniture. At least 3 receptionist stations are required.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Washroom Facilities	varies	3	varies	1250 sq. ft

Purposes / functions:
To allow proper restroom facilities throughout the building.

Activities:
Typical restroom uses.

Spatial relationships:
There will be a strong emphasis on placing washrooms in easily accessible areas so that they may service the spaces that depend on them to the max efficiency, but also the goal will be to provide a direct solid separation between activities and private restroom functions. In other words washroom entrances will be side accessible in a sense, or rather directly facing the spaces they serve – to locate them on circulation corridors or behind overlapping partitions so that entrance is implied yet, concealed.

Special Consideration:
Addressing all proper barrier free concerns.

Equipment / furnishings:
Plumbing fixtures are to be determined (bathroom layout square footage and occupancy load). Emphasis will be placed on economical efficient means of addressing plumbing service.

Space Name	Capacity	No. units	NSF/unit	Total Net Area
Entrance lobby	100	1	1500 sq. ft.	1500 sq. ft.

Purposes / functions:
To provide a transition and receiving of building engagers – to be the overall physical threshold from the street condition to the building envelope.

Activities:
People will congregate into this space as a means to gain building and event information including the use of stand-up stations which will be directly adjacent to the space. Furthermore, the space will contain waiting areas as to service both the building public uses as well as private living units. Also, the space can be utilized in a sense as a precursor to exhibition events and web café, while existing on axis to the reception area.

Spatial relationships:
The space as a whole will allow the multitude of program components to be communicated so that a visitor can orient himself as to where to proceed to access the space desired.

Special Consideration:
Emphasis will be placed on verticality or the vertical section in that program spaces will puncture its vertical envelope, or in other words, overlap the entrance lobby from above in order to allow for communication of building uses and its occupier's activity.

Equipment / furnishings:
(Refer to the stand-up temporary cyber stations as this space will overlap) A series of at least 5 bench type seating arrangements are required, as well as the first floor plane to building skin intersection to be extruded up to function as a sitting ledge as well. The space for the most part will function as a standing space.

Behavioral considerations:
Since the building as whole is to function on a 24hr schedule, this space will hold the main security observation point as per city law enforcement requirements.

Life Safety & Technical Systems Summary

Building use group (mixed-use facility):

Exhibition hall:	A-3
Library:	A-3
Café spaces:	A-2
Living units:	R-2
Photo / print shop:	M

For purposes of this thesis investigation, the most stringent use group will decide all code requirements, therefore the occupancy classification used is: **Building use group = A-3**

Construction requirements:

The building will be Type I-B construction. In order to achieve the appropriate square footage needed per the program requirements, the building will be fire suppressed (sprinkled).

The library is to be Type II-B construction (unsuppressed) with a maximum of 2 stories (55' height) at 9,500 sq. ft.

-Height and area limitations: unlimited area / 180' maximum height.
-Fire resistance rating: 2hr noncombustible

Structural frame, exterior and interior bearing walls, party walls, and floor construction are to have a 2hr separation. Roof construction tenant space separations and dwelling units are to have a minimum 1hr separation. Exit enclosures, exit hallways and stairways, and shaft enclosures are to have a 2 hr rating as well.

Means of egress:

-Maximum travel distance = 200' and no more than 75' in tenant spaces in order to reach exit access. Maximum dead-end corridor = 20'.
-3 exits required: occupant load (15net per occupant) based on square footage exceeds 500 but is less than 1000.
-egress width based on occupancy: min. clear corridor = 44", min. clear door = 32", min. stair width = 44"

Structure:

In general it must be noted that since we are using the most stringent requirements per use group, cost would be assumed to be higher than separating the building into many use groups. Since the construction type is Type I-B (noncombustible materials), the main

goals, also per design / aesthetic requirements, are as follows: Expose structure while maintaining high fire resistance rating. Allow for a column placement that deviates from the typical grid configuration.

Appropriate materials and systems:

-Concrete or steel (protected) construction
-Overall the building should maintain a concrete structural system per criteria noted above.
-Possibilities: 2way flat plate / post tensioned 2way flat plate / 2way flat slab / 2 post tensioned 2way flat slab
-Typical economical spans should not exceed 40', therefore, bay sizes used will be approximately 20'
-Depth to span ratio: 10' of span requires 3" of slab thickness
-Bay sizes can vary and deviate from a square and even a rectangular configuration.
-Note: the furring out for different concealing and paneling systems will occur per mechanical, programmatic, and aesthetic needs

Other appropriate materials and systems:

Other appropriate systems for 2hr (noncombustible) construction are steel or steel framing. However, per the design intention, it becomes unnecessary to list in more detail this alternative system because it requires (per Type I-B and use group A-3) undesirable and conventional fire protection means – use of dropped ceilings, spray on fire protection, etc…

Mechanical systems and requirements

Special emphasis will be placed on building skin and shading devices (fixed as well as alterable) that would ultimately decrease mechanical system inefficiency.

Essentially there are two mechanical systems in function in this design. One will serve the public spaces and another will serve the living units.

Public spaces:

-Single duct, variable air volume (VAV) – allows for a high degree of local temperature control (fire rated dampers at 2hr will be assumed to exist between major rated separations)
-Major equipment: boiler room / chilled water plant / chimney / cooling tower / fan room and outdoor fresh air and exhaust louvers
-Approximate sizes of heating and cooling equipment:

4,500 sq. ft. = boiler room and chilled water plant combination
1,000 sq. ft. = cooling tower
200 sq. ft. = main supply and return duct
7,000 sq. ft. = fan room

Living units:

-Fancoil terminals – no fan room or duct work; allows for individual unit temperature control.
-Major equipment: boiler room / chilled water plant / chimney / cooling tower / vertical supply and return piping / horizontal supply and return piping / condensate drainage piping / fancoil terminals with outside air grilles
-Horizontal ceiling configuration as to minimize mechanical equipment obstructions on exterior walls of unit.
-Approximate sizes of heating and cooling equipment:
750 sq. ft. = boiler room and chilled water plant combination
150 sq. ft. = cooling tower

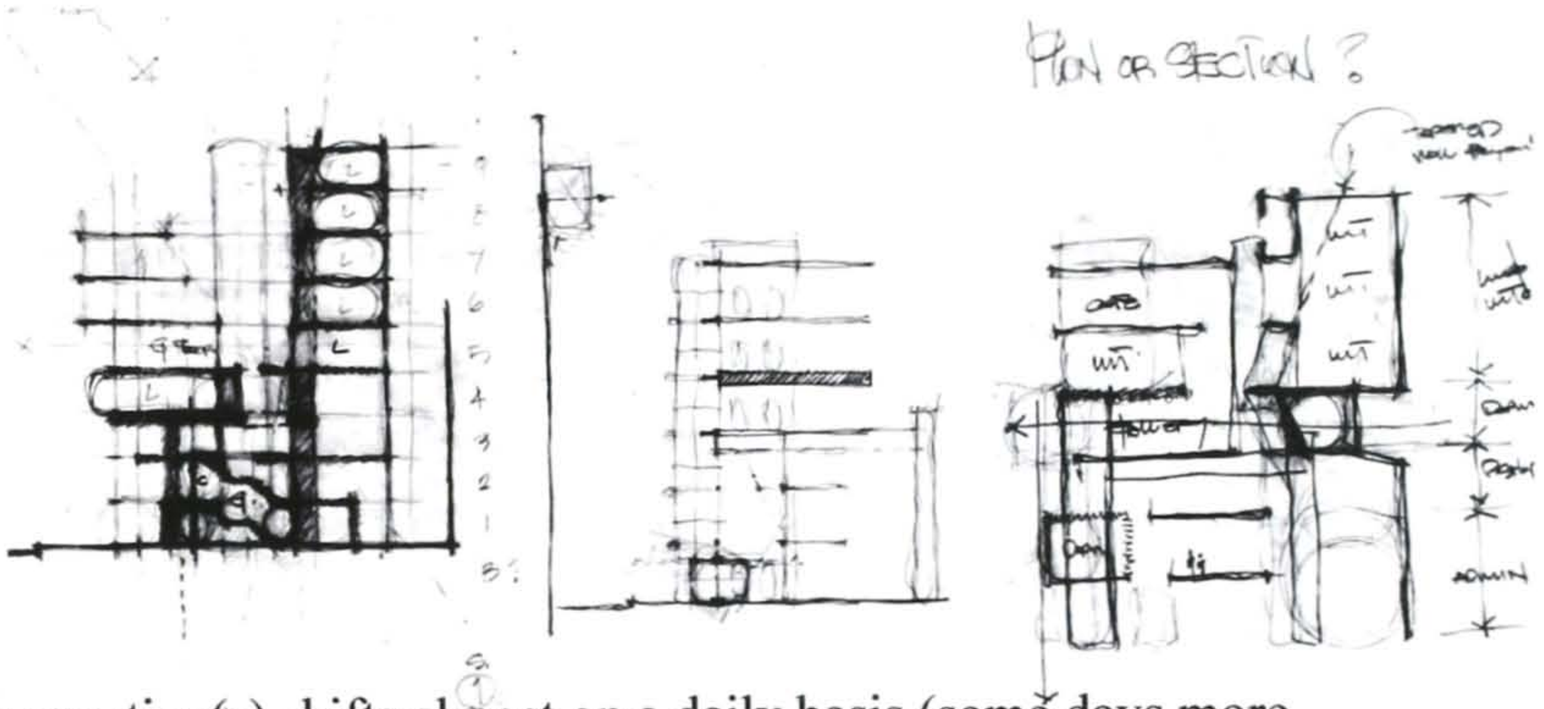
Overall mechanical system will be located within central vertical core that have adequate capacity to handle supply. This issue is part of the design concept or logic in general, as such mechanical issues are adequately covered (in terms of distribution). Duct work is to be mounted on floor slabs as necessary and will be exposed or concealed as appropriate (per design)

Overall electrical components:

-transformer and switchgear room 20'x20'x11'
-electrical core (with closets per floor) to be located adjacent to technicians office
-domestic water pump room (sprinkler riser) = 8'x12'
-elevators: 3 hydraulic
40 sq. ft. machine room
6'-8"x5'-5" car dimension / 8'4"x8'-1" shaft dimension
-5x10 janitor closet on majority of floors
-fire rated (2hr) refuse chute at 24" inside diameter with 100 sq. ft. compactor room

Building will have a basement to accommodate for all mechanical rooms – the alley will serve as the maintenance and service access from Shelby Street.

Design



Strategy Statement

At the design stage the question(s) shifts almost on a daily basis (some days more significantly than others). In reality, and perhaps the crucial aspect to realize is that there is more than one question that this investigation is examining. The possibility for changes must be kept in mind in that this design process is about being loose and always questioning and re-questioning as mindsets, theoretical positions, and concepts alter as the immaterial is made material. I have realized that this investigation is different from the typical problem solving realm of architecture we generally become used to.

The design is a fluid process that has changed, or rather has made clearer, the main question of this investigation, almost without realizing it. The emphasis placed on technology and that technology would drive the majority of this design in order to show the public interacting and ultimately give downtown a sense of community was the starting point. Its vagueness was quickly not compatible with where the design process was leading. As such, the design process gives clarity, criticality, and most importantly specificity to what the above was attempting. This investigation is a critical exploration of challenging conventions of "mixed-use"- what does it mean or could mean. The design is a direct reflection or articulation of what happens when the program elements are "mixed". From the initial vague question, schematic design gestures were geared towards forcing (without truly realizing) an idea that the building as a whole should become a device for articulating a site condition – the building acting only as a symbol (hard edge versus soft edge). This was communicated through site massing models. However, these models are crucial, regardless of their success or not, in that embedded within them are the true questions of the investigation (moves made almost subconsciously). In fact, the very first model made remains the most important in that it modeled the project's (and the thesis's) true concepts.

In terms of design strategy employed, the process involves testing in both loose sketching and modeling. The question again is about challenging conventions of mixed-use, therefore testing occurs not in trying to find rigid solutions to housing the program requirements, but rather to allow the volumes of the major program spaces to begin to interact and also to understand these interweaving spaces in a true scale. The goal in the more refined schematic phase (design development) is to begin to address human concerns more directly – how do users engage the space and why. With the large and complex program that exist and the multitude of constantly shifting concept elements to be tested, it is important early on to give an ordering framework to the design in some fashion. In other words, to set up axes of circulation (ultimately this would address egress concerns as well), give a sense of scale (in respect to its site surroundings), represent the massing of the program, and the structural logic and hierarchy of each layer of the building in its purest and simplest form. From this, refinement occurs in the form of space volumes studies which strive to articulate specifically the concerns made evident from the program space details requirements. However, this occurs at the scale of the

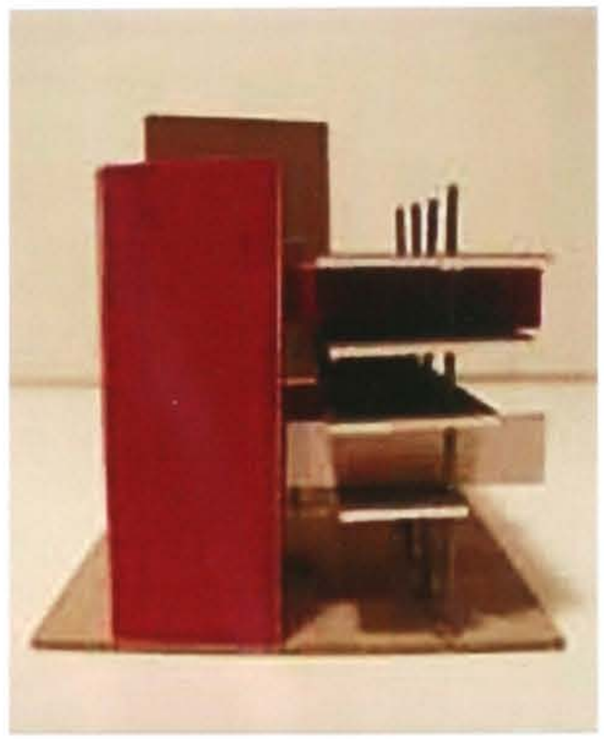
larger program components. The notion of mixed-use and interweaving program spaces at the refined schematic phase requires a stronger attention to massing the larger spaces, and smaller support spaces are dealt with in the background in a sense – the idea being that these elements will critically find their position within the overall sort of automatically. These space volume studies, in the case of this investigation, allow the process of challenging mixed-use conventions to be continuous and avoid a rigid solution to remain permanent and direct the entire design (a common trap). What has been realized, meanwhile, is the impossibility for the questions to be investigated in conventional plan views only. The program and the building in general are layered spaces in a sense, and so while the section holds great importance in exploring, the physical models in this investigation are critical to communicate the overall, before the smaller moments can be refined in two-dimensional drawing form. The drawing realm is however of equal importance to the overall. For this design, it is the vehicle for allowing a higher degree of specificity to emerge, yet it is a crafting that is equal to the model studies, that there is a looseness that does not imply a rigid and finite solution. Building elements, structure, rooms, skins, still have the possibility of a continuous refinement and rethinking, and work produced should imply that quality.

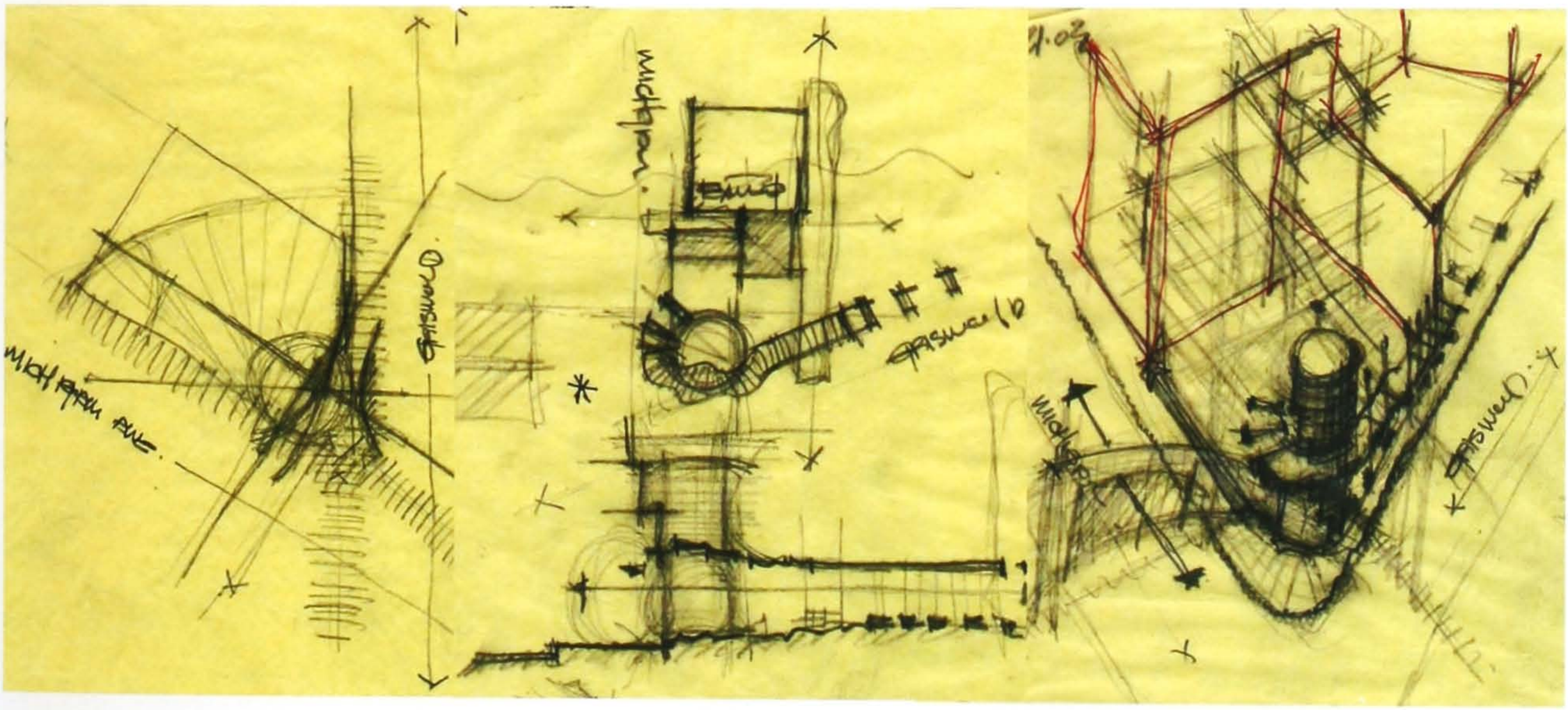
As mentioned before, the crucial aspect to realize is that there is more than one question that this investigation is examining. The overall, in brief, is the challenging of mixed-use conventions, but the architectural concepts that drive the design are more specific. The push or pull of private to public space and collective to individual, the articulation of fast space to slow space and their relationships to technological (fluid) space vs. formal space, are the key architectural concepts (or questions) constantly explored through schematic design. Furthermore, the resulting crucial question that arises to situate these sort of sub-questions to the main thesis question is what happens at the physical intersections? It must be said that my design philosophy prior to this investigation was about a single concept that drove the entire design very rigorously at every scale – from the overall to the specific. However, what perhaps is the most frustrating, yet beneficial aspect is that the questions in this investigation require a multitude of conceptual underpinnings. This design strives for architectural diversity in a sense that it must be given the opportunity to shift as one moves from space to space, use to use. The design is a culmination of different uses that are physically independent. To restate, the attempt is to understand how they intersect one another, how they push or pull through one another, how they are extruded, etc.

The shortcomings that exist are a product of too little investigating. The architectural vehicle has produced a program with a great complexity and therefore a constant producing of new studies must continue daily. And so time is of the essence, in other words, emphasis should be geared on accepting once again that the process must remain loose. The trap that exists is allowing the desire to specifics to be solved so that design become linearly, but the reality is that every component (due to what the thesis question asks) must continuously be developing at the same time. This design is about equal level of importance and development in every program component. If one or just a couple elements are pondered too long it obstructs the possibility of the whole to be successfully articulated (wasting time), thus weakening the thesis. This is an aspect that has been difficult to come to terms with.

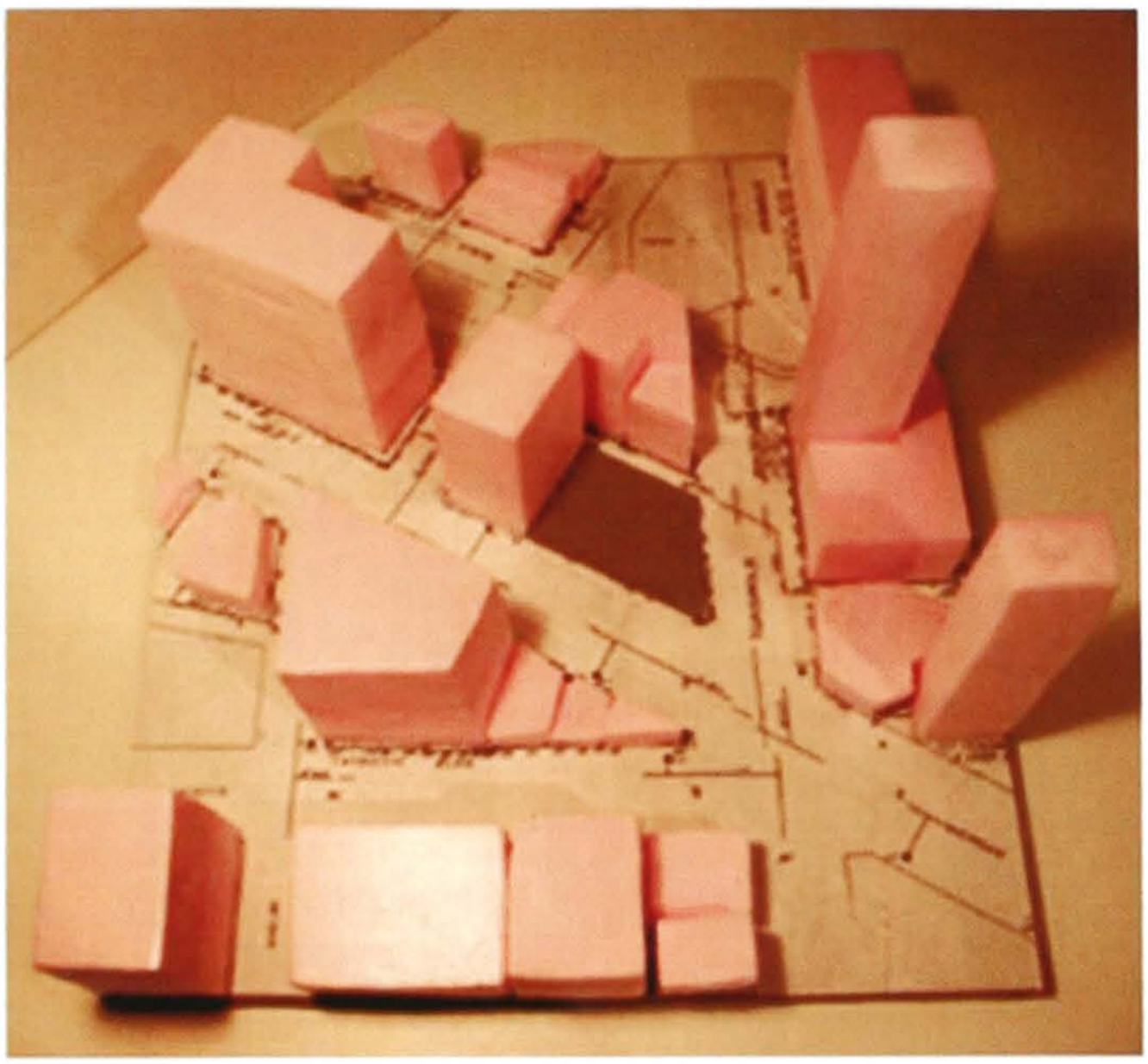
Schematics: *(materializing concepts)*

The schematic design processes is one that materializes the conceptual underpinnings that drive the investigation, or in other words, finally gives form to the theories derived. At this stage the specificity level is kept low in that it is an unlimited process of making rather than allowing thinking boundaries to limit design gestures. The process is just that, gestural so that the opportunity to question and to re-question in the investigation is always possible. The following images and sketches display the majority of the schematic design process that explores the thesis question on many levels, yet strives to continuously move toward a coherent design proposal. The process involves (and displays) learning how to attempt and be open minded about a personally unconventional approach to design (as mentioned before) that requires patience and rigorous working methods. The following displays a process which began with simple site reactions or gestures in the form of loose sketching, to transforming these gestures to site massing models, to conceptual skin studies, adjacency diagrams, and site sections, to conceptual details, and ultimately a large scale model that sums the schematic process up and becomes the crucial pivot point that brings the investigation into a more specific design stage – design development.

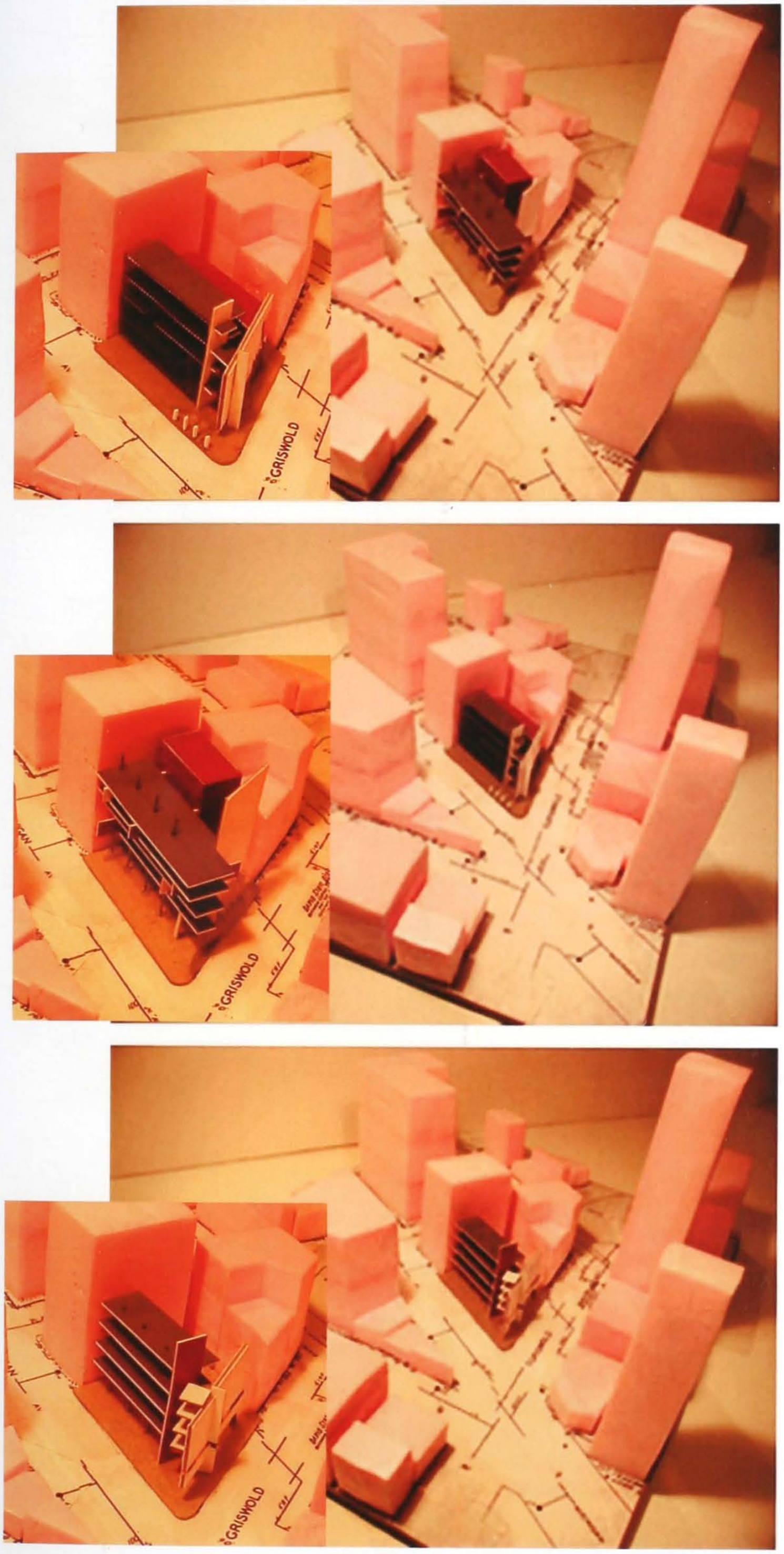




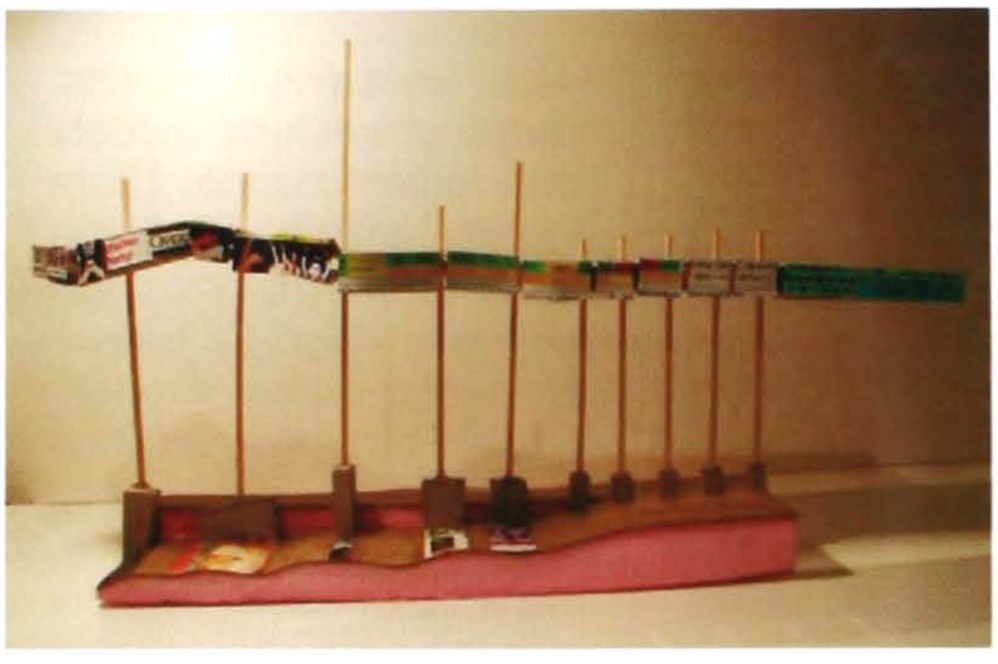
-initial site gestural sketches: plan, section, axonometric

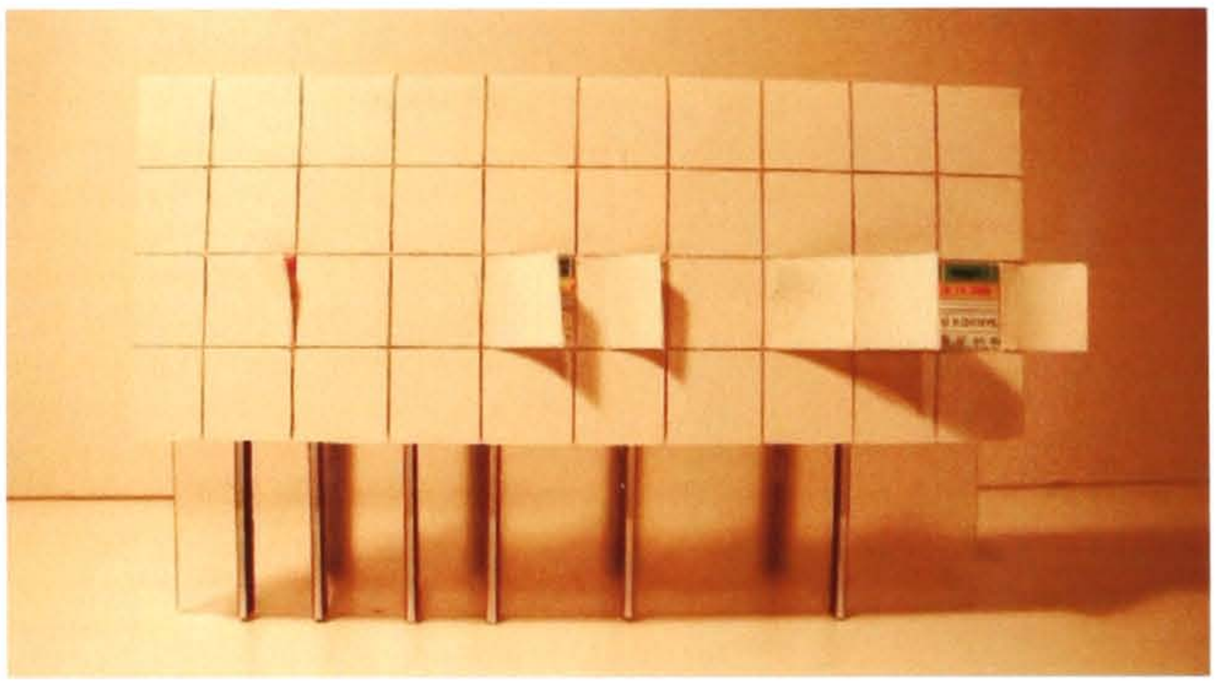


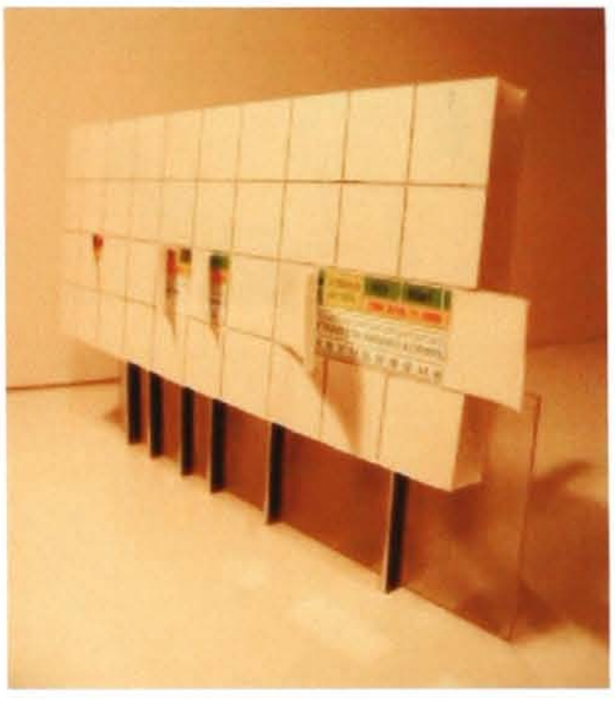
-site model: sketch site model as a design tool in order to test schematic site massing models in relation to the spatial quality of the immediate area; void space of the missing piece (the actual site) has a large impact on the massing of the area overall

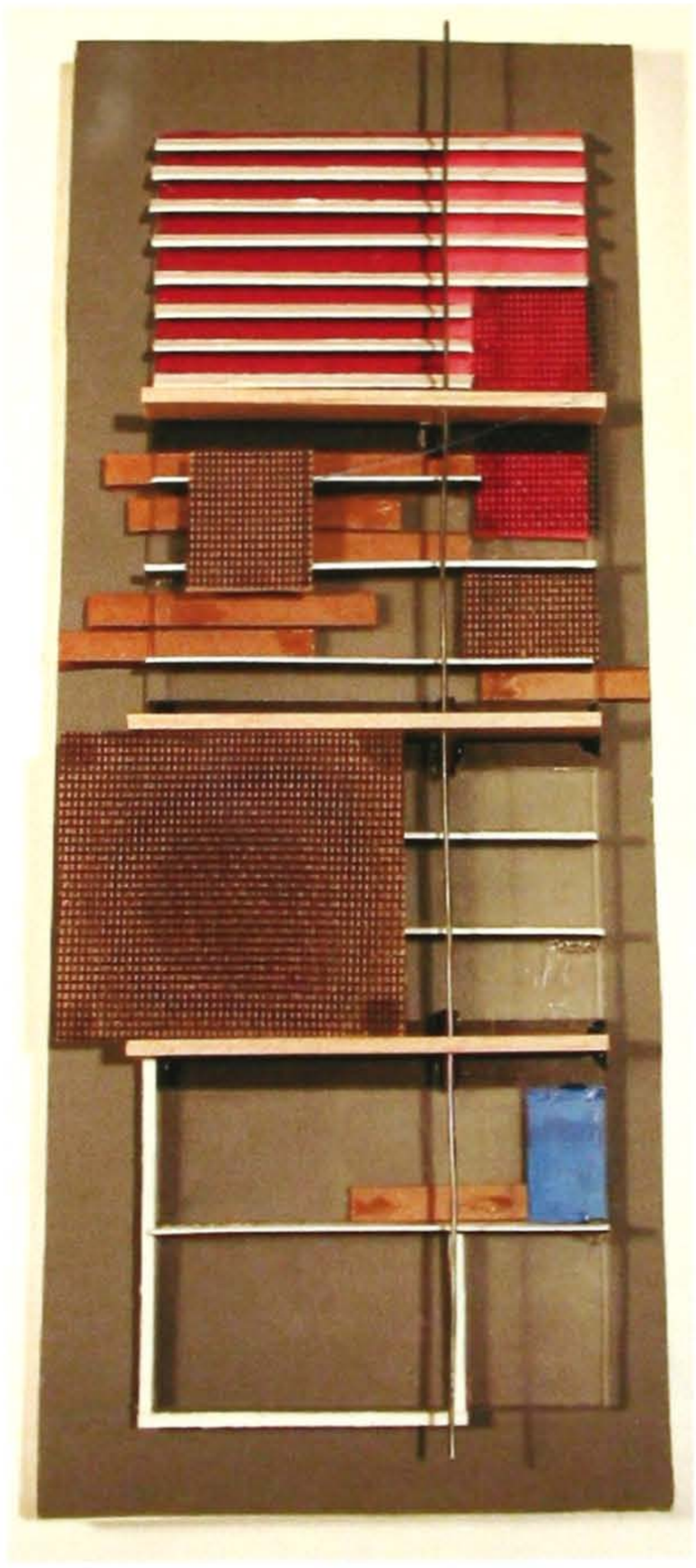


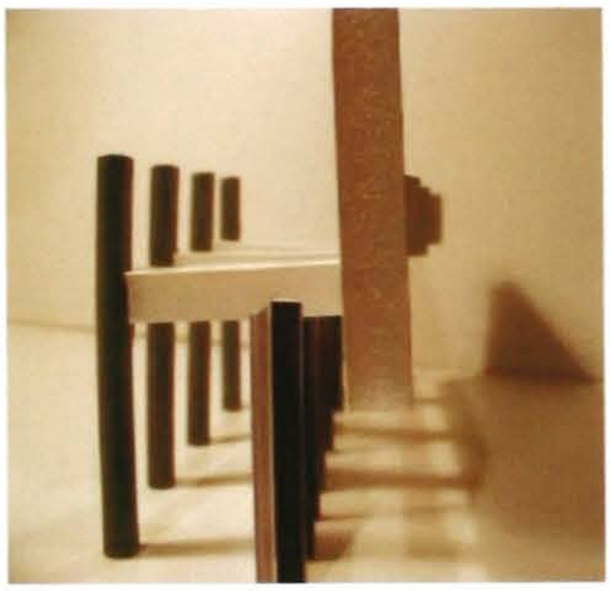
-site massing models: series of gestural models that communicate (from top to bottom) first the layered condition of the Michigan edge as private elements pierce through, second a hybrid condition of the intervention addressing the quality of the two street conditions plus the transparency of a "skin", and third as a symbol to address the street edges only



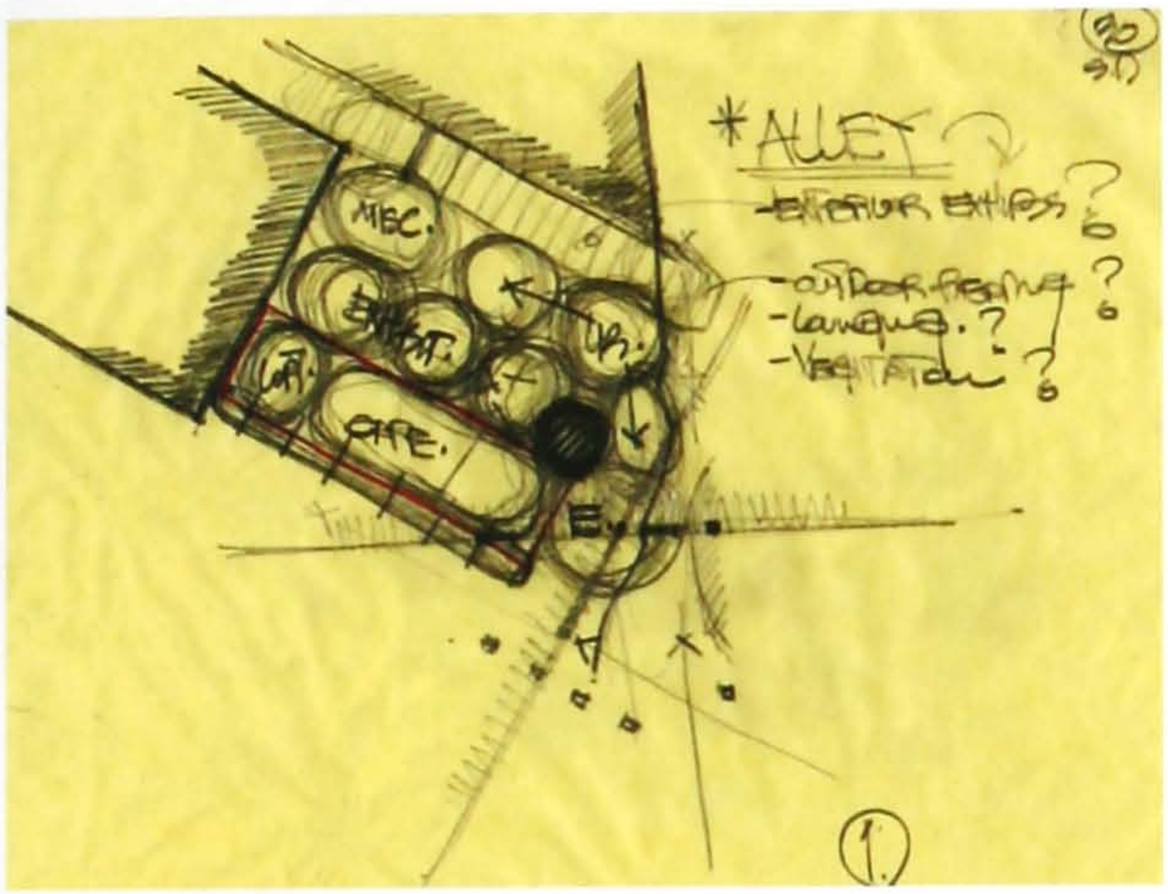


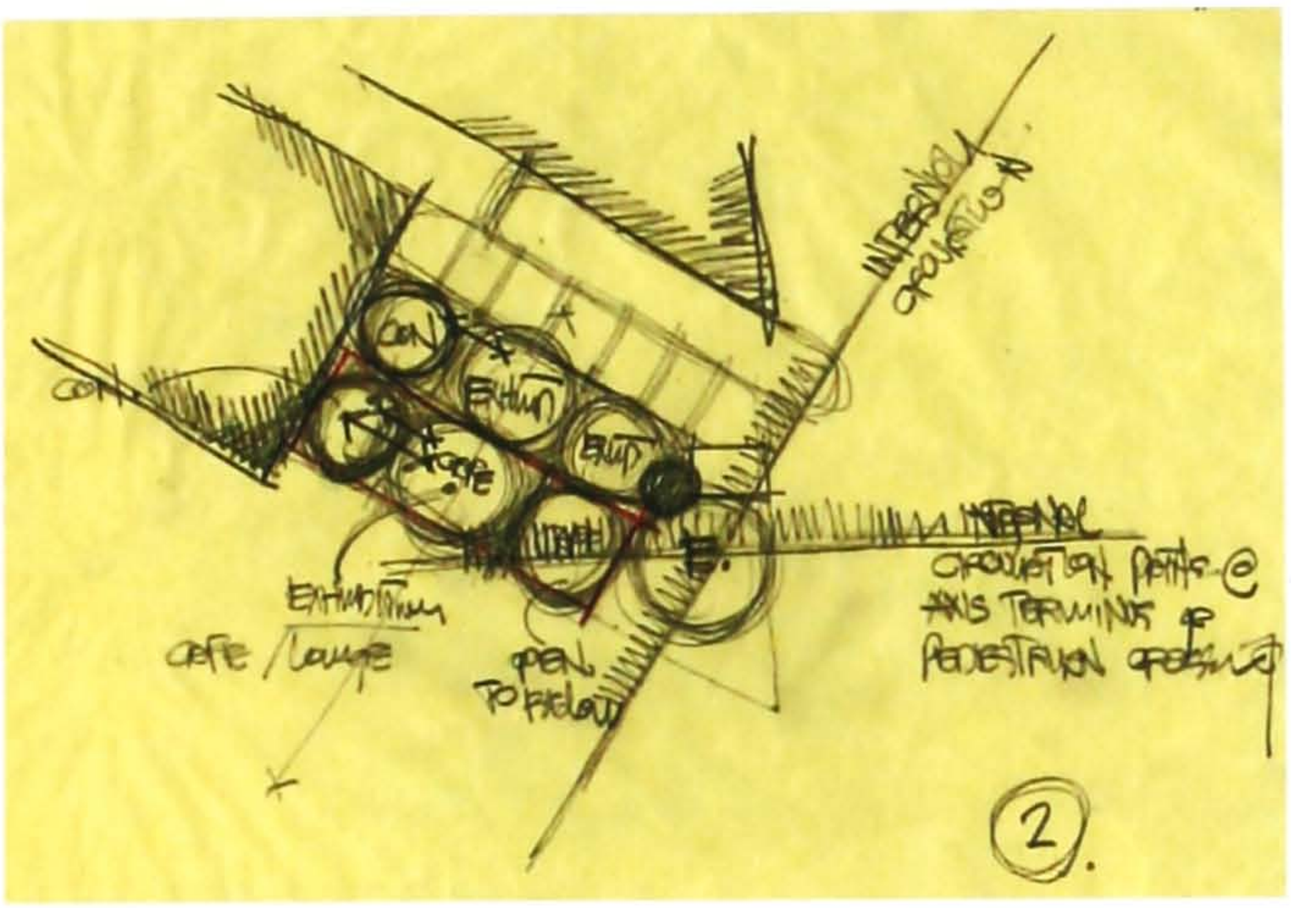


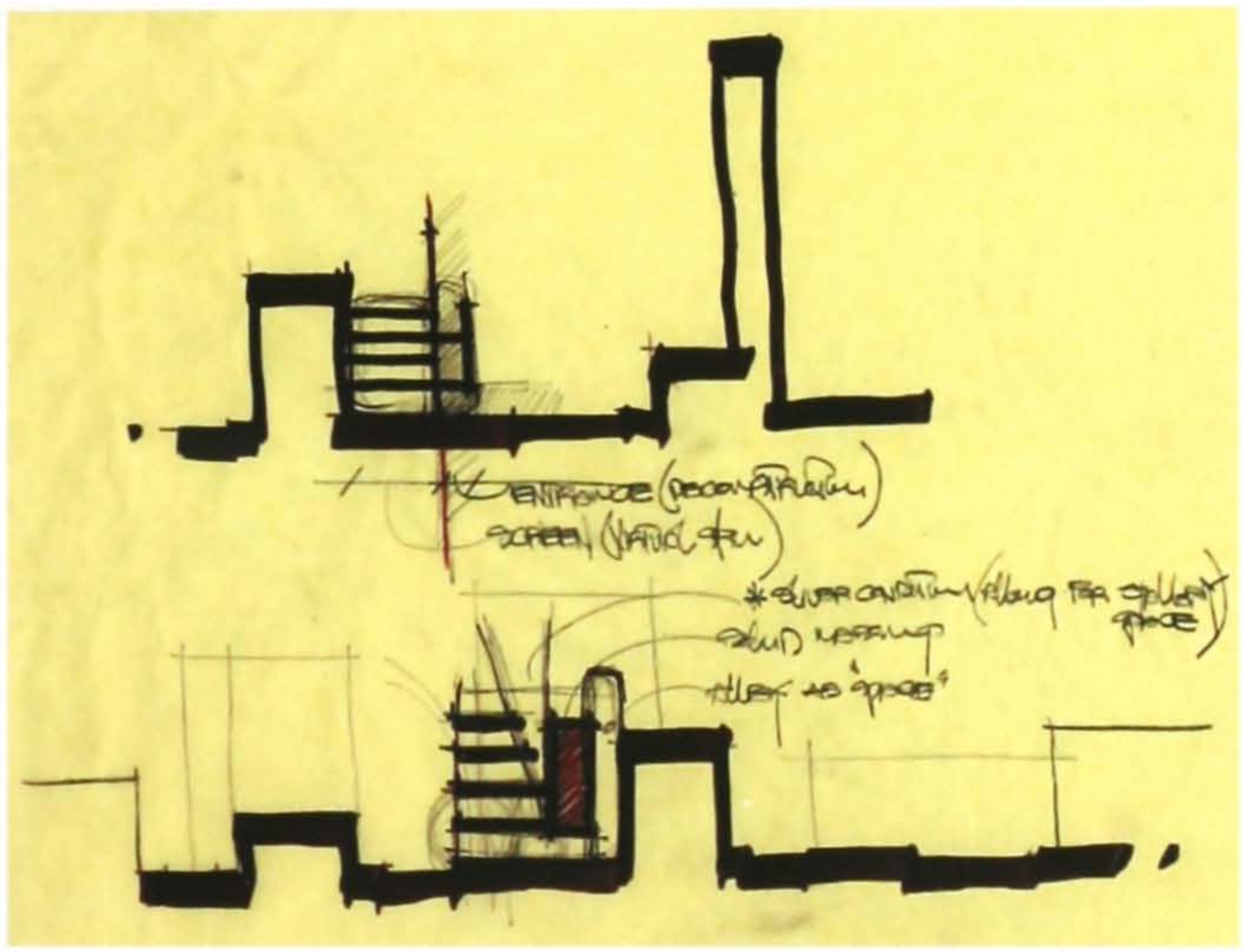


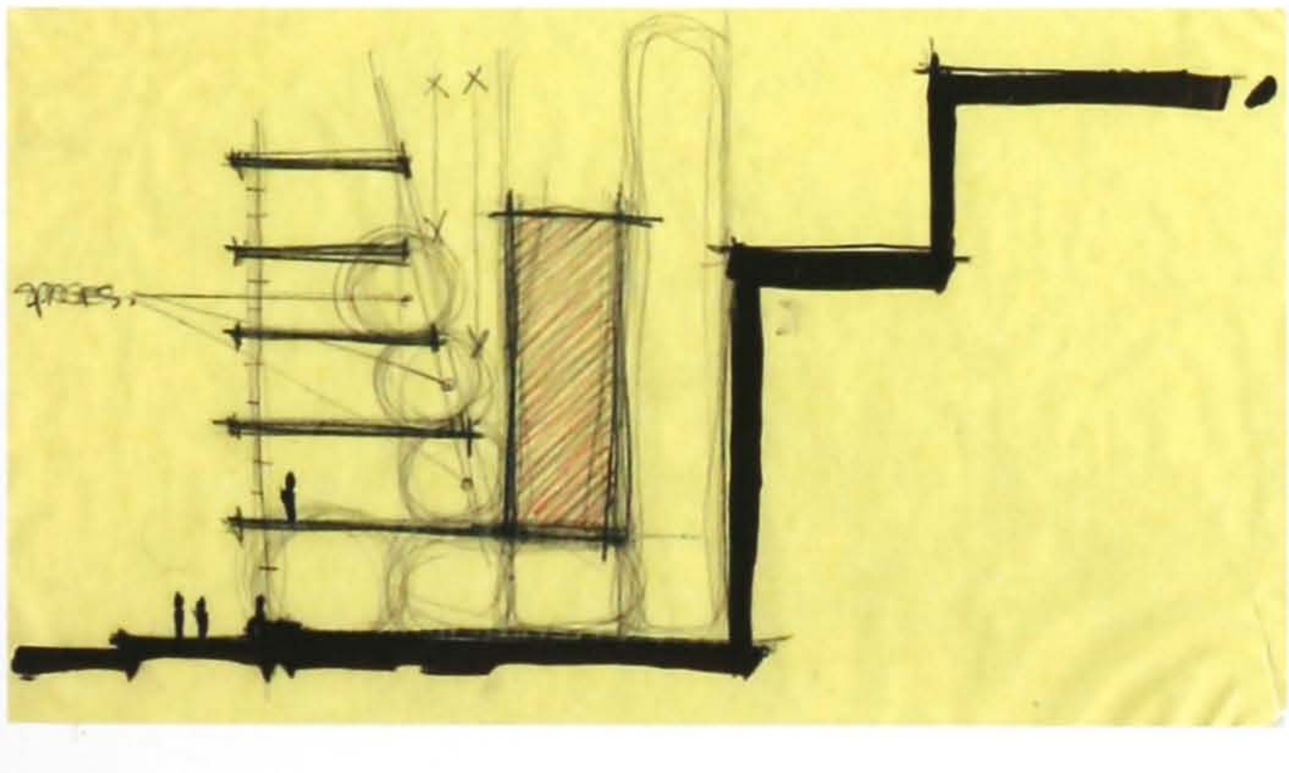


-skin studies: the top two are meant to be skin studies of the Griswold edge with the second depicting a direct relationship to interior structural elements; the study at the left is the Michigan edge which depicts the notions of screen and frame – incorporating alterable and fixed shading devices.

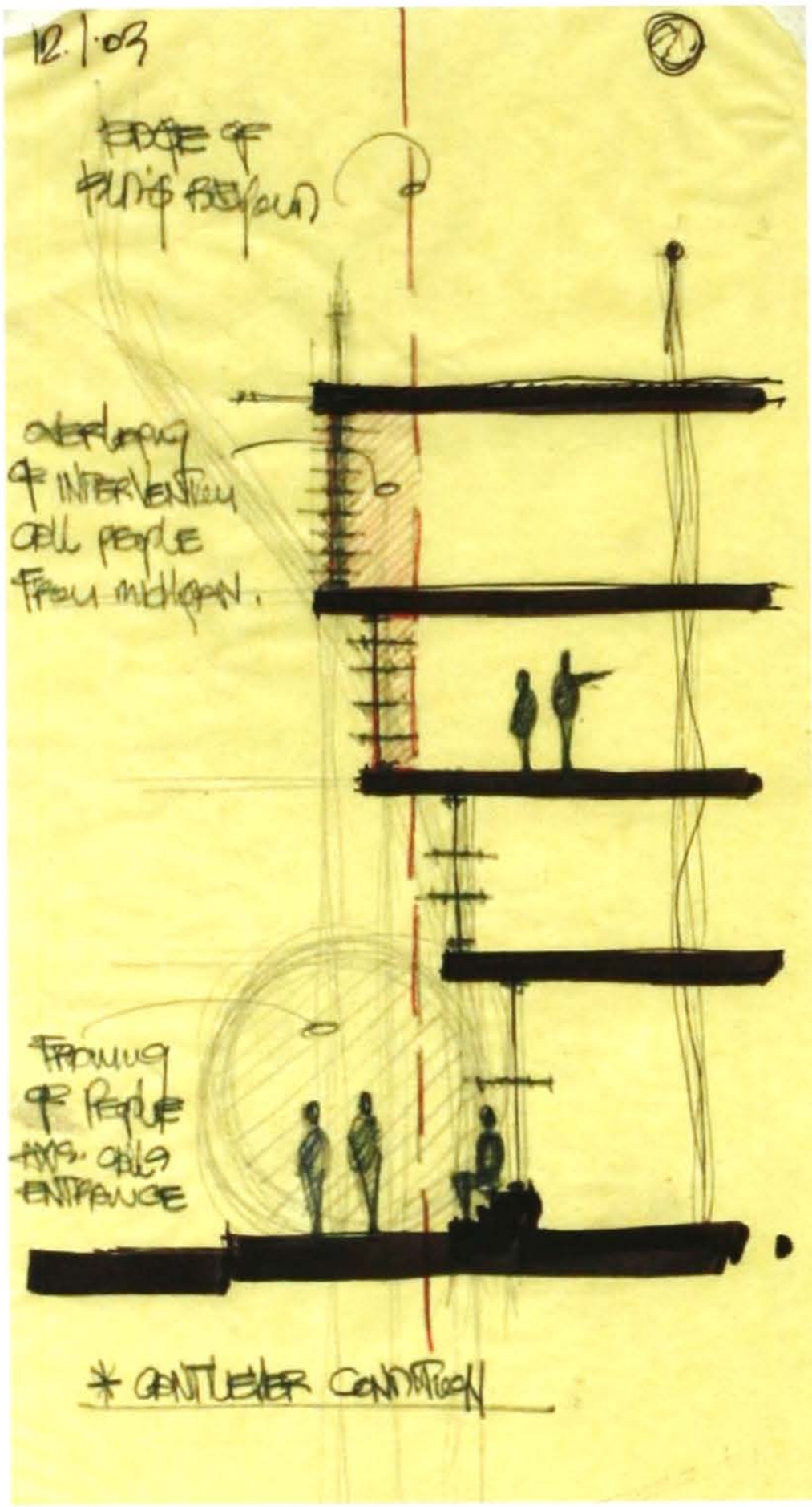




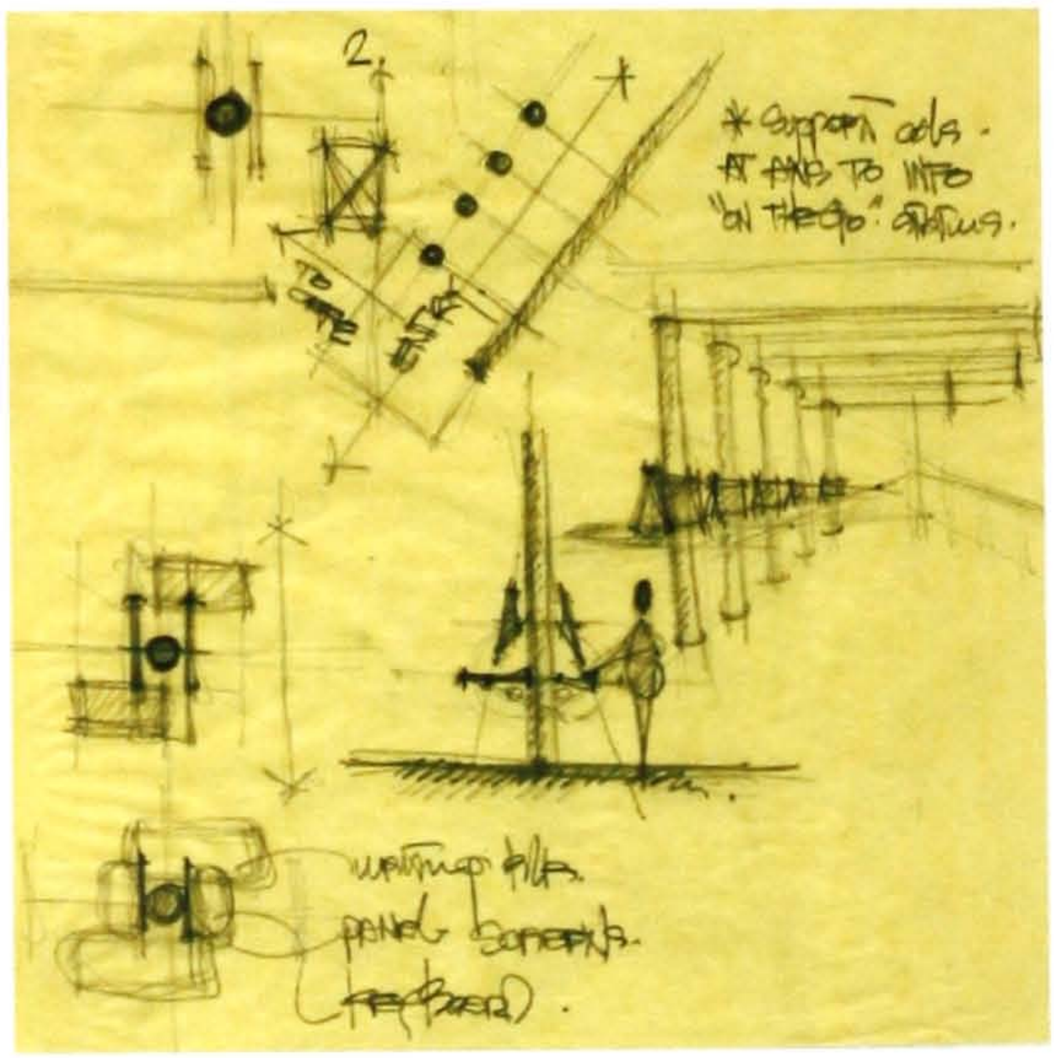


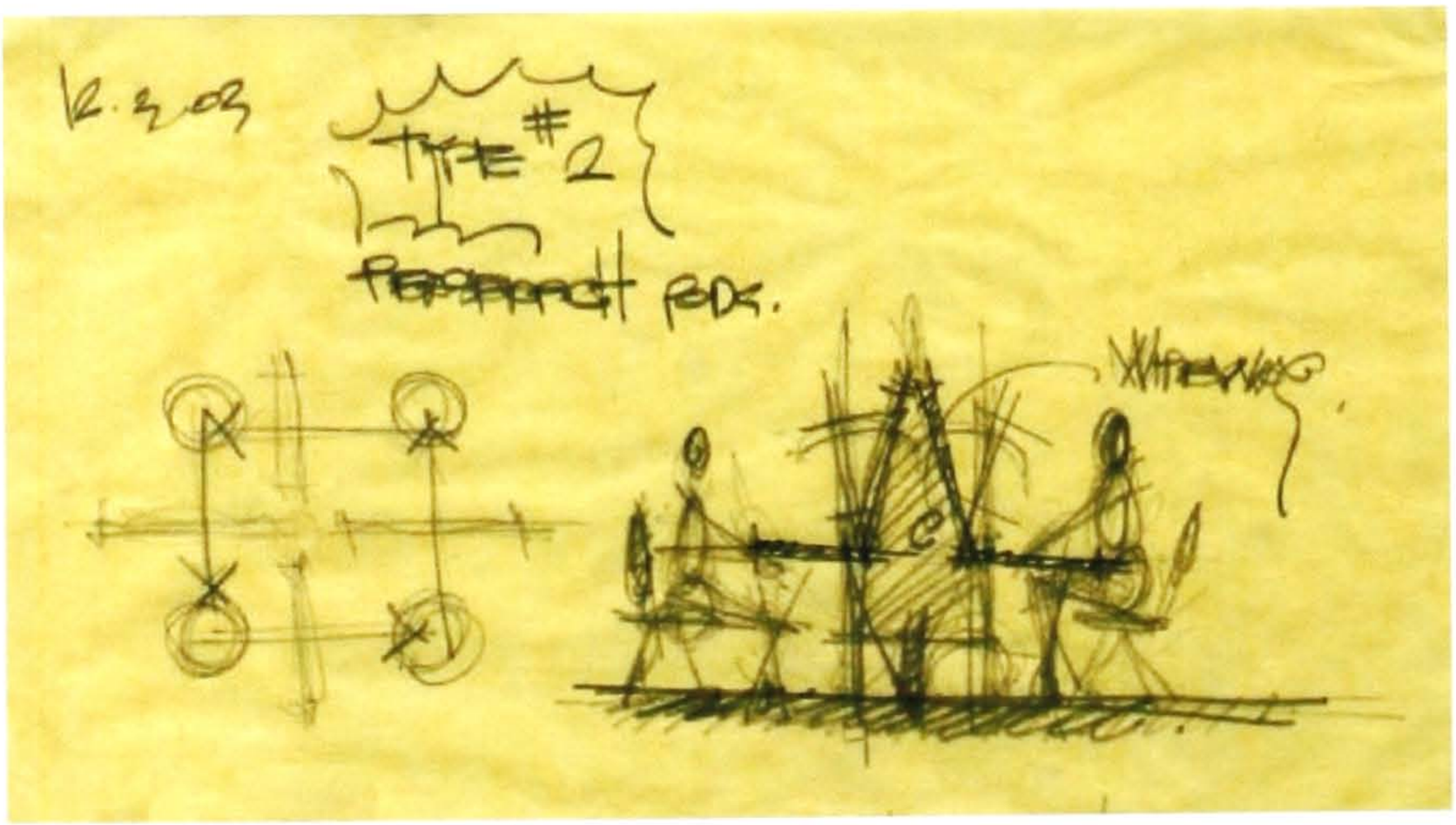


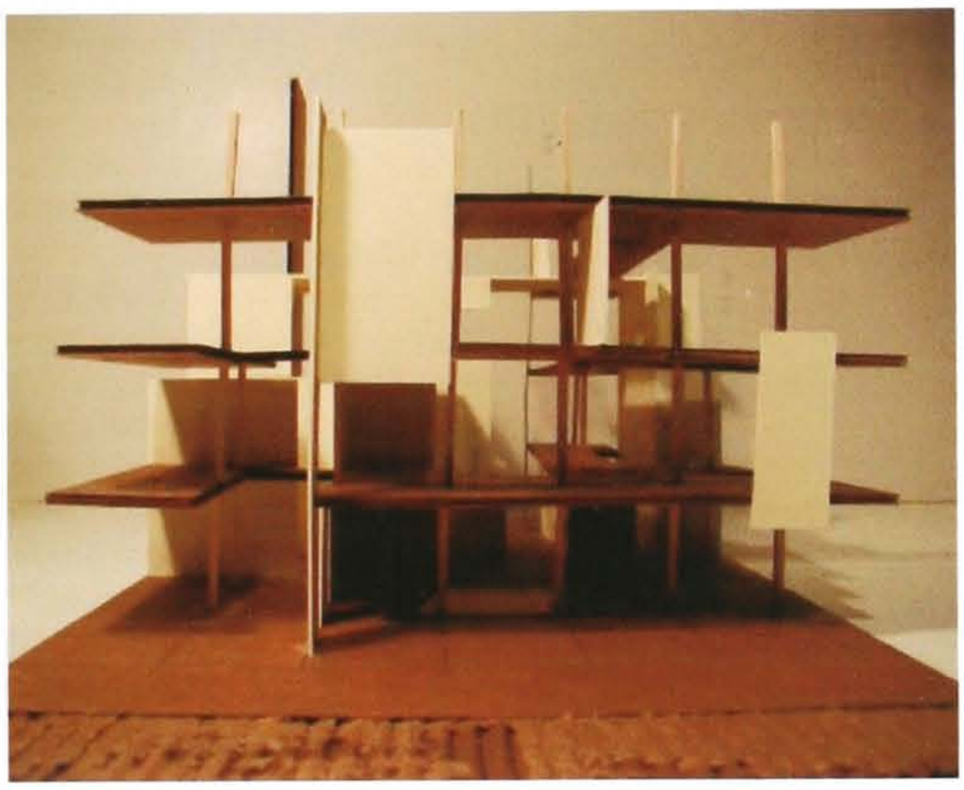
-adjacency studies and site / schematic building mass sections; these crucial studies helped to finally locate the conceptual underpinnings of the investigation within true space

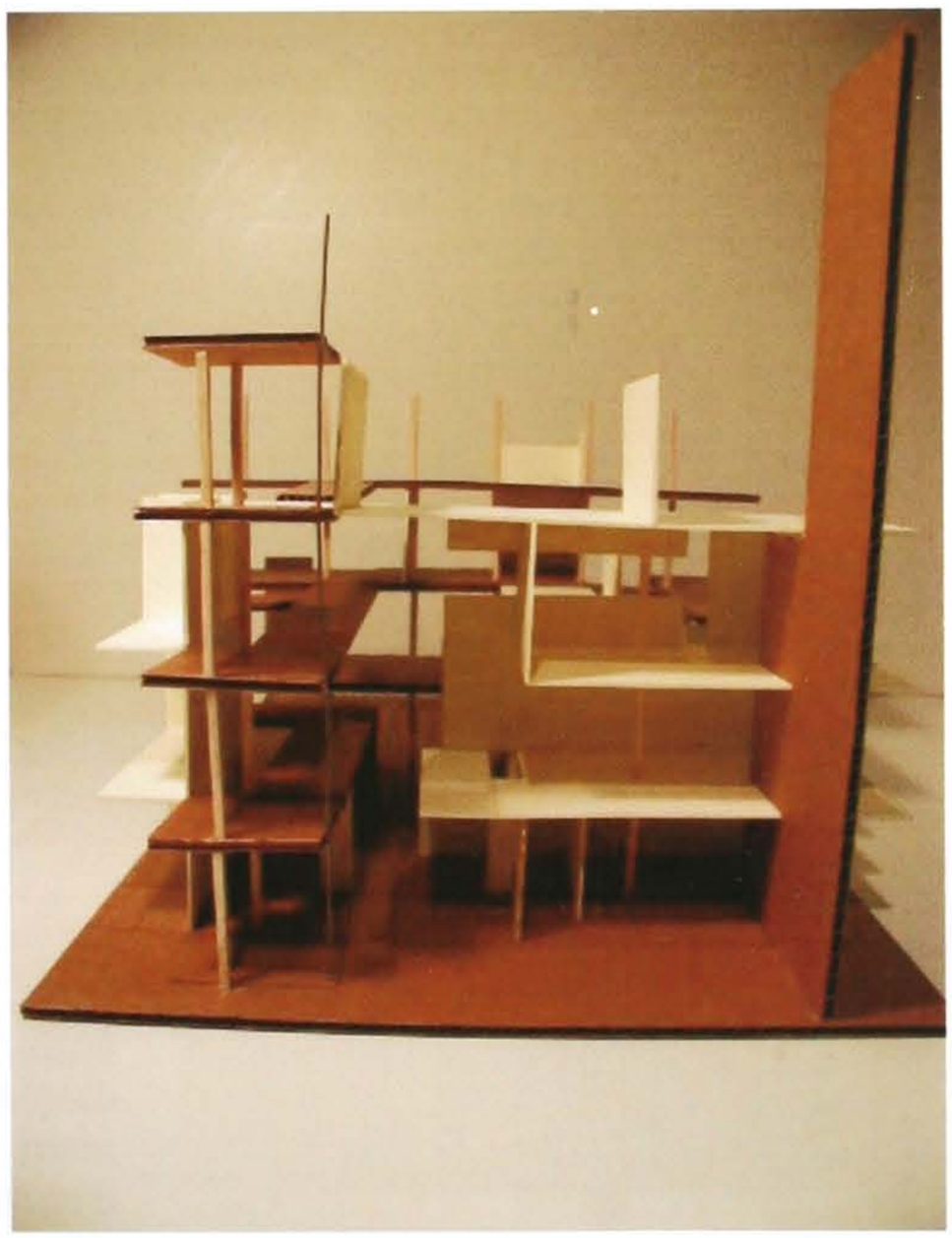


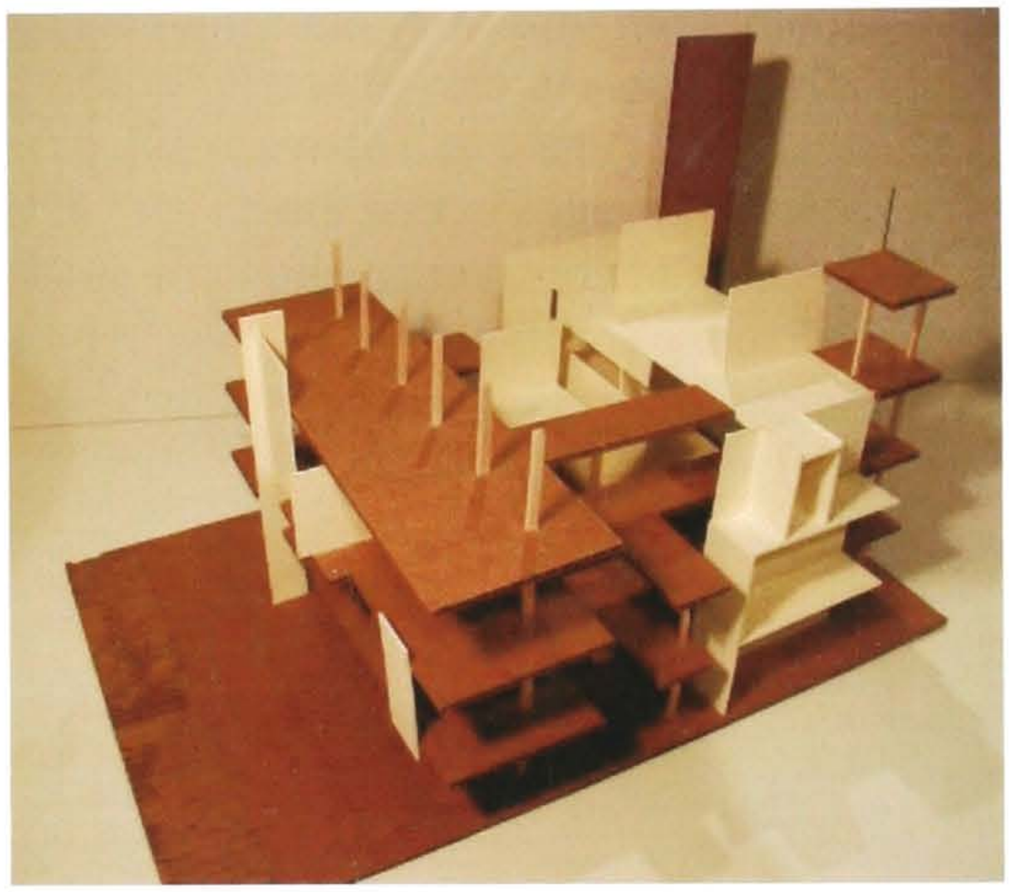
-schematic details: notions of a cantilever condition of the Michigan edge (left), and computer workstation brainstorming in both stand-up temporary stations and web café stations.





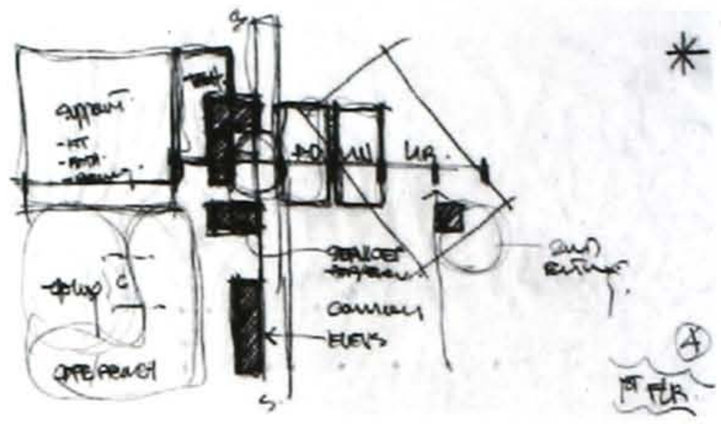




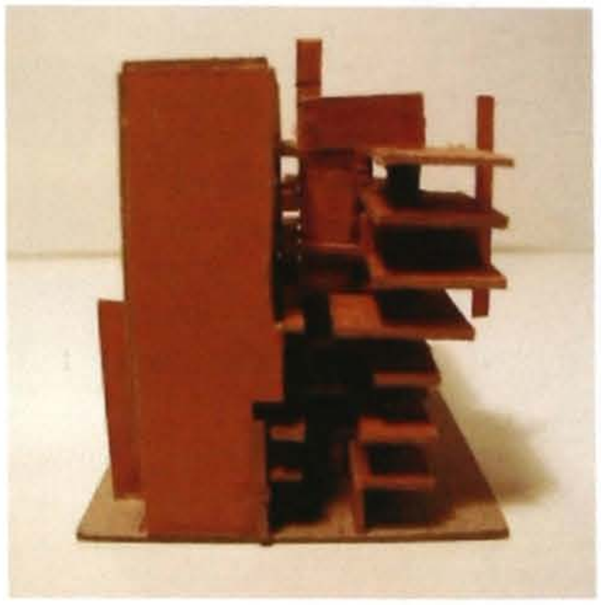


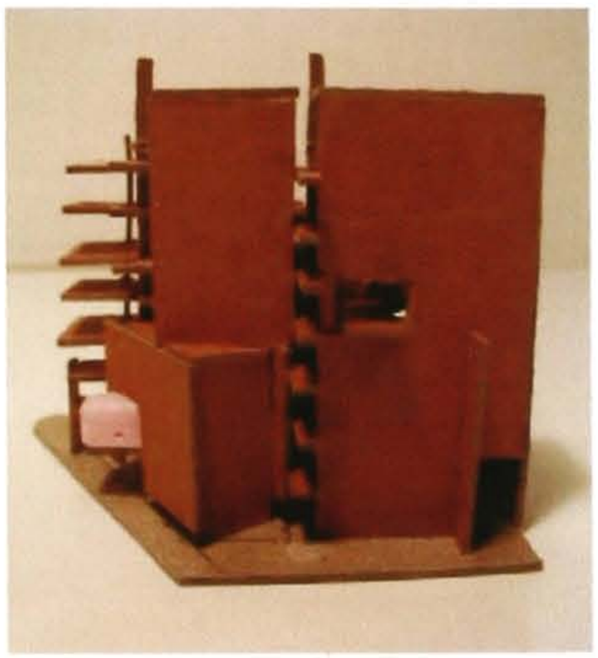
-large scale spatial construct: first true test of challenging the notions of mixed-use; an abstract representation of the structural and spatial mixture of private to public and individual to collective while creating thresholds that define space and movement.

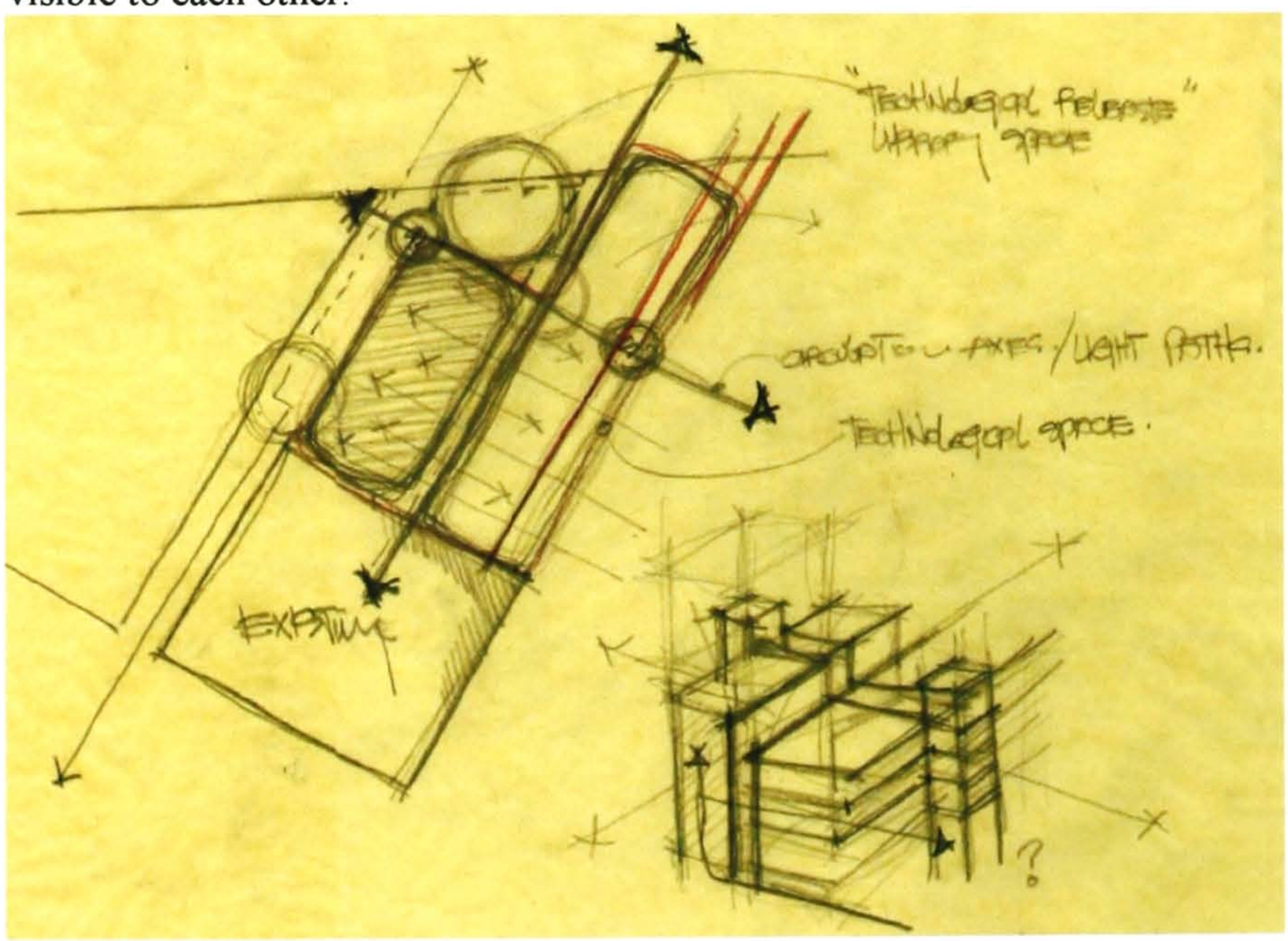
Design Development: *(applying specificity)*



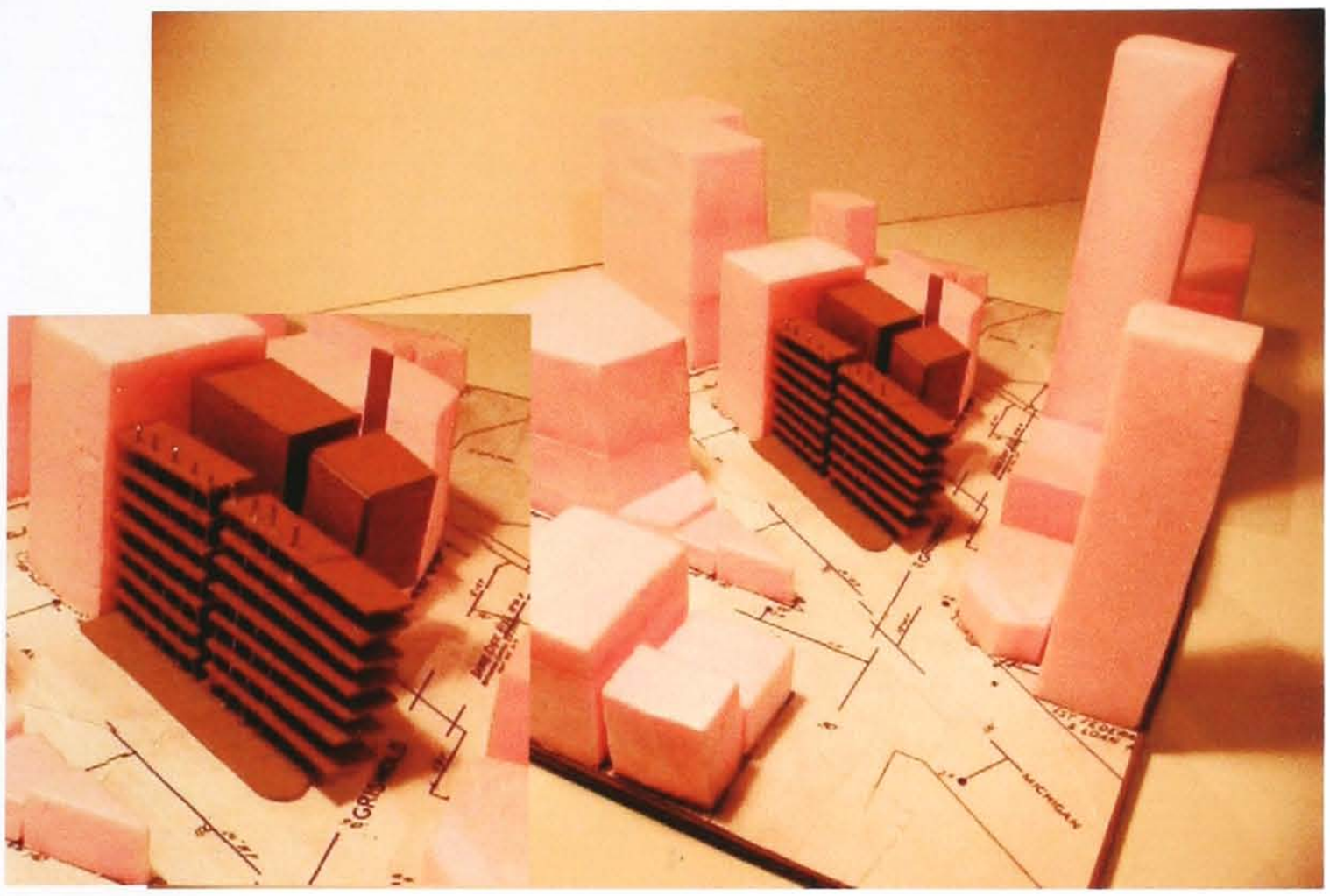
At this stage, the program becomes the critical component to consider, or more specifically, it becomes about merging the concepts with the physical scale of programmatic needs – essentially *building* design. To reiterate what has been said in the strategy statement, the design based on challenging conventions by a dynamic, physical and visual mix of program components or mixed-use, but also on giving coherence to the composition as a whole rather than allow a chaotic and arbitrary mixing of uses – that really does not challenge anything in the end. Design is logic based on axes: horizontal and vertical (path versus core) – the importance of circulation which acts as a connecting device as well as an ordering device amongst these mixed-uses. Conventions are challenged through communicatory skins – sharing of cores (circulation and mechanical, etc…), views from one use to the other to allow a continuous movement. Again, the program elements and their forms imply collective and individual activity both separately and simultaneously: visual thresholds begin to define space and movement. Overall, the relationship exploited through this is the one between public and private (collective and individual) space in that the diverse tension between them, creates moments of contact that allow for an awareness of their juxtaposition. And so the shifting ideas of what is private and what is public are expressed by allowing them to overlap both on the same plane (in plan) and vertically (in section) – allowing both conditions to be visible to each other.

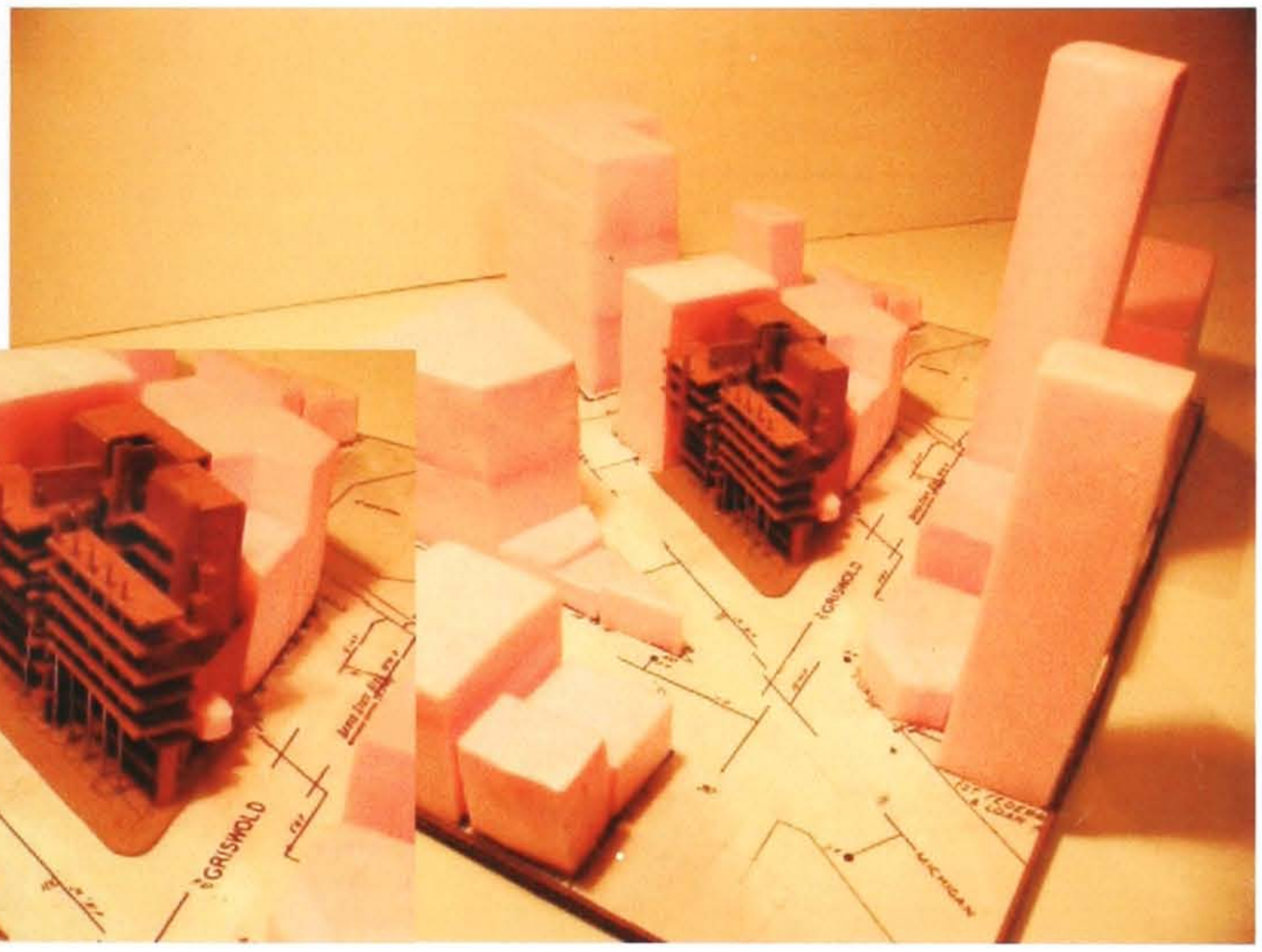




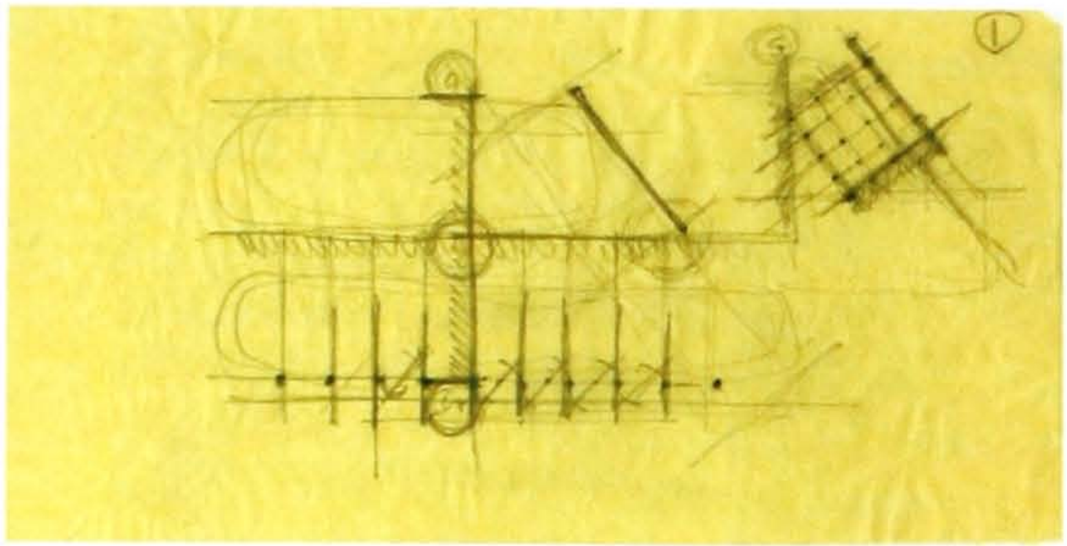


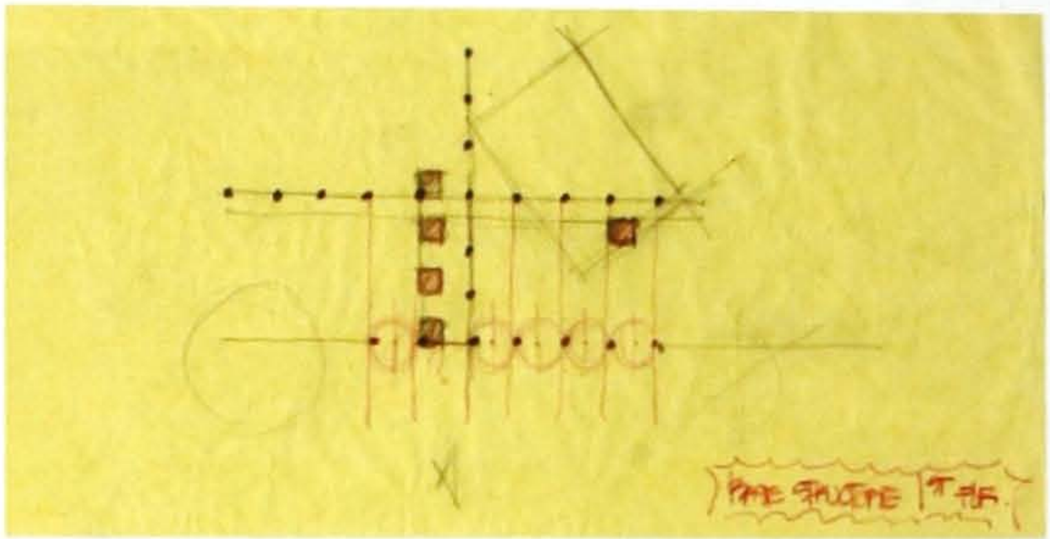
-site concept and organizational diagram identifying main paths of circulation.

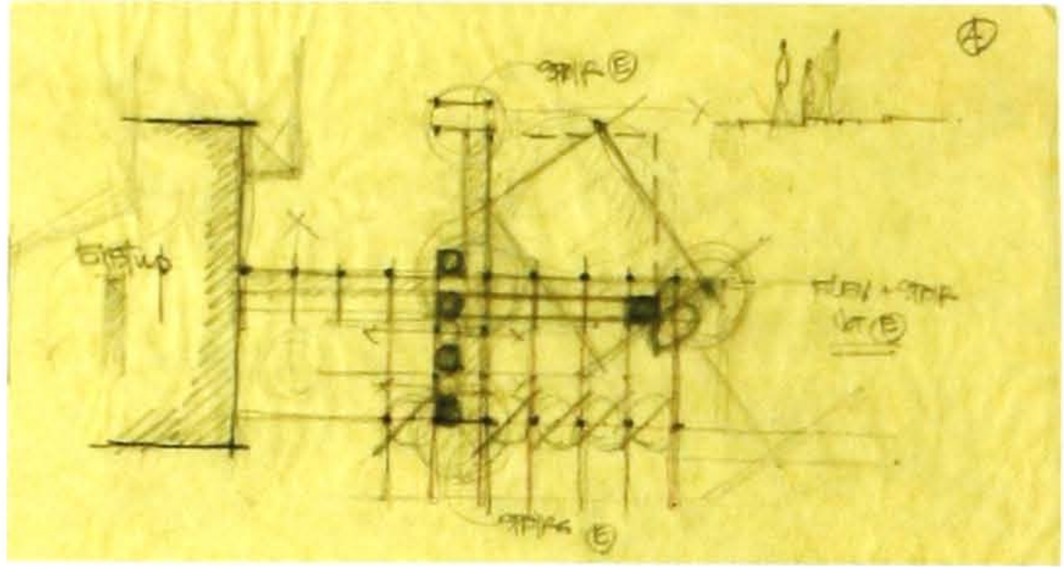


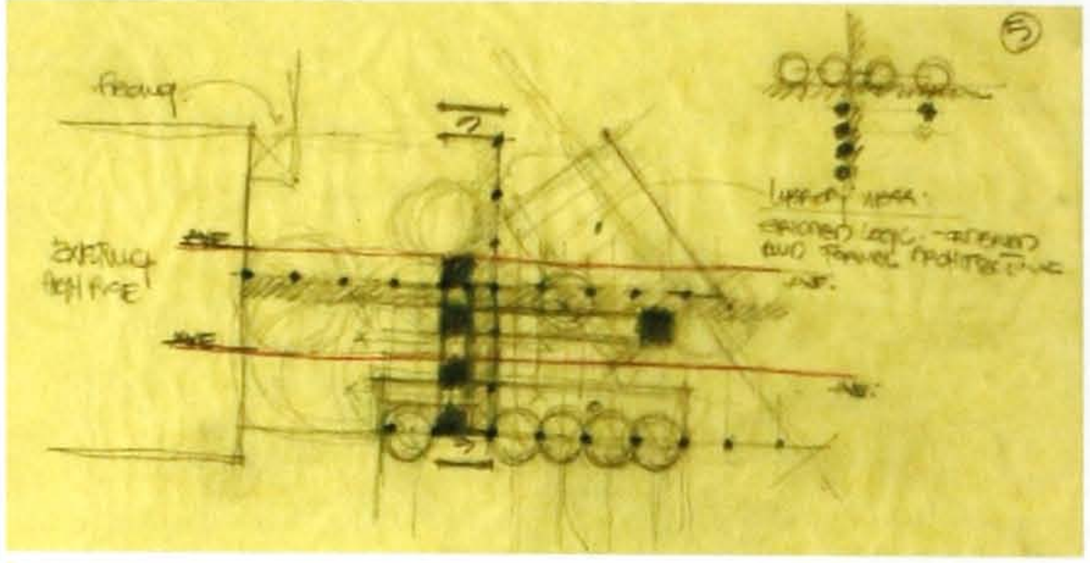


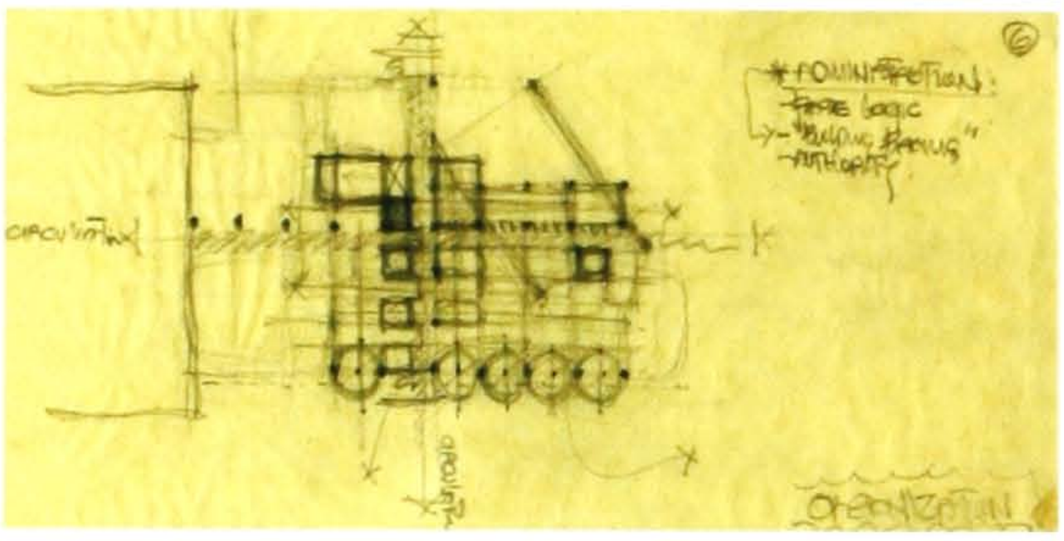
-site massing models: the first depicts the site sketch above; the second explores at a general overall scale the notion of private and individual vs. public and collective, while incorporating the main program elements

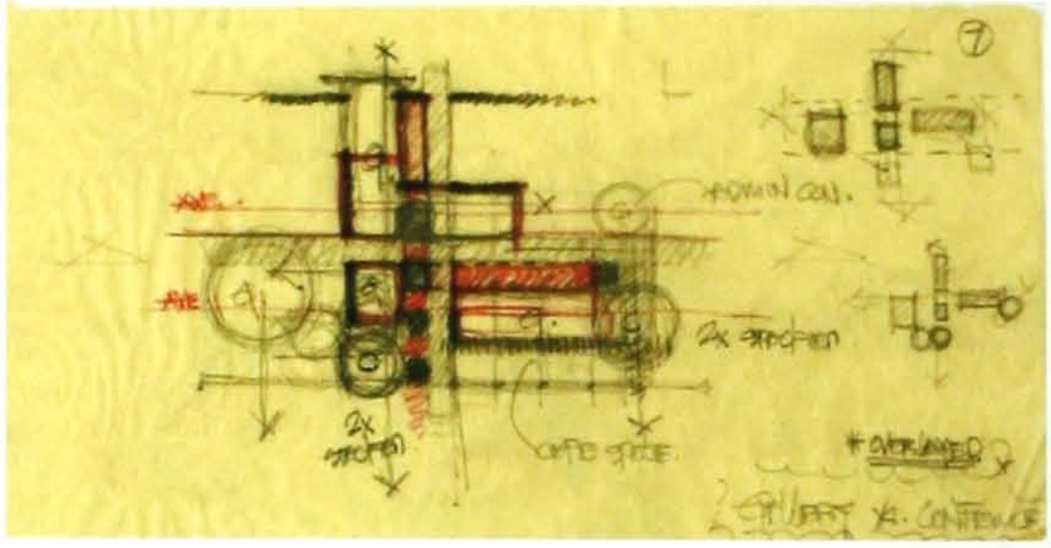


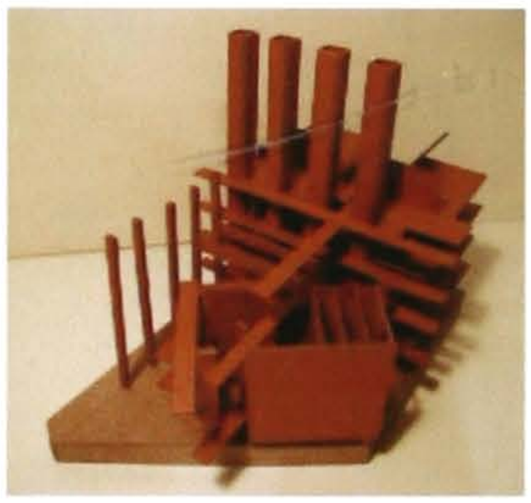


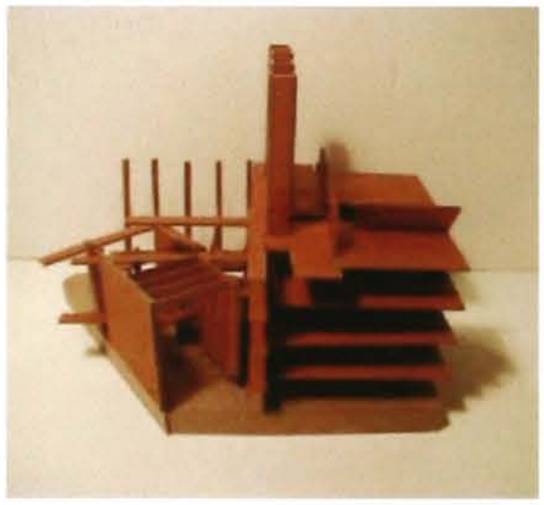


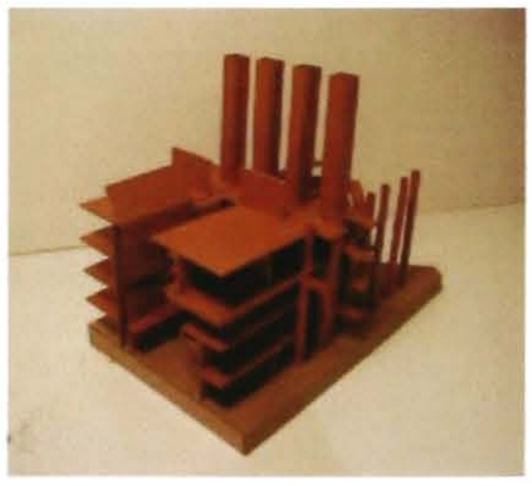




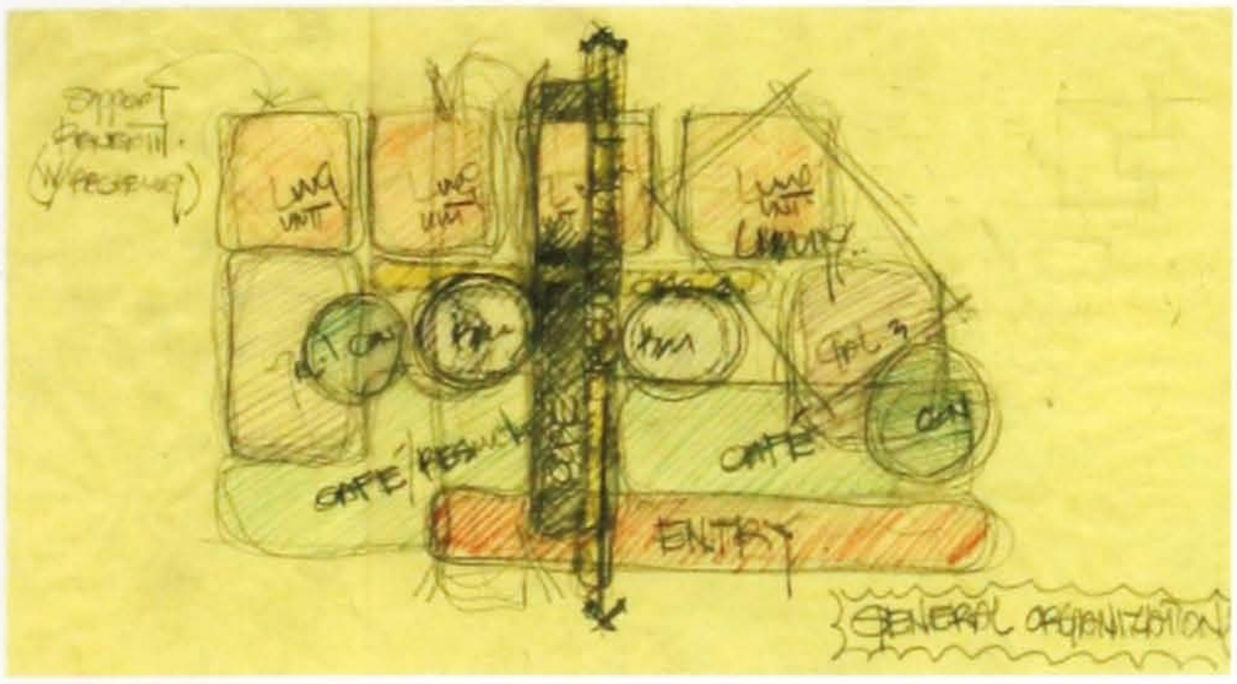


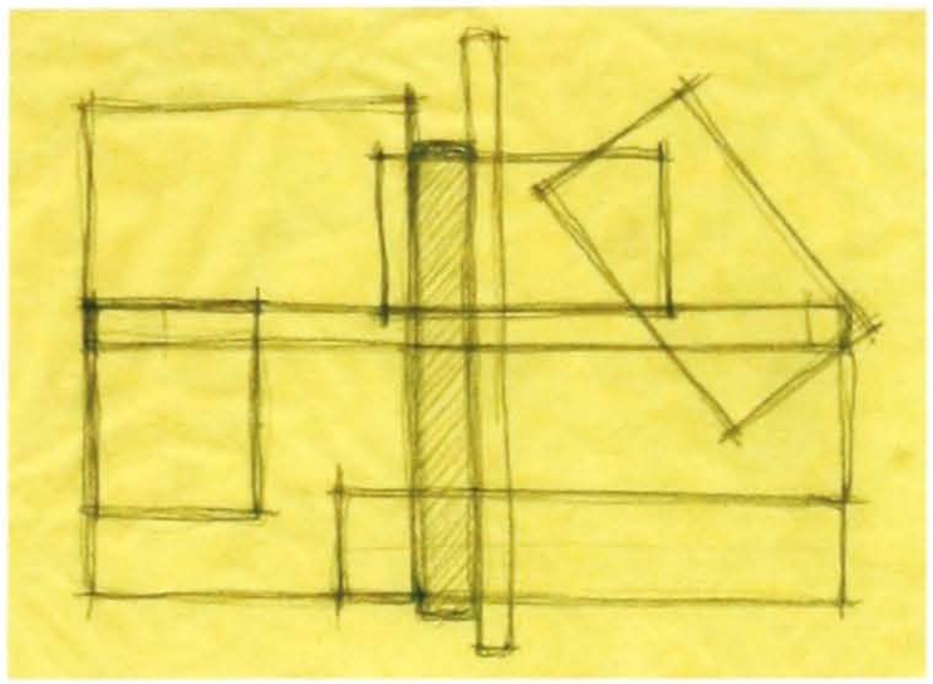


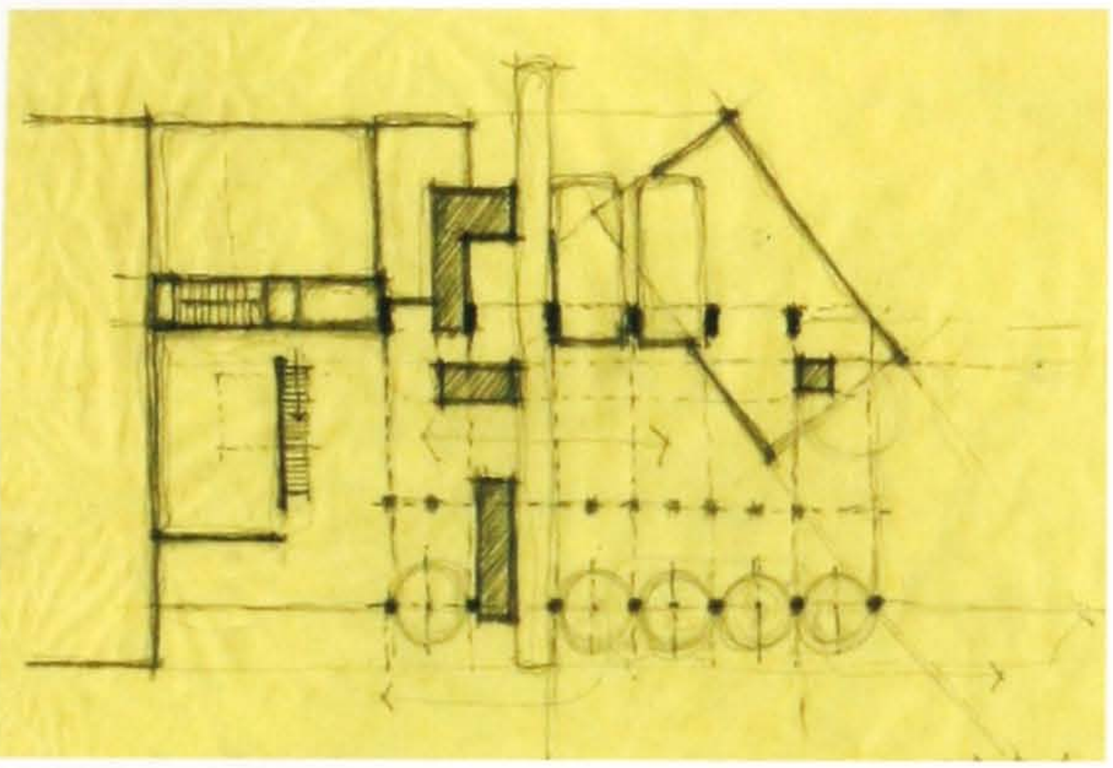


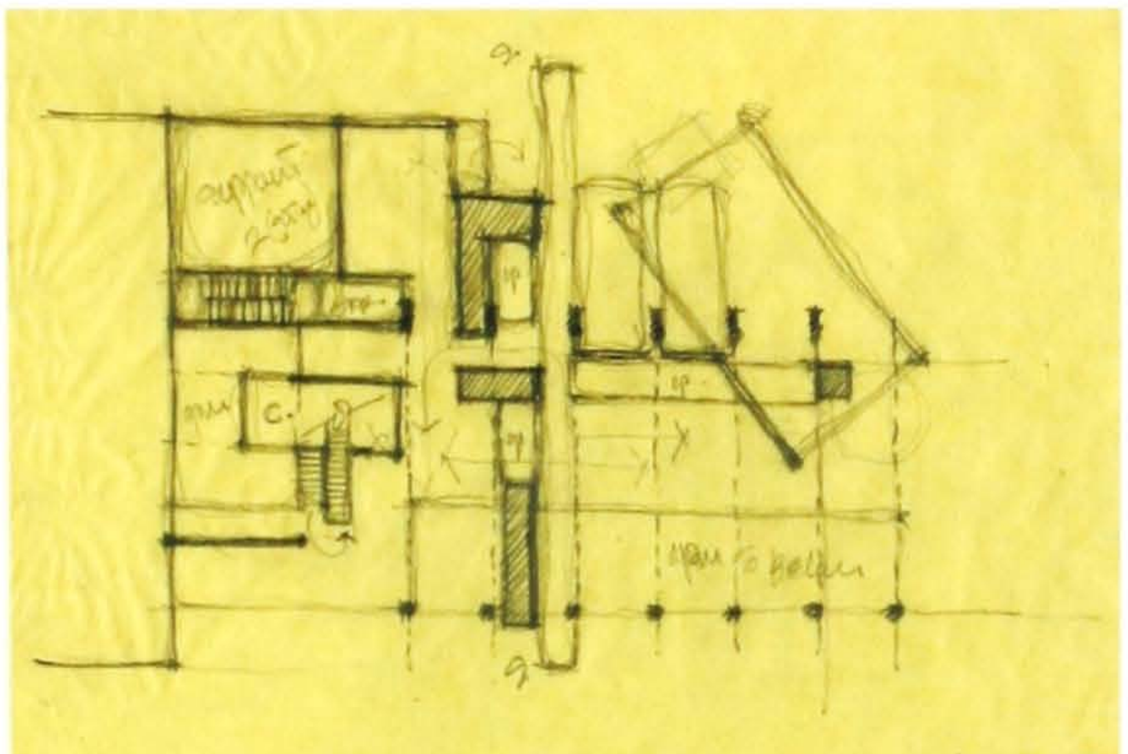


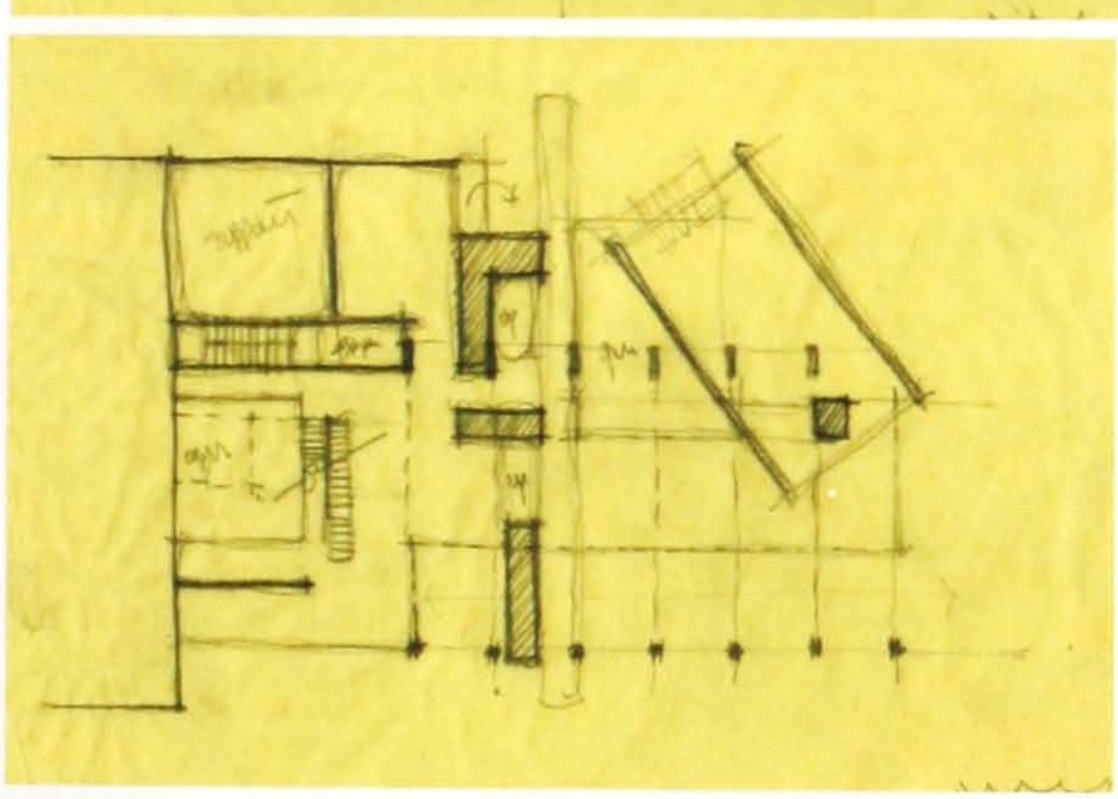
-early structural and organizational studies of the program components focusing on axes of horizontal and vertical circulation; (below) program massing study giving volume to major program spaces – a larger scale articulation of studies above.

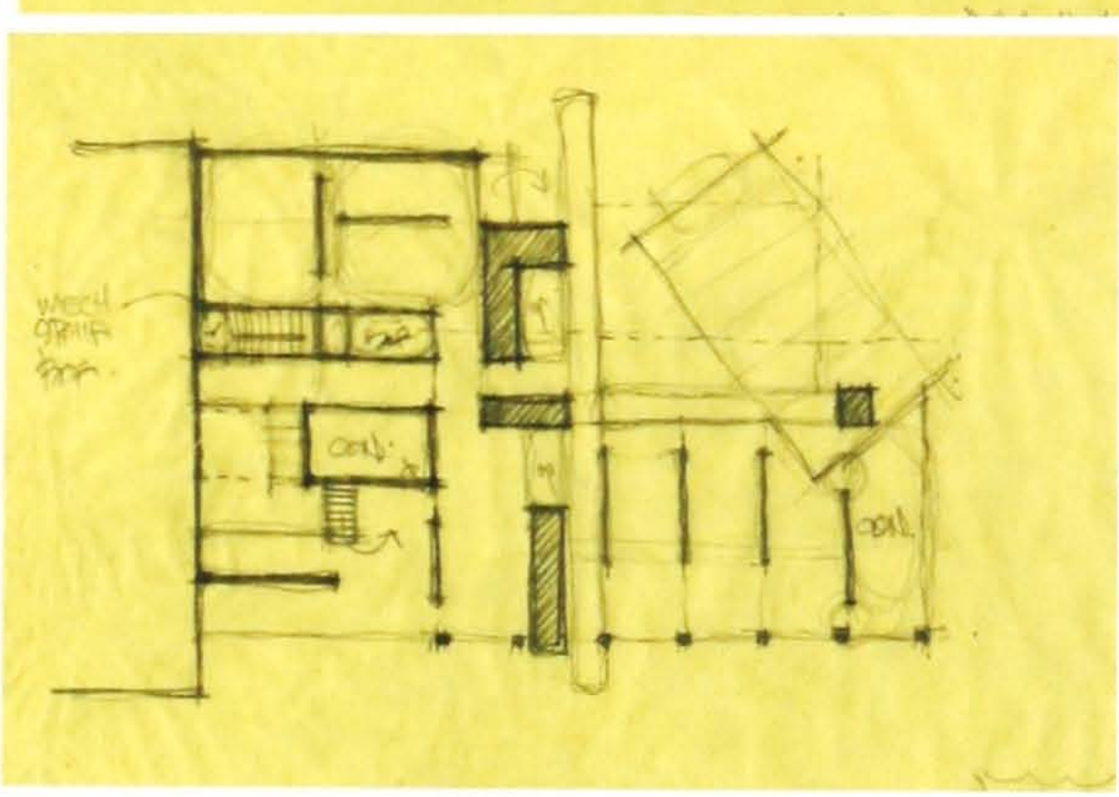

ENTRY
GENERAL ORGANIZATION

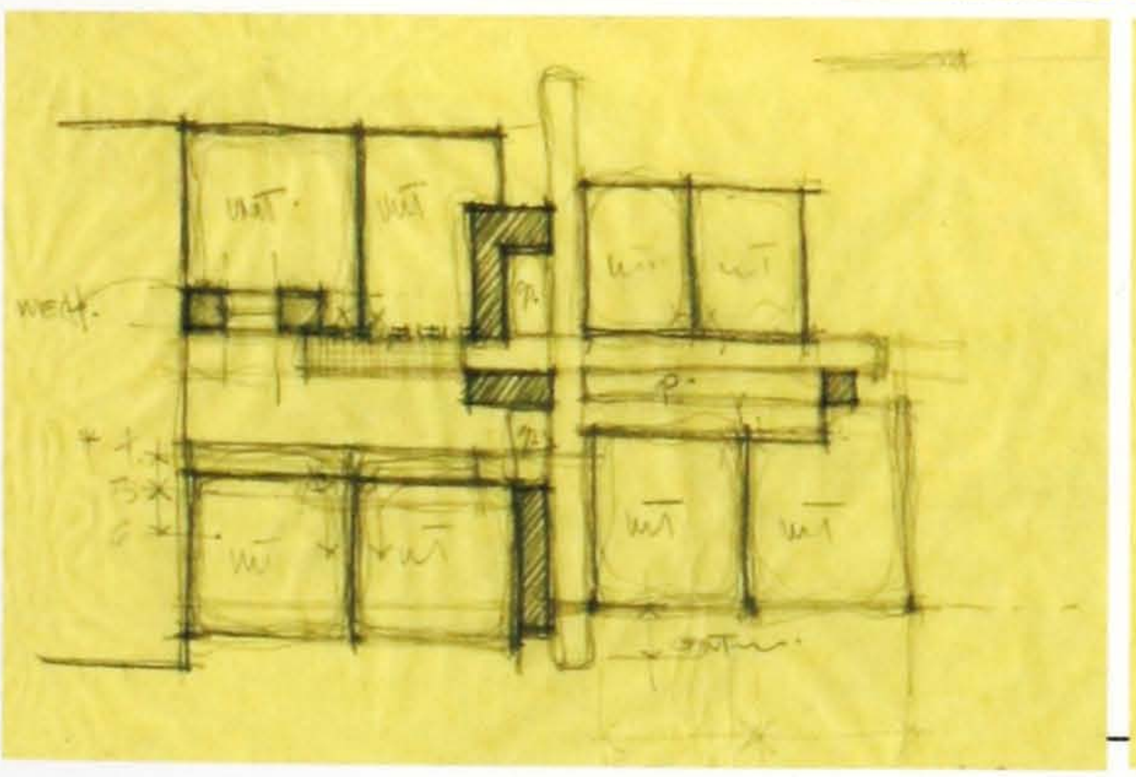


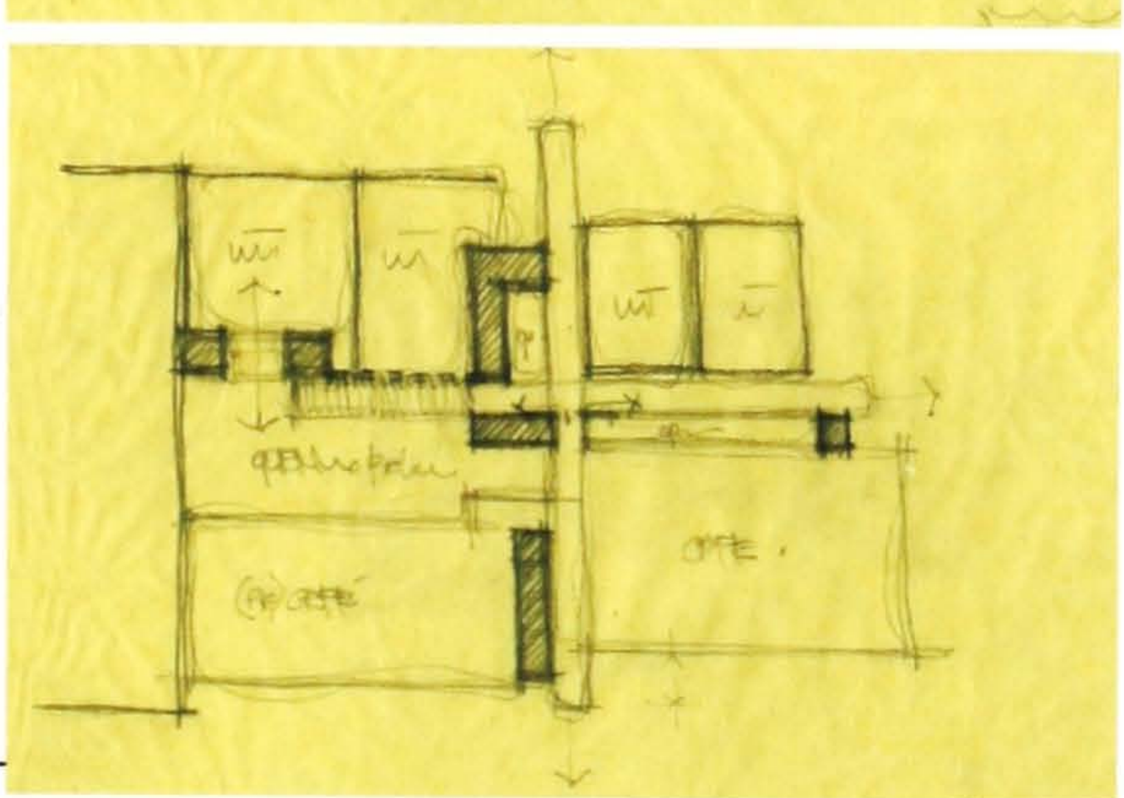




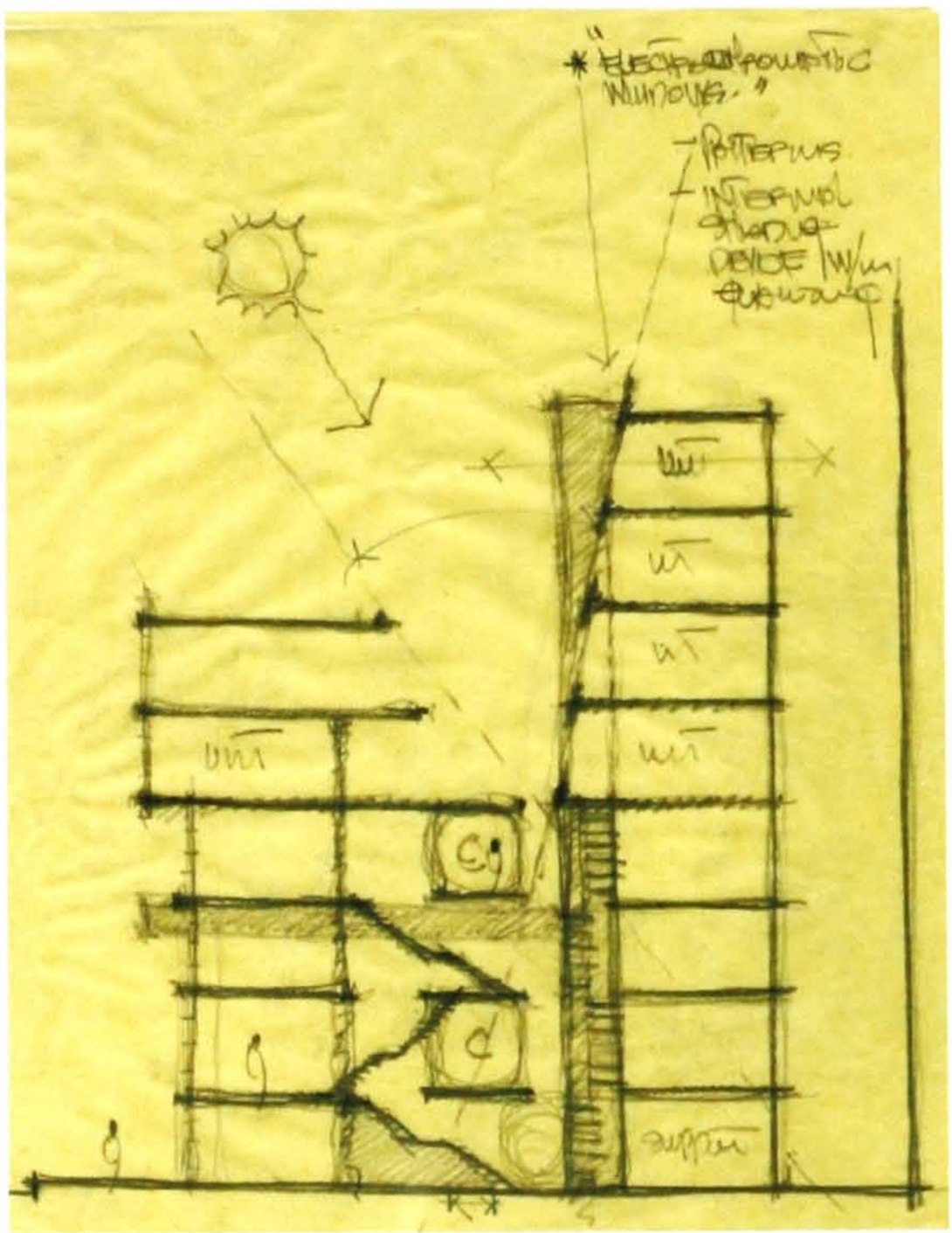


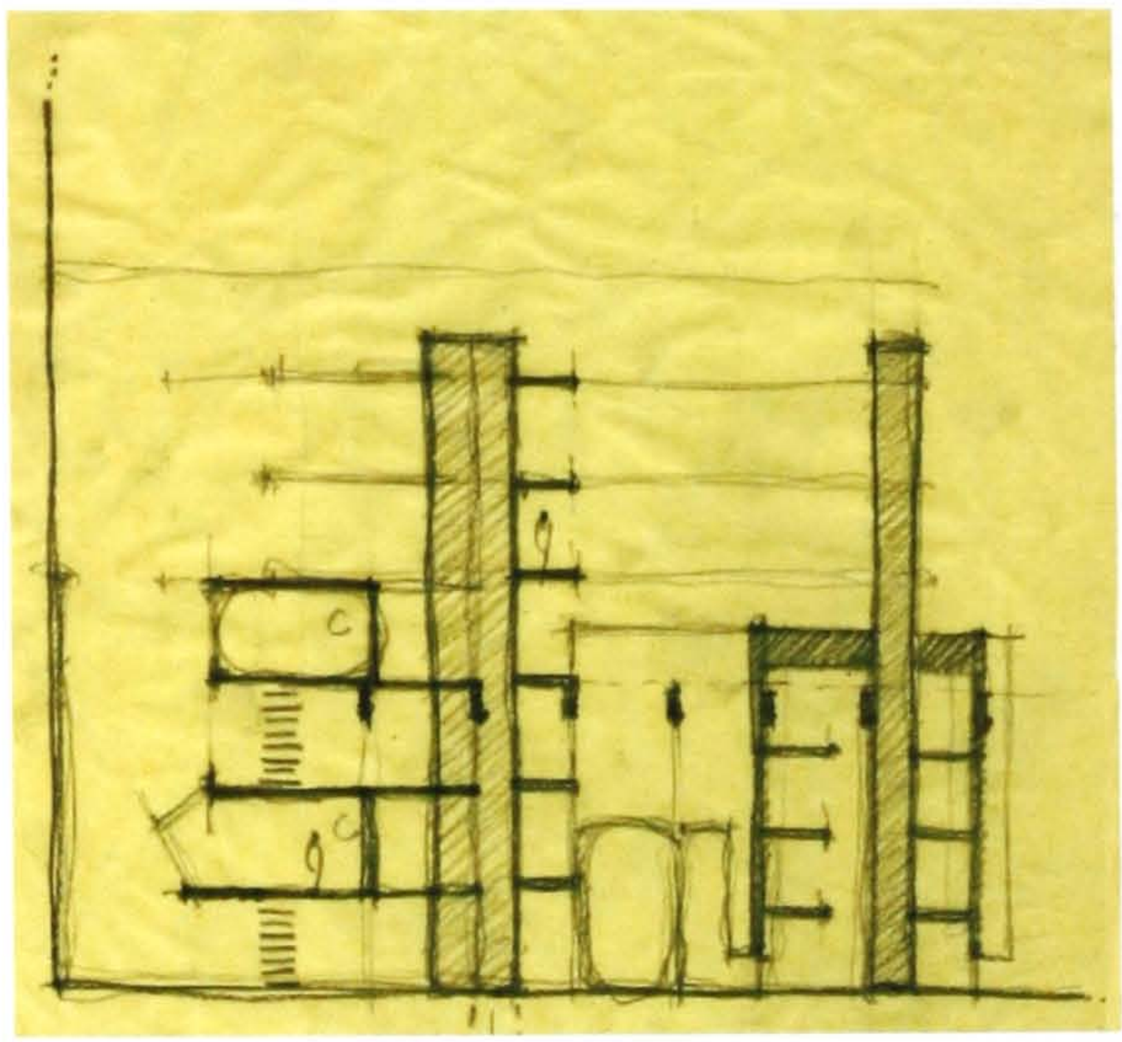


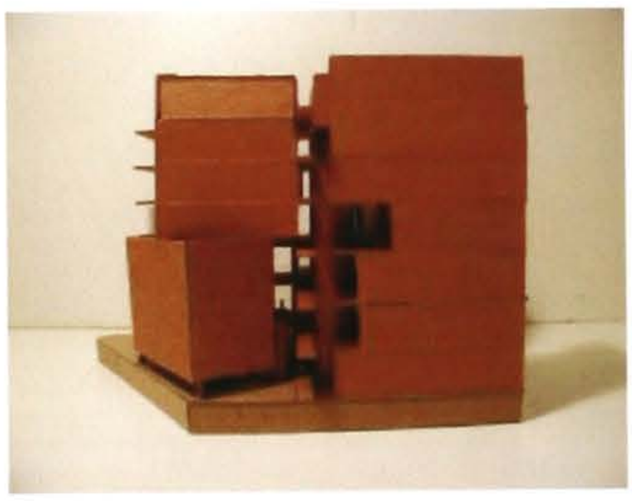


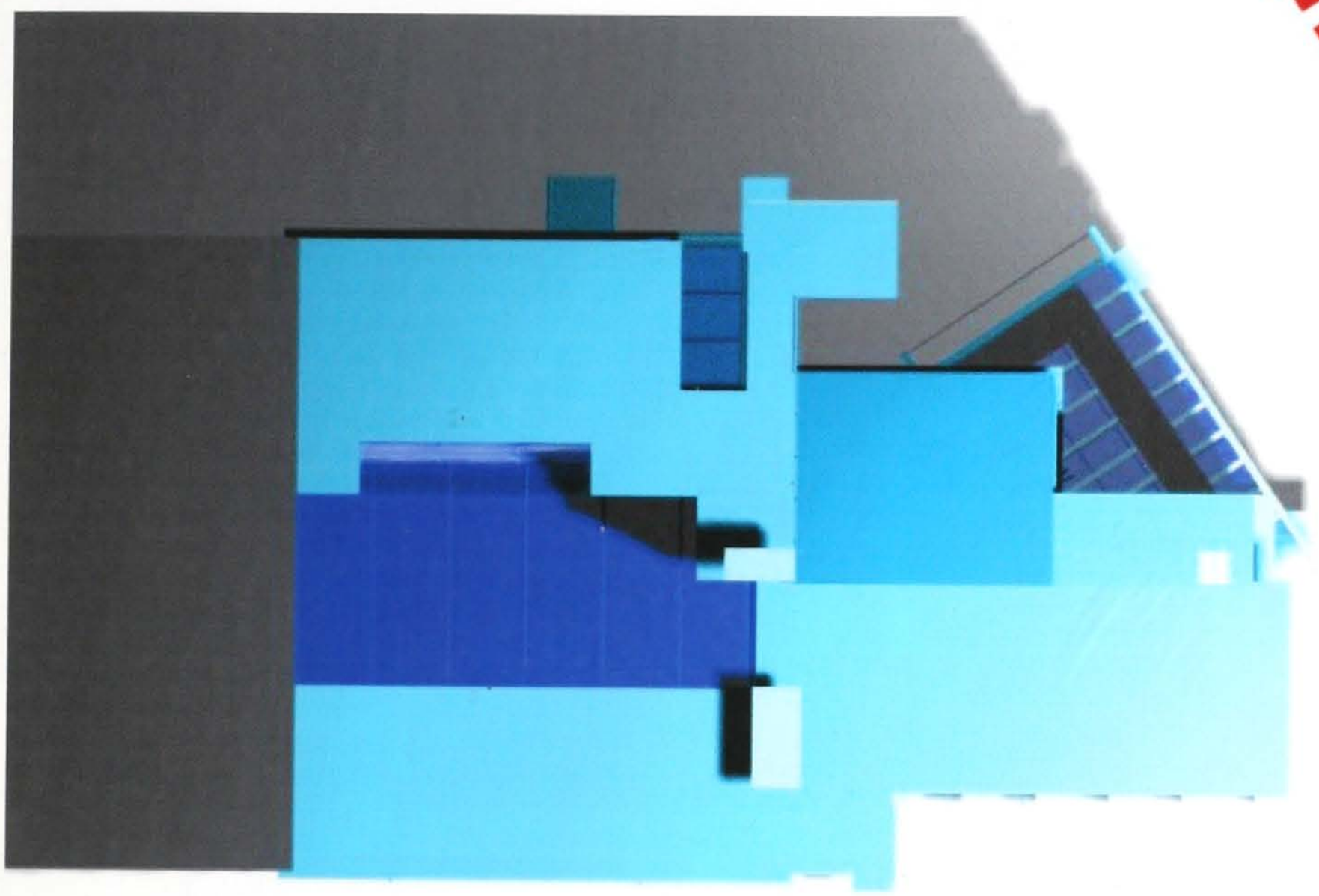


-(previous page) 1st development of building proposal from general program bubble diagram to building geometry study to floor plans 1-6; (below) cross-sections from plans above (cuts are parallel to Griswold and Michigan) along with 2nd program massing study per these sketches.





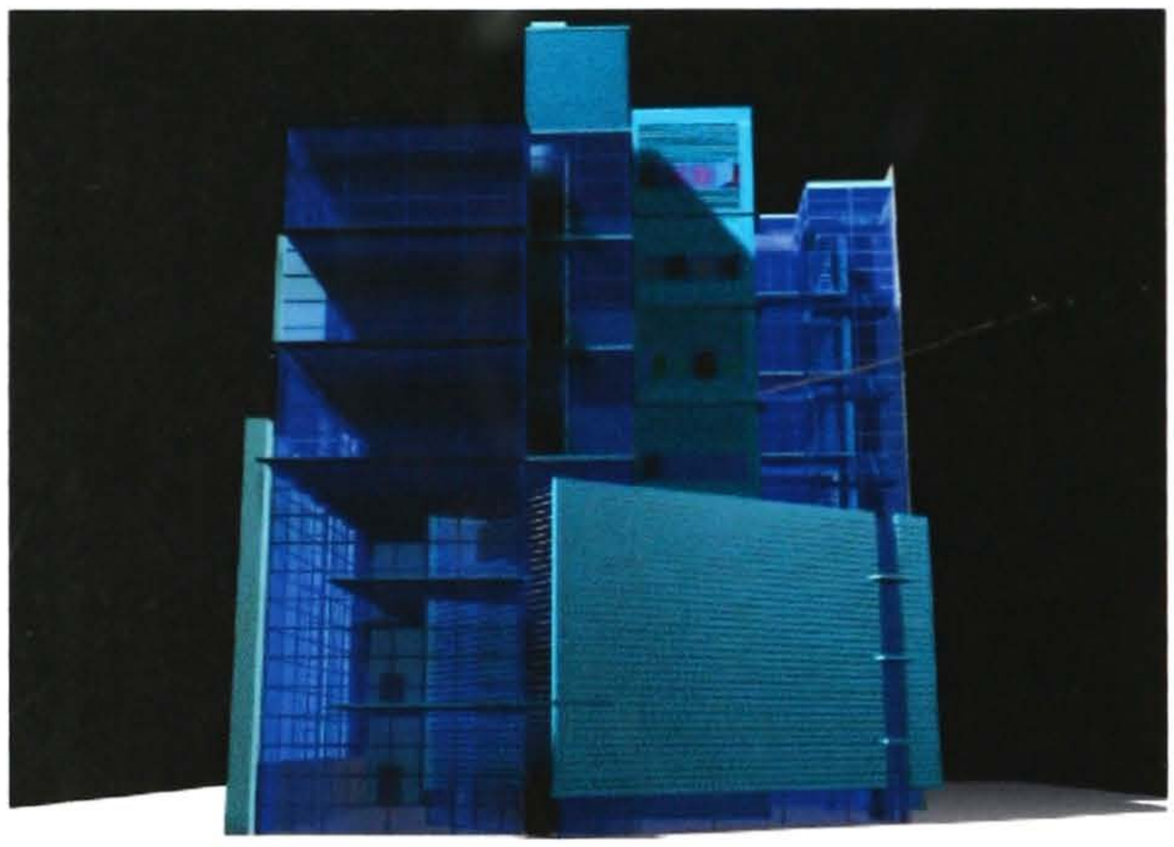


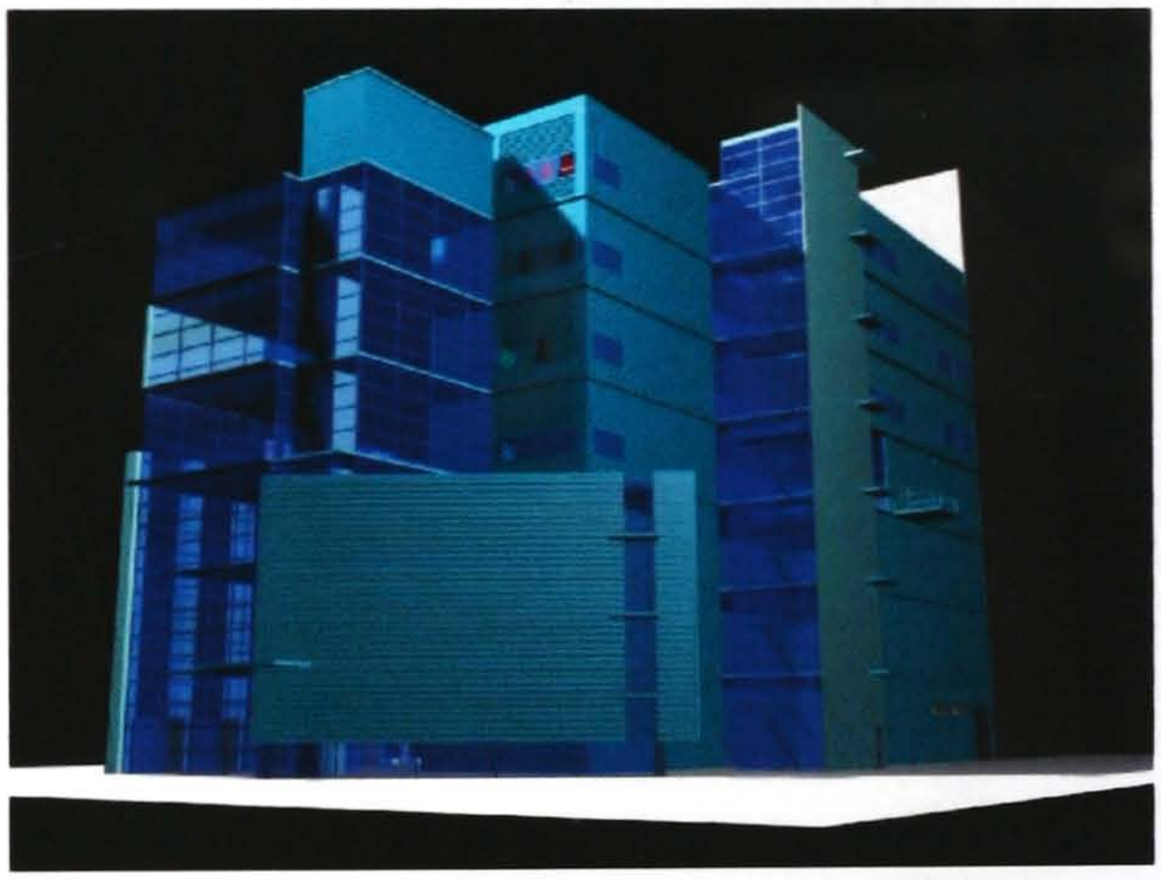


griswold

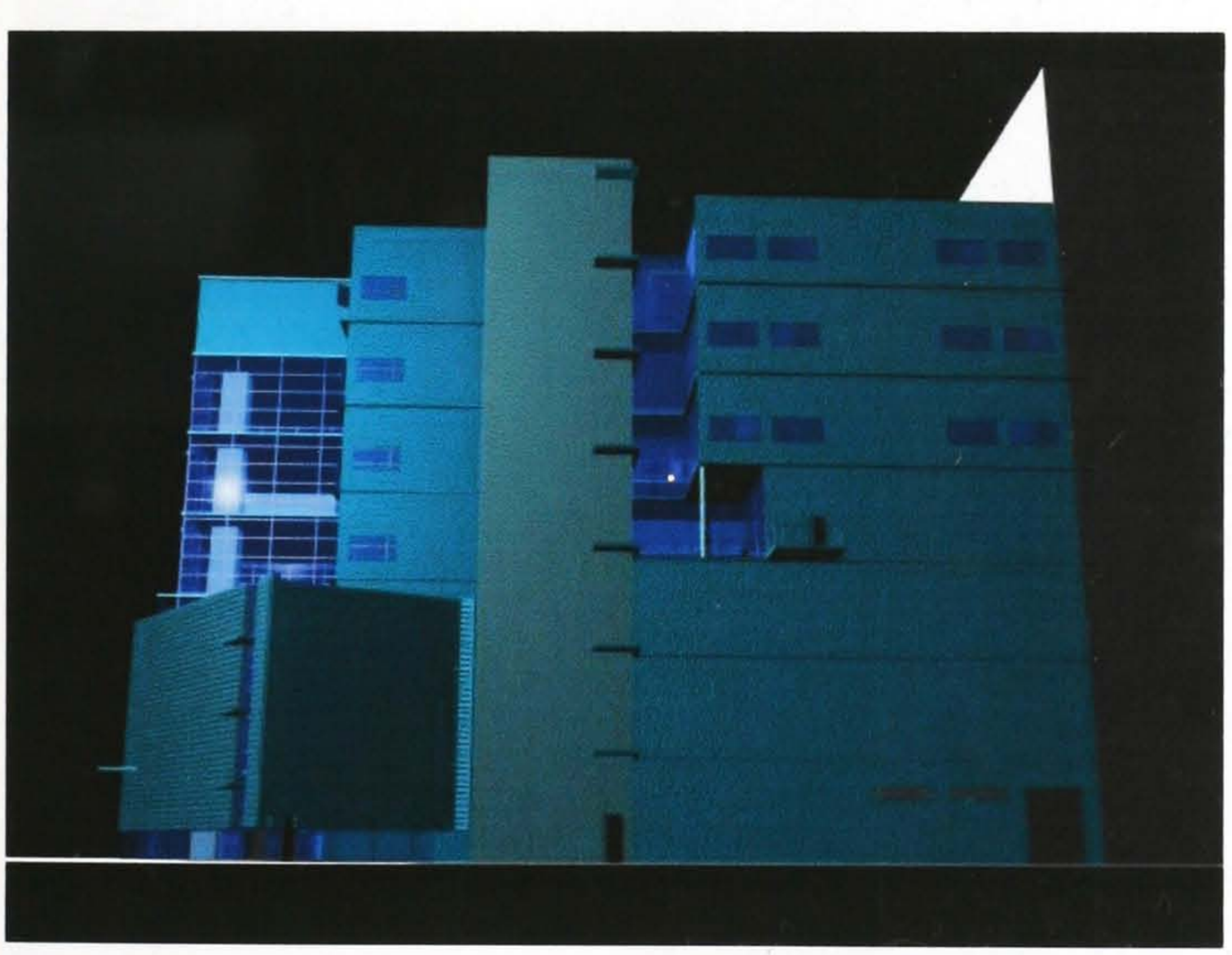
michigan ave.

-the following are 3-d massing studies that apply greater specificity to the previous program massing study. It represents the beginning of the transition from design development to final design proposal. The notion of the screen vs. frame building skin is applied and the building as a whole is refined.

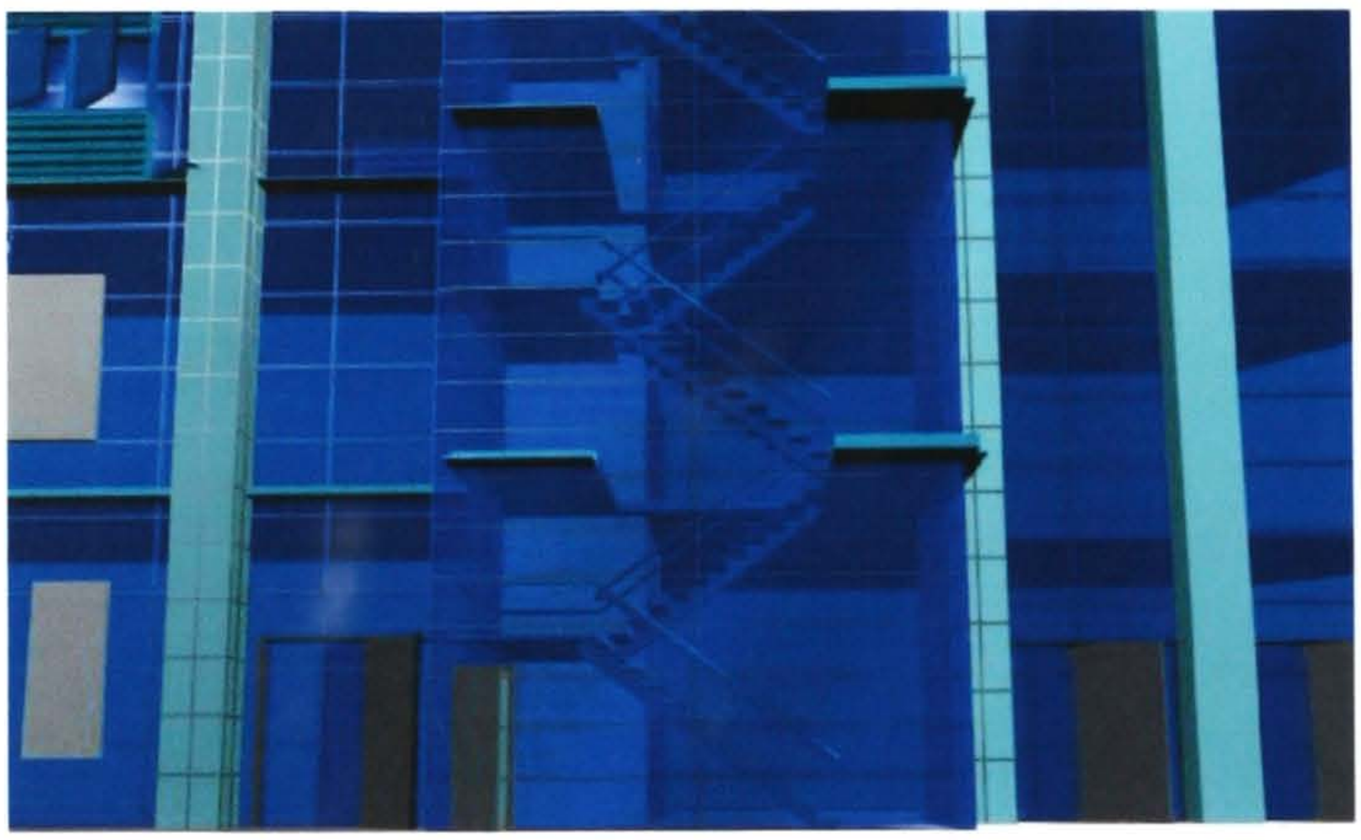




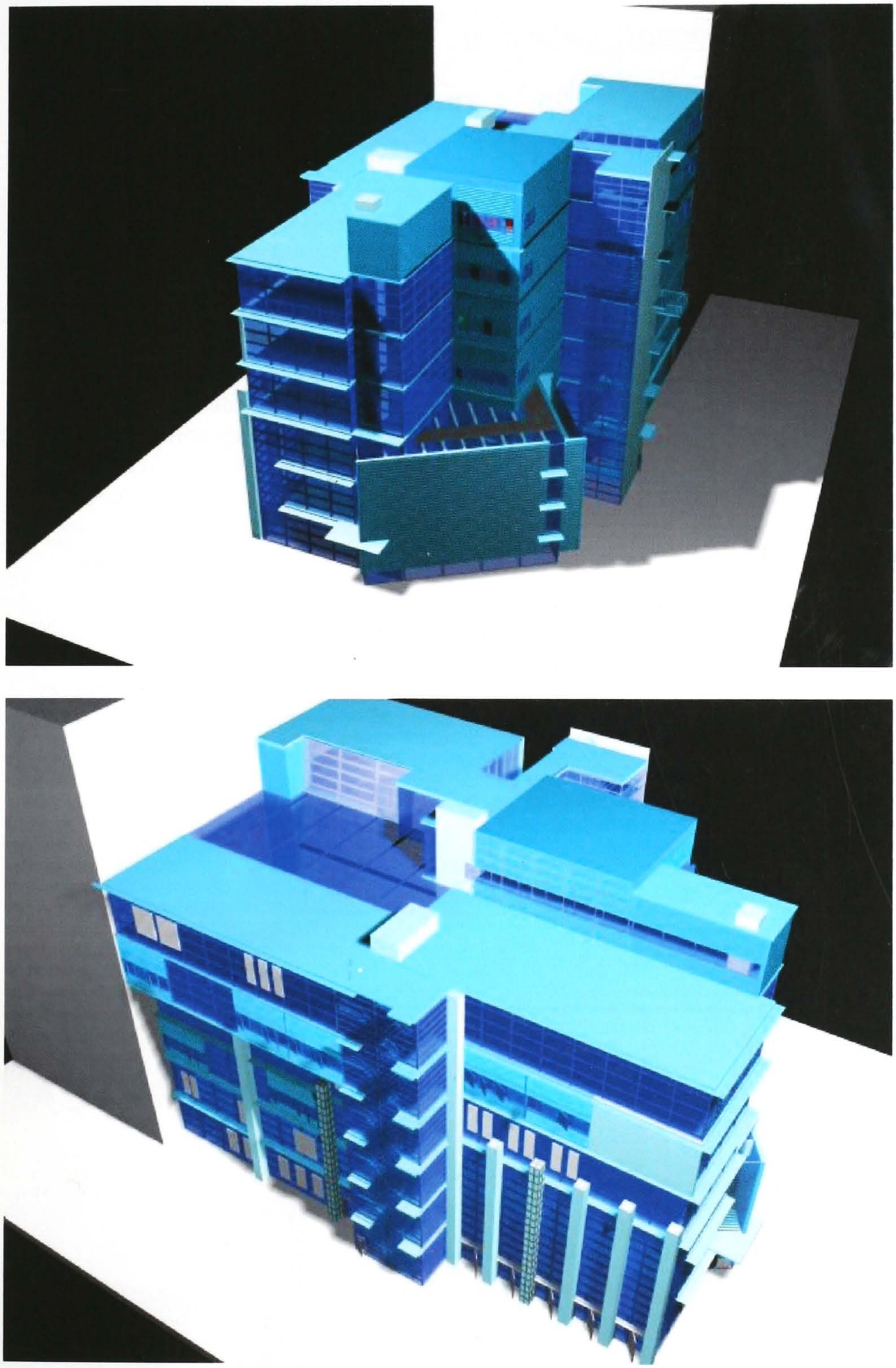
-overall perspectives and residence entry details



-michigan ave. view (top)
and alley view (bottom)

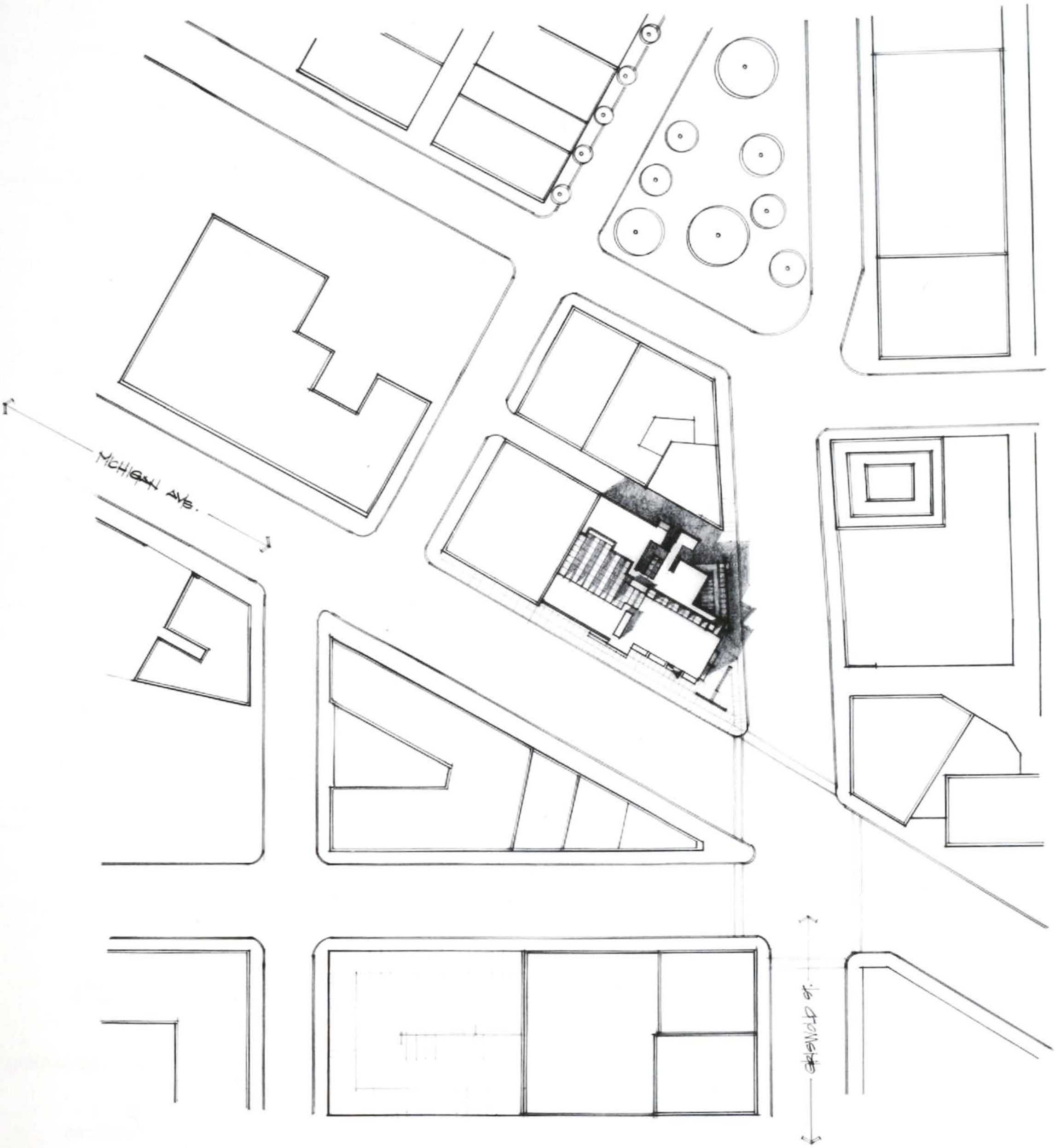


-public entry detail (top) and stairwell detail on michigan façade.



Final Design Proposal: (the product)

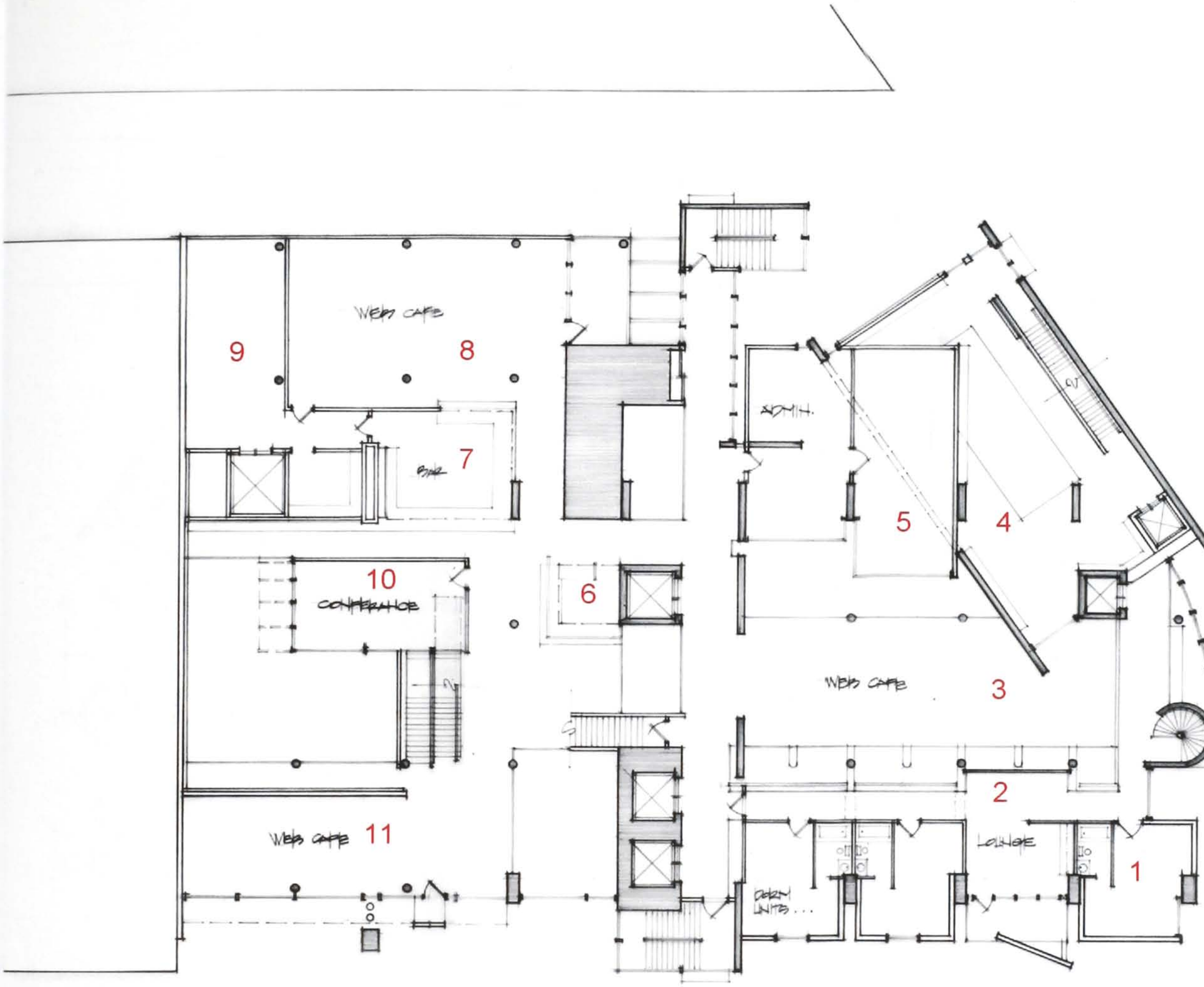
The following is a documentation of the final design proposal. The final design is not about blurring the edges between uses, but about articulating how they might directly inflect one another – to understand how private elements are extruded through the public or void space. It employs a rigid geometry to its forms to promote clarity and maintain the integrity of each programmatic component. In this final rendition, the introduction of dorm units acts to foster a live work environment (computer technician interns) and becomes perhaps the most critical moment in terms of addressing the thesis question – it is the most dynamic moment of direct tension between public and private. To further reinforce the importance of the building skin, the solid (private) program components are clad in a steel paneling system, which applies a grid texture appropriate to the screen vs. frame condition – the notion of this condition (at all scales) being dictated by the order of the grid, from the pixels of display screens to the mullions of the glazing. The complexity of the skin seeks to react to the energy of the uses inside while interacting with the exterior urban landscape.



site context plan

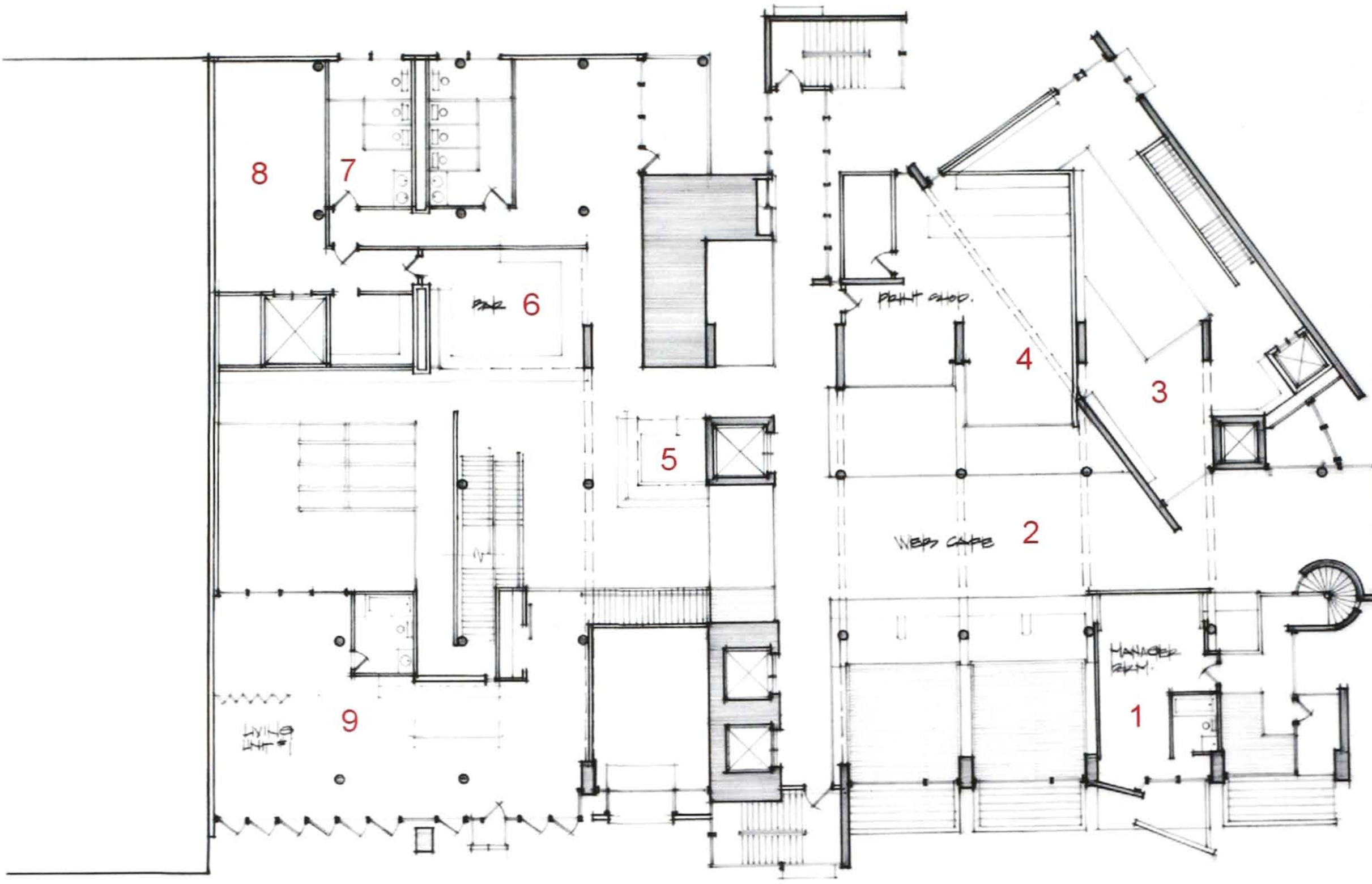
1st floor plan

1 outdoor exhibit / bus seating
2 residence entry
3 public entrance
4 stand-up web stations
5 library
6 administration
7 information
8 technician office / security
9 toilet rooms
10 receiving / support / storage
11 bar
12 gallery #1
13 web café space



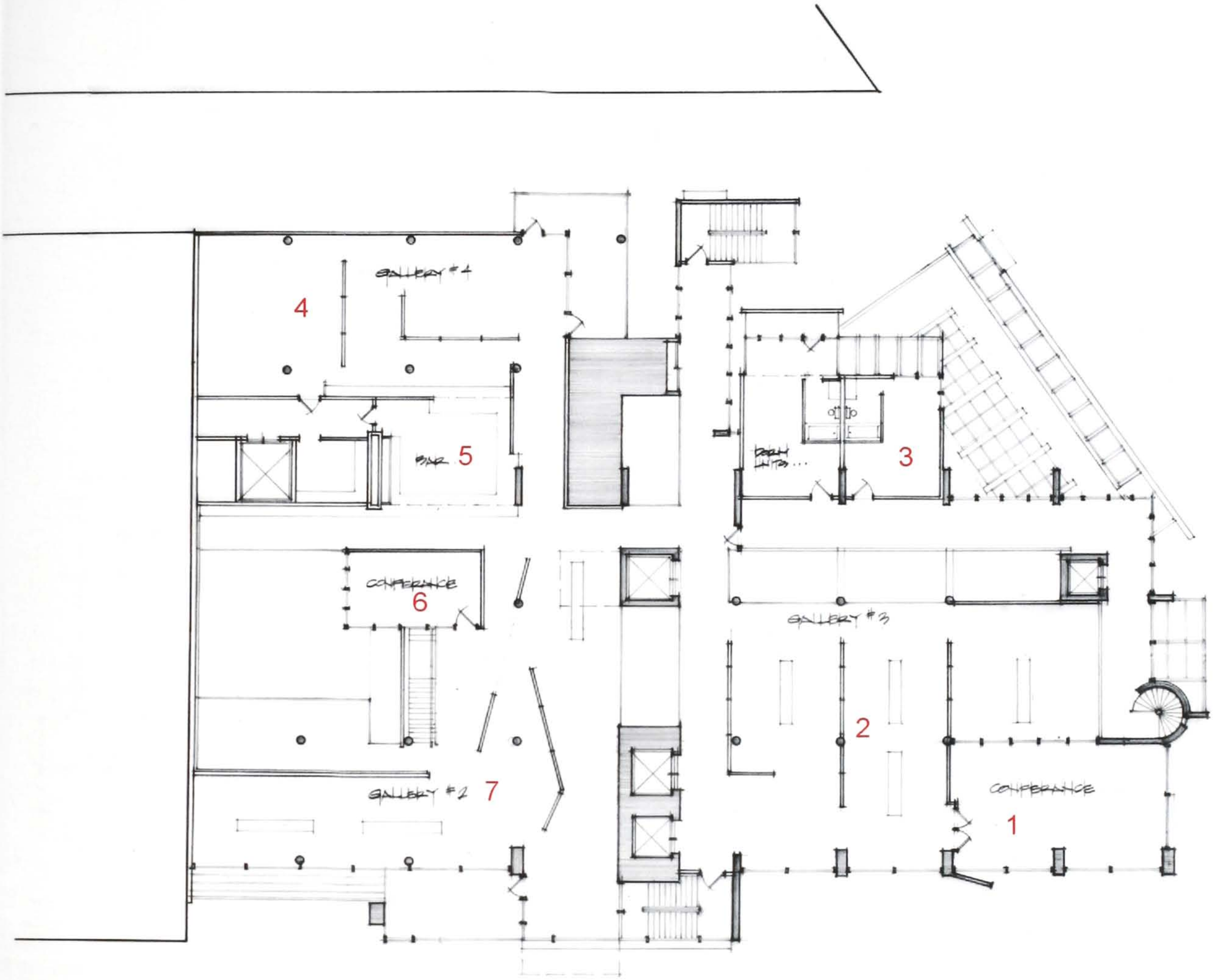
2nd floor plan

1 dorm unit
2 shared dorm lounge
3 web café space
4 library
5 2nd floor administration
6 information
7 bar
8 web café space
9 support / storage
10 gallery #1 conference room
11 web café space



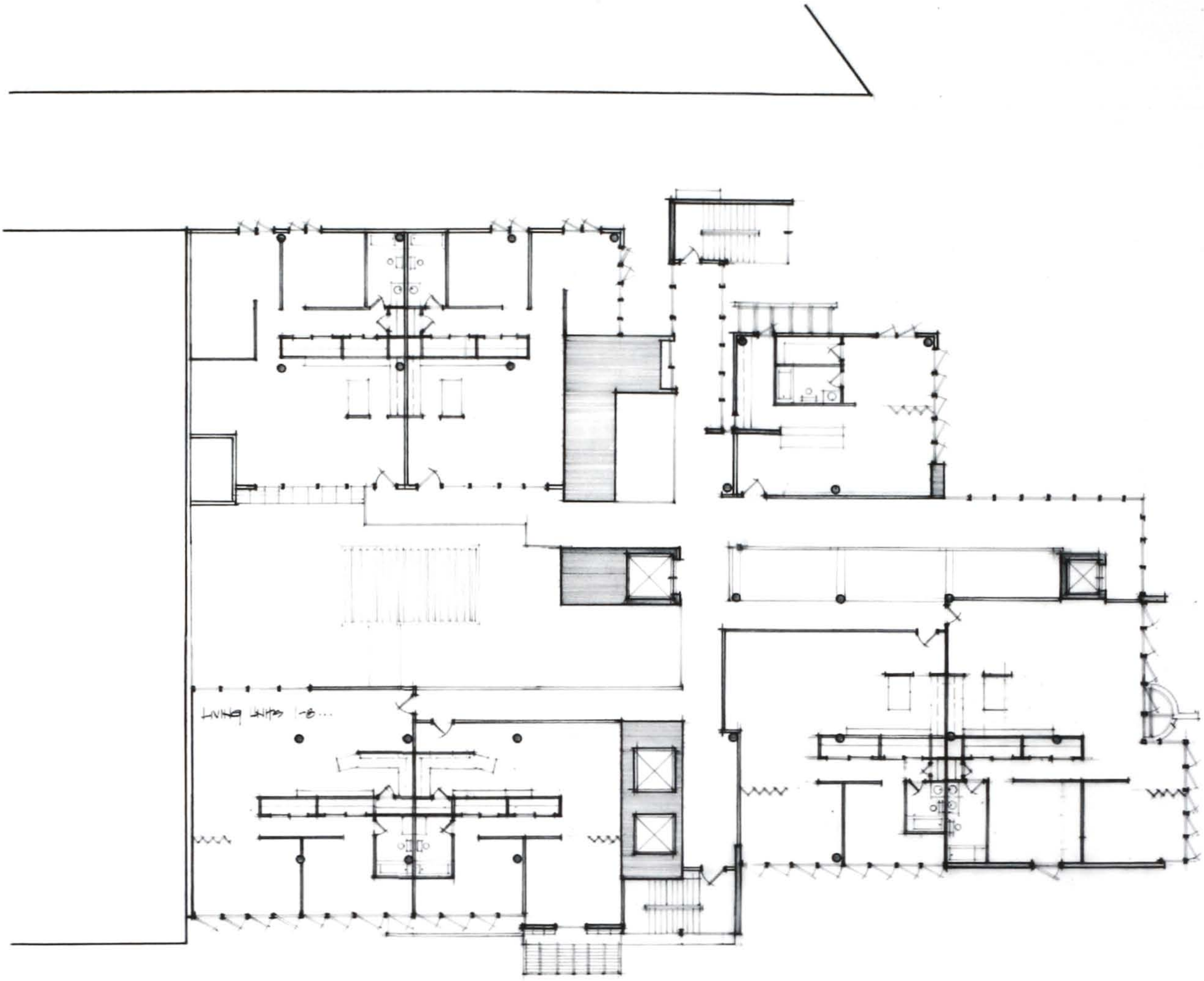
3rd floor plan

1 manager dorm unit
2 web café space
3 library
4 photo / print shop
5 information
6 bar
7 toilet rooms
8 support / storage
9 living unit 1



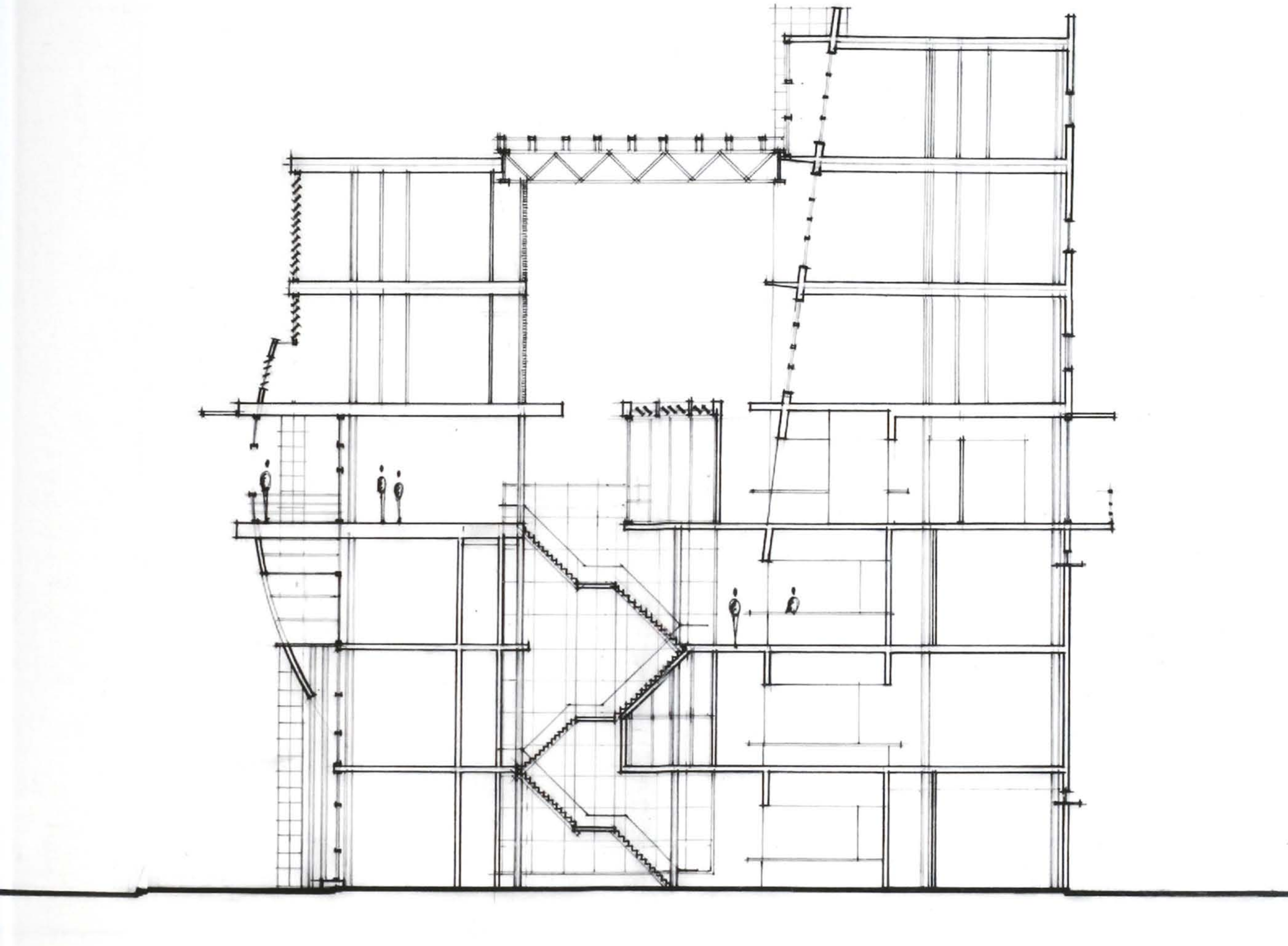
4th floor plan

1 gallery #3 conference room
2 gallery #3
3 dorm unit
4 gallery #4
5 bar
6 gallery #2 conference room
7 gallery #2

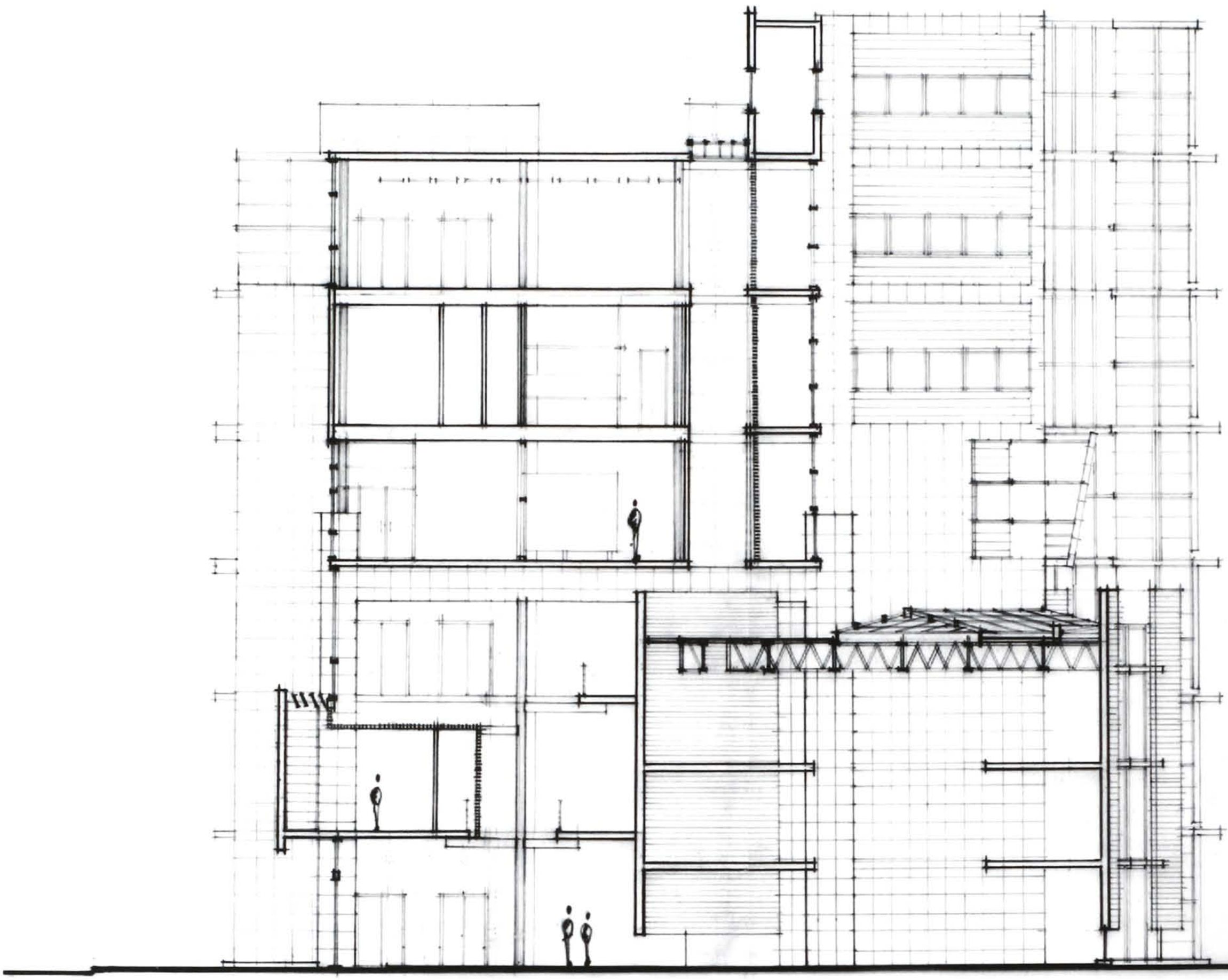


5th floor plan

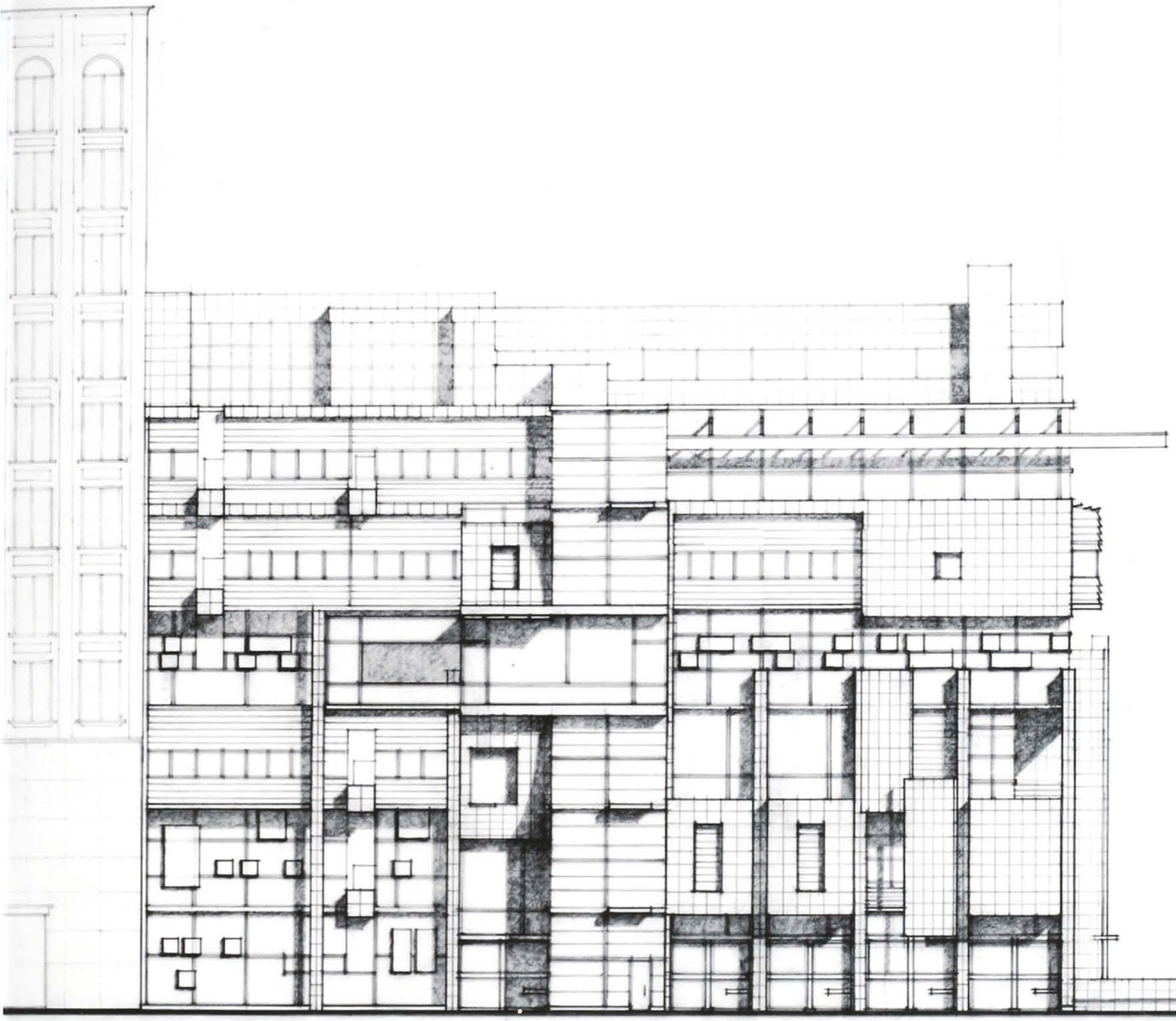
Living units 2-8 occupy the entire 5th floor.
Living units 9-12 are located on the 6th floor along with the casual research web café'.
Floor 7 consists of only the rear 3 living units (12-15)



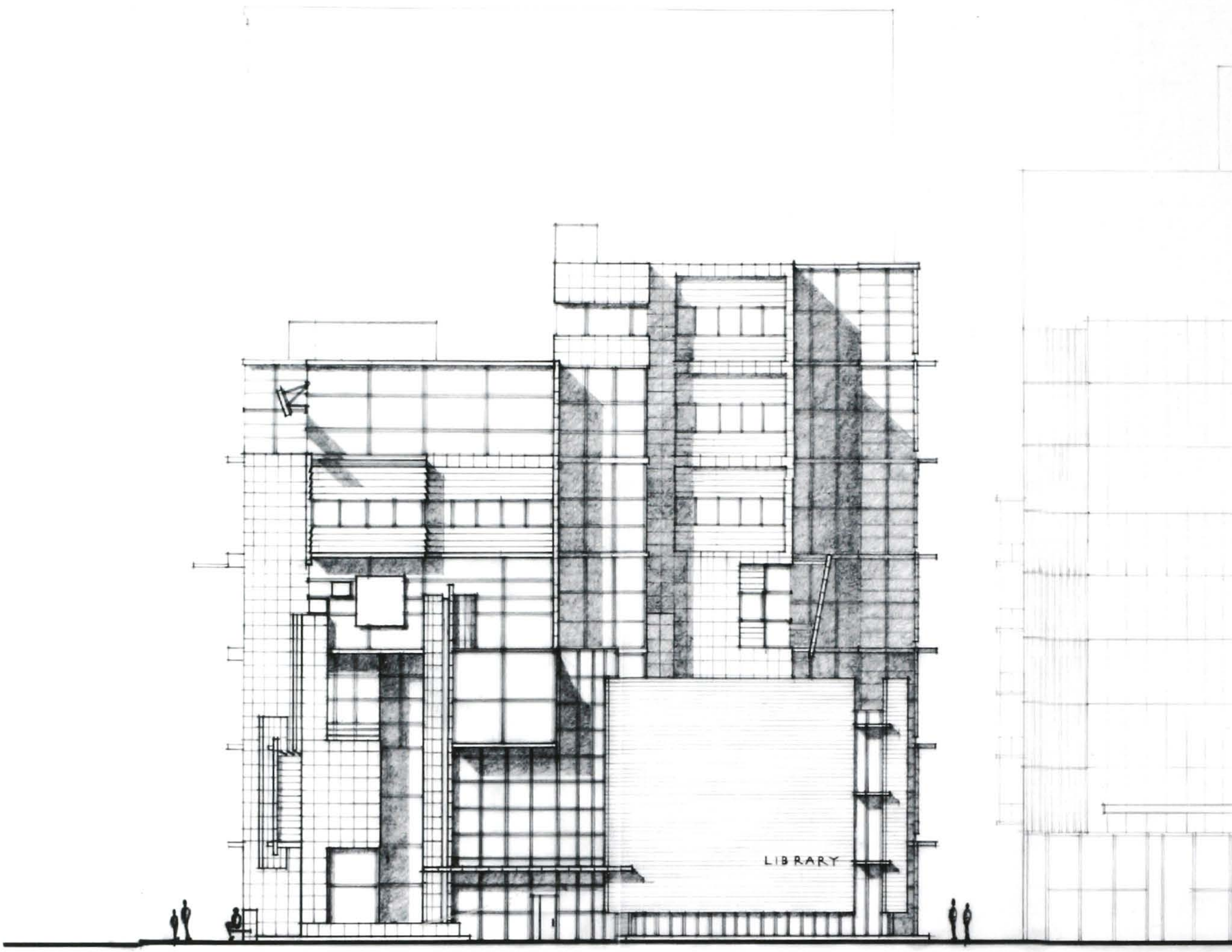
cross section
@ gallery stair



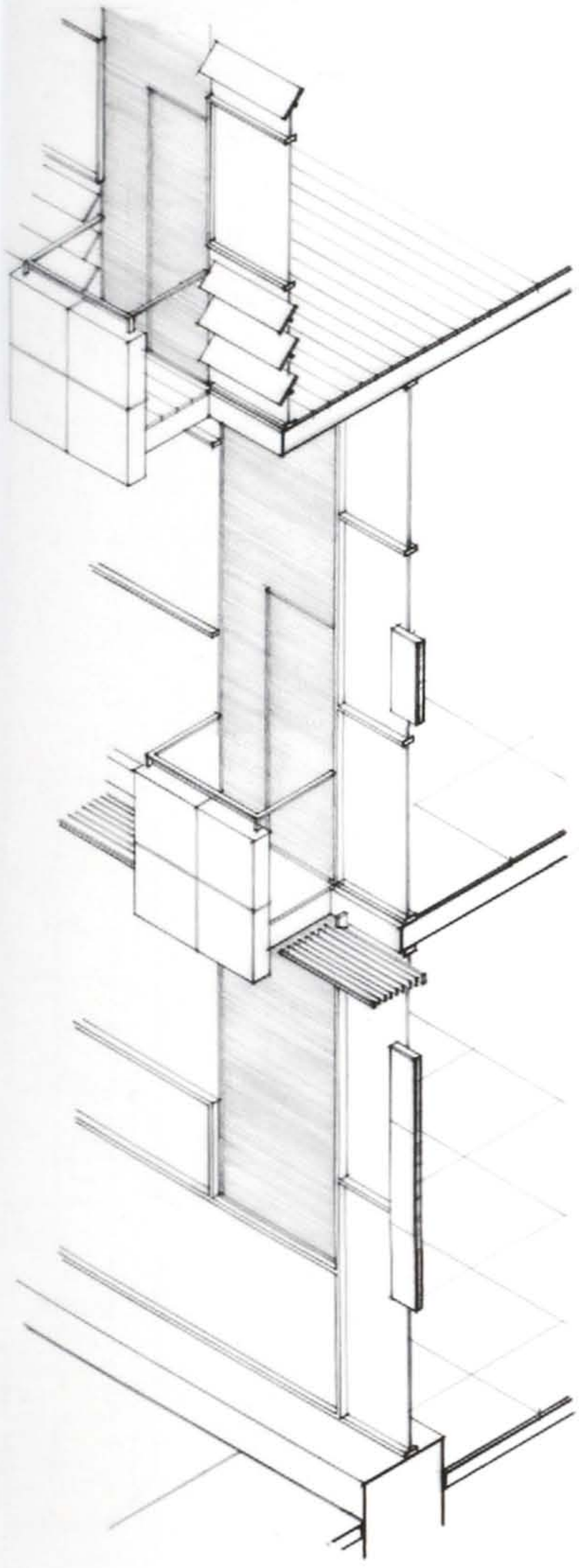
cross section
@ library

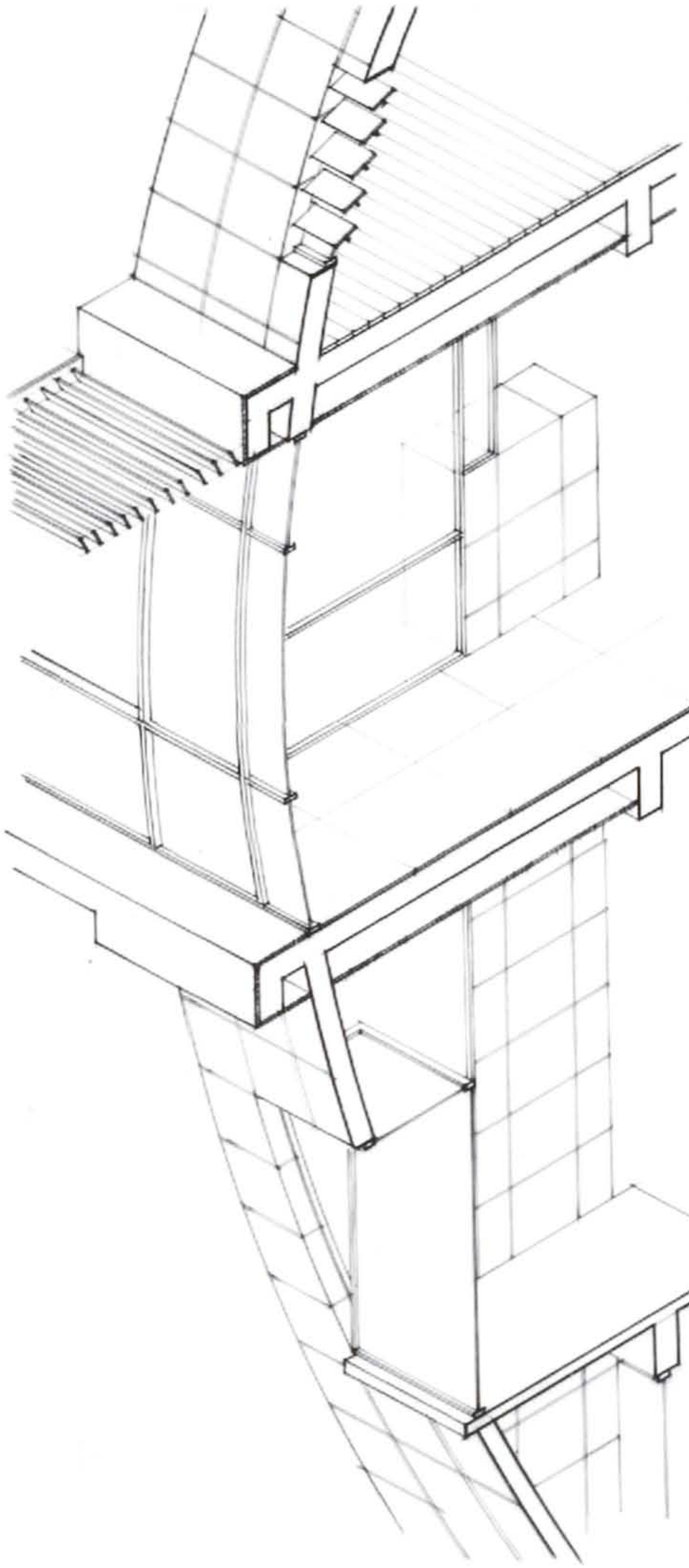


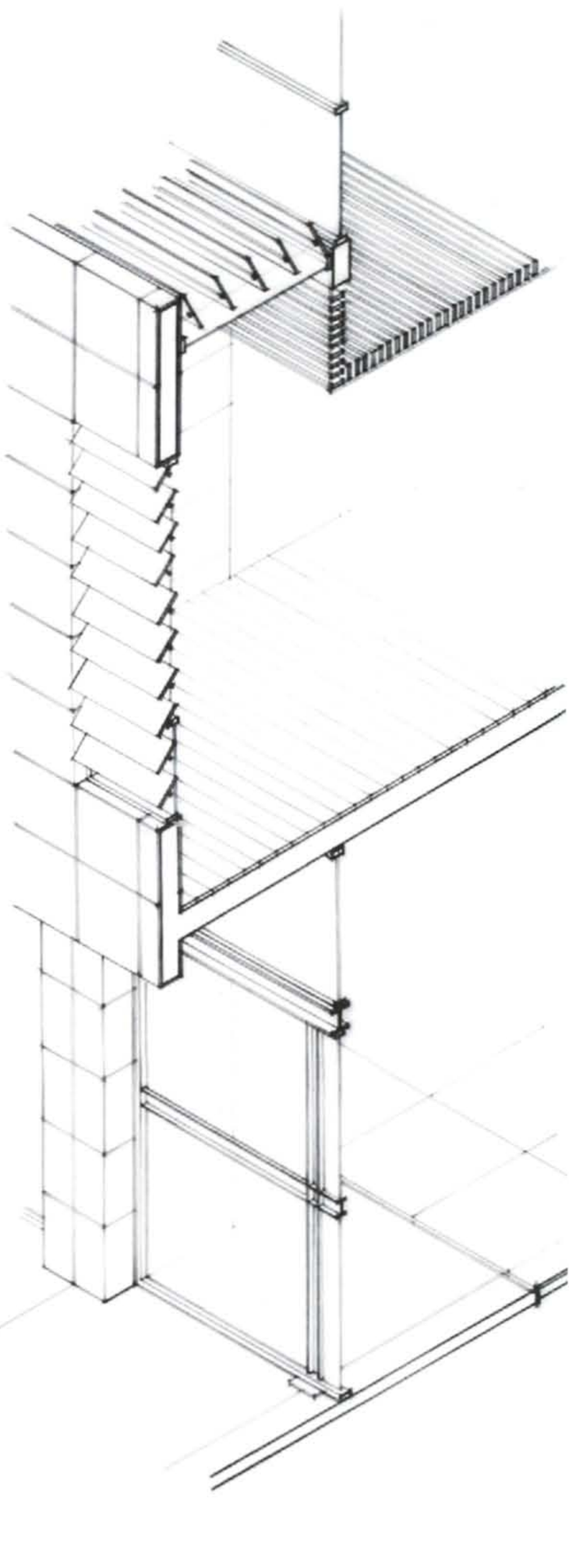
michigan elevation



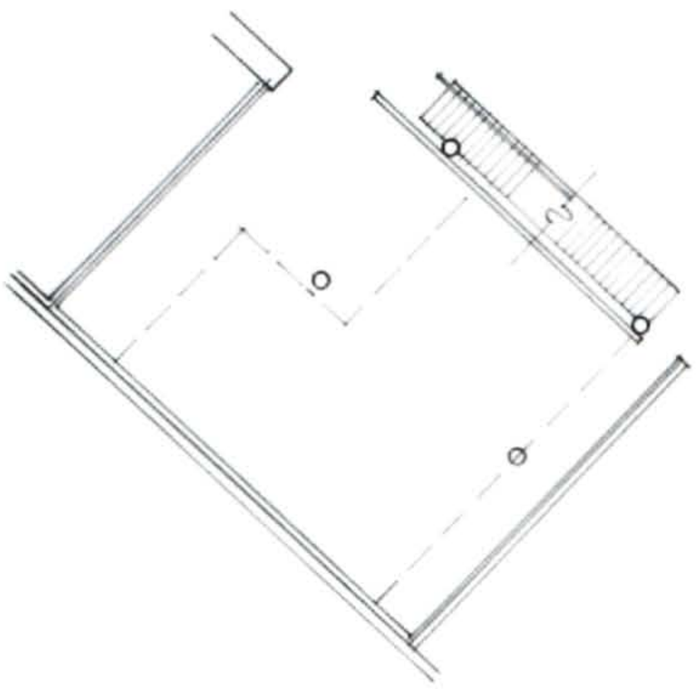
griswold elevation

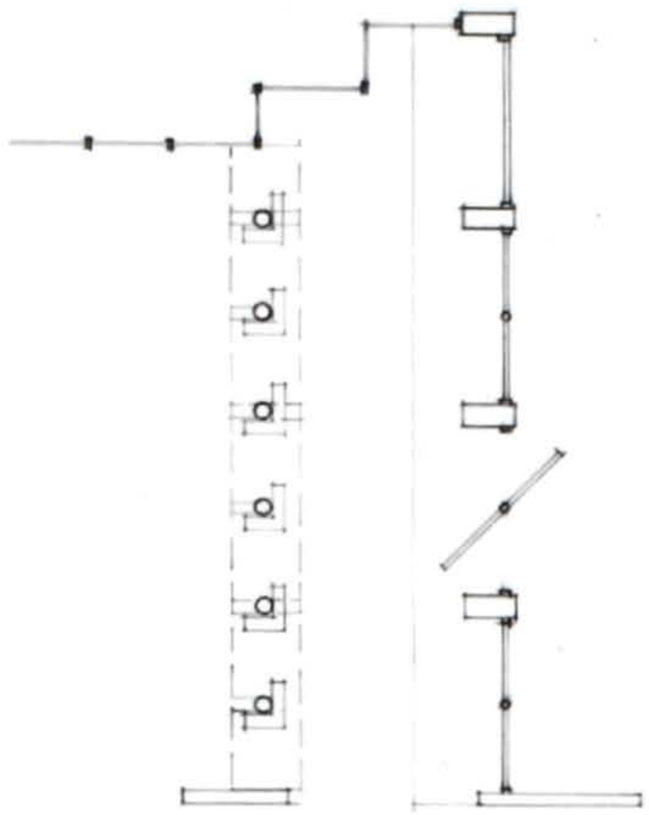


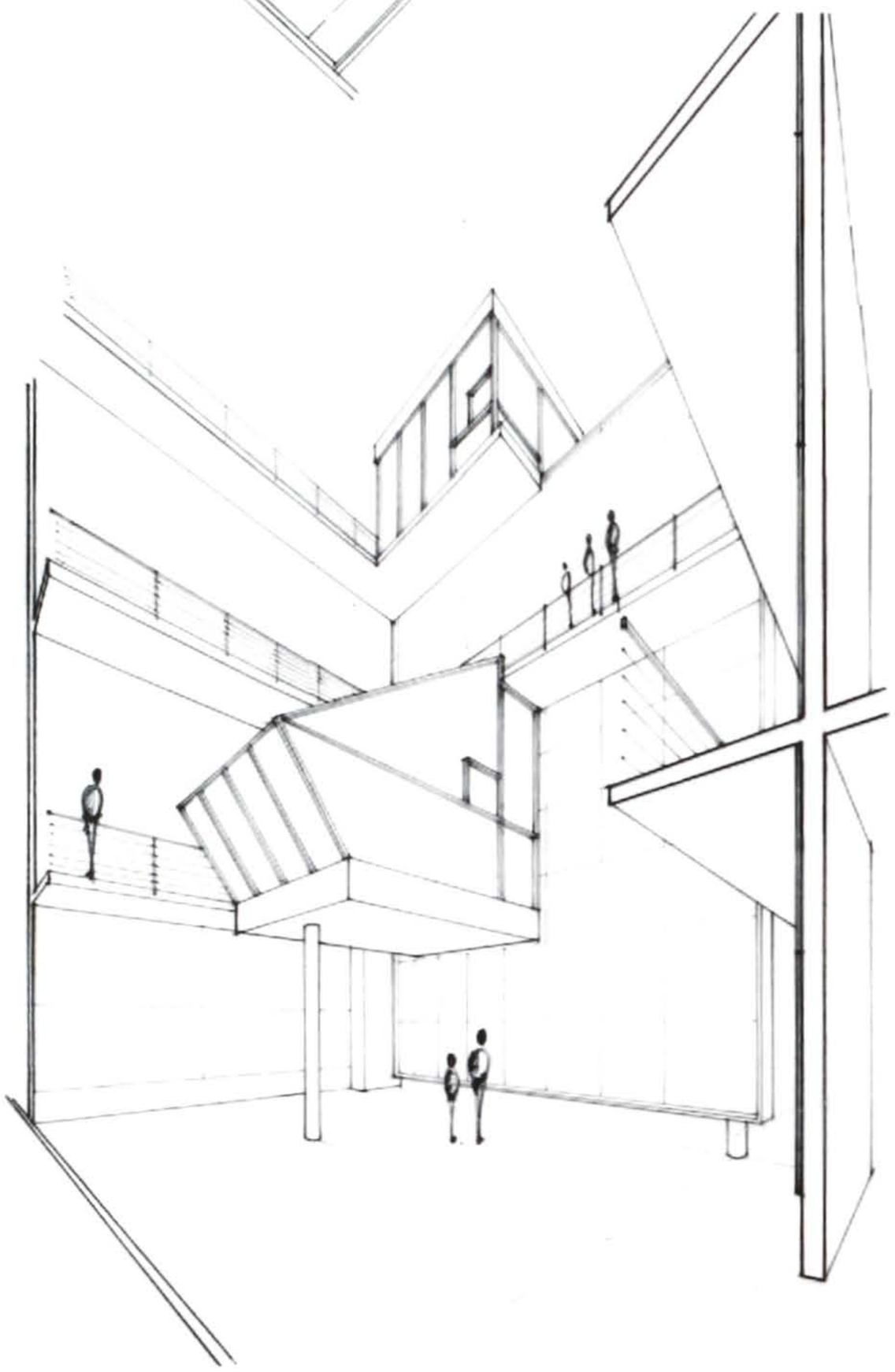


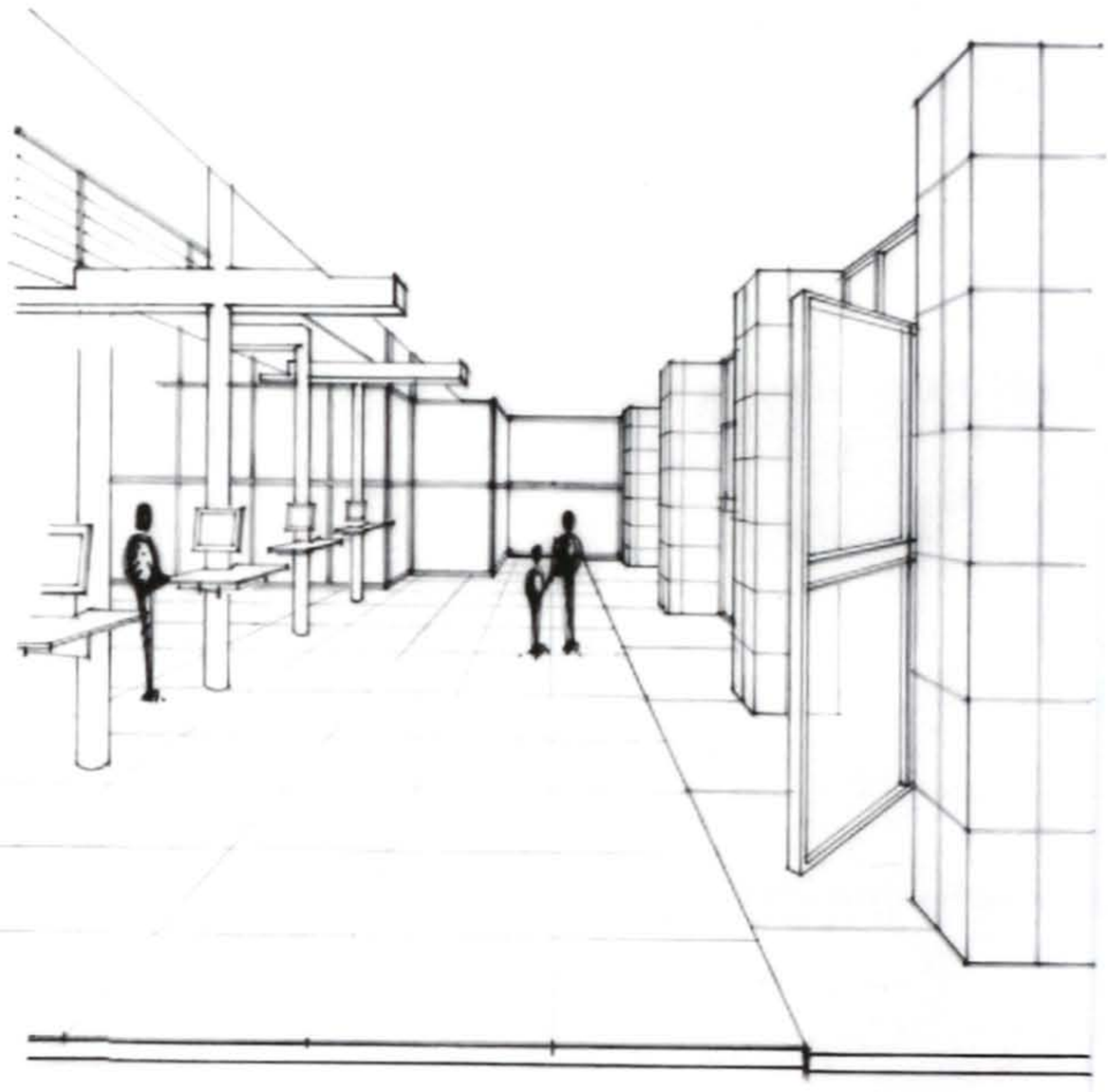


wall section:
@ lower web cafe`
@ gallery # 2
@ entry & dormitory unit

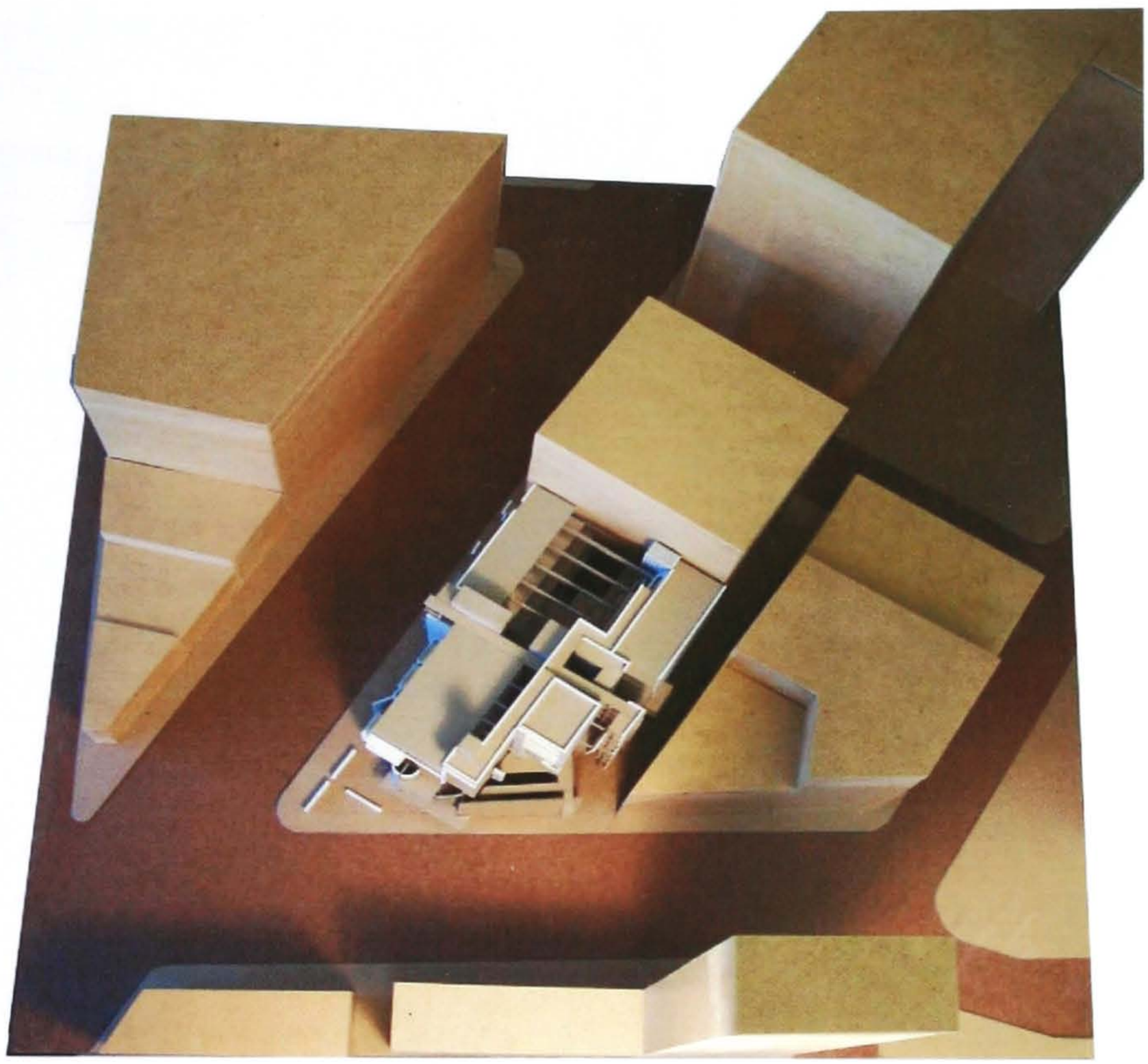


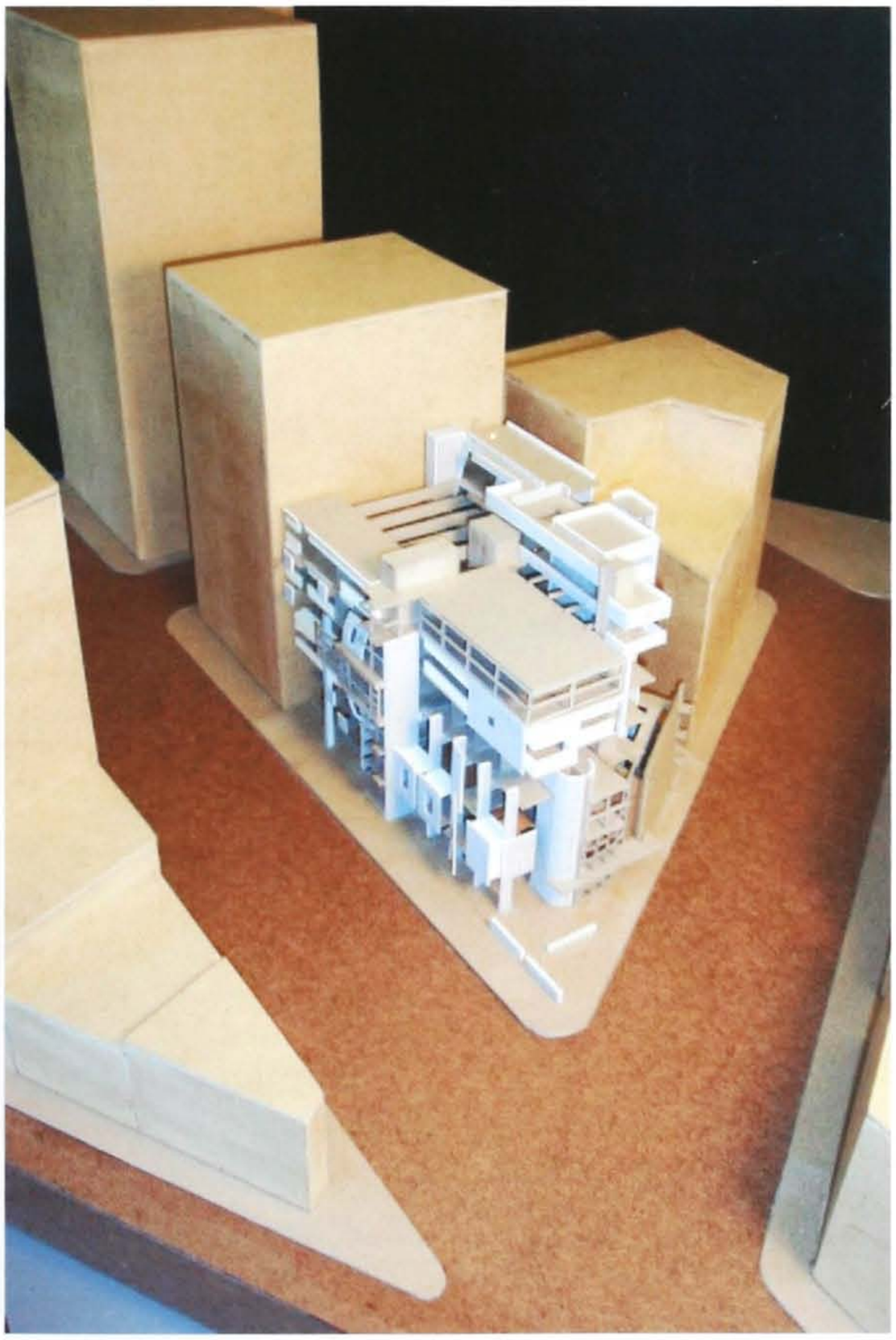




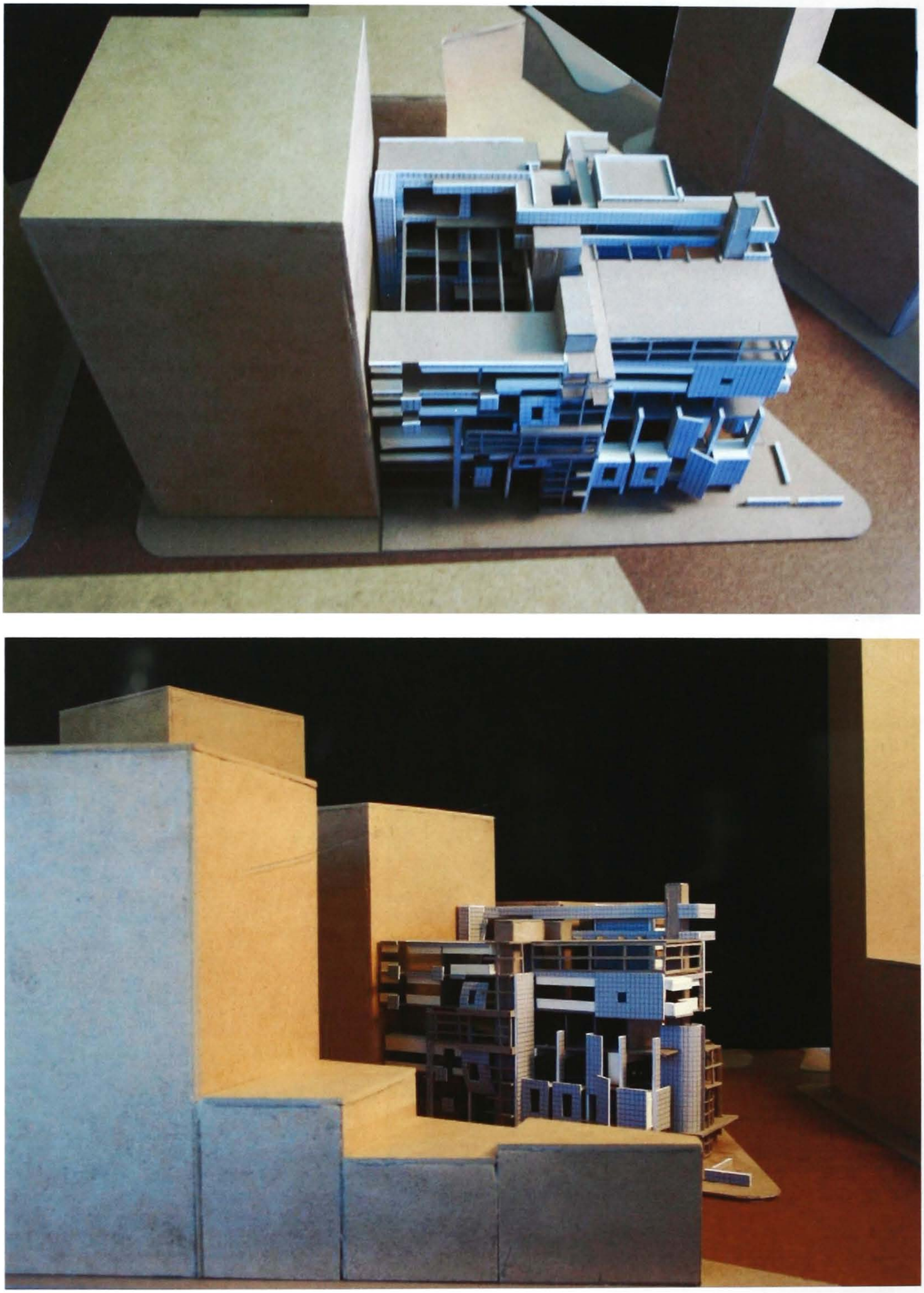


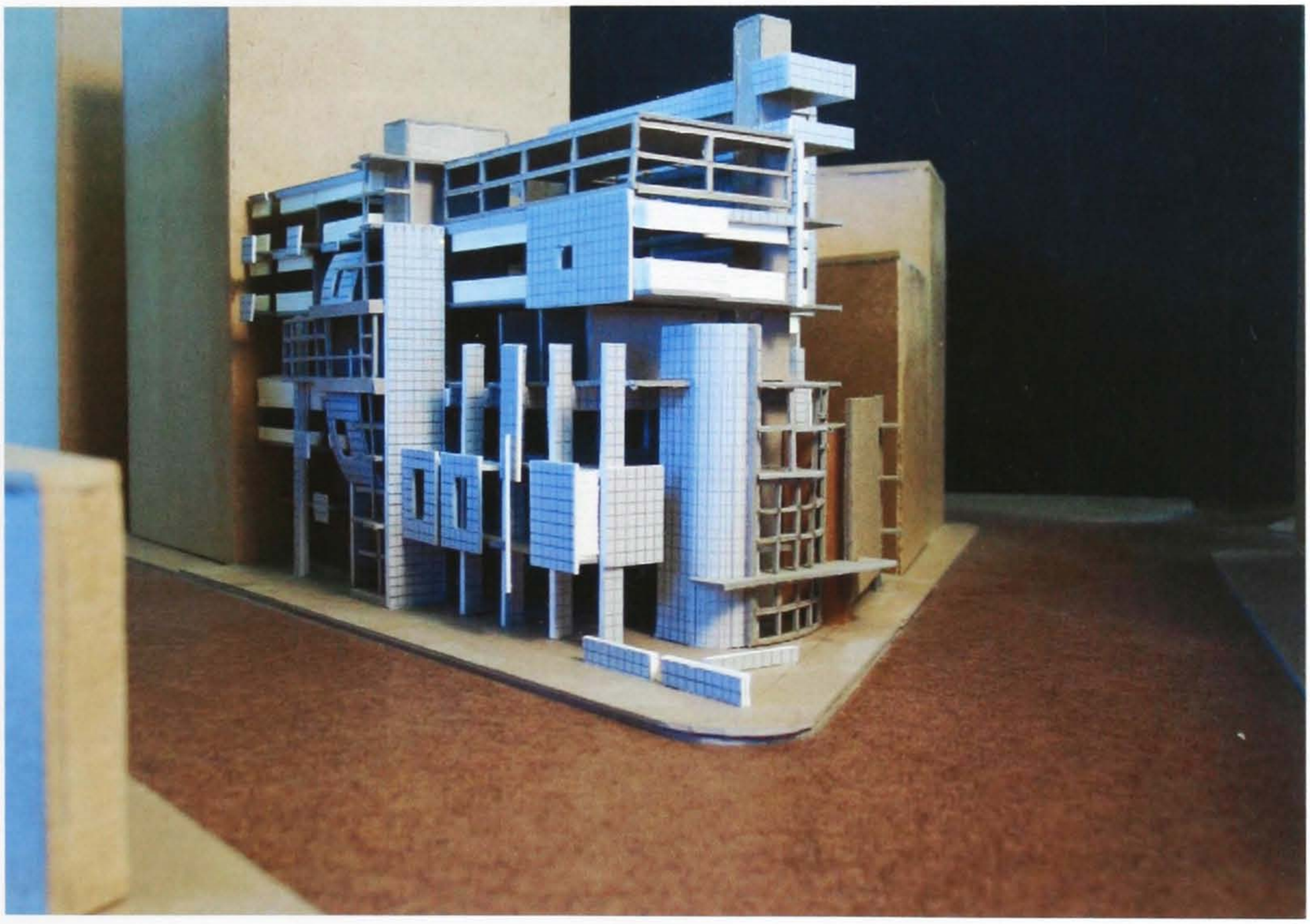
interior view:
@ entry
@ gallery #1

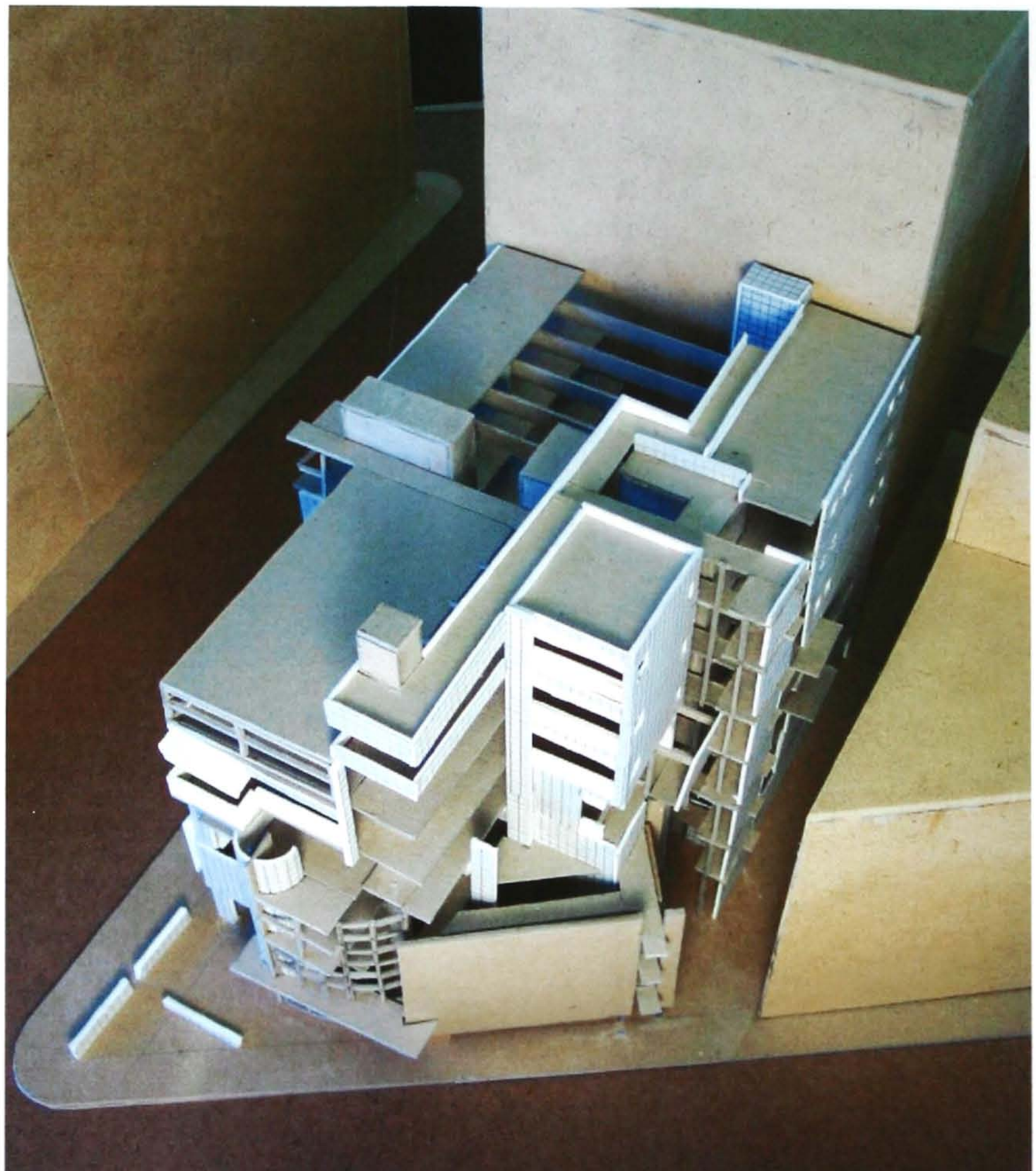


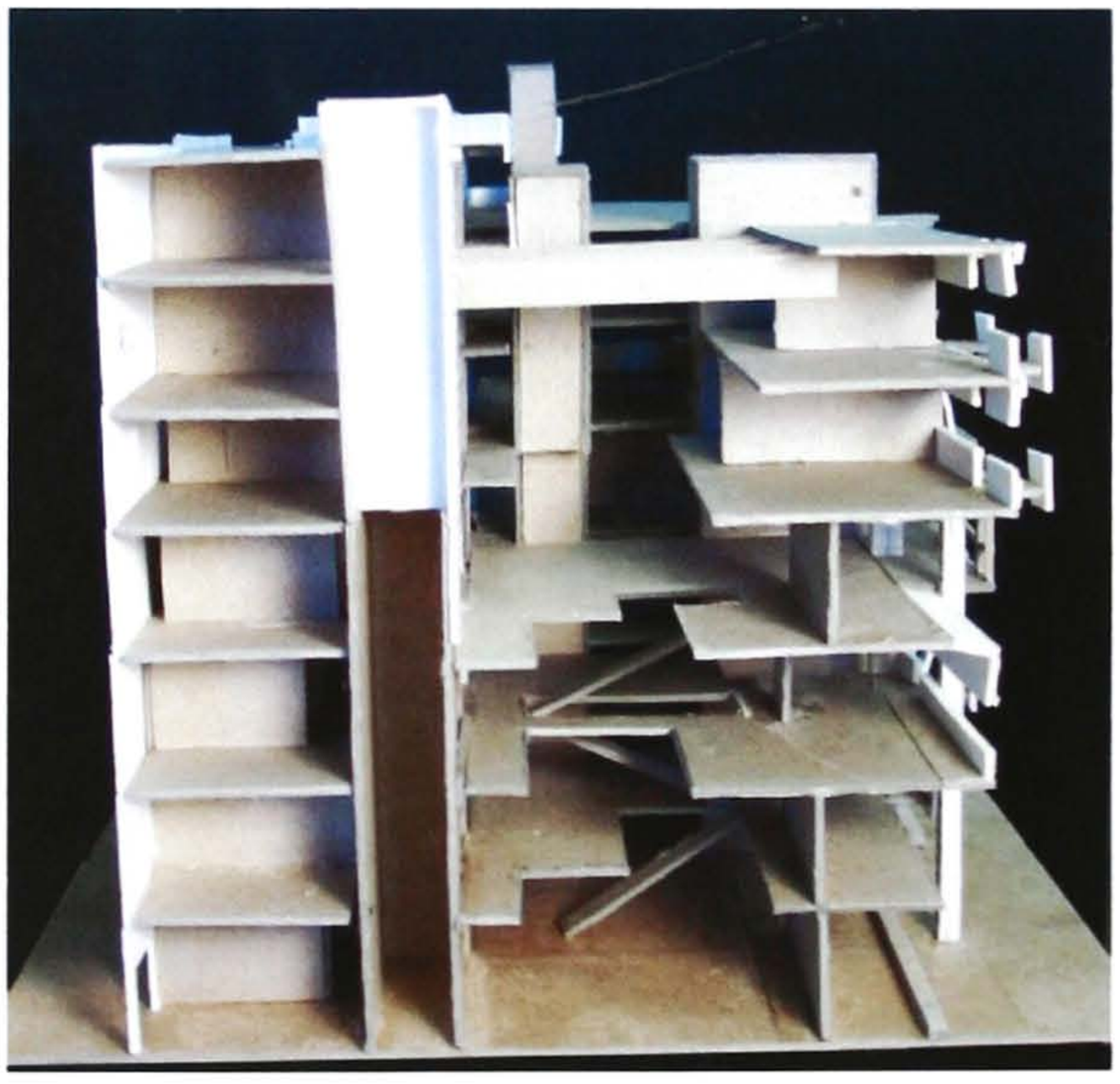


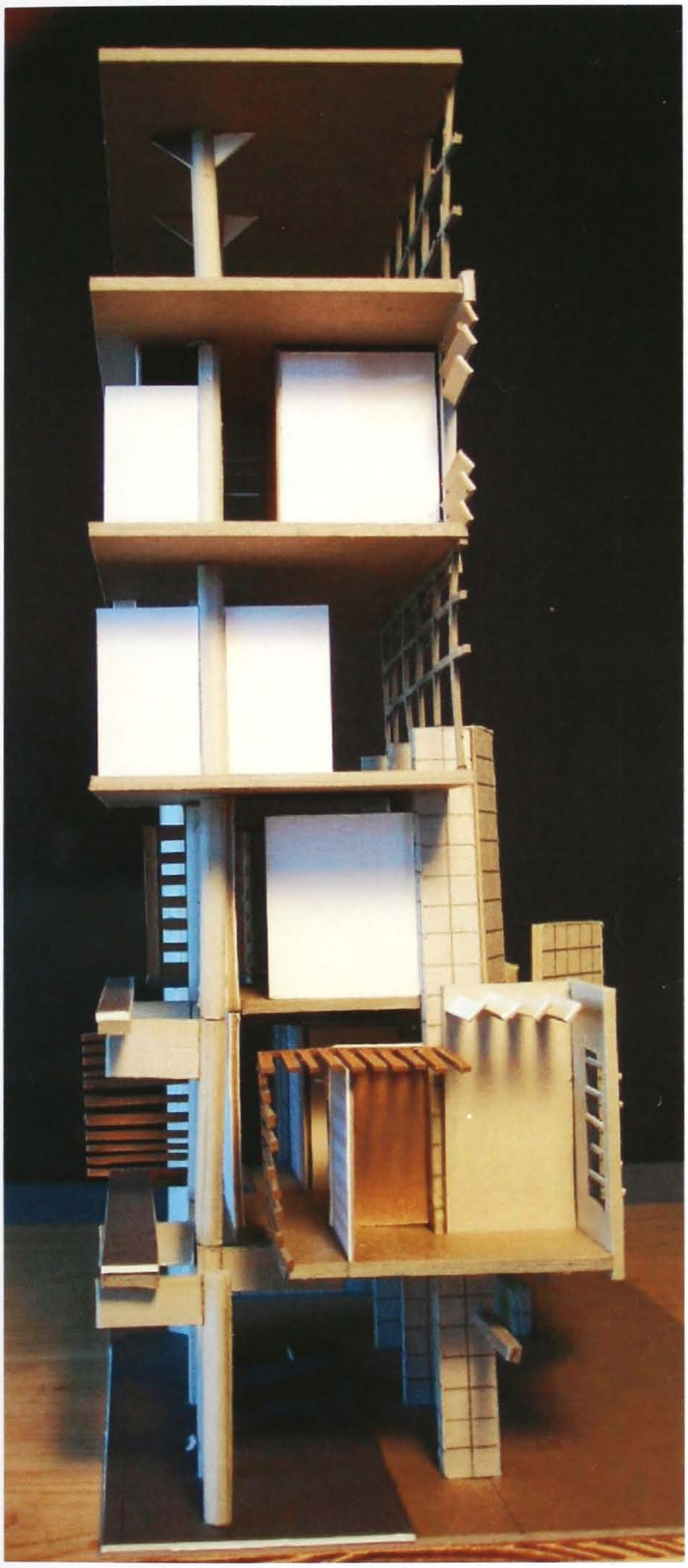
-site model and building model: the final building model is still meant to function as a representation of the investigation that is not meant to be finite or "finished", but rather allowing for open ended interpretation.

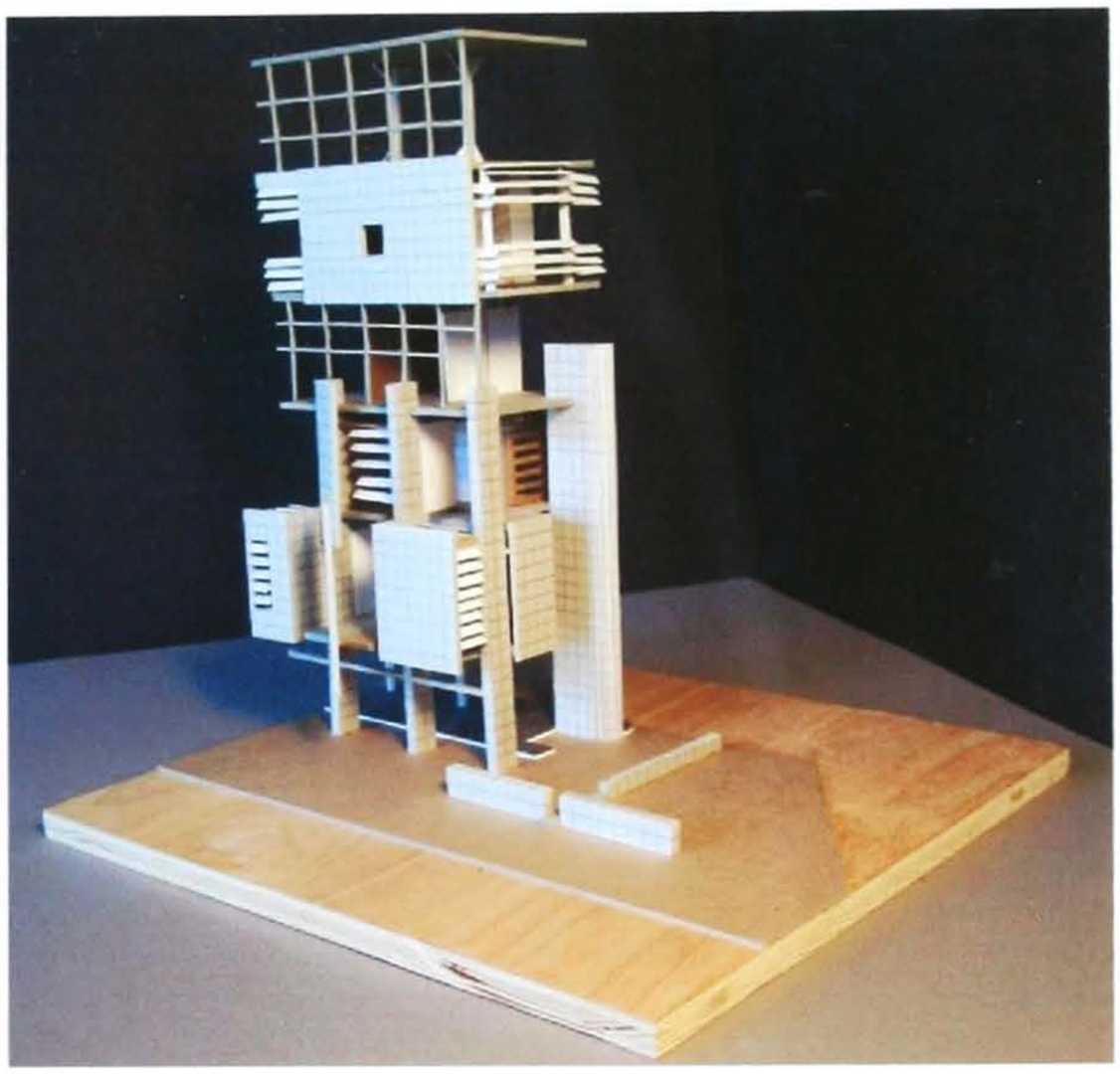




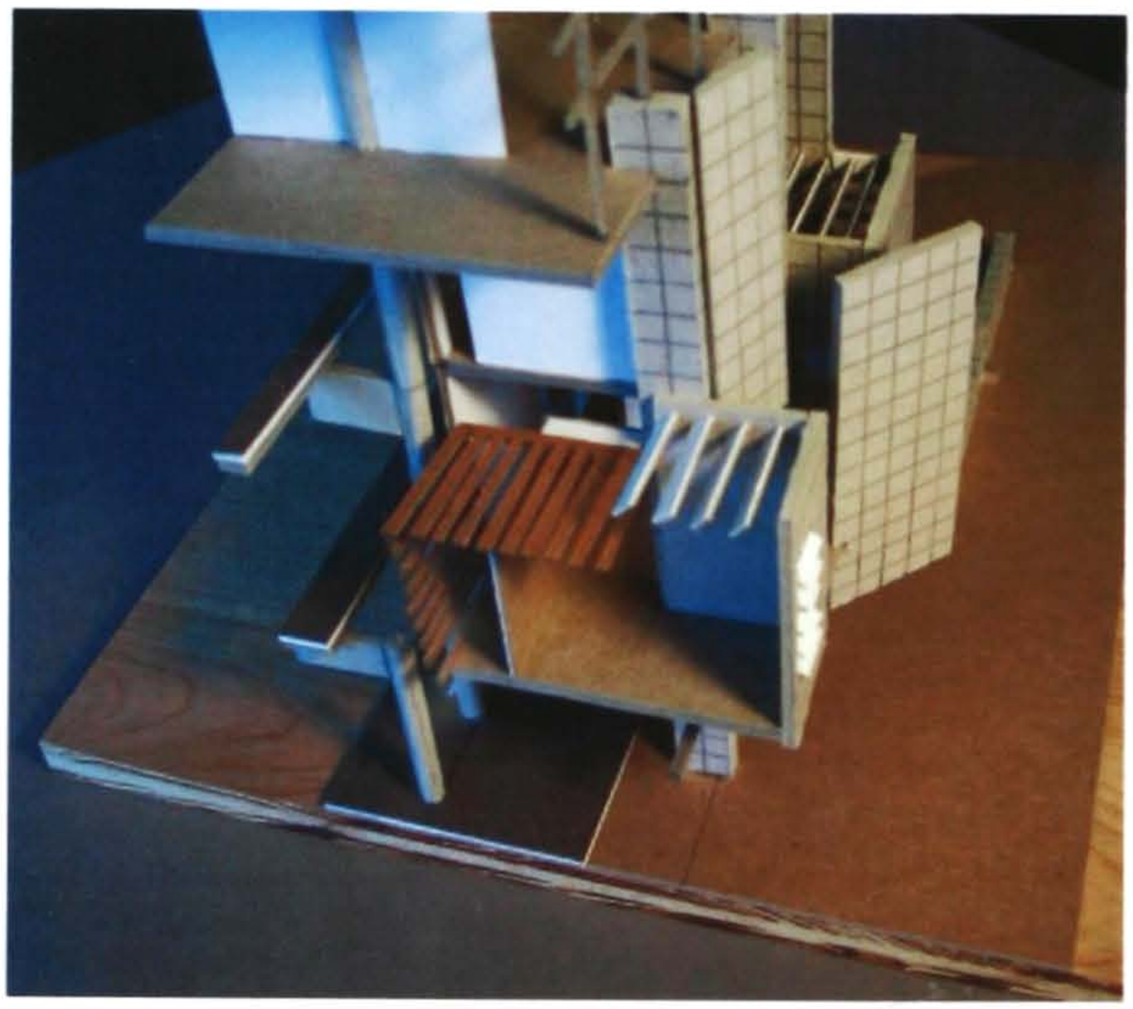


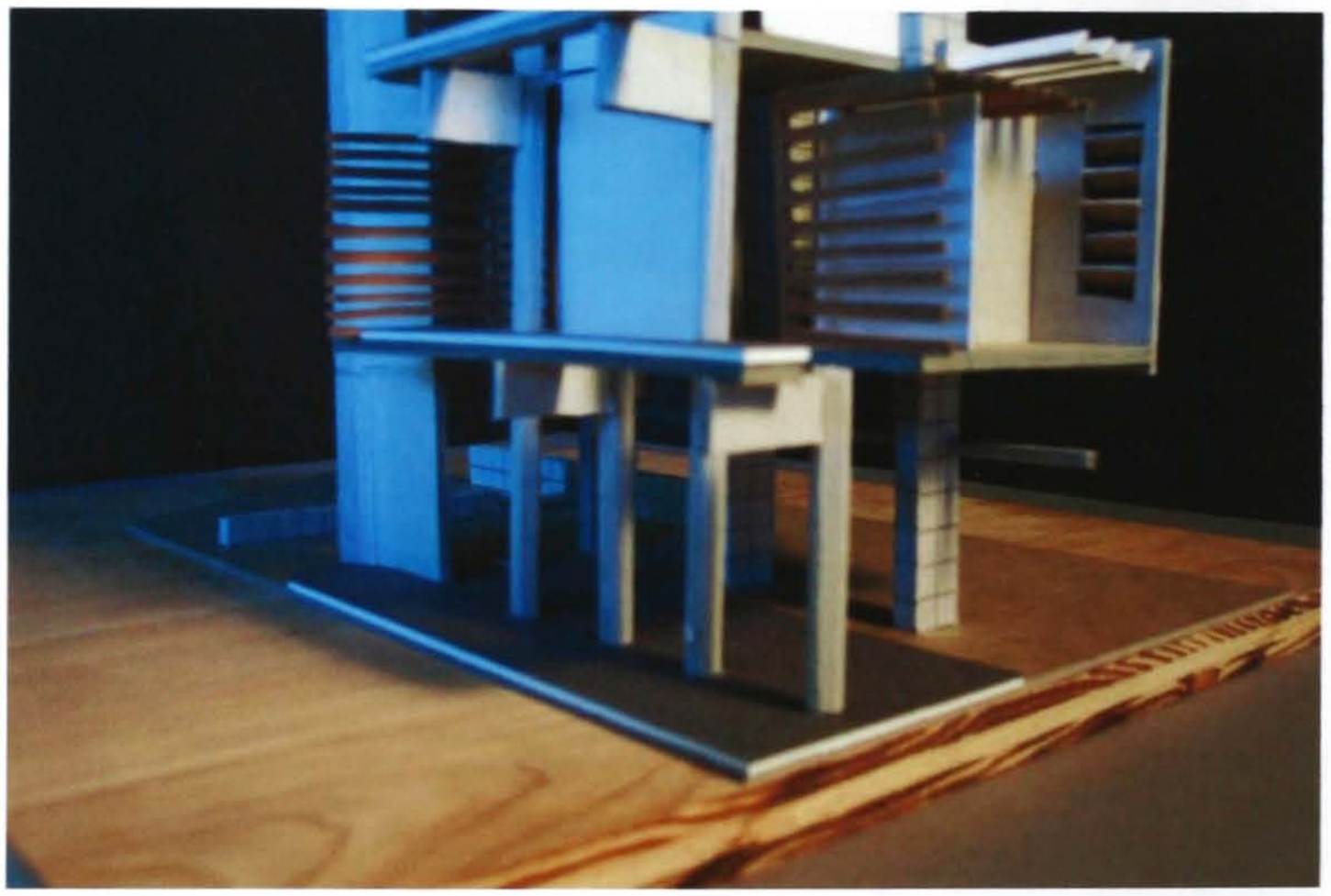


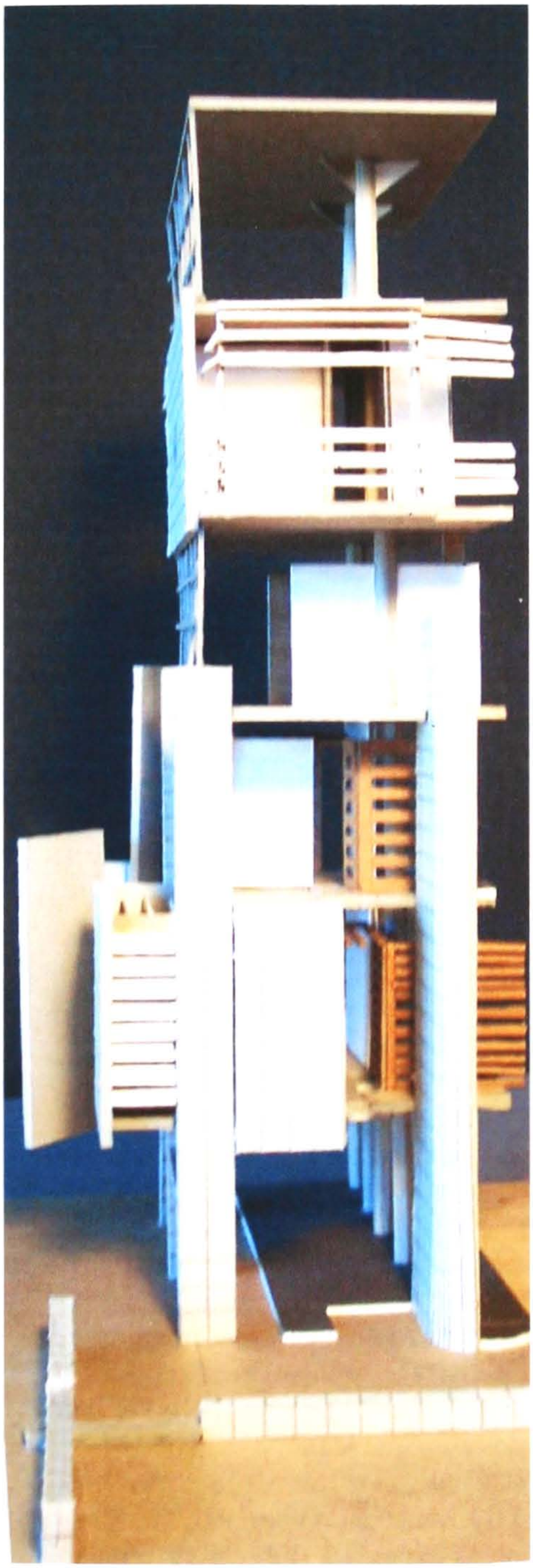




-detail fragment model: this fragment represents a detail of the lower right hand corner of the building (in respect to the plans). Its intent is to allow for a greater understanding of the interweaving private and public elements – the goal is to model the sectional quality of such critical moments as the dormitory insertion into the multistory entry common space and web café as shown to the right.







Conclusion

This thesis investigation is about challenging conventions. Once again it is about not only trying to address the question that situates the investigation (what is architectures role in challenging conventions of mixed use), but also it has been a device to challenge personal conventions of process in design thinking, working methods, and overall ways of communicating architecture that go beyond conventional problem solving to find an architectural solution. The frustration occurs at the level of trying to not let an almost unrealized and subconscious desire to imagine a finished product dictate the path of the investigation. In creating architecture the imagining of a design product is a natural impulse of a designer's process that must not takeover, in that it must not eliminate any form of going through a process of materializing conceptual underpinnings. When examining the question of unconventional mixed-use for downtown Detroit, it seems that the process strives to be altered into one that becomes a series of investigations of design problems that make up a larger, main investigation. Therefore, each design problem is depended on the next or the previous or all of them simultaneously. As such, if the product envisioned takes control these critical design problems become neglected, and therefore the product becomes conceptually contextless and in some sense arbitrary.

Conventional mixed-use buildings exist the way they do for a reason. The goal of this thesis was to alter how that condition could exist in the context of downtown Detroit – a prototype. Questions arise from this notion in that challenging the convention of mixed-use to define a downtown identity could also translate into how practical code issues (bld'g to zoning) could be rethought to foster a richer identity. Perhaps, the investigation is leading towards this notion all together. In other words, the investigation in many ways looks towards the notion of challenging codes in order to challenge mixed-use. What must be taken from the results of this thesis or rather the next question that arises that can ultimately function as another investigation all together is the issue of codes that ultimately speaks of intersections – exploring how limits of the codes can be pushed in order to accommodate for this prototype of mixed-use. It would ultimately involve questions of exploration in materiality (challenging the code while maintaining fire ratings, egress requirements, accessibility, etc…) and how that materiality achieves the spatial qualities set fort in this thesis investigation.

It must be understood in respect to urban design strategies for downtown Detroit that this thesis investigation is not about functioning at the level of a city district, therefore acting as a catalyst for urban improvement, rather its intent is based on the notion that Detroit's improvement must be achieved through the application of single moments of architecture (among other things beyond architecture) that as a whole, and on their own, start to reconstruct a character that truly holds a unique identity. This emphasizes the notion that a 21st century identity for downtown Detroit requires the diverse tension between single urban entities (buildings, structures, monuments, etc…) or a certain type of use and another type, that create moments of contact that allow a critical movement in the urban condition – more specifically, an awareness of adjacencies that

communicate a continuum of diverse and interchanging parts of the urban condition – thus, inserting once again the emphasis on the human and or human interaction.

As mentioned in discussing the design processes earlier in this thesis, personal / conventional design strategies consisted of applying a single concept that drove the design process at every scale and the desire to make that notion understandable was of greatest importance. What this thesis investigation has revealed is that architecture's role to create truly mixed-use environments may require several architectural concepts that function on a multitude of levels. Not to say that concepts are arbitrarily derived, but rather, the designer must be able to juggle, in a sense, several concepts that are uniquely different, but that somehow each inflects one another. Perhaps the only way to understand a mixed and diversified 24-hour urban landscape in an automobile dominated city is to be able to not only communicate, but to give a direct relationship between city and use. The goal would then involve allowing mono-uses to become active entities in an urban environment rather than static and passive, uninvolved entities, while maintaining their social gender or public and private necessities.

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Tuan, Yi – Fu. Space and Place: The Perspective of Experience. Minneapolis: University of Minnesota, 1977.

-Focus on several chapters with discussions on experiential perspective; body and mind relationships to architectural and natural space/time. The chapters dealing with understanding the element of sense of place are also a focus.

Hill, Eric J., FAIA, and John Gallagher. AIA Detroit: The American Institute of Architects guide to Detroit Architecture. Detroit: Wayne State University Press, 2003.

-A guide to understanding and realizing the history, culture, and beauty behind the current architecture of downtown Detroit. A good summary about the city's evolution as well.

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-A diagrammatic reference on understanding how humans interact and travel through urban space.

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-A visual landscape case study reference of urban projects that fall back on allowing the environment (the natural and essential native condition) to be incorporated into the urban fabric.

Abel, Chris. Architecture and Identity: Responses to Cultural and Technological Change. 2nd ed. Burlington: Architectural Press, 2000.

-Writings on cultural, technological, and theoretical developments in reshaping modern architecture for the diverse 21st century. Focus on specific chapters: Visible and invisible complexities; Architectural language games; Tradition, innovation and linked solutions; Architecture as identity; Towards a global eco-culture.

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-A technical and theoretical reference focusing on the physical aspects of the urban environment and designing them utilizing sustainable strategies.

Kostof, Spiro. The City Shaped: Urban Patterns and Meanings Through History. London: Bulfinch Press, 1991.

-A historical evolution of the urban environment in terms of understanding how humans move through it, taking into consideration influences architectural style, planning typologies, phenomenological issues, etc.

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-A historical evolution of the urban environment in terms of how it is assembled – the physical assembly of the actual urban space and the assembly of people within those spaces. Excellent reference in understanding human interactions with urbanity, mainly focusing on the latter chapters in the book.

Precedent study references:

Polledri, Paolo, ed. Shin Takamatsu. New York: Rizzoli International Publications, Inc, 1993.

-Focusing on the Kirin Plaza Osaka as precedent study 2, this book offers a concise breakdown of the theories and concepts driving the project. A well documented reference with plenty of sketch diagrams and real life photo graphs of the building.

Trencher, Michael. The Alvar Aalto Guide. New York: Princeton Architectural Press, 1996.

-Focusing on the Saynatsalo Town Hall as precedent study 1, this book offers a breakdown of the theories and concepts driving the project. A well documented reference narrative form with only thumb nail quality photographs of the building.

Frampton, Kenneth and Joseph Rykwert. Richard Meier, Architect. Vol. 3. New York: Rizzoli International Publications, Inc, 1999.

-Focusing on the Ulm Exhibition and Assembly Building as the programming precedent study, this book offers a breakdown of the major components and concepts of the building. A well documented photographical reference of the building – analysis offered in this thesis has been self derived and does not reference from Frampton's or Rykwert's essays in this book.