




UNIVERSITY OF DETROIT MERCY
GRADUATE SCHOOL
MASTER'S PROJECT

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARCHITECTURE

TITLE: Transformations and Thresholds

PRESENTED BY: James Gerald Krygel

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

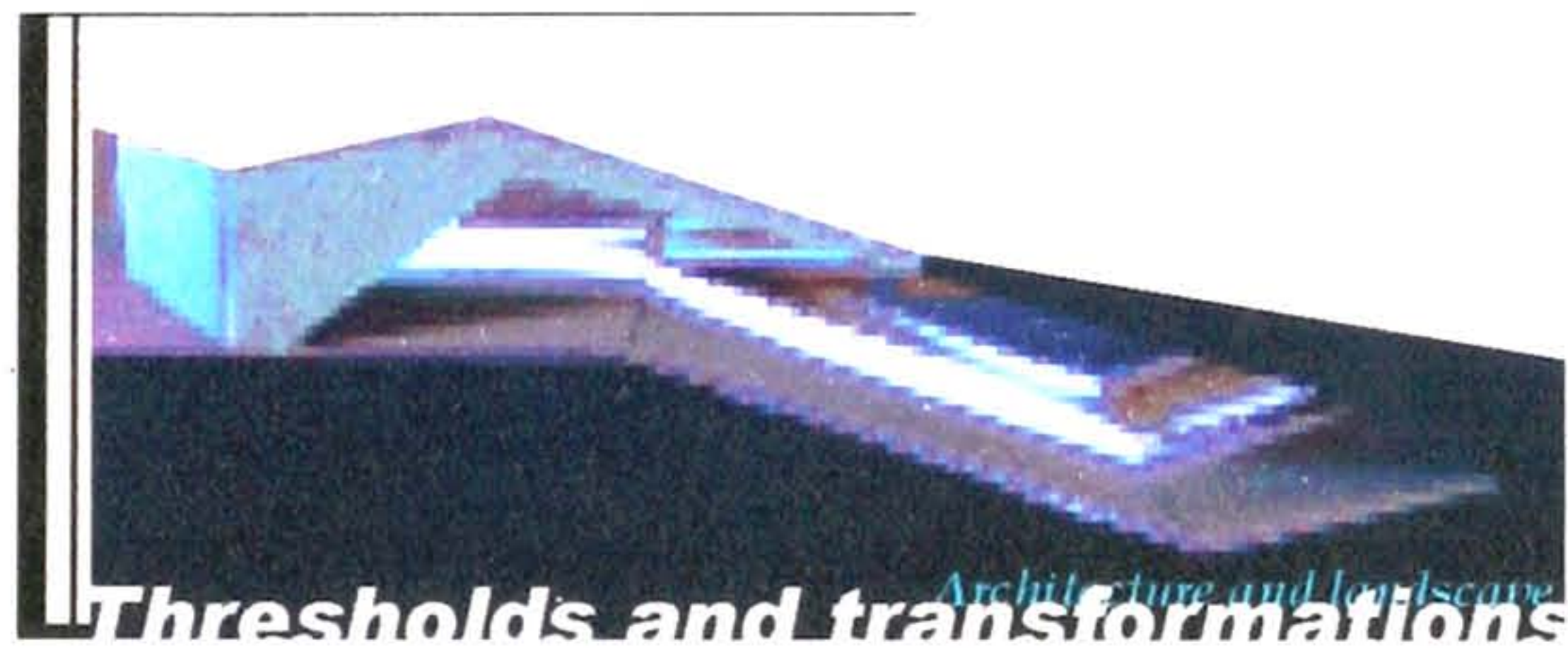
5/07/04
Date

APPROVAL:



Stephen Vogel
Dean, School of Architecture

5/17/04
Date



Thresholds and transformations

JAMES GERALD KRYGEL

UNIVERSITY OF DETROIT MERCY

SCHOOL OF ARCHITECTURE

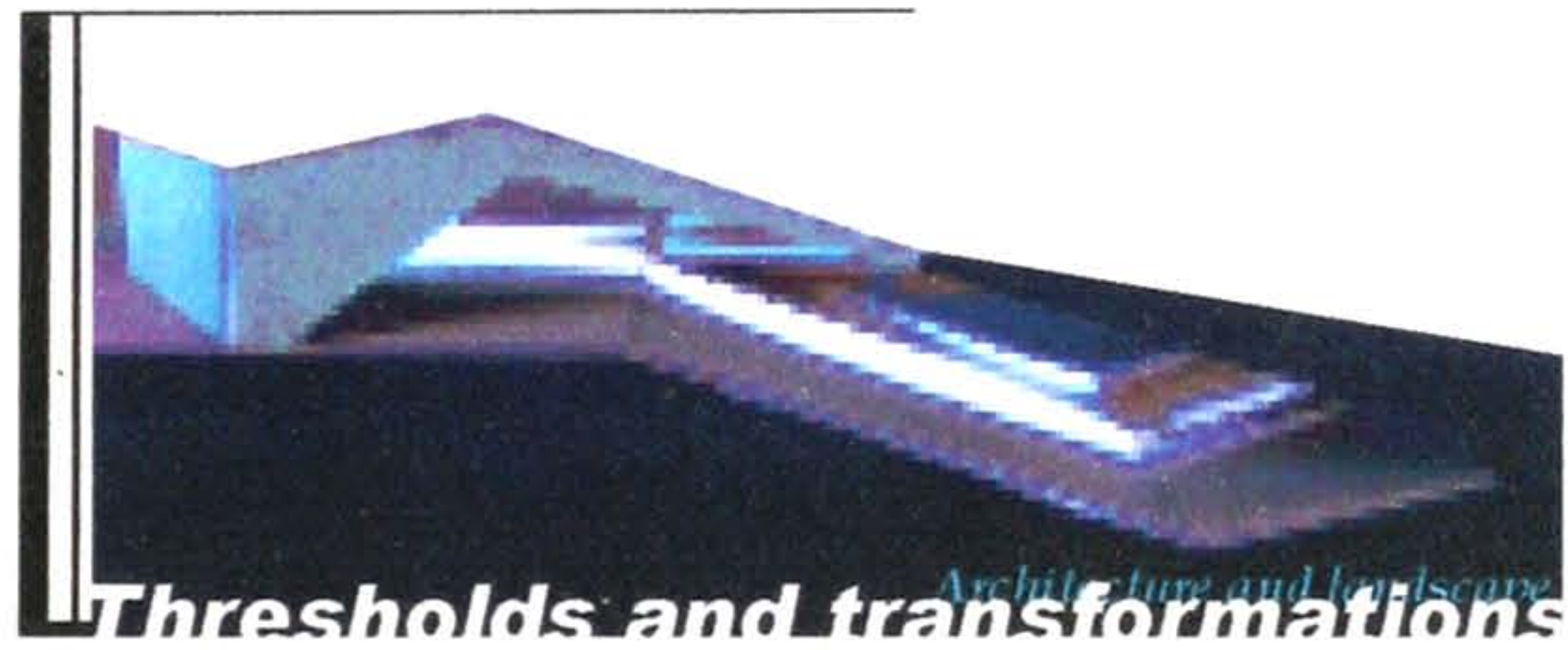
AR520 SECTION 01

JULIE JU-YOUN KIM, ASSOCIATE PROFESSOR

Thresholds and transformation

APRIL 23, 2004

Content:



- ABSTRACT
- PROJECT DESCRIPTION
- THESIS
- PRECEDENT STUDIES
- SKETCH PROBLEM [RELOOKING]
- CAPTURING A MOMENT
- SITE ANALYSIS
- PROGRAM PRECEDENT
- PROGRAM
- DESIGN DEVELOPMENT
- FINAL DESIGN
- CONCLUSION

ABSTRACT



Thresholds and transformations

JAMES KRYGEL
UNIVERSITY OF DETROIT MERCY
SCHOOL OF ARCHITECTURE

What are the issues in issues of live/work and the thresholds that define that in-between space? It is the parts of the whole that start to create a process of movement that defines the idea of threshold; the steps one takes from one to another. By breaking down the standard use of a material and starting to look at it in more of the pieces and how we arrange them, new ways of looking and understanding materials could be brought about. This rearranging or reuse could also be viewed in terms of how can we [re] look at Detroit and the vast possibilities of vacant land and abandon buildings.

For this investigation I have chosen a live/work/learn situation that involves an auto garage for customization. The idea behind the auto garage is to be able to take a standard element and start to transform it into an expression of a particular person or style, to build on the hot rods of today. The live part of the site is for the students to have more of an interaction with the craft which they have a passion about, to build on the love of the car. The garage is one that teaches custom fabrication of parts and customization for automobiles to be a useful learning experience in the growing area of Import automobile modifications. This type of mechanic is one that is involved in the profession due to their interest in this style of life, the love for the car and making it more of an individual statement. For the mechanics the in-between step of going from work to home maybe more of a purification process, getting dirty from work and then cleansing before returning to home. The site becomes a major part of this separation; it's not just the left over space but spaces that can influence the way we perceive working at home.

PROJECT DESCRIPTION



Thresholds and transformations

JAMES KRYGEL

UNIVERSITY OF DETROIT MERCY

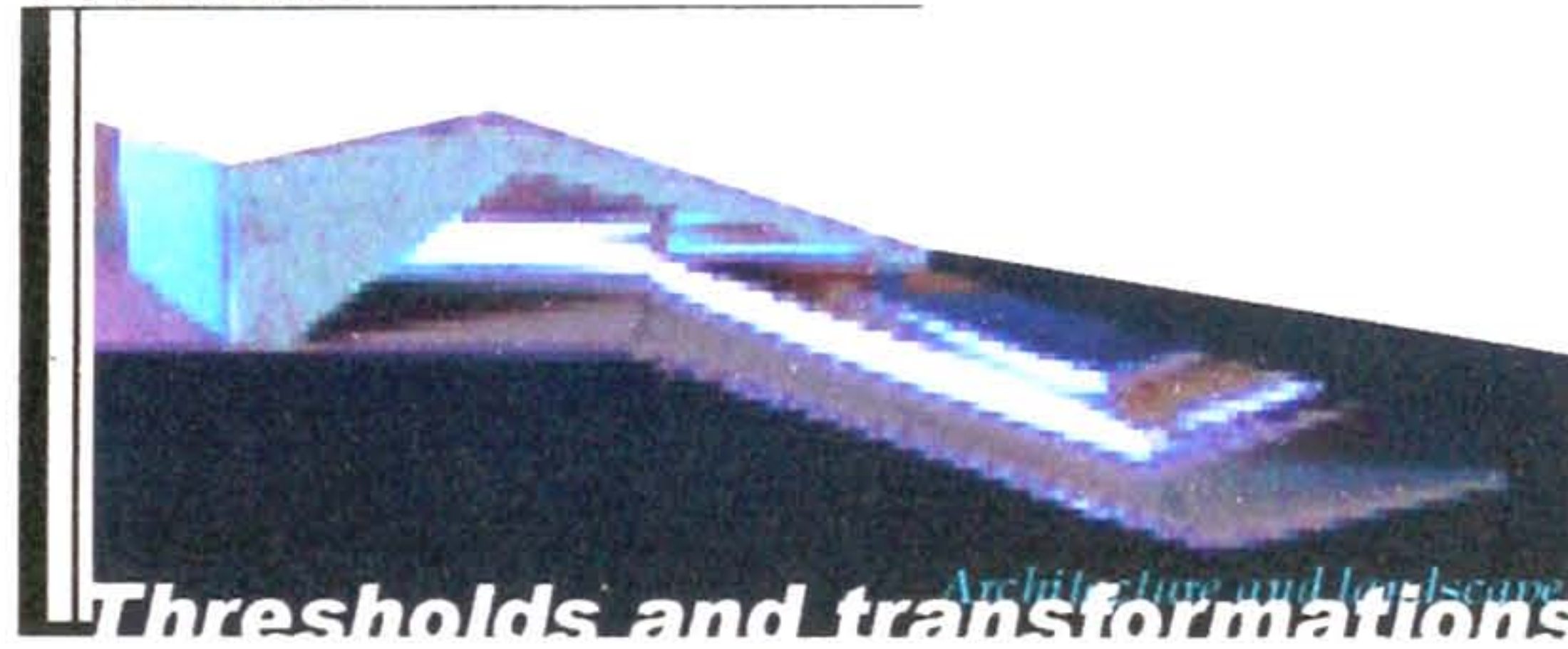
SCHOOL OF ARCHITECTURE

The relation of a live work environment and thresholds that a person would experience when shifting between the two was the starting point in my overall investigation. What are the steps a person takes along the path to work in which they live with? What is their drive to work consist of? Where is the point when one is left behind and the other is occupying us? This shift in living with one's work was viewed as a situation where the threshold becomes both a process and a ritual in daily life. As with the farmer, the work is separated but always consuming, always present. This lifestyle that one leads where work is integrated into life so completely the line where the one begins and the other takes over becomes a blurred line.

To test these questions, a work situation where passion can be found in many aspects was necessary. Today a lifestyle that conveys these passions is one that has always been around since the 50's, automotive tuning, trying to make cars go faster than the next. As looked at as the hot rods of today, a V8 engine is being replaced by a small efficient four-cylinder engine turbo charged and computer modified. This new craft and lifestyle is becoming more evident as import tuning. This new technical craft is a fast growing passion that many young individuals are starting to become involved with. The program becomes one of teaching a student who is interested in this new craft the means to learn about the focus of tuning. The program gives ten students a chance to live in the Detroit area on the site with their work and would give them the skills necessary to work or open a custom automotive shop of their own.

With the students working on site, what is the space or moment that divides them between live/work? Do the students sleep next to their work or is there a separation? The threshold between the live/work is the process that a student would take to leave one and enter another. This in space in-between becomes a silent space, that of the absence of architecture but with the presence of sound and experience creating the border.

THESIS



Thresholds and transformations

JAMES KRYGEL

UNIVERSITY OF DETROIT MERCY

SCHOOL OF ARCHITECTURE

How do live work situations affect us by means of space, threshold and mental thought of work? Can there be an equal balance between live and work? The challenges that arise are ones those play on our minds. Can we really leave work at work? Can the shifting of material start to define this point of leaving one and entering another? By breaking down the standard use of a material and starting to look at them in more of the pieces and how we arrange them, new ways of looking and understanding materials could be brought about. Looking at metal, one can reuse pieces and start over by reconfiguring the current state. This could be done through melting the metal back down to a raw form to where it can be reused to fit the new needs and requirements. This reusing can be looked at in similar terms of how we reuse spaces that become no longer in use. Detroit has become a city of vast possibilities of reuse, through vacant land and abandoned buildings. How we use these spaces can help to bring about a changed perception of a city of uselessness. The areas of investigation are the notions of space, threshold and thought, materiality and reuse.

Is work always present, can we leave it behind? The answer to that question is one that is more in our mental thought than that of physical terms, work would always be on the mind. Live/work situations start to push the concept of living to an almost a form of passion living. Would someone who hates his or her job be as willing to work at home? I think the answer to that is no, to live with your work a desire is needed to ease the constant shifting of work and live. Of course there are many other issues that come with live/work, people can participate in this type of living for conservative reasons, one doesn't have to drive everyday to work, its better on the environment. Farming is another form of live work that is not thought of in means of work in the same space as the house.

How can we start to collage the spaces of live/work? For this study, the design vessel will be a live/work mechanics garage, one where teacher and student come together to live and learn/teach. The garage is one that teaches custom fabrication of parts and customization for automobiles to be a useful learning experience in the growing area of classic and Import automobile modifications. This type of mechanic is one that is involved in the profession due to their interest in this form of life, the love for the car and making it more of an individual statement. The desire to always want to learn more and having a passion for what the students and teachers are there for will only help reduce the line that separates work and live. Even though the desire for learning will be there, the threshold that separates and connects for the students will need to be present with more of a blur between the two experiences. This blur could be through visual or physical means in the student housing. Where is the exchange from live to work? Where is the actual point in which we cross from one to another? In a typical live work residential house, a spare room might be used to work in. So the door is the point in which one crosses to leave one space and arrive at another. Is this boundary enough to leave our minds on one side of it when passing to the other? With such a thin threshold, leaving work behind will be more of a challenge. The farmhouse is a live work experience which threshold has a thicker substance than the door. The whole area around the house becomes part of the threshold that connects the user to the barn and the fields where the work is done. When the work has a separation of more than just a door, less will be needed to express the shift from live to work, the whole process of leaving one and going to the other becomes the threshold that the farmer crosses. It becomes more of waking up, eating breakfast, putting

work boots on and kissing the wife goodbye that starts to form a ritual of the moving from live to work.

Does the fact that work is so close to us physically now and not just mentally, affects us? In a way we can never leave work behind, even if it's thinking about "I have to work tomorrow" it's always on our minds. For some bringing home a bit of work everyday is necessary, making some calls, writing a bill, but what if work is down the hall? Is there an urge to work when we don't have much to do, it is what makes us money. When we work at home is there a constant shift between live/work? I think that this major problem is being so comfortable at home and then going to work; it is possible for this conformability transfers over to work. A threshold that becomes more evident would only add in the means of entering the state of mind of "I'm at work". Is there a need to manage our time better? Restrict passage from one to another? In a situation like the mechanics live/work/learn, a physical barrier would be more necessary in dividing the spaces up. A space of transfer, leaving one and entering into another, a space where you go to work and leave home for a specific period of time. For the mechanics this in-between step maybe more of a purification process, getting dirty from work and then cleansing before returning to home. The site becomes a major part of this separation; it's not just the left over space but spaces that can influence the way we perceive working at home. The whole site starts to become "home" to the students and teachers, as like the farmers house and the barn.

When one works at home, can they take their work home with them? People whose work is there passion might benefit from a living experience like this. People whose work is more on the creative side would benefit from living so close to their work.

When inspiration hits, they can go back to work to let out what they feel. In the mechanics live/work/learn, this taking your work home with you could be very important, giving the students the opportunities to be constantly thinking of the current project they are working on. When they feel the urge to work or create, the opportunities are there for them to cross that threshold.

What are the thresholds we cross? As mentioned before, is a door enough to leave home behind? Will the rest of the house be a distraction? There is a need to leave personal life behind and start the professional life. Would a building that's next to our house be far enough away? It becomes more of a mental threshold that we must cross in order to start our workday. We must get through to ourselves that this is a time for work, a time to create. How deep is the layer that acts as our threshold need to be? The space that consists of the threshold needs to communicate that there is a process of transformation. If this space is just a door, how do we move through it, is there more to the act of opening and walking through? Do the materials or the pieces of architecture start to show signs of a shift. Is there a multipliable of doors that we pass through, an outside edge we travel through? Is there an unperceived ritual that happens to express this exchange, the morning shift, and the evening shift back to home? Something must be done to emphasize this change so that it starts to become more of a physical thing in our mind. When this shift becomes more apparent the ability to leave work behind and returning to work become more conscience. A note that we become to realize everyday in our lives, like the daily commute to work. Opening up the shop can become a ritual, doors, hydraulic lifts, windows, ventilation, music; all these things become a ritual in our day. It is these things that start to give us a sense of "were at work". This process of

beginning work, preparing for work both give us a mental thought of what the student is there to do, learn.

Do the living standards differ from student/teacher? In the students' case, there should be more of a blur between live/work than a complete separation. The threshold they cross becomes less evident than that of the teacher. The live part of the program is for both student and teacher. Living with teachers gives the students the ability to have more interaction with people who are involved in this type of life style, people who have the same passions about their career. The teacher would already be a master of the craft so the constant reminder of work would not be as necessary. The threshold that the teacher crosses would be one more on the lines of complete separation. The teachers duration of stay at the site would be longer than that of the students. Since the stay is longer for the teachers, the living experience would be one of permanence, in contrast to that of the students who are there for only a short stay. The blur that is there for the students would be non-existent in the living experiences for the teachers. The threshold that the students cross needs to be more of an easy step, a simple means to reconnect with their work.

It is the threshold that is a constant interaction with the users of the site and link between live and work. The two main pieces of the site, live/work and how we can shift and blur these edges are the main points of this investigation. How can the shifting of materials on site be related to the process of transformation? How do we view standard materials? Can we look past a materials intended purpose to see it in a new light? Does the wall fold up to act as a bench or table through the changing of what a wall is

perceived to be a function as? These are assumptions that I would like to address in terms of the shifting of what's know and what's unknown, to let go and forget. Through this forgetting, elements of material through shift and details can be brought to life in a new manner. A fold where a straight line should be, a relief when a solid surface should be, a sliver where a mass should be are means of shifting our perception. Materials like metals, concrete and wood. These standard materials are produced in mechanic, standardized way, in contrast to that of the process that takes place on the inside of the building. This process of making standard materials from the knowledge of how to use the parts and place them together in a fashion to make a whole can be viewed as how one makes metal. The pieces of how the metallic ore are extracted from the earth, how then the next process takes place in a shop were other metals are combined to form a particular type of metal. This liquid form of metal then has many ways to come into use by means of cast metal, bent, and extruded. This process of how does not have to stop there, where as the finished product is at its final state of being. We can go beyond a materials embedded origin. A metaphorical understanding is needed in that these standard materials are inherent on the act of making and the embedded essence can be left behind through the second act of modification. But through the craft of the hand, creation through the mind, the changing of what these metals are perceived as can be altered. A sheet of metal that is stamped flat can become a beautiful fender on a classic car with the craft of the hand and the addition of other pieces.

It is the standard pieces of metal that become something special through handcraft and knowledge. How can the architecture start to become a craft in itself? Are there changes that take place due to the manipulation of certain parts of the building? Perhaps the process of building a car, which is done in stages, moves along in the shop through a series of stages of architectural elements. When one step is done, the next step is to move to another area in the shop to stress the moving on to another step. This would also be good in terms for letting students feel accomplished in moving along in the process of custom fabrication in a car. Again this process can become a ritual in daily life, the moving from one step to the next, leaving one behind. Does this moving along process get expressed in the architecture? Does the building reflect its use? When you walk by a office building you know it's an office building, and when you walk by a mechanics garage you know it's a mechanics garage. But when located in the city how can this preconception change? We are accustomed to seeing anything that deals with cars and buildings as requiring massive amounts of space. In a city's fabric, automobiles are usually dealt with in terms of multi level parking garages, not wide spread areas of vast land. Detroit has this abundance of large spaces of vacant land with a mix of dense spots in the inner city. Detroit has to offer a chance to investigate both fronts having the dense areas of the city and the wide spread areas of open land to challenge the notions of what is need in order to make a working auto garage.

Reusing this left over space that once was used is a vital role in Detroit's process of taking all the little pieces that make Detroit what it is and start to create an actual city that connects beyond specific points of interest. When looking at Detroit there is a lot of empty space, be that of empty lots or that of empty buildings. These empty buildings

speak to us in a way; speak to us about the past, about a time we have no mental connection to. Even with the inexperienced, unseen architecture, a connection to the past lies in the connection to the present and its existing conditions. Only when this noticing of the existing conditions is made, can a connection to the past be made with the insertion with the new architecture. With this new architecture, whether it's brand new construction or a reuse project, the extent of the existing fabric must be taken into account. The fabric tells a story of what defines Detroit; suggest to us what can fit and what does not. There is a need to fill in the gaps in a way that is responsible to the surroundings, and at the same time not be a restoration of the city to its glory days. The city does not need to be nostalgic; a respect to the past is in order but not in the way of recreating it. London for example is a city with much history and specific style, so many buildings with a classics style but then walking down a street one can run into a building out of a science fiction movie [Llyods of London]. This city with its combination of classic and modern architecture co-exists well in terms of how the fabric blends together. Reuse is a big part of the city of Detroit; the large number of abandoned buildings has an effect on the citizens. The constant tearing down of buildings cannot be a positive image to the city or its residences. The constant demolition starts to effect peoples' mental well-being, and effects how they start to perceive their community and city. No one wants to live in a place that it seems that no one else cares about, especially if the city doesn't care about it. People could start to feel that this place is not worth saving, and could create a feeling of carelessness.

The threshold, edge, boundary, process and ritual all can affect our mental thought of how we perceive a space, how we sense a change. Blurring the lines between live/work gives us a better connection to a part in life that drives an individual. It is when we understanding the pieces that we can start to distort what we normal perceive to create something new.

PRECEDENT STUDIES



Thresholds and transformations

JAMES KRYGEL

UNIVERSITY OF DETROIT MERCY

SCHOOL OF ARCHITECTURE

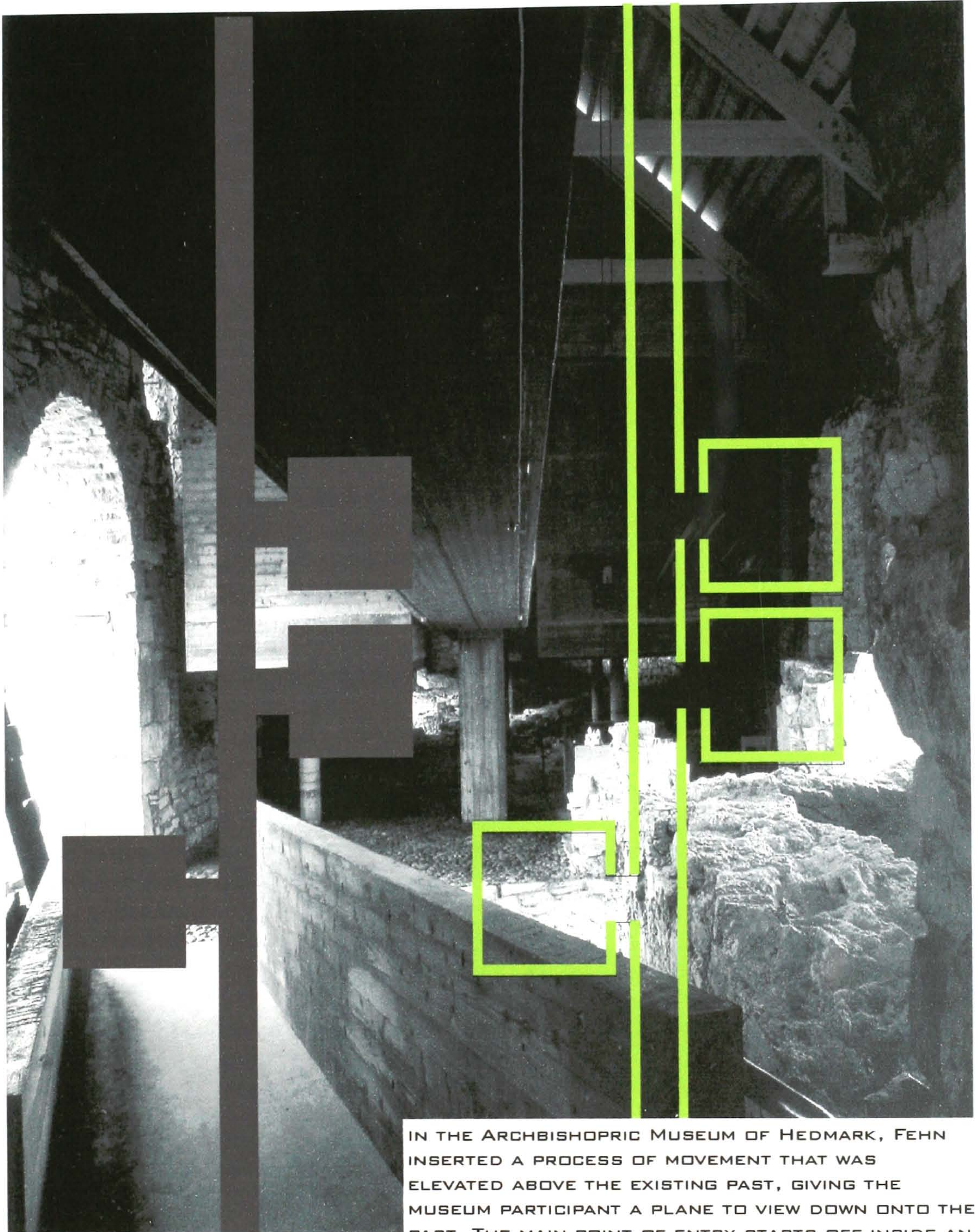
Precedent Studies:

Serrve Fehn:

“Go into the past, but let the past be the past. Don’t try to investigate it, and do try to manifest the present. If the present is not manifest, then the past didn’t speak to you. If you try to run after the past, you will never reach that kind of architecture, never reach that kind of conclusion from another time, another heart.”

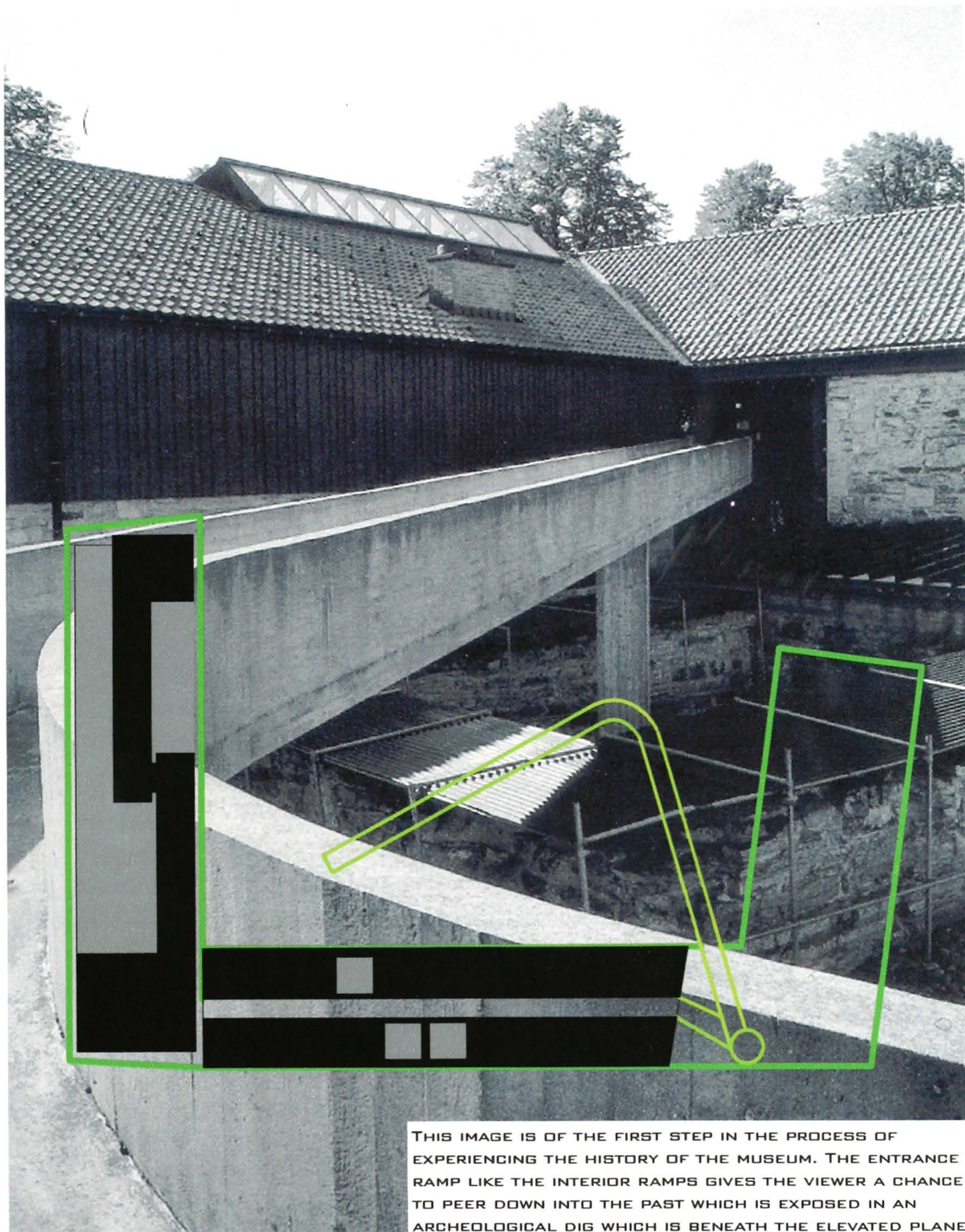
Serrve Fehn

The Archbishopric Museum of Hedmark by Serrve Fehn in Hamar, Netherlands is the reuse of an existing structure in Hamar, Netherlands. The existing structure an old barn was once the home of a bishop of the local area, before he went on his journey to Rome, Italy. Fehn takes the visitor through a number of different experiences. They start off elevated on a ramp that peers down into the past, a site where archeologists still at the time of construction were digging on site. This outdoors elevated ramp then leads into the building where the viewer is again elevated above the past to peer down onto the inside of the barn. Along this path, Fehn starts to give a glimpse of what’s to come in the gallery with small portions of artifacts along the way. The path turns to enter into the main gallery space; the viewers’ focus now becomes more to the left over pieces than that of the building itself. Fehn’s architecture that was inserted was one that was respectful to the existing conditions and Fehn believed that “in pursuing the past one can never recapture it, only by bringing forth the present can contact with the past be made”



THE ARCHBISHOPRIC MUSEUM OF HEDMARK
HAMAR, NETHERLANDS
ARCHITECT: SERRVE FEHN

IN THE ARCHBISHOPRIC MUSEUM OF HEDMARK, FEHN INSERTED A PROCESS OF MOVEMENT THAT WAS ELEVATED ABOVE THE EXISTING PAST, GIVING THE MUSEUM PARTICIPANT A PLANE TO VIEW DOWN ONTO THE PAST. THE MAIN POINT OF ENTRY STARTS OFF INSIDE AN EXISTING STRUCTURE THAT WAS ONCE A FARMER'S BARN THEN A LOCAL BISHOPS RESIDENCE. THE IMAGE SHOWN IS THAT OF THE ELEVATED PLANE LOCATED INSIDE THE STRUCTURE. THE PODS THAT GROW OFF TO THE SIDES OF THE PATH GIVE A RELIEF AND REVEAL CERTAIN ELEMENTS OF THE HISTORY THAT ONE LEARNS ABOUT ON THE JOURNEY THROUGH THE MUSEUM.



THE ARCHBISHOPRIC MUSEUM OF HEDMARK
HAMAR, NETHERLANDS
ARCHITECT: SERRVE FEHN

THIS IMAGE IS OF THE FIRST STEP IN THE PROCESS OF EXPERIENCING THE HISTORY OF THE MUSEUM. THE ENTRANCE RAMP LIKE THE INTERIOR RAMPS GIVES THE VIEWER A CHANCE TO PEER DOWN INTO THE PAST WHICH IS EXPOSED IN AN ARCHEOLOGICAL DIG WHICH IS BENEATH THE ELEVATED PLANE. THE GRAPHICS START TO SHOW THE POINT OF FOCUS, OR SHOWING WHAT IS ON DISPLAY EITHER THE MUSEUM ITSELF OR THE ARTIFACTS.

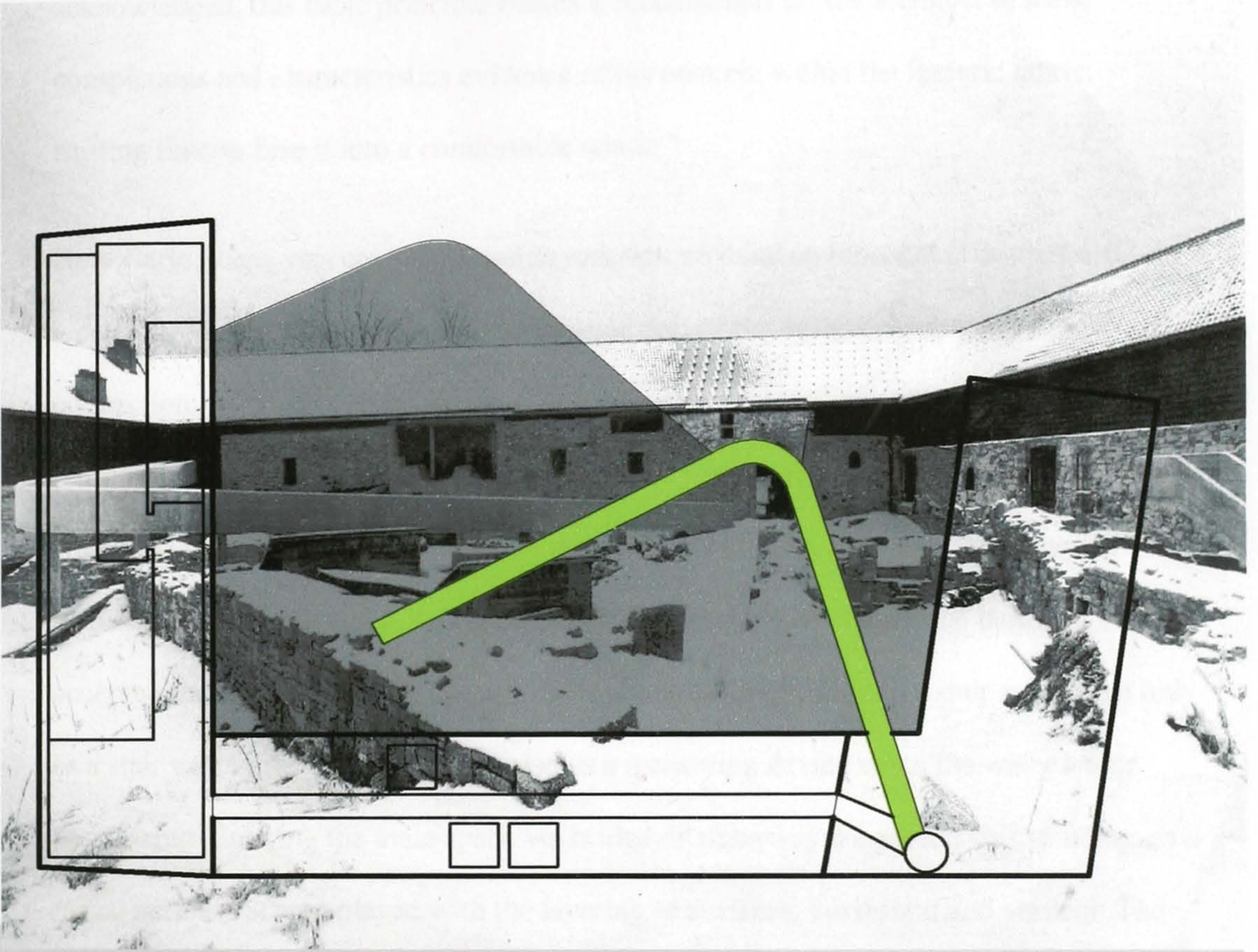
Carlo Scarpa
Palazzo Querini Stampella

See how a building responds to its site and how it is integrated into it.

Considered the best practice when it comes to the way a building is integrated into its site.

Considered the best practice when it comes to the way a building is integrated into its site.

Considered the best practice when it comes to the way a building is integrated into its site.



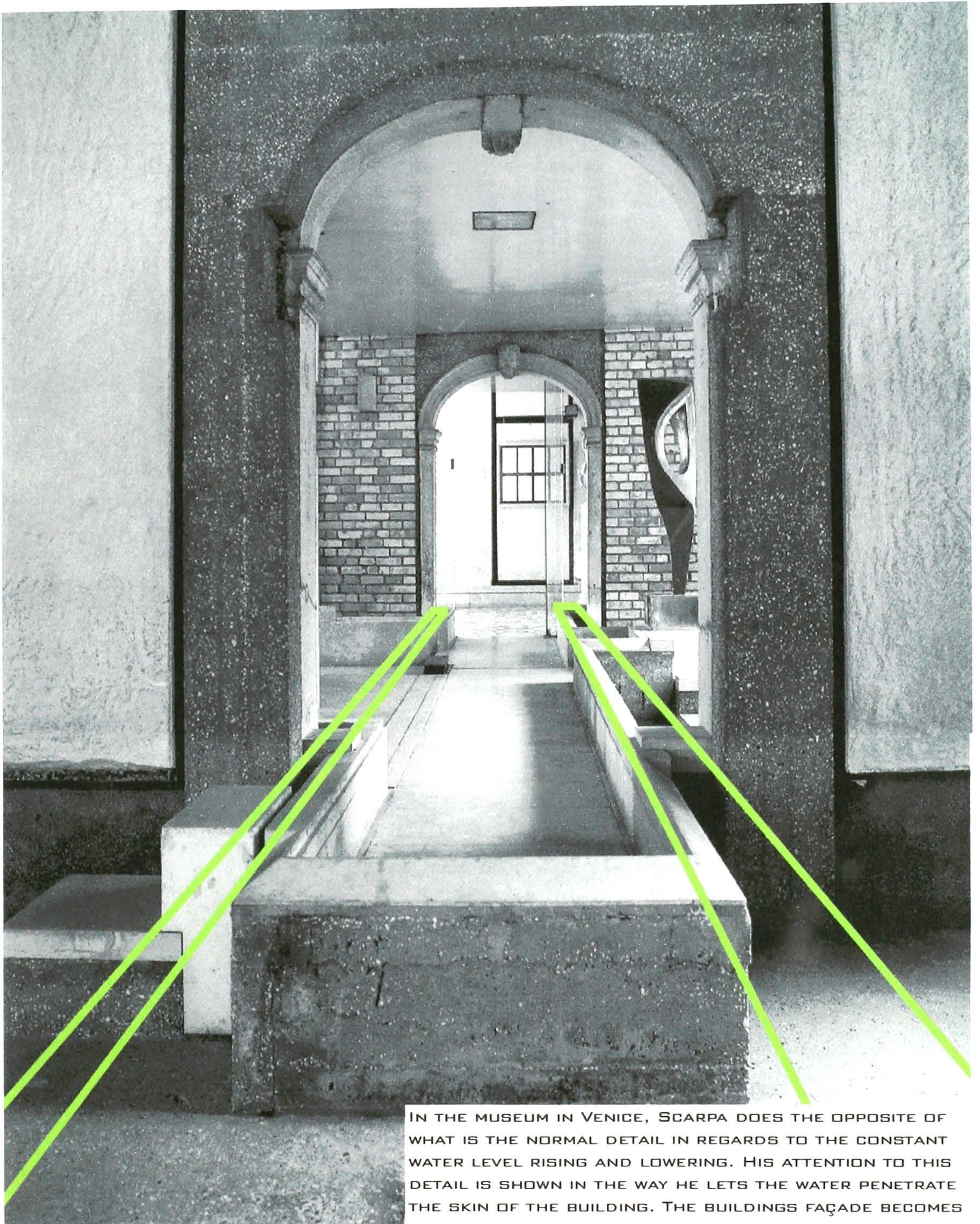
AGAIN AN EXTERIOR SHOT OF THE RAMP THAT LEADS THE USER INTO THE MUSEUM WITH FIRST SHOWING THE MUSEUM THAT RESIDES ON THE EXTERIOR ALSO. THE WHOLE SITE IS ONE THAT CONTAINS HISTORY EVERYWHERE, SO IT WAS IMPORTANT TO GIVE THE VIEWER THE OPPORTUNITIES TO EXPERIENCE THESE MOMENTS THROUGHOUT THE SITE.

THE ARCHBISHOPRIC MUSEUM OF HEDMARK
HAMAR, NETHERLANDS
ARCHITECT: SERRVE FEHN

Carlo Scarpa:
Palazzo Querini Stampalia

“See how a building inevitably establishes new identities over time”...”once acknowledged, this basic principle makes it fundamental for the architect to leave conspicuous and characteristics evidence of his own era within the historic fabric, trusting time to fuse it into a comfortable whole.”

Here Carlo Scarpa was commissioned to redesign an existing museum. The museum was located in Venice, Italy, so water was a major part of the design. Scarpa’s first new connection to Venice was by means of a new bridge, but the entrance that was most intriguing was the one that was accessible by the water only. Here Scarpa plays with the water and the different levels in which it enters the building. Like most buildings in Venice, this was one that was different in that when the water level rose, the building accepted the water instead of trying to hold it out. This new entrance stair served not only as a stair way to the main floor, but also as a measuring device when the water levels were rising. Entering the main space via bridge or waterway the person was standing on a raised surface. Scarpa played with the layering of surfaces, horizontal and vertical. The horizontal layer was pulled back from the edges; this relief between the wall and floor was to act as water moat and that of defining an edge.



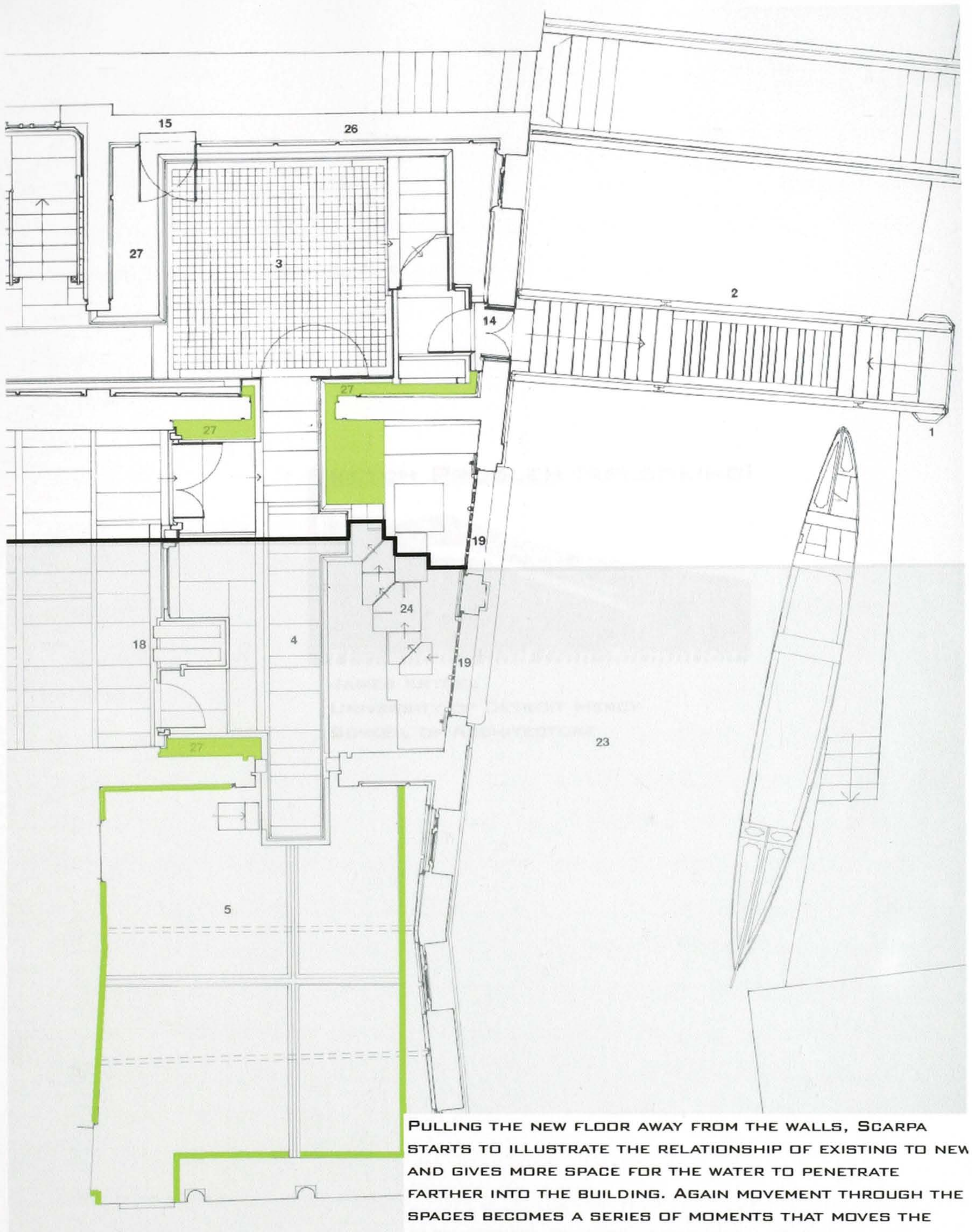
PALAZZO QUERINI STAMPALIA
VENICE, ITALY
ARCHITECT: CARLO SCARPA

IN THE MUSEUM IN VENICE, SCARPA DOES THE OPPOSITE OF WHAT IS THE NORMAL DETAIL IN REGARDS TO THE CONSTANT WATER LEVEL RISING AND LOWERING. HIS ATTENTION TO THIS DETAIL IS SHOWN IN THE WAY HE LETS THE WATER PENETRATE THE SKIN OF THE BUILDING. THE BUILDINGS FAÇADE BECOMES ONE OF PERMEABILITY, WITH MULTIPLE POINTS OF ENTRY. THE RAISED PLANE, WHICH THE MUSEUM OCCUPANTS ENGAGE WITH, IS ONE OF NEW THRESHOLDS AND UNDERSTANDING OF A NEW ELEMENT THAT HAS BEEN SLIPPED INTO AN EXISTING SPACE.



PALAZZO QUERINI STAMPALIA
VENICE, ITALY
ARCHITECT: CARLO SCARPA

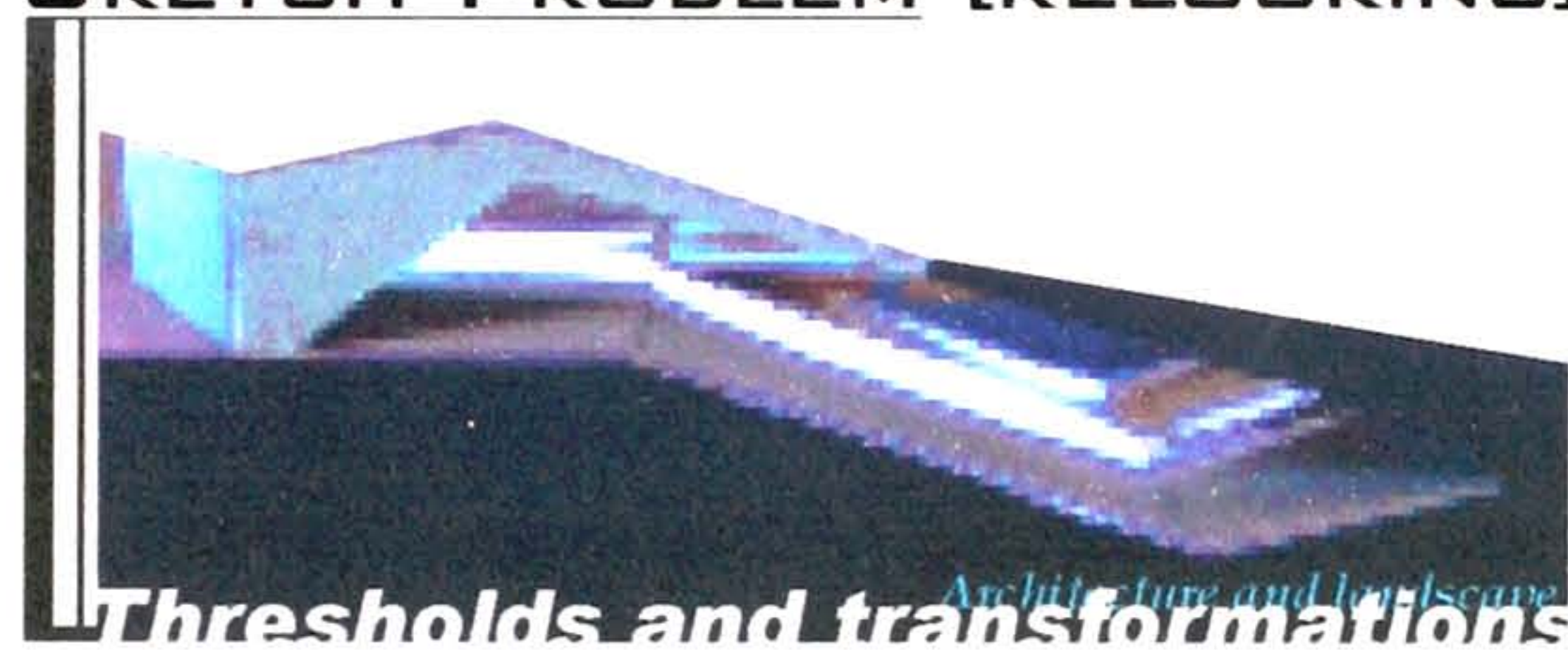
THIS SECOND POINT OF ENTRY INTO THE MUSEUM WAS MEANT TO BE USED BUT NEVER HAS BEEN UTILIZED AS AN ENTRANCE. THE IDEA THOU OF THE PROCESS INTO THE SPACE THROUGH A SERIES OF SOLID STONE THAT ACT AS A STAIR CASE THAT RISES OUT OF THE WATER WAS ONE THAT ENGAGES THE USER. THE STEPS THAT LEAD UP FROM THE WATER CONTINUED PAST THAT OF THE FIRST FLOOR LEVEL BY A STEP SO THE PERSON HAD TO STEP UP TO STEP BACK DOWN AND BECOME AWARE OF THE SHIFTING IN LEVELS. THE STAIRCASE IS ALSO USED AS A WAY TO GAGE THE WATER LEVEL WHEN THE WATERS START TO RISE IN VENICE.



PULLING THE NEW FLOOR AWAY FROM THE WALLS, SCARPA STARTS TO ILLUSTRATE THE RELATIONSHIP OF EXISTING TO NEW AND GIVES MORE SPACE FOR THE WATER TO PENETRATE FARTHER INTO THE BUILDING. AGAIN MOVEMENT THROUGH THE SPACES BECOMES A SERIES OF MOMENTS THAT MOVES THE BODY VERTICAL TO MOVE HORIZONTALLY. ENTERING INTO OTHER AREAS OF THE MUSEUM USUALLY REQUIRES THE USER TO STEP UP TO STEP BACK DOWN INTO THE SPACE.

PALAZZO QUERINI STAMPALIA
 VENICE, ITALY
 ARCHITECT: CARLO SCARPA

SKETCH PROBLEM [RELOOKING]



Thresholds and transformations Architecture and landscape

JAMES KRYGEL

UNIVERSITY OF DETROIT MERCY

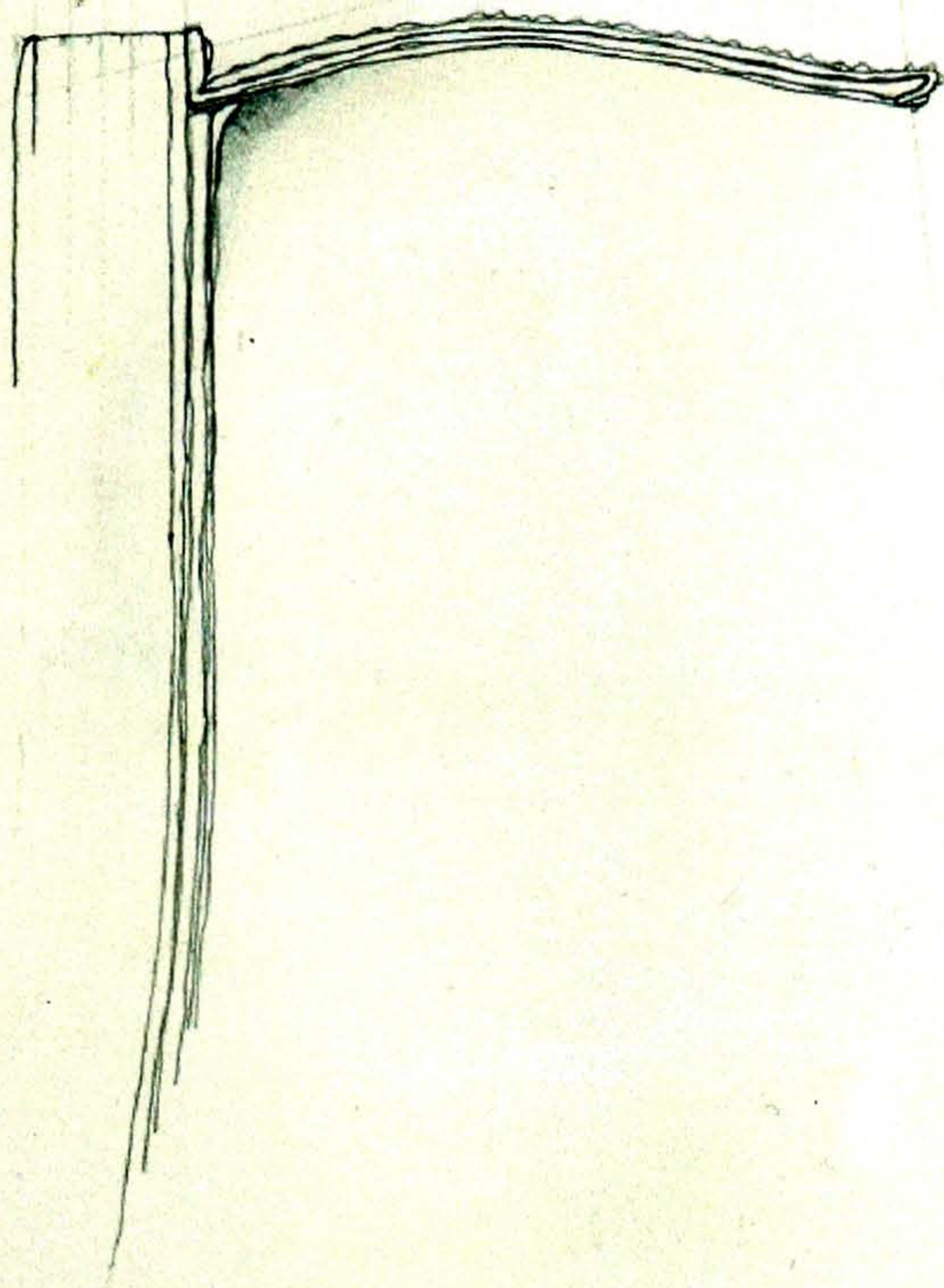
SCHOOL OF ARCHITECTURE

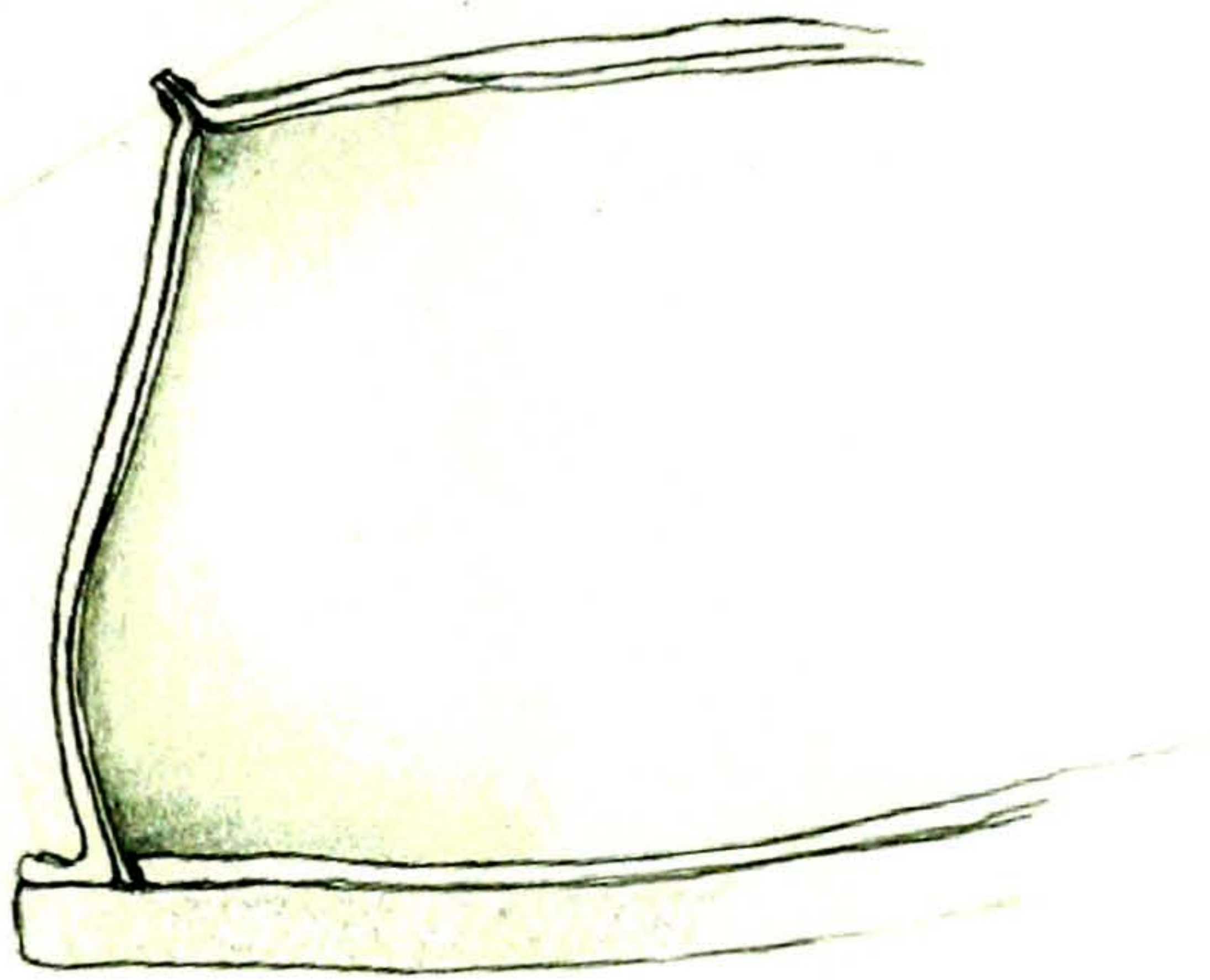
Sketch Problem

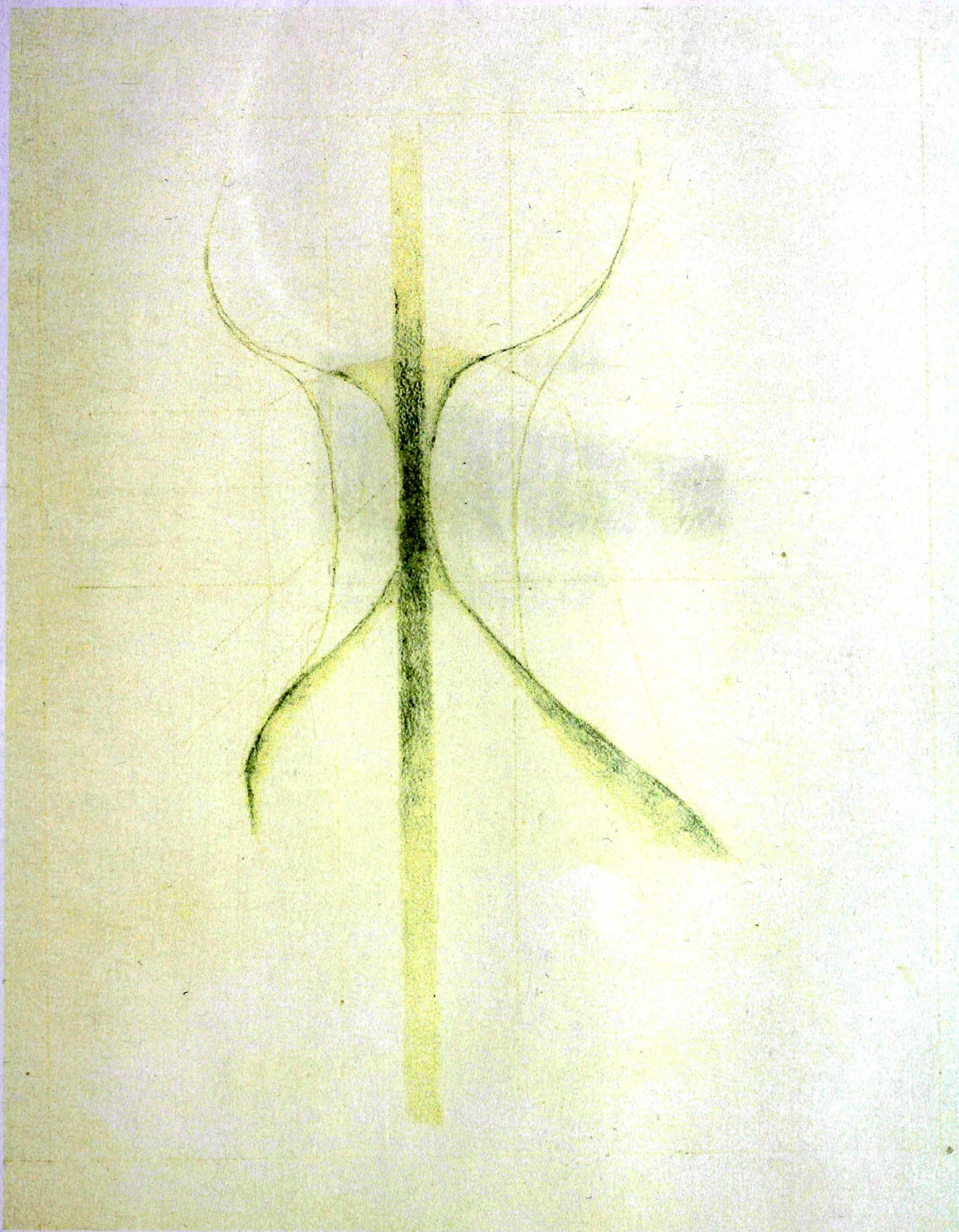
1. [Re] looking at a Shoe

For this re looking, I chose my Italian leather shoe. The shoe's craft was one that seemed to be easily understood, by means of assembly. The folds, stitches and connections were more obvious than a new sport type shoe. Thought could also be focused on the tools that make these shoes, the needles, eyehooks, and the process of construction with the hands to produce a shoe.

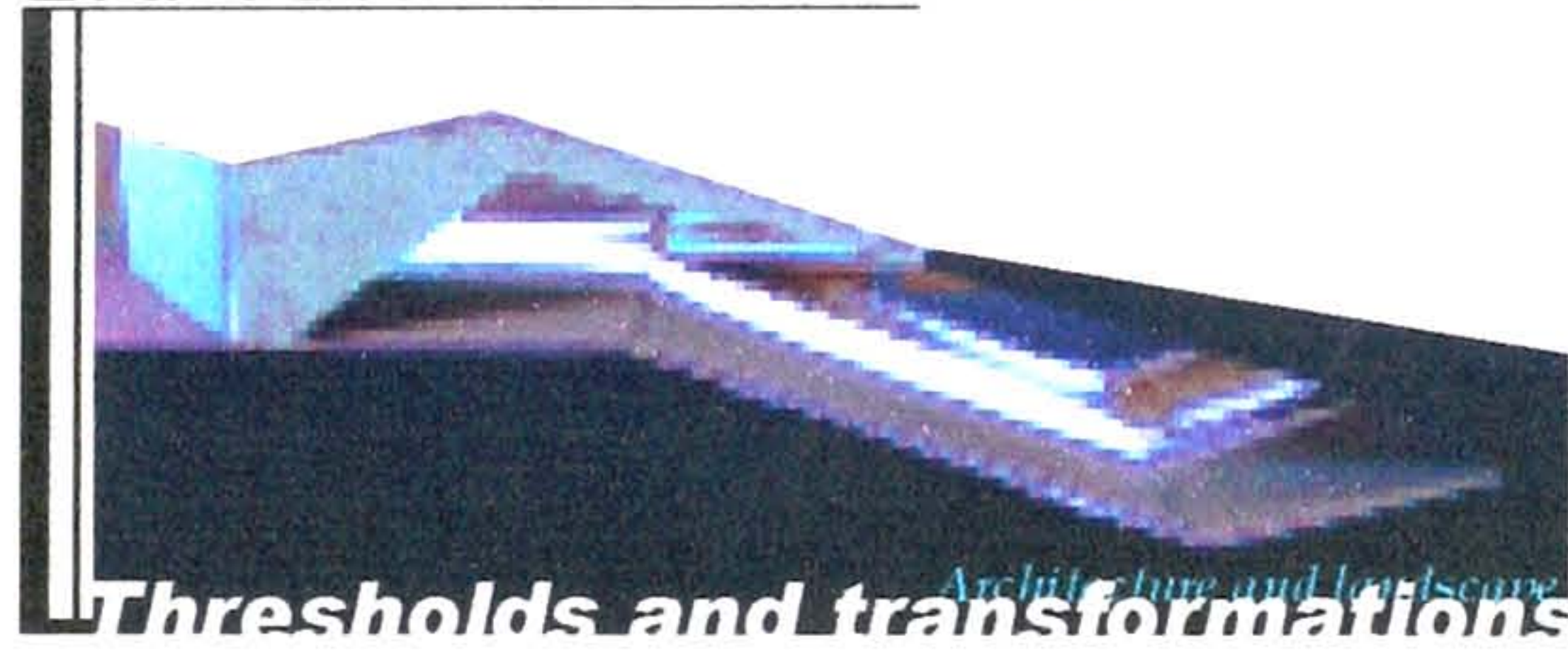
A careful eye is paid close attention to the laying out a pattern on a selected piece of material. Making sure that a lip [*fold*] is included in the design. This lip becomes important in that it is the puncture point/connection point between the pieces that are cut. First the cut pieces must be worked by hand to soften and provide a better working material. In the workshop, an aroma fills the air, a smell that truly reeks of what it is. Four pieces are eventually cut [*by hand or machine*] out to form the first half of the object. Two of the four pieces are connected by needle and thread, with another layer added to the inner-side. A third is added to the first two with the last piece being added so that it all becomes one. It is the skill and motion of the hand; needle and thread that start to give the object its individuality and level of craftsmanship. The needle puncturing in and out of the material starts to leave a trace of thread, which in turn acts as a supporting element and a design detail. Four smaller pieces of thicker weight are cut all of the same size. Assembly of these four pieces is the least meaningful. But at the same time attention must be paid to the pieces due to the fact that they are the first point of connection. At this moment, the type of material used starts to give the silent object its unique sound. The last piece is cut of the thickest stock and becomes almost an intermediate level. Again hand and needle come into play tracing around the object to make it a whole. The thread used here at this connection is considerably different due to the strain that is present over its lifetime. It is over its life that these layers get worn, scuffed, left behind and molded to our body.







CAPTURING A MOMENT



Architecture and Landscape
Thresholds and transformations

JAMES KRYGEL

UNIVERSITY OF DETROIT MERCY

SCHOOL OF ARCHITECTURE

2. Capturing a Moment.

How does one capture a moment? Does a camera do that? In thinking about our view and how we can focus our view, I started to explore ideas of depth in our field of vision. What do we see when we are 1 foot away from something, how do we perceive the space. How do we feel in a space that's within our bubble, grasp and our over all view? When do we see the brick, the mortar and brick, the edge of a window within the brick, the hole window, start to see part of the horizon, an edge, a wall, a building, a neighborhood and a city. Through measured increments a study was tested to view these relationships between the body and the building. The tool to test these measurements and assumptions was a single piece of Straw Board that remained whole beside the voids that were needed to interact with the piece and the user. There were pieces that broke away from the board to make a new connection to the straw board, this connection was one of support. The board went from horizontal to vertical in order for the user to interact with the device. The moments that were observed were that of a space that we can see only a brick, then to the brick and mortar, a piece of the wall, the edge of the wall and then its entirety. Then moving farther back more objects come into our focus, the building, the street, the neighborhood and then the city.

A SPACE THATS WITH IN OUR,
Bubble
Grasp
View



12"

5'-8"

11'-8"

25'

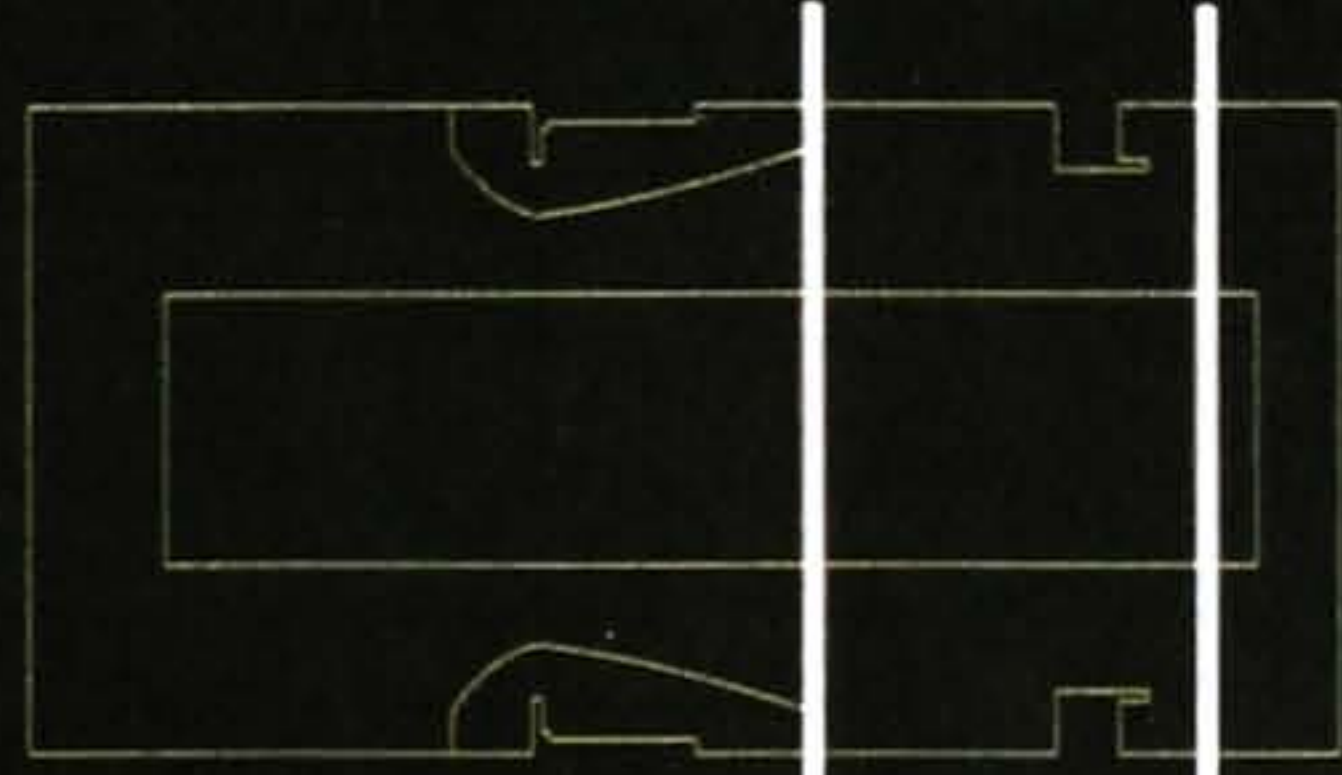
38'

60'

120'

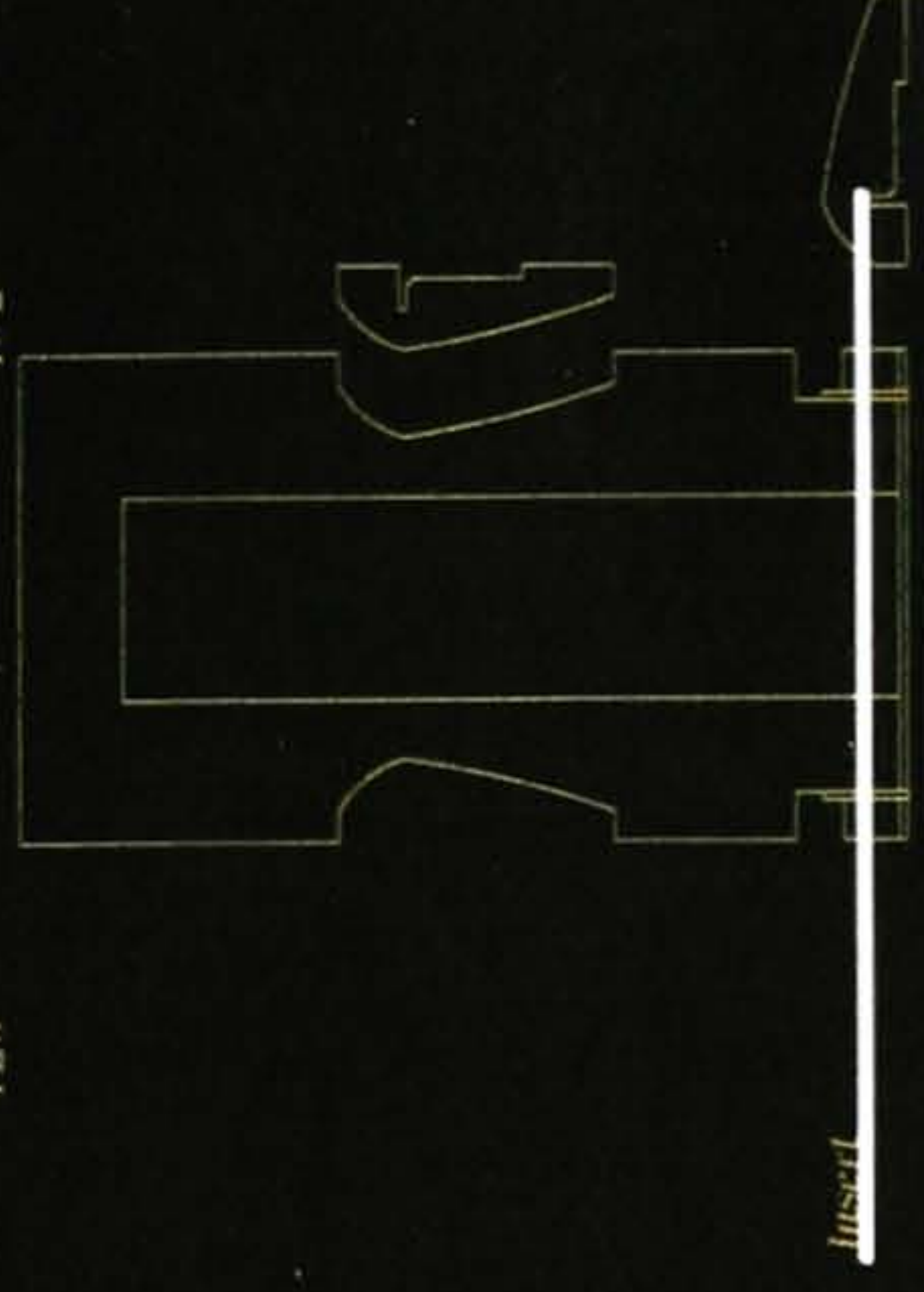
192'

CAPTURING A MOMENT.



Fixed

Fold



Fixed

SITE ANALYSIS



Thresholds and transformations

JAMES KRYGEL

UNIVERSITY OF DETROIT MERCY

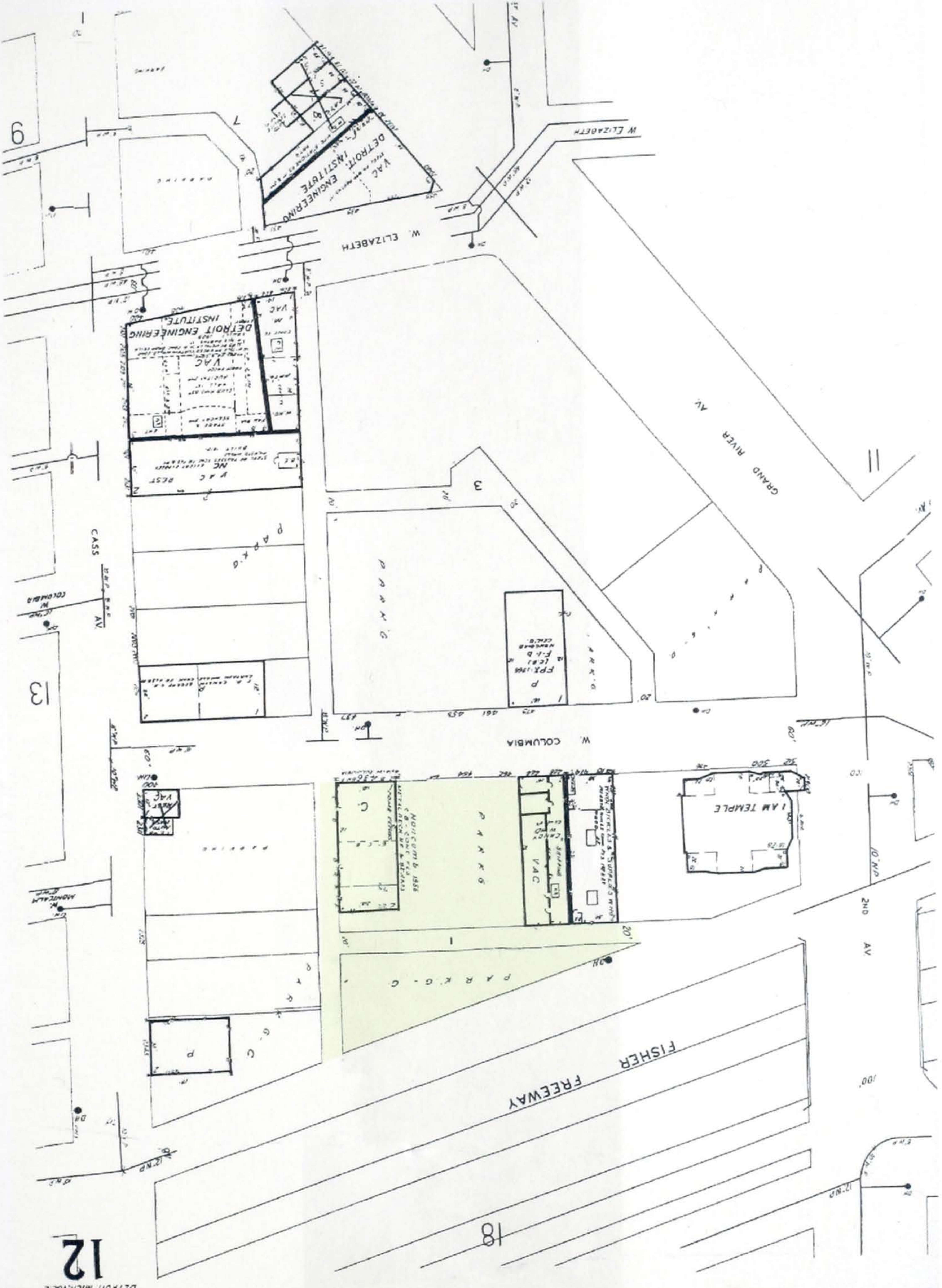
SCHOOL OF ARCHITECTURE

“The Unseen Sounds of Life”

The site that was selected for testing my investigation is located in downtown Detroit, Mi. Situated behind the Fox Theater off of Cass Avenue; the two sites are accessible off of West Columbia and the Fisher Free way service drive. The two sites are separated by a short alleyway that only services one of the three existing buildings, the alley then connects to a perpendicular alleyway, which has no purpose except passing through. The site was chosen because of its close relation to the downtown area and its remoteness, which might better suit the program. The site is made up of two abandon parking lots that are separated by the alley and a building to the west of the site is going to be used in the overall program. The existing building, a one story brick building is attached to another building to its western side, which is currently in use as a warehouse. Most of the buildings that were around this area were just that, warehouses, but most of them have been torn down, like the one that used to be on the major portion of the site which is now the parking lot. The existing building actually when first built was a popcorn distributor for the local movie theaters, a perfect location with so many theaters so close by. The site location behind the Fox Theater, almost gives the feeling as no mans land. The site has a presence of emptiness, nothing is ever happening; the street never sees traffic, or even an automobile. The only signs of life are that of a car that is usually parked across the street at a Baptist Church.

The sounds of the site. Being a site of little to no activity there is a constant reminder that there is life, to the west of the site. This reminder of life comes in the form of the “unseen sounds of life”, the automobile on the Fisher Freeway. The almost constant rhythm gives

the site a quality of life, a trance of relaxation. This trance almost can be thought of as a waterfall, having a claming quality to its constant presence. Like a waterfall, the freeway sounds are stronger to the northwest end of the site and walking to the east these sounds start to fade, as if one was walking away from the fall. The differences between the freeway and the waterfall in this case are the constant shift in the tempo, and highs and lows. A waterfalls sounds tends to be a constant, like the flow of water, where freeway sounds vary depending on the time of day, types of vehicles and whether a automobile has just traveling under an overpass, amplifying the sound. A motorcycle would be a high note down the submersed road, and a trailer truck would be one of more bassy tones. The sounds that are heard on the site on the pedestrian level are unseen, but as a structure is built, the vessel, the people who occupy the building will be able to make the connection through visual interpretation. The type of work that is going to take place on the site will respond back to the passing automobile sounds, the building will produce sounds of the working on of cars, the noise of air wrenches, metal working, hammering on metals to form pieces, all of these sounds will be made on the or in connection to the automobile. The connection between the two sounds that are produced give the site and its users to have an interaction with the building and surrounding that is forgotten and looked down in most cases in building so close to freeways.



12
DETROIT MICH. VOL. 2

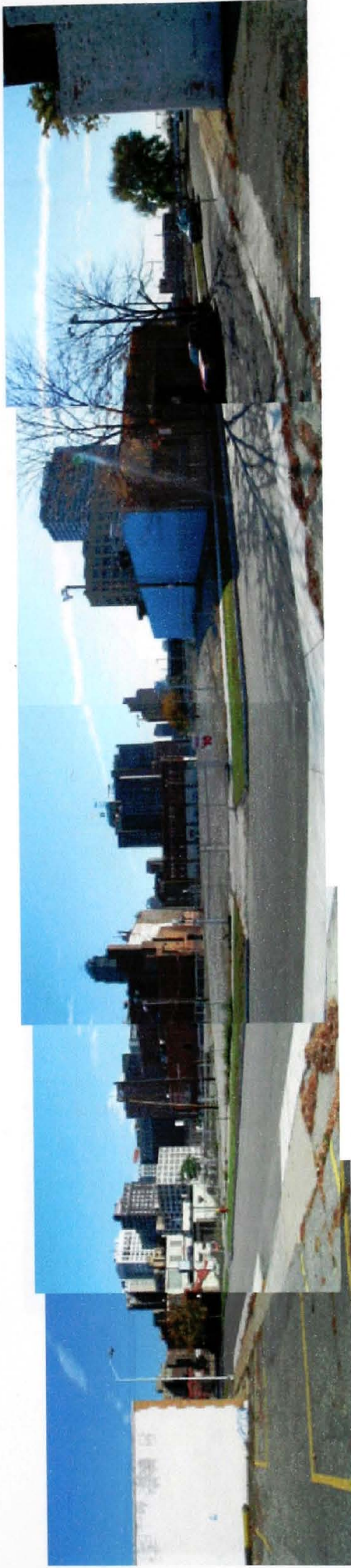
Site
Analy

Sandborn



● **Site**
Analysis

panorama 1.

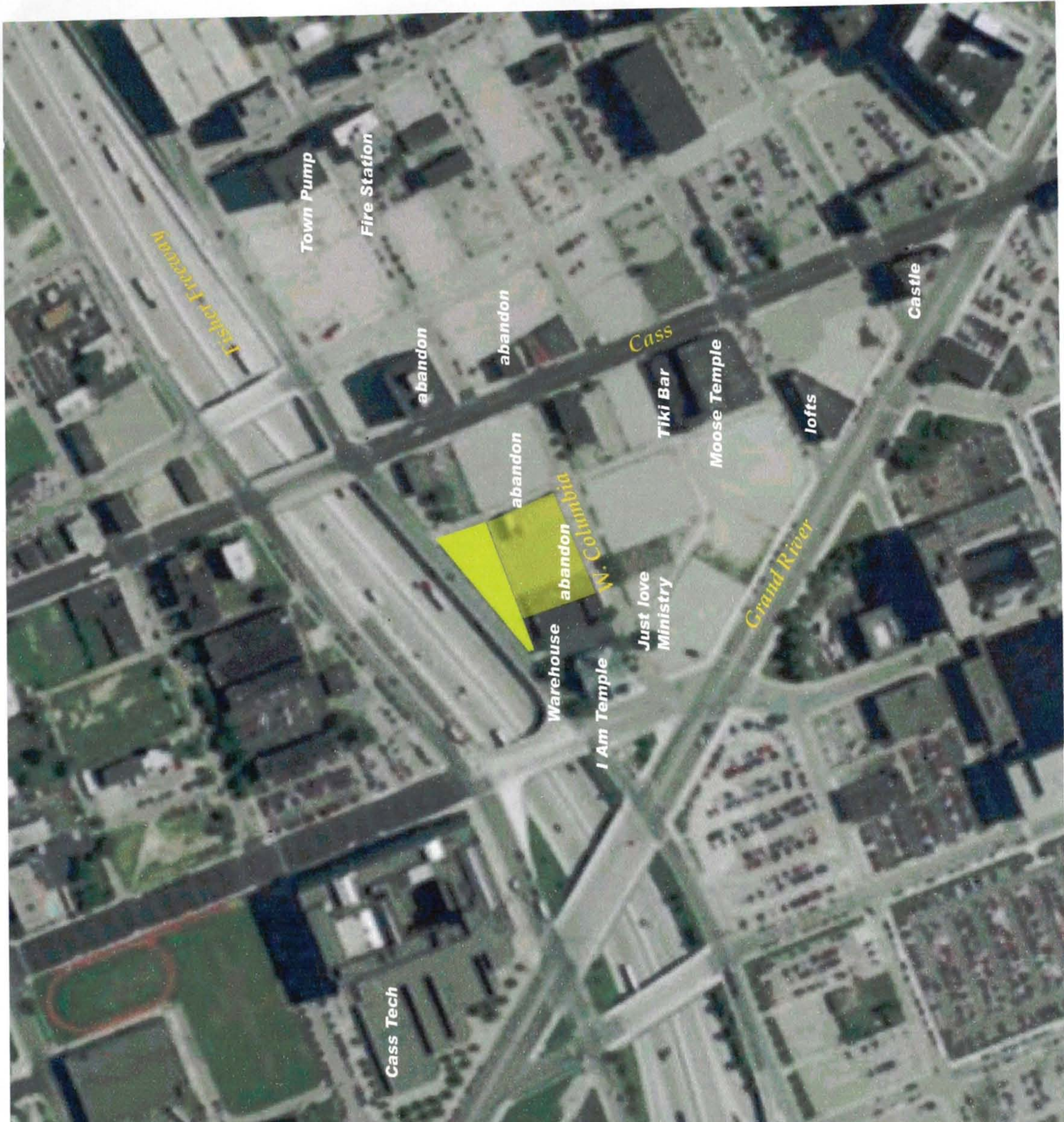


 **Site**
Analysis

panorama 1.



What is
that ?




Site
Analysis

The city.

The unseen
Sounds
of life

● **Site**
Analysis

panorama 3.



THE SOUNDS ON THE SITE. BEING A SITE OF LITTLE TO NO ACTIVITY THERE IS A CONSTANT REMINDER THAT THERE IS LIFE, TO THE WEST OF THE SITE. THIS REMINDER OF LIFE COMES IN THE FORM OF THE "unseen sounds of life", THE AUTOMOBILE ON THE FISHER FREEWAY. THE ALMOST CONSTANT RHYTHM GIVES THE SITE A QUALITY OF LIFE, A TRANCE OF RELAXATION. THIS TRANCE ALMOST CAN BE THOUGHT OF AS A WATERFALL, HAVING A CLAIMING QUALITY TO ITS CONSTANT PRESENCE. LIKE A WATERFALL, THE FREEWAY SOUNDS ARE STRONGER TO THE NORTHWEST END OF THE SITE AND WALKING TO THE EAST THESE SOUNDS START TO FADE, AS IF ONE WAS WALKING AWAY FROM THE FALL. THE DIFFERENCES BETWEEN THE FREEWAY AND THE WATERFALL IN THIS CASE ARE THE CONSTANT *shifts in the tempo*, AND HIGHS AND LOWS. A WATERFALLS SOUNDS TENDS TO BE A CONSTANT, WHERE FREEWAY SOUNDS VARY DEPENDING ON THE TIME OF DAY, TYPES OF VEHICLES AND WHETHER A AUTOMOBILE HAS JUST TRAVELING UNDER A OVERPASS, *amplifying the sound*. A MOTORCYCLE WOULD BE A HIGH NOTE DOWN THE SUBMERSED ROAD, AND A TRAILER TRUCK WOULD BE ONE OF MORE BASSY TONES.

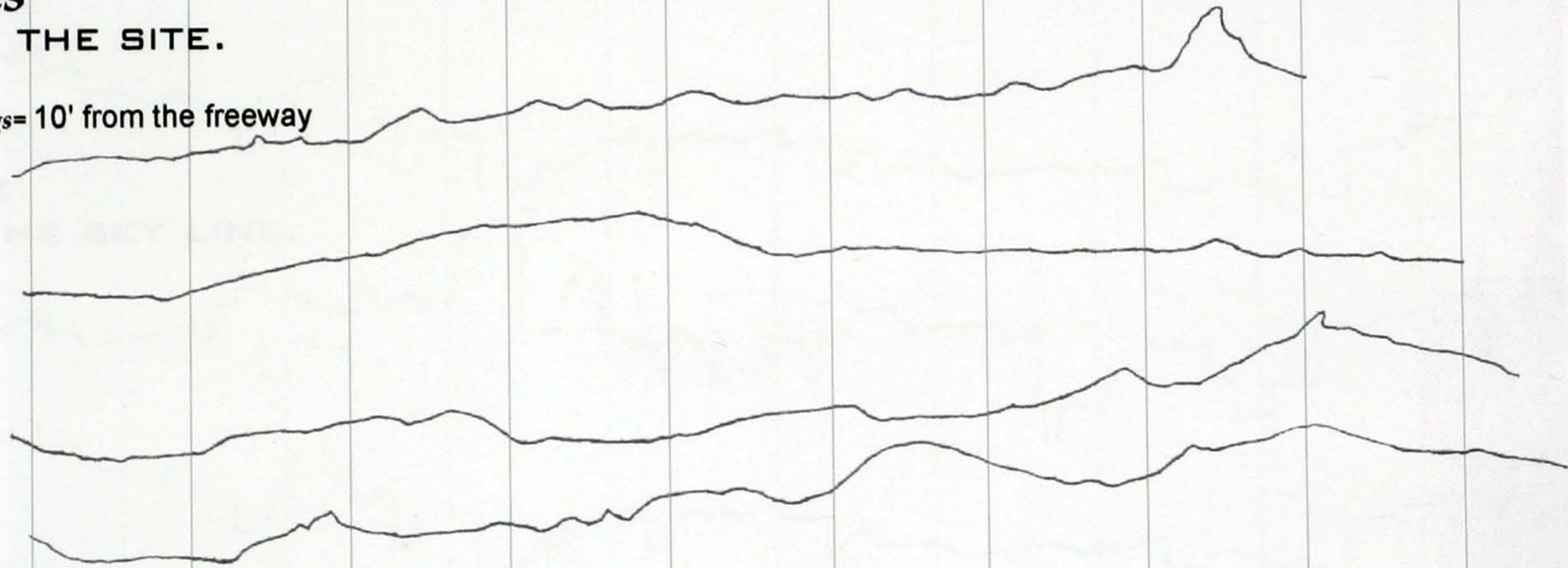


Site
Analysis

sound on site.

THE
Sounds
OF THE SITE.

First 4 recordings= 10' from the freeway



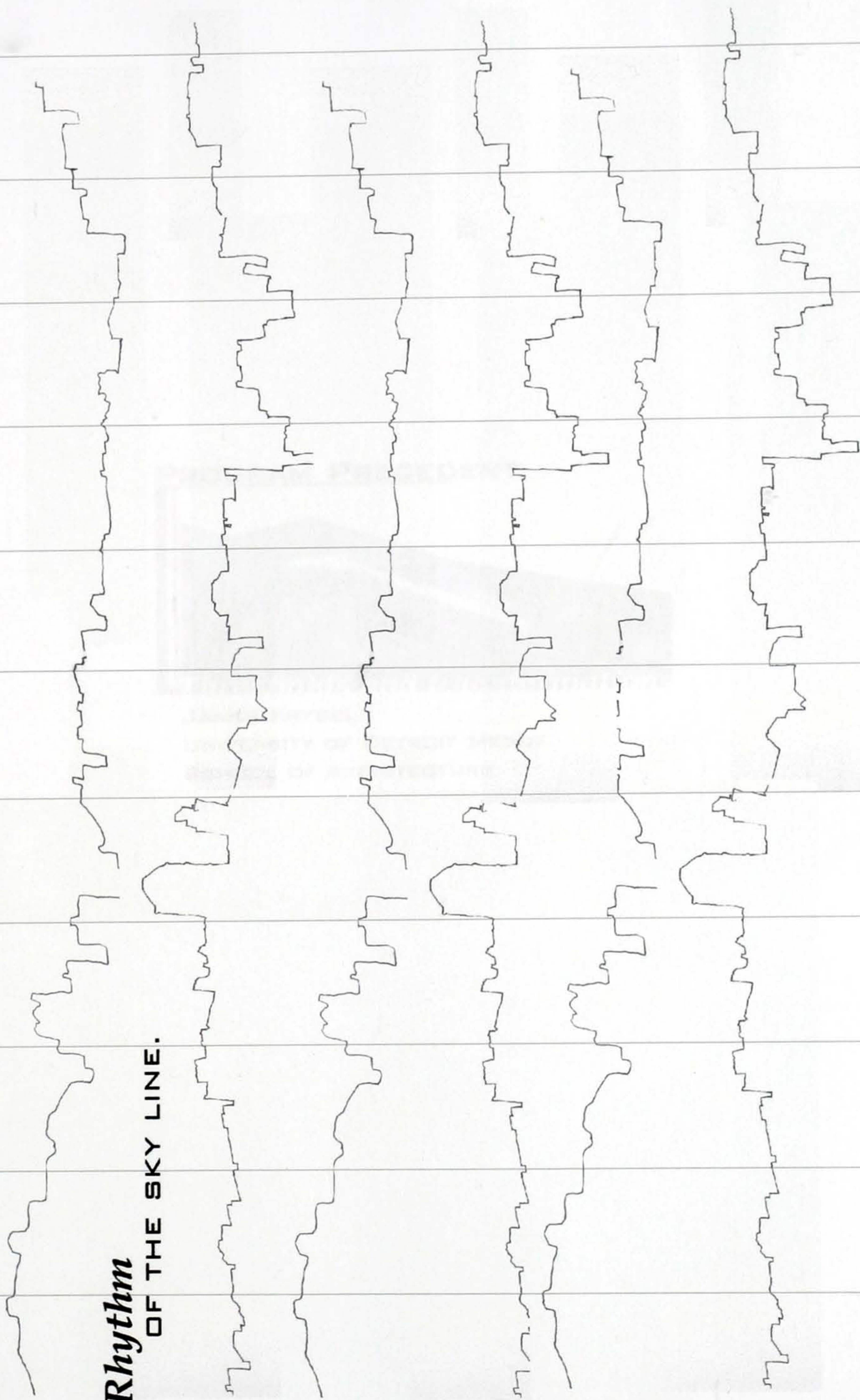
Second 4 recordings= 220' from the freeway



● **Site**
Analysis

sound study2.

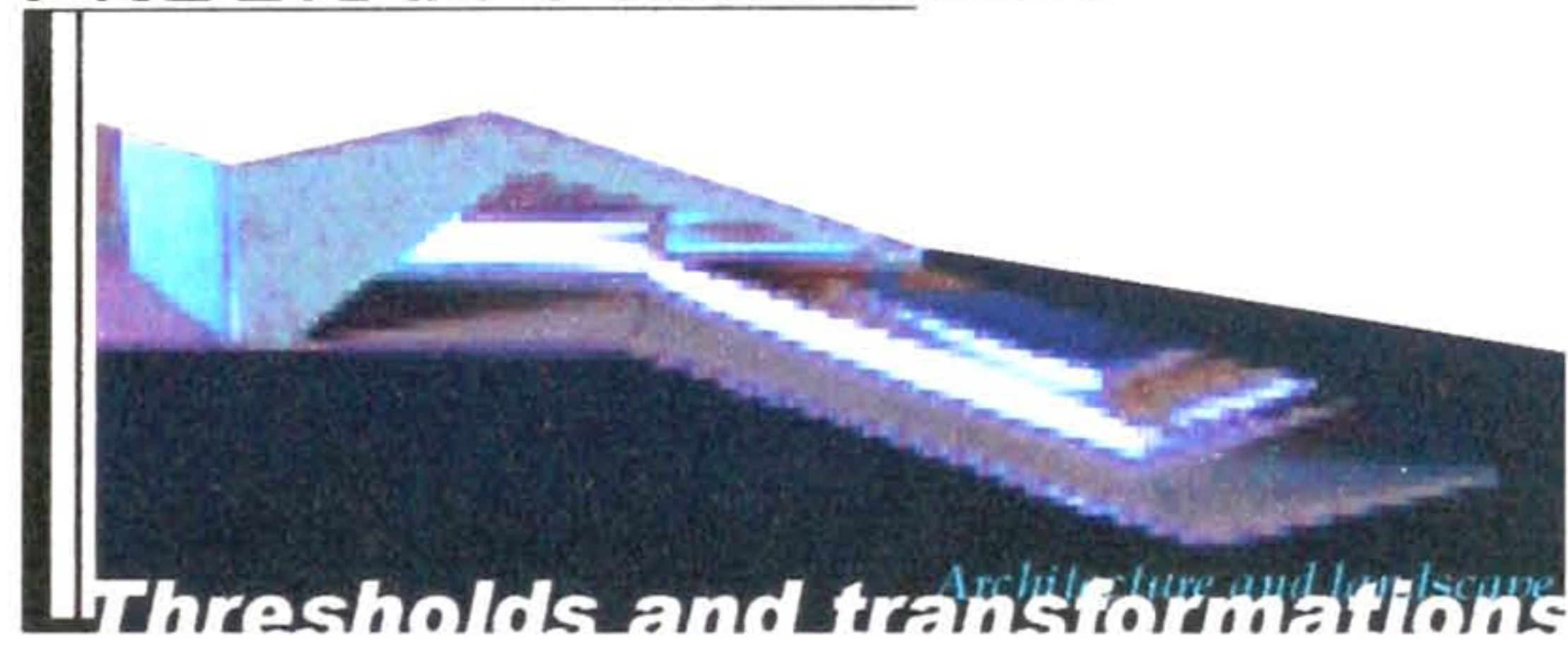
THE Rhythm
OF THE SKY LINE.



Site
Analysis

sound study1

PROGRAM PRECEDENT



Thresholds and transformations Architecture and Landscape

JAMES KRYGEL
UNIVERSITY OF DETROIT MERCY
SCHOOL OF ARCHITECTURE



Split, *tokyo*

Program Precedent

*Project: Split, 8 unit
Apartment building*

Architect: Chiba Manabu Architects

through the courtyard and the exterior staircase. The
courtyard offers paths giving a brief connection to the
the street. The courtyard is a simple space that offers
parking with automobile parking to the northern side of
similar to what I am looking at in terms of the market
plan with small outdoor spaces supports the size of the program. The program
affected the design, the kitchen space is very small and historic. A size of the
housing on my site will have to be even more open to the park.

Program Precedents:

Project: Split, Eight-Unit Apartment Building
Architect: Chiba Manabu Architects
Location: Tokyo

“Architecture is a tool for forging connections between the glitches, gaps and cul-de-sacs that create a network of vacant spaces responsible for Tokyo’s unique urban fabric”, Chiba. The project is an eight-unit rental apartment building that also incorporates on site the landlords housing. Here he divides the two programs up into block volumes that are separated by a 23-foot wide courtyard that also acts as a visual connection to the surrounding conditions. This project looks at similar issues that I am exploring in terms of public vs. private spaces in living environments. Chiba views sleeping, living and working spaces as pieces that require a level of privacy and these functions in the apartment where given minimum outside exposure. The act in the house, which only occupies our body for only a brief moment, is that of the stair, we move quickly up and down. This moment is where he brings outside light in and creates a connection to the courtyard. The rental units have been designed to offer tenants the ability to assign their own function of spaces besides that of the kitchen and bathroom. This is done because of the careful consideration of what is public and what is private in an apartment. The moving of all private functions to one side offers the ability for open plans and freedom of interior space movement. Chiba wanted each apartment to have two types of spaces, one for movement and one for stationary activities. The units have a smaller second level where perhaps the stationary act could take place if the renter sees fit. Each 500 square foot unit is accessible from a main corridor that is off the outside staircase. The basic components on the site are two separate dwellings, the connection between the two are through the courtyard and the exterior staircase. Here both staircases from landlord and tenants cross paths giving a brief connection to the other side while walking up or down the stair. The courtyard is a simple space that consists of three trees and outside bike parking with automobile parking to the northern side of the site. The program size is very similar to what I am looking at in terms of the student housing on my site. A compact plan with multi usable spaces supports the size of the program, plus cultural differences affected the design, the kitchen space is very small and hidden. Some elements in the housing on my site will have to be even more open to the plan.

Program:

Apartments:

Living/ dinning	15'x 10'
Kitchen	5'x 8'
Terrace	1@ 8'x 4', 1@ 6'x 4'
Bedroom	10'x 12'
Bathroom	8'x 9'
Hallway/ stairway	
Storage	4'x 6'

Total square footage: 500

Landlords Residence:

Living/Dinning	15'x 15'
Kitchen	15'x 10'
Terrace	10'x 8'
Study	15'x 8'
Bedroom	2@ 15'x 12'
Bathroom	8'x 9'
Hallway/stairway	
Storage:	2@ 12'x 6'

Total Square footage: 1,150

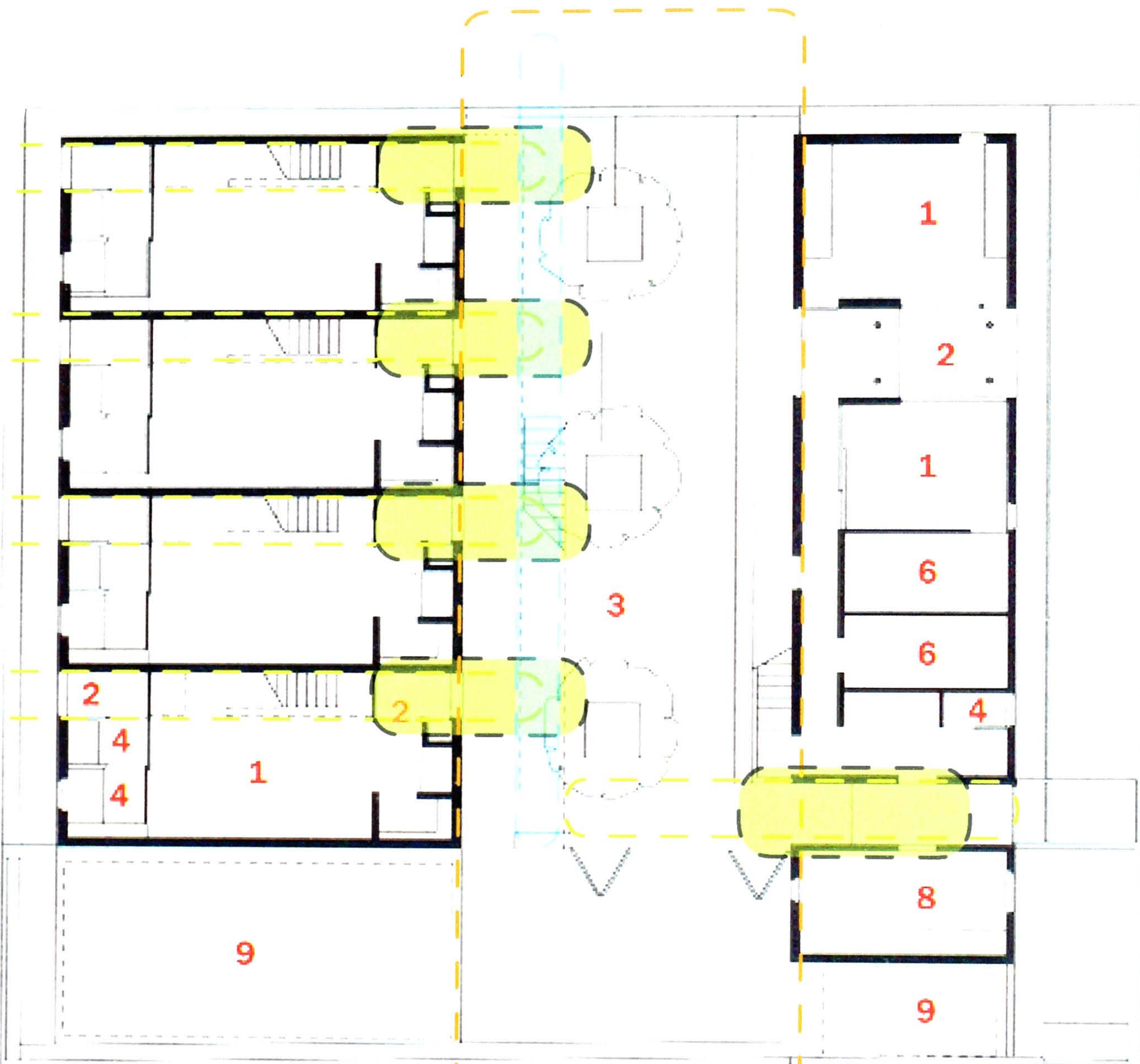
Courtyard:

Bicyclical Storage:	20
Trees:	3

Parking:

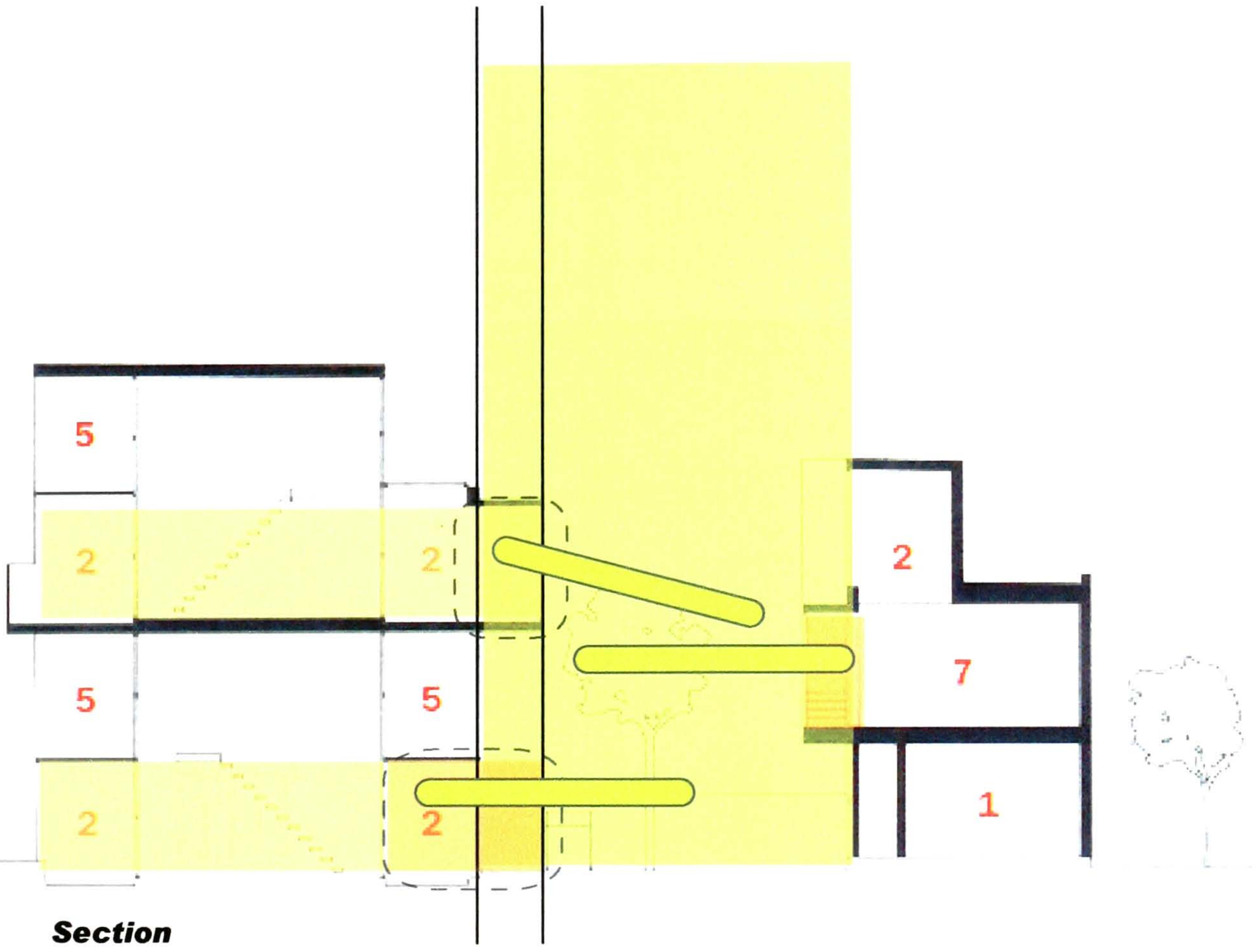
Eight spaces for each unit
One space for landlord

Total parking: 9 spaces

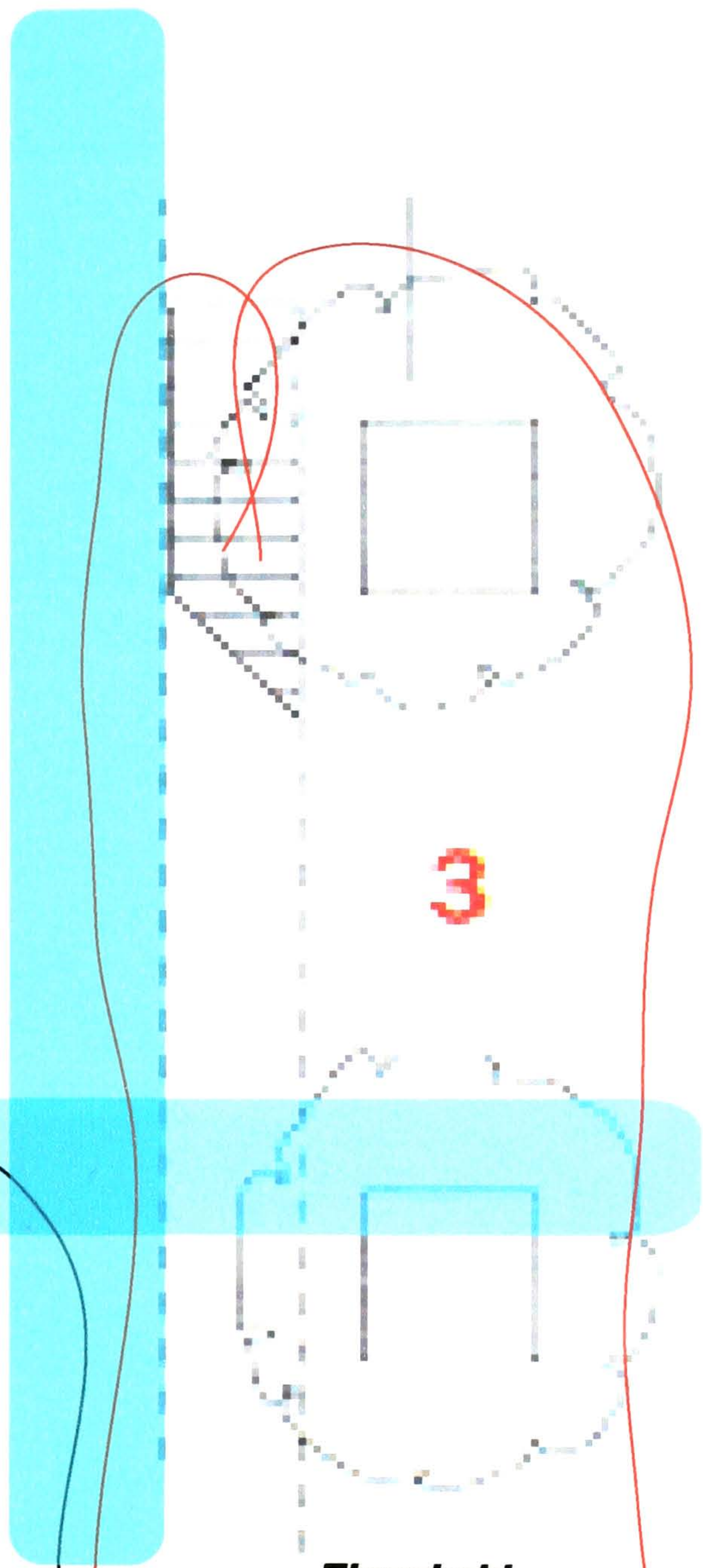
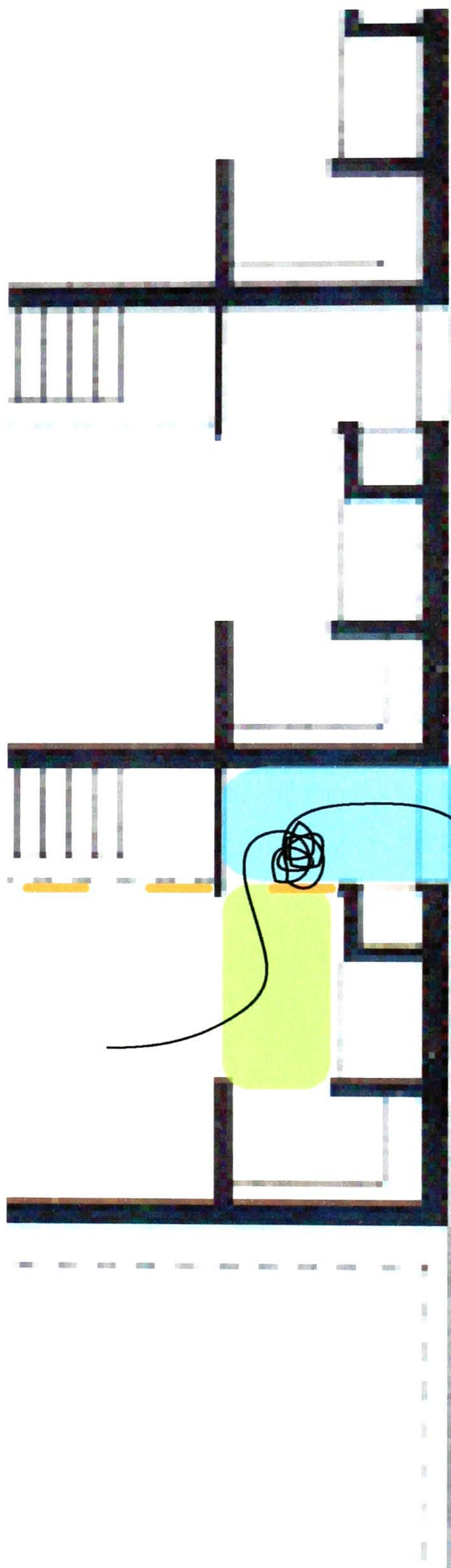


Ground Floor



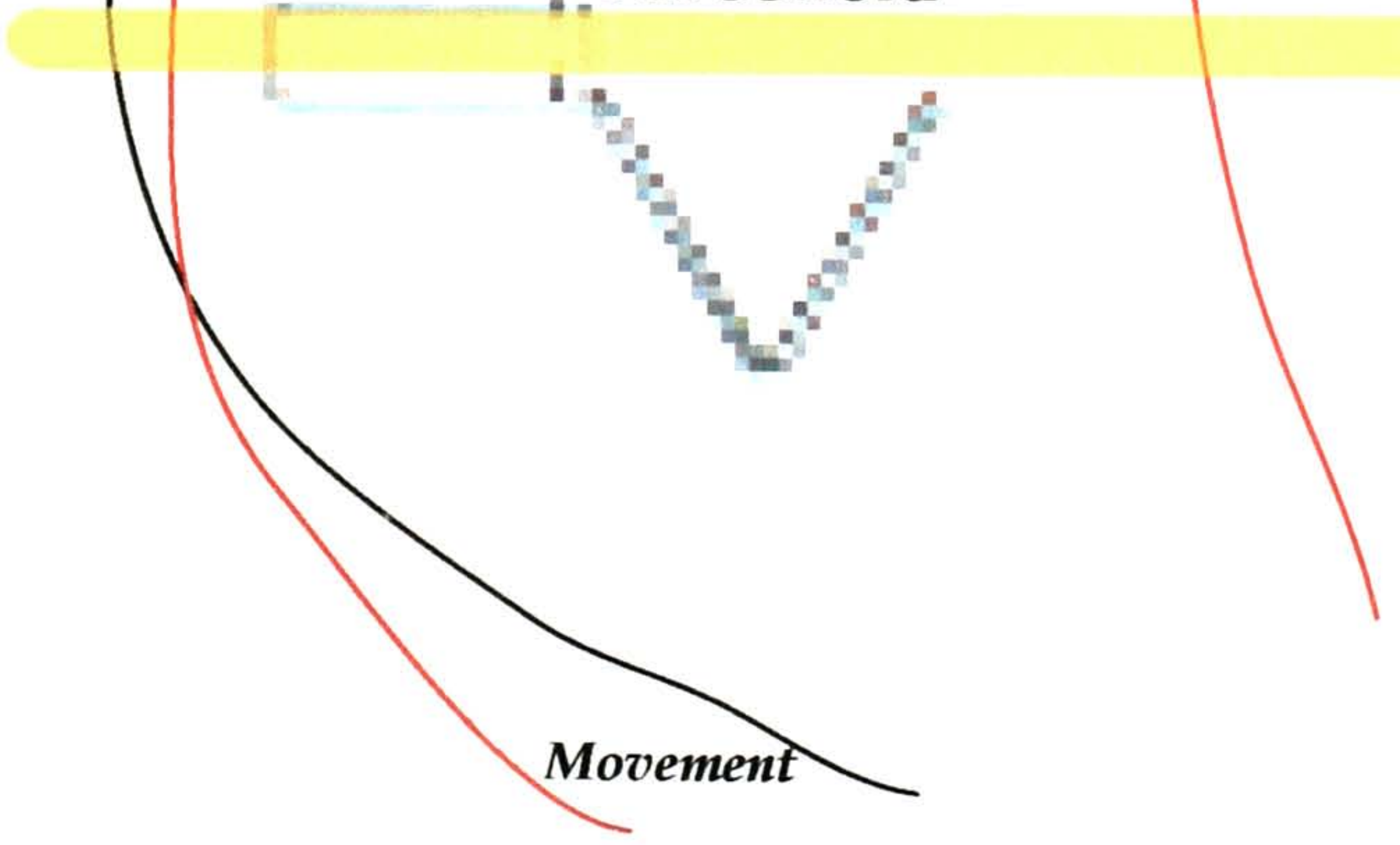


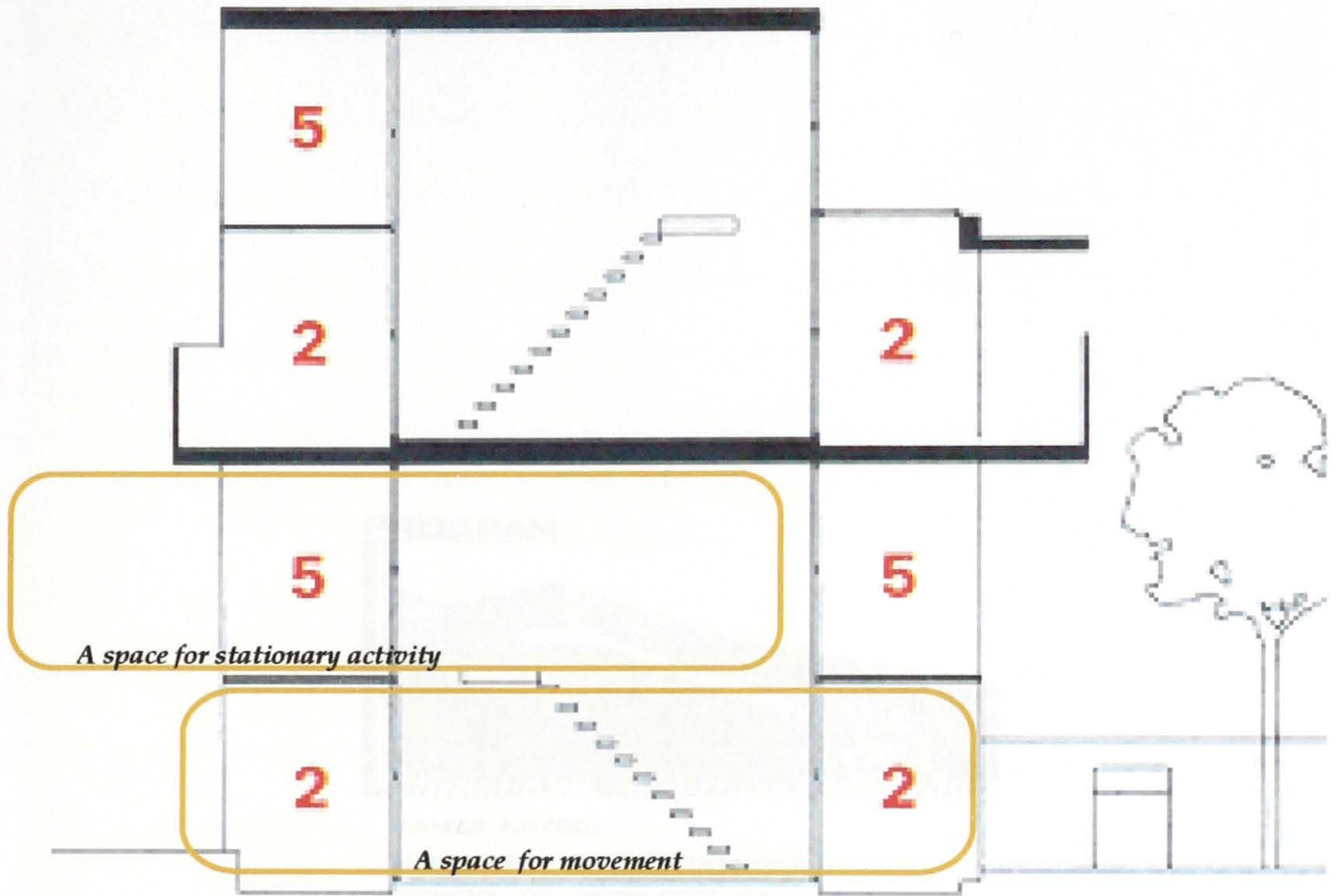
Threshold



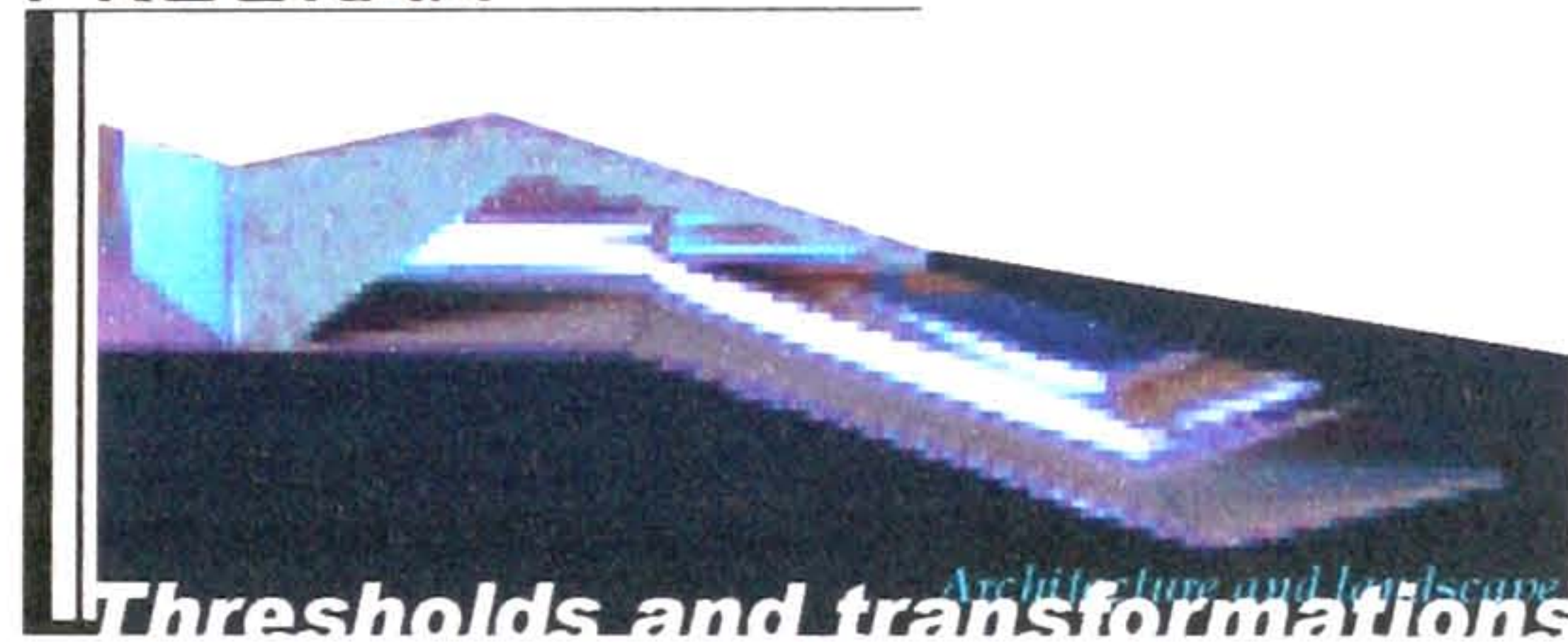
Threshold

Movement





PROGRAM



Thresholds and transformations Architecture and landscape

JAMES KRYGEL

UNIVERSITY OF DETROIT MERCY

SCHOOL OF ARCHITECTURE

Intro:

The ability to transform a standard element into a customized product is the goal of the program. The idea of taking automobiles and customizing them to become more of a personal expression for customers is done through a learning experience with students getting the chance to work on real projects. The program is a building that offers people that are interested in a lifestyle of automobiles the chance to learn and live next to their work. The ability to give students a chance to jump back into their work is express to help fuel the desire of this passion they have about this type of profession. The program offers students a chance to learn multiple forms of automobile customization. The building becomes the process of moving a car through this transformation with every floor offering a different learning experience. The first floor begins with classrooms and audio modifications, the third floor offers engine and mechanical modifications, and the fourth floor deals with exterior modifications and automotive painting. The idea of live work on the site is done through housing that is relatively small in size with the ability of easy transformation of interior spaces. With students living on the site, this enables them the chances to interact more with other people who are interested in a life of this nature, and gives them the opportunities to jump back into work and have a constant reminder of why they are there. The site needs to have parking for cars that are currently being worked on and parking for students and teachers parking. There needs to be spaces for people who are interested in bringing in their car, a front entrance. There should be a separate entrance for people that are dropping off their car and another point where people come to pick up their car after it has traveled through the shop and is ready to drive away.

Program Quantitative Summary:

The program will be broke down into four parts, the auto garage, the housing on the site, the existing structure with offices and parking.

Auto Garage: located on the triangular part of the site: total sq.ft. = 10,625

Each floor will be broke down into there basic functions.

First Floor:

Offices: 4@	225 sq ft.	= 900 sq.ft.	
Conference room: 1@	375 sq ft.	= 375 sq.ft.	
Customer drop off: 1@	240 sq ft.	= 240 sq.ft.	
Classroom/ Lecture: 1@	1500 sq ft.	= 1500 sq.ft.	
Smaller Classrooms: 2@	320 sq ft.	= 640 sq.ft.	
Automotive elevators: 2@	180 sq ft.	= 360 sq.ft.	
Bathrooms: 2@	64 sq ft.	= 128 sq.ft.	
Total:		4143sq ft.	net sq. ft. = 4971

Second Floor:

Offices: 2@	144 sq ft.	= 288 sq.ft.	
Smaller Classrooms: 2@	320 sq ft.	= 640 sq.ft.	
Bathrooms: 2@	64 sq ft.	= 128 sq.ft.	
Washrooms/ lockers: 1@	1000 sq ft.	= 1000 sq.ft.	
Computer space: 1@	280 sq ft.	= 280 sq.ft.	
Total:		2336 sq ft.	net sq.ft. = 2803

Third Floor:

Engine/ mechanical modifications:	13500sq ft.	= 13500 sqft.	
8-10 car lifts			
Space around lifts			
Drivable space			
Bathrooms: 2@	64 sq ft.	= 128 sq.ft.	
Storage: 2@	400 sq ft.	= 800 sq.ft.	
Total:		14428sq.ft.	net sq.ft. = 17313

Fourth Floor:

Exterior auto modifications: 1@	2700 sq ft.	= 2700 sq.ft.	
Auto painting: 1@	1000 sq ft.	= 1000 sq.ft.	
Smaller paint rooms: 2@	144 sq ft.	= 288 sq.ft.	
Prep room: 1@	1000 sq ft.	= 1000 sq.ft.	
Bathroom: 2@	64 sq ft.	= 128 sq.ft.	

Total: 5116 sq ft. net sq.ft. = 6139

The Student housing, offices and parking are on the remainder of the site
Total sq ft. = 18,200 Total net square feet = 21,840

Student Housing:

Apartments: 10@

Living	200 sq ft.
Kitchen	80 sq ft.
Sleeping	140 sq ft.
Bath	64 sq ft.

Total: 484 sq ft. net sq.ft. = 580

Parking:

Space for customers: # of spaces	3
Space for students: # of spaces	10
Space for teachers: # of spaces	10
Delivery parking: # of spaces	1
Car drop off area: # of spaces	1
Total:	<u>25</u>

Space detail Sheet:

The Auto Garage:

<u>Space Name:</u>	<u>Offices</u>
Capacity:	5 persons
No. Units:	4
Square ft. per Unit:	140 sq. ft
Total Net Area:	<u>560 sq. ft.</u>

Purposes:

-The four offices are for the meeting between client, student and teacher. Here a discussion takes place on what is the overall goal of this transformation of the client's automobile.

Spatial Relationships:

-The offices should be related to the area where a customer dropping of their car. This space needs to have a watchful eye over the entrance to the site to give both the workers and the customers viewing over the car that would be parked on the first level.

<u>Space Name:</u>	<u>Classrooms</u>
<u>Capacity:</u>	<u>20 persons</u>
<u>No. Units:</u>	<u>5</u>
<u>Square ft. per Unit:</u>	<u>550 sq. ft</u>
<u>Total Net Area:</u>	<u>2750 sq. ft.</u>

Purpose:

-The classrooms in the building are for the students on site. The rooms are geared toward a more personal level, smaller number of students for more interaction with the teacher. The learning can vary from all the students learning a particular process, or a few students wishing to learn about a certain method that can be taught at this school.

Spatial Relationships:

-Most of the classrooms will be situated on the second floor. The students will take the same process of going to the shop but a change in direction in the locker room will lead them to a small outside bridge that leads back inside where the classrooms are situated. On this floor the students have access to a lounge and computer stations where they can check email and learn about new automotive products.

Considerations:

-All the classrooms are to be facing the east side of the building where the wall is faced in a translucent glass. Here student will not be able to see out, but perhaps would see the outline of a car moving up or down the ramp which raps around the space.

<u>Space Name:</u>	<u>Locker room</u>
<u>Capacity:</u>	<u>25 persons</u>
<u>No. Units:</u>	<u>1</u>
<u>Square ft. per Unit:</u>	<u>600 sq. ft</u>
<u>Total Net Area:</u>	<u>600 sq. ft.</u>

Purpose:

-This space is a critical point in the transition between live and work. The process leads the students into the locker room to change from one form to the next. If a student was to be going from work to live, the process back down the stair the down the hall to the wash station along the wall. This wash station becomes the cleansing point, the washing of the hands. Next would be the putting away the greasy jump suit into the lockers.

Spatial Relations:

-This space located on the second floor needs to be closely related to the student housing and the third floor garage. The locker room has two possible paths of travel, one being to the stair case which leads to the garage and the other leads to the second floor classrooms.

Considerations:

-The point of cleansing, a long space before enter the locker room coming from the garage is to be one of purity and cleanliness. The space would be lit from the back with a translucent glass wall to show the shadows of the persons using the garage while they are washing their hands.

<u>Space Name:</u>	<u>Garage</u>
<u>Capacity:</u>	<u>20 persons</u>
<u>No. Units:</u>	<u>1</u>
<u>Square ft. per Unit:</u>	<u>13500 sq. ft</u>
<u>Total Net Area:</u>	<u>13500 sq. ft.</u>

Purpose:

-The third floor encompasses the purpose of the whole program, a space to learn about the workings of and tuning of automobiles. The garage is to have 10 bays for car lifts that are free standing. Every two-work stations share a folded bench and a space for tools underneath. Off to the back of workstations there is one engine building space. This simple space has large working surfaces to lay parts out with storage behind for tools and manuals. Also on the east side, a large area for parts storage. Basic rows of shelving at different width to accommodate various size parts.

Spatial Relations:

-The process of arriving at this level is one of ascending on the staircase and you start to see the shop, as you get closer to the top of the floor. The garage will have a relation to the outside through sounds. The freeway gives off sounds and when the large garage doors are open, sounds of cars revving their engines can be funneled out onto the site. The feel for the floor is cleanliness meets automotive. The grime associated with most garages would be not as evident due to the nature of the work, tuning and not repairing. The space wants to have an open quality for encouraging students to learn from others and to let light filter through out the site.

Considerations:

-The idea of funneling the sounds back onto the site is through the garage doors. The doors fold up at each bay, giving each student exposure to the outside. The idea is that when all the doors are open, the façade will have an shifting surface that corresponds with each student.

<u>Space Name:</u>	<u>Paint booth</u>
<u>Capacity:</u>	<u>2 persons</u>
<u>No. Units:</u>	<u>2</u>
<u>Square ft. per Unit:</u>	<u>450 sq. ft</u>
<u>Total Net Area:</u>	<u>900 sq. ft.</u>

Purpose:

-This space on the fourth floor offers students a chance to learn how to paint a vehicle. Two spray booths are available for students. Only two are used due to the demand for this area of tuning. Most of the work happens on the third floor, but students at their own wanting can learn painting.

Spatial Relationships:

-The paint booths are to be next to each other with access to the prep room. Each paint room would have proper ventilation on the eastside. The space that resides in front of the booths is for prep, the taping of cars to protect from the paint. To the side, a space for mixing is needed.

Considerations:

-Ventilation is the key to this part of the building. The wall on the eastside needs to be permeable for venting and a space behind each booth is needed for the proper equipment.

<i>Space Name:</i>	Student Housing
<u>Capacity:</u>	<u>1 persons</u>
<u>No. Units:</u>	<u>10</u>
<u>Square ft. per Unit:</u>	<u>500 sq. ft</u>
<u>Total Net Area:</u>	<u>5000 sq. ft.</u>

Purpose:

-Temporary housing for students on site. The units are to offer a more livable space than a typical dorm room. Each unit has a bedroom, bath and a space that contains a kitchen and living. The idea for the space is simplicity to build on temporary inhabitation. The living quarters are facing the garage to always give a connection back to ones work.

Spatial Relationships:

-The units on the second floor are located above an existing structure and connected to the new building through a bridge. This bridge is the idea of threshold, a point of transformation from work to live. The units have access to a laundry facility at the north end and all have access to the spaces that are intended for interaction between students. The interior of the units is one of built in, all the spaces that would need to be stored, held up or hung are already available to students in the form of built in cabinetry.

First Floor experience:

“I see the shift in the ground plane, pulling onto it. Just a bit off the ground, two directions to proceed. Enter into the building, have that last meeting before I drop her off, still can see my baby through the windows, wondering what she’s going to look like in two months. Handing over my keys, meeting the students and master builders that will be working on my project. Sign a form, watching them pull away up a ramp with my car, around a turn and she gone”

-Customer vehicle Drop off, the handing over the keys. A different entrance then that of customers interested in the program.

-Smaller offices for the final meeting between client and teacher/student.

-Both these spaces drop off and offices also serve the function of picking up, giving the keys back.

-Delivery parts storage.

-Parts elevator to distribute the pieces to the according floor.

-The first floor is dedicated to customers dropping off their cars to be worked on. The first floor also houses the classrooms that the students will use as with the lecture hall for continuing education classes. The rear of the building is for deliveries and returning the car to the road.

“Every other day I have classes to attend. I make the walk across the exterior space to a class or a lecture. All I hear in this space is the freeway, up the staircase, to the locker rooms. I appreciate the smaller rooms that have a better teacher/ student relation, I feel less intimidated in asking questions. The lecture space is one of my favorites, makes me feel like I’ve been in the field, a master of this work. The chance to talk to others who are involved in this type of work gets me excited to know that I can make a career in this field. If its learning about a new instrument for our work or learning about a new products that we can incorporate into our work, it never seems like work to me.”

-This area is the first step in the transformation of their vehicle

-The secondary classrooms are more for smaller specific teachings.

-These two other classrooms would be used more on a daily basis for brief teachings on the days working in the shop.

Fist floor experience continued...

-The automotive elevators are a basic flat plane where a hydraulic lift rises and lowers cars from the second floor where the customer picks up the car, and then lowered back down to street level. This lift also acts as a tool for dispersing parts to each floor. The service drive is where deliveries will be accepted and the same place where the finished products roll out. This space is not one for boxes to be stored as parts come in, but as an step to move parts to the storage area.

-A larger lecture space is to be provided for seminars on new products or new tools that need to be explained not to just the buildings users, but also to local mechanics that must receive continually education for their knowledge of the car is not behind the times.

-Smaller rooms for the students on the site are needed, more for 6-8 students and a teacher.

-The conference room is for meetings among the teachers and only requires small storage for visual display equipment.

-The relation to the outside parking will help to determine the design for the inserted building, how the interested customers approach the building, what they see when walking up to the front door.

Second floor Experience

-The second floor is dedicated to the shifting from live to work. The second floor houses the locker rooms, which are accessible from the staircase that the students use when going to work. The locker room is a process of movement through the space and out to work. The second floor also is the point of completion for an auto project. The prep room is on this floor, so a finished product can be rolled into the space for pick-up. This space is open for the customer can have a walk around the car to see how it looks. Smaller offices are located near the pick-up spot.

“This is the part everyday that I love, either going to do what I love or going to take a break from what I love. The point of going into the garage, the locker rooms, and the changing into my mechanics clothes and proceeding to work. I enjoy putting on my work jump suite, gives me a sense of pride for all the stains, and dirt that’s on them, shows that work that I have been doing. I put it on and am immediately already at work, take it off, wash my hands and close up my locker, purified and back to relax.”

“The excitement, walking into the building, up the stair case, talking to the master and the student. Looking down the hallway, I can see her. All by herself, ready to go”

- Washroom/ locker room. This space is to act as part of the process of crossing a threshold, either the purification of the hands after work, before returning home or as a beginning of the day.

-This washroom maybe a space that is necessary to enter and go through before returning to work, a division between live and workspace.

-This locker room space is the place of transition, the threshold.

-A space that can start to convey the idea of a shift in the day, another part of the process in going to work.

- A prep room is needed in order to return the customers vehicle in a show room condition. This area needs small storage for cleaning supplies and proper drainage for indoor washing.

Third floor experience

-The third floor is the key to the program offering the most technical/ mechanical options to a car.

“The space I love to walk around in as a teacher. There is nothing more then these cars suspended in the air and the students working on them, using their technical skill, knowledge of trying to get some more power from that engine. The noises in the shop I

love the most. Air wrenches, hydraulic lifts both make sounds to me explaining what's going on, I can see without seeing the progress of each project.”

- Large open space that handles the movement of the car around the shop and space around each workstation that gives the student needed room for hands on learning.

- Lockable storage is needed for tools and parts that are being stored on that floor.

- Here a large open space is needed for the automotive work. In this space, eight to ten working spaces are needed. Each space offers a hydraulic car lift so each student and teacher has the ability to move freely around each vehicle.

- Workbenches and floor space will be needed around each lift so never to feel constrained on workspace.

- Workbenches are required for added space and useable tables for working on smaller pieces.

- To the rear of the shop a storage room is needed for used parts, discarded material, oil storage [used and new]. This floor is dedicated solely to technical and mechanical modifications, and wants to have a connection to the outside by bringing the working on the cars to the street side where a visual connection can be seen.

Fourth floor experience

- The fourth floor is more about the craft of the hand and design. This floor contains spaces for complete auto body painting along with painting parts. Giving a car a new painted skin can give a dieing car new life or bring attention to new cars.

“I have the original in front of me. I carefully study it, take measurement, and run my hands over the surface. Taking my piece I then start my process of reproduction. I am learning metal work in the shop. We use tool that you do not find at any ordinary auto store, tools are more the forcing into shape then that of fitting on and adjusting. Here I use my eyes to measure, one to two more hits with the wooden malice and the piece will be a duplicate. Now there's no longer one of a kind but two.”

“Thinking back to meetings with the client, what they wanted. I walk around the car, where am I going to add the new layers, the fiberglass pieces that change the look of the car. First I do carvings in clay on the car giving the ability to keep changing it till its right. Taking the carvings, I then go to a mold, a fiberglass piece. With the right precision, the car takes on a whole new look.”

Forth Floor experience continued...

- This floor deals with exterior modifications and fabrication of new parts.

- A computer space is needed for design and graphics, a space where ideas can be discussed between teacher and student before working on the current project.

- A metal shop is required for the ability to create new parts and the re-fabrication of older parts or refinishing them.

- This space will need to house multiple welders, the ability to create metal dies and space for hand forming of metal.

-A space for making molds or fiberglass parts is needed to meet today auto customization needs for customers to be able to create a true individual car.

-The spaces of the metal shop and the molding shop need to have a fluid relationship with the open space of the where the cars are worked on cause of the constant movement between car and workshop.

“Here I add a new layer to my wardrobe. On goes the all white jump suite, getting ready to paint. I move the car into the enclosed room, start mixing the paints for the desired color. This space is all about the layers and time. Time to dry and the richness that every new layer brings to the automobile. Between the coats my hands go over the surface feeling for imperfections on the metal, sanding between coats, making sure nothing is missed and a perfect finish is possible. My favorite part of this whole step is the tearing off the tape, revealing the car. Taking a few steps back, calling up some new friends, all admiring the new look.”

-Rooms for painting and prep work will be needed.

-Perhaps a space for rolling out the car, a space for the unmasking.

-A prep room is needed in order prepare a car before painting, the taping of windows and other parts and plugging of holes.

-A room for painting the entire car is needed along with two other rooms for painting smaller parts.

-This part of the building requires ventilation systems and spaces to let freshly painted cars sit to dry [1 to 2 cars].

Student housing Experience

Student Housing:

“Everything has its place here where I live. A space is designed for all functions one needs on a basic day-to-day living arrangement. I feel I have my escape but still want that interaction with my fellow students...”

-The student housing on the site is one of temporary inhabitation.

-Ten apartments for single occupancy on the site are needed.

-Each unit is to house a living room, kitchen with eating space, sleeping, storage and a bathroom.

-These units are to have a relationship to the other units, a feeling of unity. The inside of each unit is to be simplicity, and ease of function with the design of space acknowledging public and private uses.

-Looking at what truly requires private space and what spaces can start to blur the lines of public and private the arranging of spaces can start to overlap.

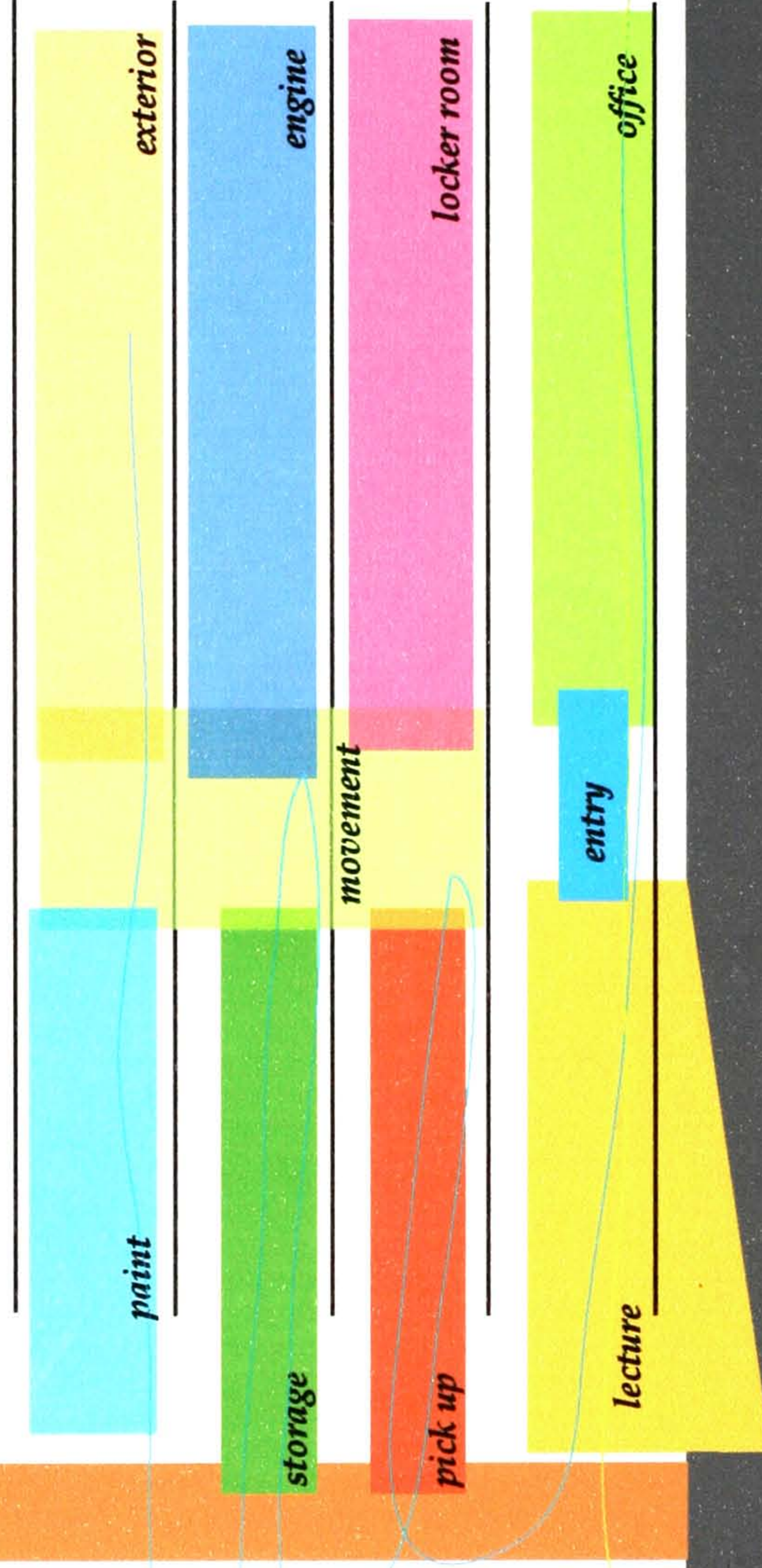
-Each unit is to have a separate entrance with an outdoor space for relaxation and offer the chance for interaction between other students after class. The connection between the housing and work is important, the path the students travel to arrive at the garage.

Technical System Analysis:

The program of the building is that of cars becoming the inhabitants of the building. The building almost becomes that of a parking garage, tight movement of a car then rest for a period of time. The idea is for a two way concrete slab to be utilized that would be supported mostly by concrete columns, but some areas like that of the locker room would be supported by the concrete walls themselves. The basic building block is that of concrete, it dominates the program everywhere. The ramp that connects each floor is that of a ramp one would find in a parking garage.

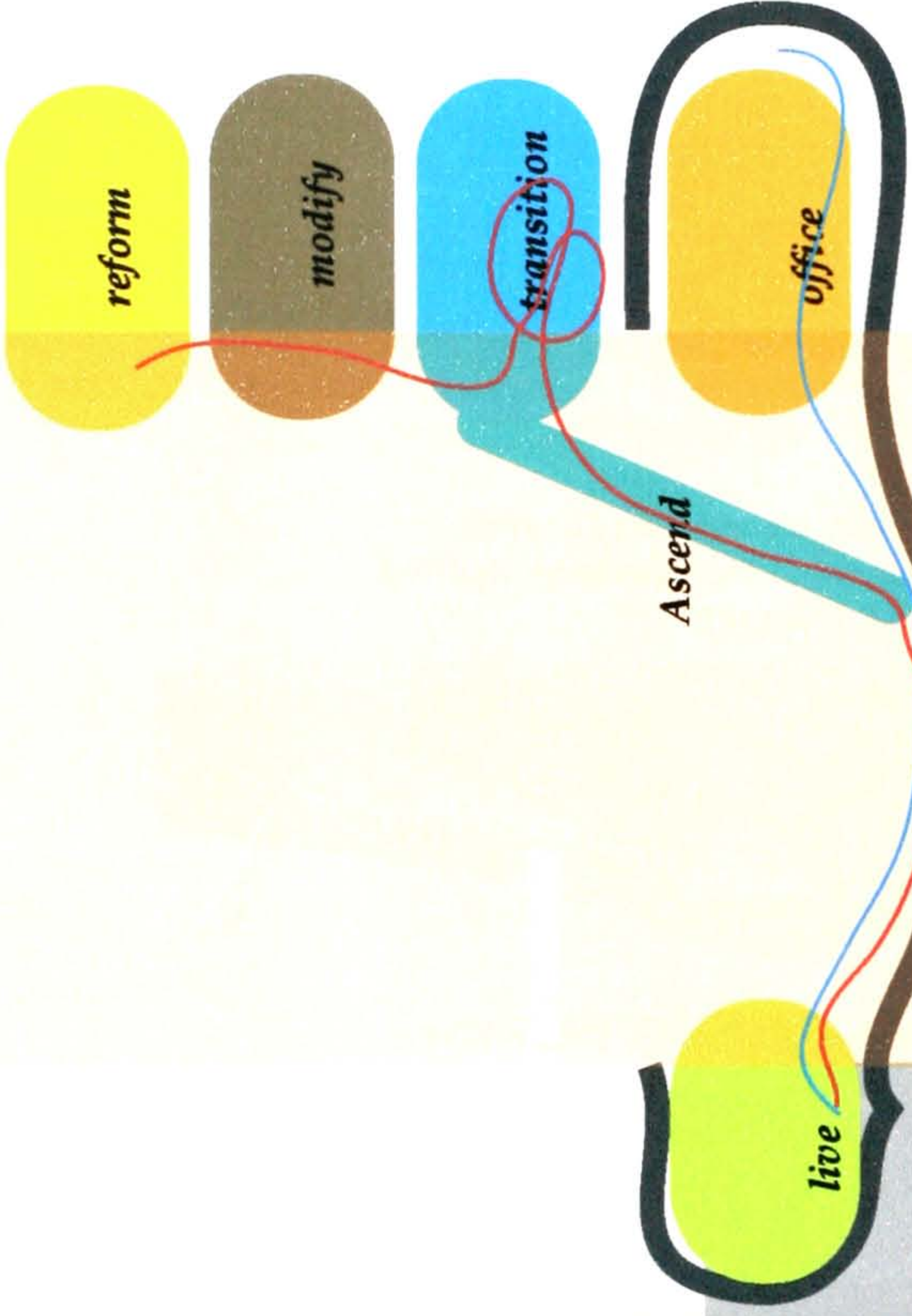
Service throughout the building for parts and heavy equipment is through an automotive hydraulic elevator. Parts are delivered on the first floor and distributed throughout the building. The main mechanical room is located in the basement of the building and the student housing has individual units for more personalized control. The building is one that would have exposed duct and electrical runs, a mechanical feel.

lift



Programs





Programs

DESIGN DEVELOPMENT



JAMES KRYGEL

UNIVERSITY OF DETROIT MERCY

SCHOOL OF ARCHITECTURE

How does one truly live with their work? What is the process of going to work? Where are the obstacles and advantages? Can the shifting of a material start to define this point of leaving one and entering another? Where are the opportunities of blurring the line between landscape and architecture? For this investigation I have been looking at these questions and how architecture and landscape can have an affect upon our daily living. First looking at the site and the surroundings I examined how automobiles move through the site and around the area. Main access to the site is off of West Columbia. The current condition of the site is that both sections serve as a parking lot for local venues. With the Fisher freeway tearing through the city, it has given the alley a new condition of accessibility from both sites. Studies done in looking into this new movement and how that could start to affect the architecture. Perhaps using the alley as more of a usable space not leaving it to the back for deliveries but as a main point of entry. The two means of movement on the site are being looked at in forms of pedestrian and automotive. The foot path that a student takes on their way to the garage and how entering into the building can be a step in the transformation between live and work.

A study of how a new program, the residential could fit into an existing structure with the idea of a standard unit being overlaid onto the existing. Thinking of how these units could mold to what is already there, do they slip into the large window spaces. This study was done an unexpected results came about when viewing the study in a different direction. Literally turning the model on its side it became more of the spaces between the units and not about the idea of slipping into the existing building. Ideas of how one moves from unit to unit and what are the spaces that are created between each unit and can an outdoor space happen in the in-between section.

The idea of a threshold between a live/ work situations can be as simple as moving through a door or as a process of moving throughout the site, where the process becomes the threshold. Looking into this path and what is carved into the landscape and what is pulled up to amplify this condition of movement through is still in current investigation.

The sites relationship to the freeway had a unique presence. It is the sounds of the freeway that pored over onto the site that gave it a constant reminder of the unseen life of that area. Investigating the sounds of the site lead me to create interpreted drawings and models that gave the sounds a form of a wave that could be laid over the site. The section of the site nearest to the freeway had the most energy when it came to this wave over powering the site. Looking back at these models after they were done, I started investigating how this idea of landscape and architecture could be blurred. How thin could a ground plane be perceived? Looking into this thinness of the ground plane, what were the spaces that were created by pulling this layer up? Continuing with this idea of landscape and pulling, studies were done to look at this new in-between space that resided between the ground and the layer that was pulled away. This shifting of ground planes also started to create an element that affected the process of going to work. Could movement up a ramp start to amplify the threshold? This study of pulling and pushing took over most of the site and started to act as a piece that tied all the elements of the program together. The problem with these studies is that they always separated the programs never allowing them to really interact with each other.

Learning from what I have done, studies into re-looking at the conditions of the site and how the program can be inserted onto it to give more opportunities to use the site

in more efficient way. The movement of the automobile and how it interacts with the site were looked at in studies that started to separate the path that the car takes and the pedestrian takes in relation to the site. Pulling the path that the car takes away from the rest of the site and locating it between new building and existing to amplify the process of the first step in this transformation of the car. The second part to this movement of the car was the process of moving up in the building through a series of ramps. How these ramps were placed on the site where starting address using more of the surrounding area. Taking a step back and looking at these models, it was evident that the programs were still being separated through landscape and movement. Further studies done in similar style were trying to use the finished product as a means of display of what the building and site was capable of. Current studies started to explore the act that happen in the building as a means of display of what happened on site.

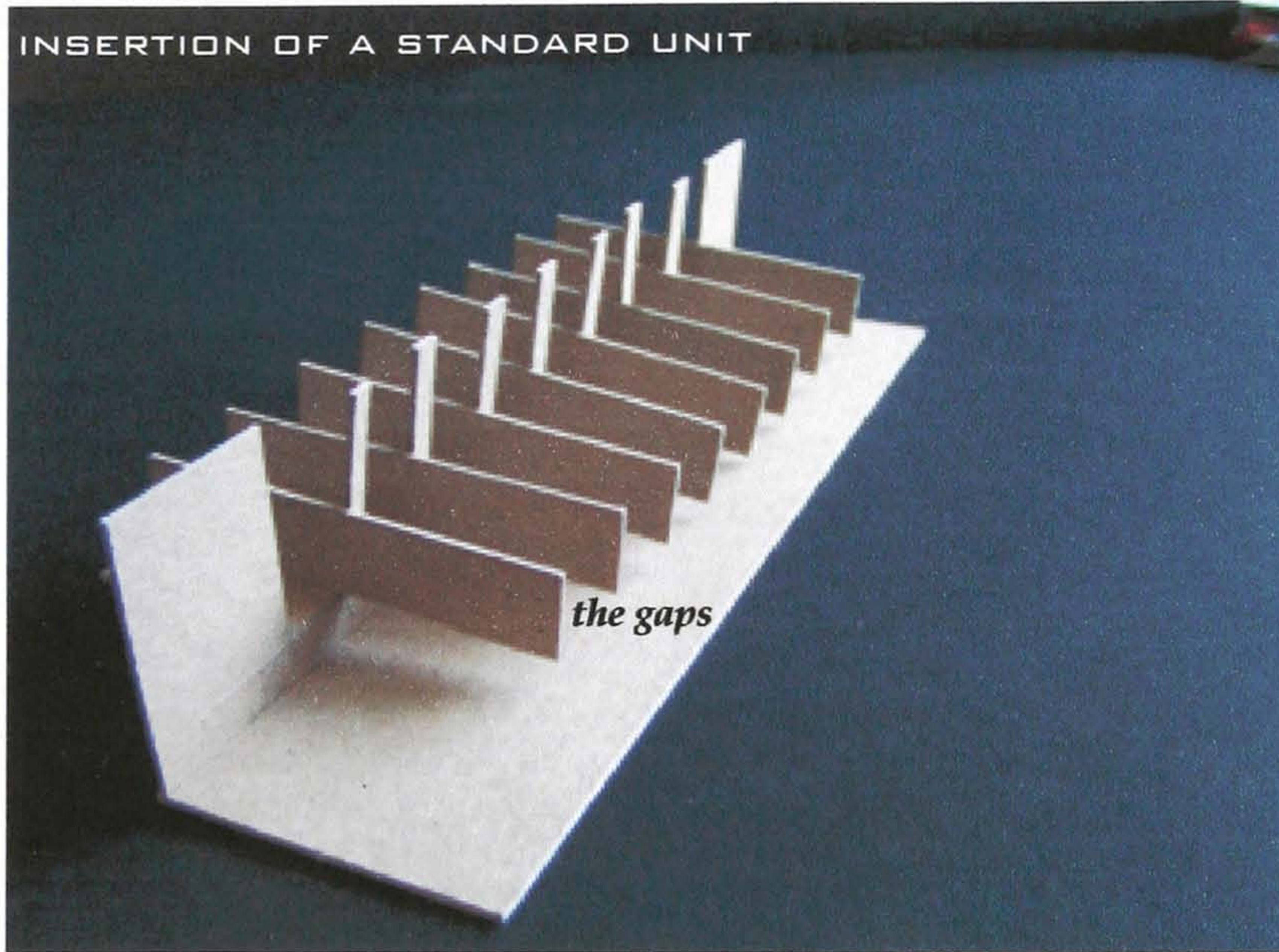
Learning from the process of design that has been constant and not letting that hinder further progress, I started looking at the space that originally drew me to the site. It was the in-between section that became a left over space that resided between two existing buildings. This section of site was amplified by the “unseen sounds of life” that spilled over from the freeway. The idea of what the threshold was to become on the site was an element that divided live and work was always looked at as the process, a series of steps. This space started to act as a zone that when the students would pass through the void the sounds and the moment that was this in-between was the threshold.

Thinking about the sites relation to the freeway and how the freeway acted as a new layer on top of the Detroit landscape. Looking at this idea of layering and how that could start to help in looking at how the new program and its new relation to the existing

conditions. The idea of a concrete structure has always been thought of in terms of how the programs would materialize. Thinking still with the idea of a new concrete layer and how it could be draped over the site and be used to tie all the pieces of the program together. With the idea of blurring the relationship of landscape and architecture and how a layer could be folded over the site and certain sections could be pulled up to have the landscape start of form into areas of architecture. The entry onto the site by automobile was shifted with altering the ground plane and lifting the car off street level onto a level that was to give the sense of a first step in the process of transformation. This layer that was folded up from street level was also folded in the back of the site with regards of folding back down toward street level to return the car that was not being dropped off for service. The first plate that housed offices and classrooms also contained the lecture space for larger gathering of mechanics. The lecture hall was a space that would have stadium seating so a floor plane that folded down to accommodate this was needed and stayed with the idea of folding plates. The process of movement throughout the building by car was viewed as a continuous ramp that acted as a means of vertical movement in both an ascending and descending process. The section of the building that faced the freeway was movement for cars and parts. The parts would be moved through a void that was between the ramps and the floor plates. This void housed a hydraulic elevator that serviced each floor for parts but at the same time acted as the main return for the finished automotive product. The second floor became the last step in the cars process with returning the car back to the owner. This floor plate that meets the open void that was rapped by the ramps was the point of display for the customer car when they show up for the unveiling.

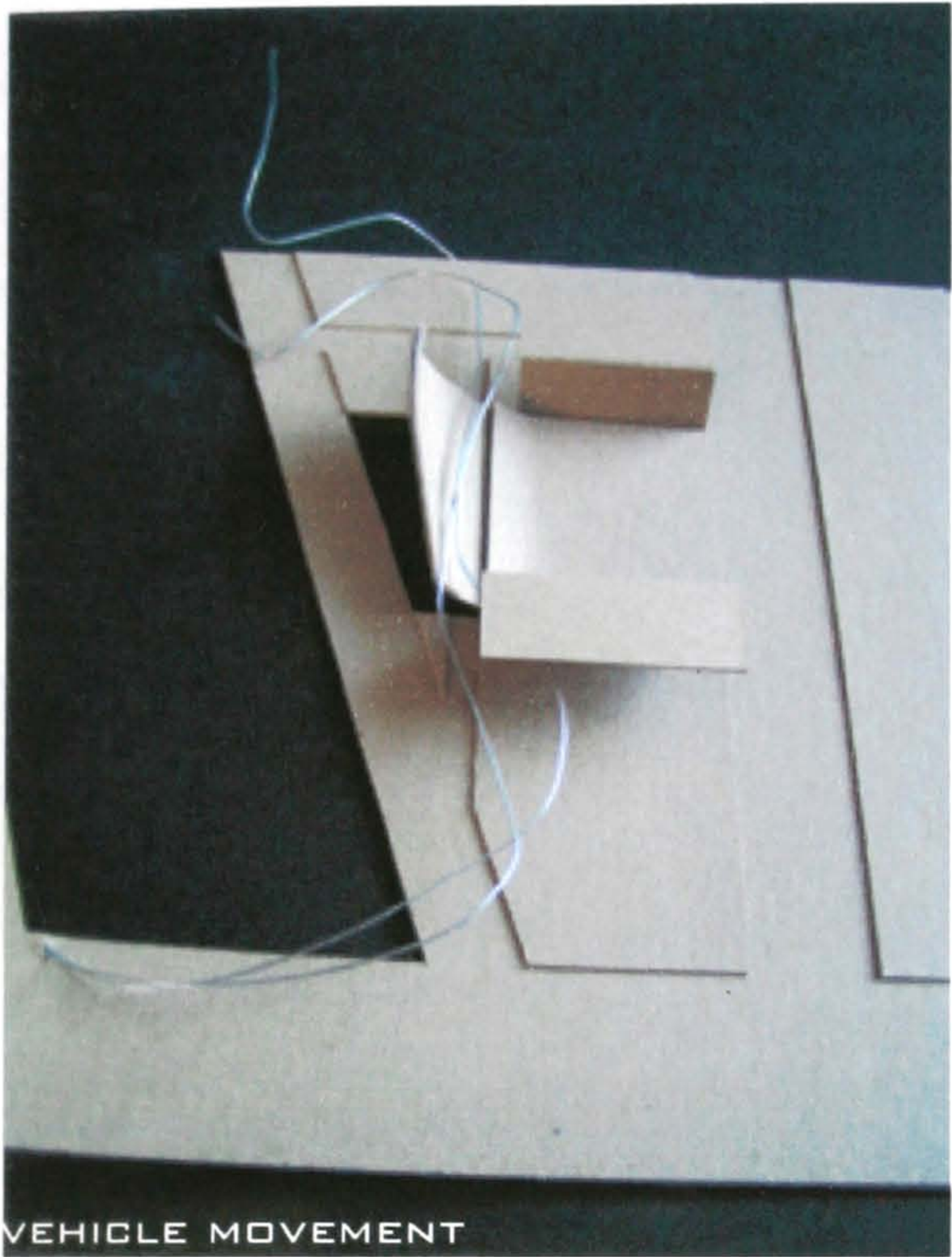
After a critique of the work that was presented up to this point, questions were brought up about the threshold that divided the live/ work. Continuing to look into what is the relationship that acts as the threshold will drive the investigation in the following weeks.

INSERTION OF A STANDARD UNIT

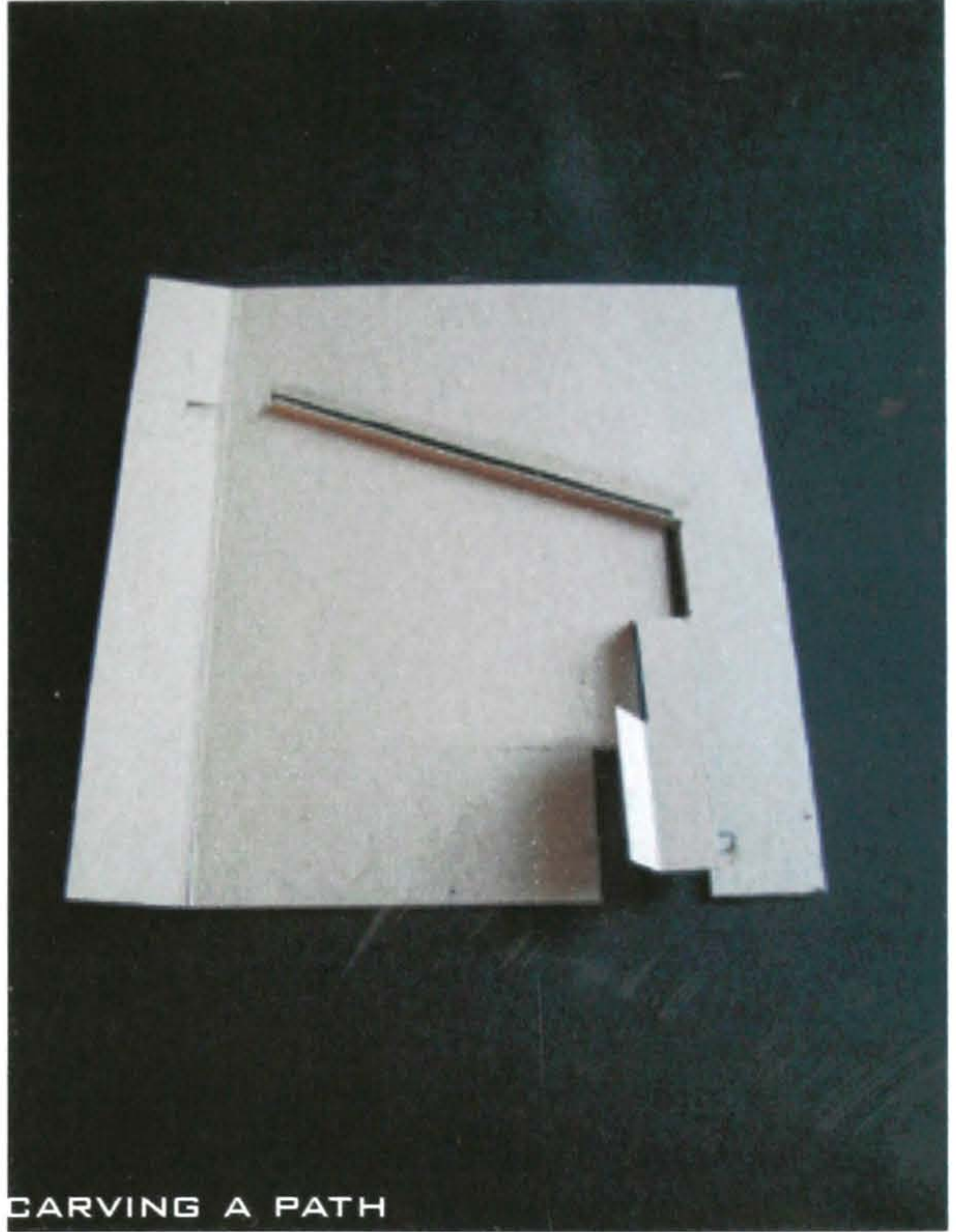


UNDERSTANDING AUTOMOTIVE ENTRY

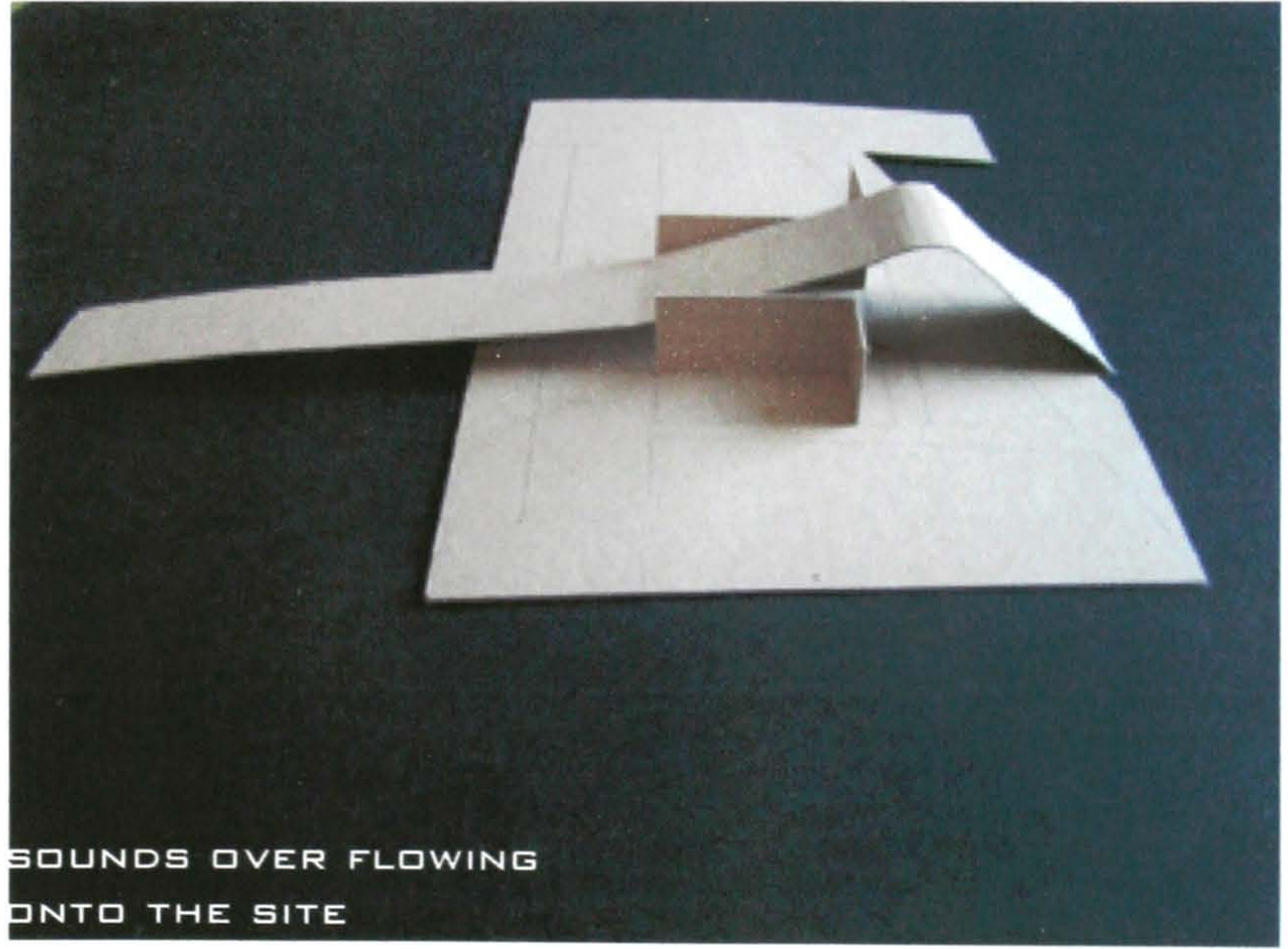




VEHICLE MOVEMENT



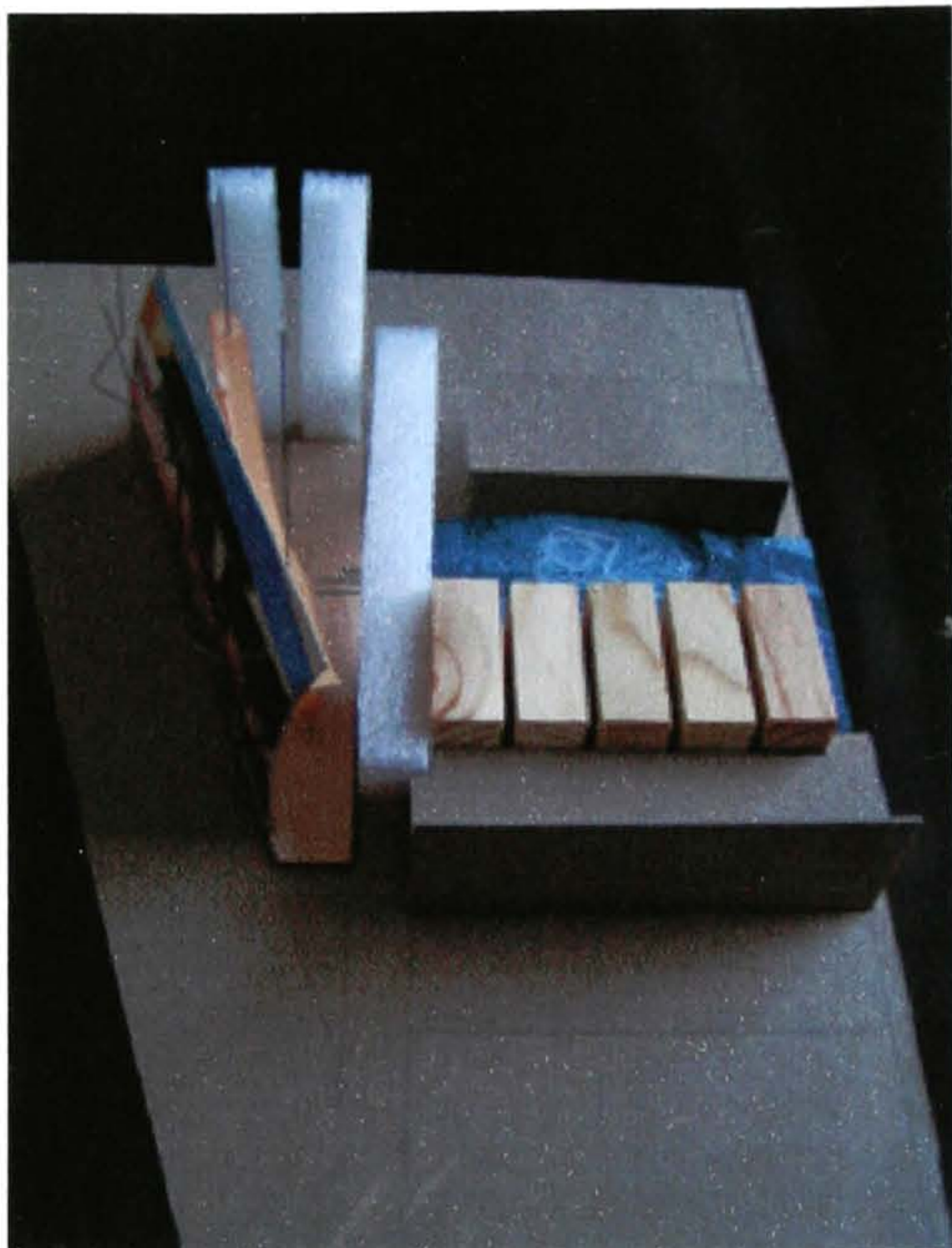
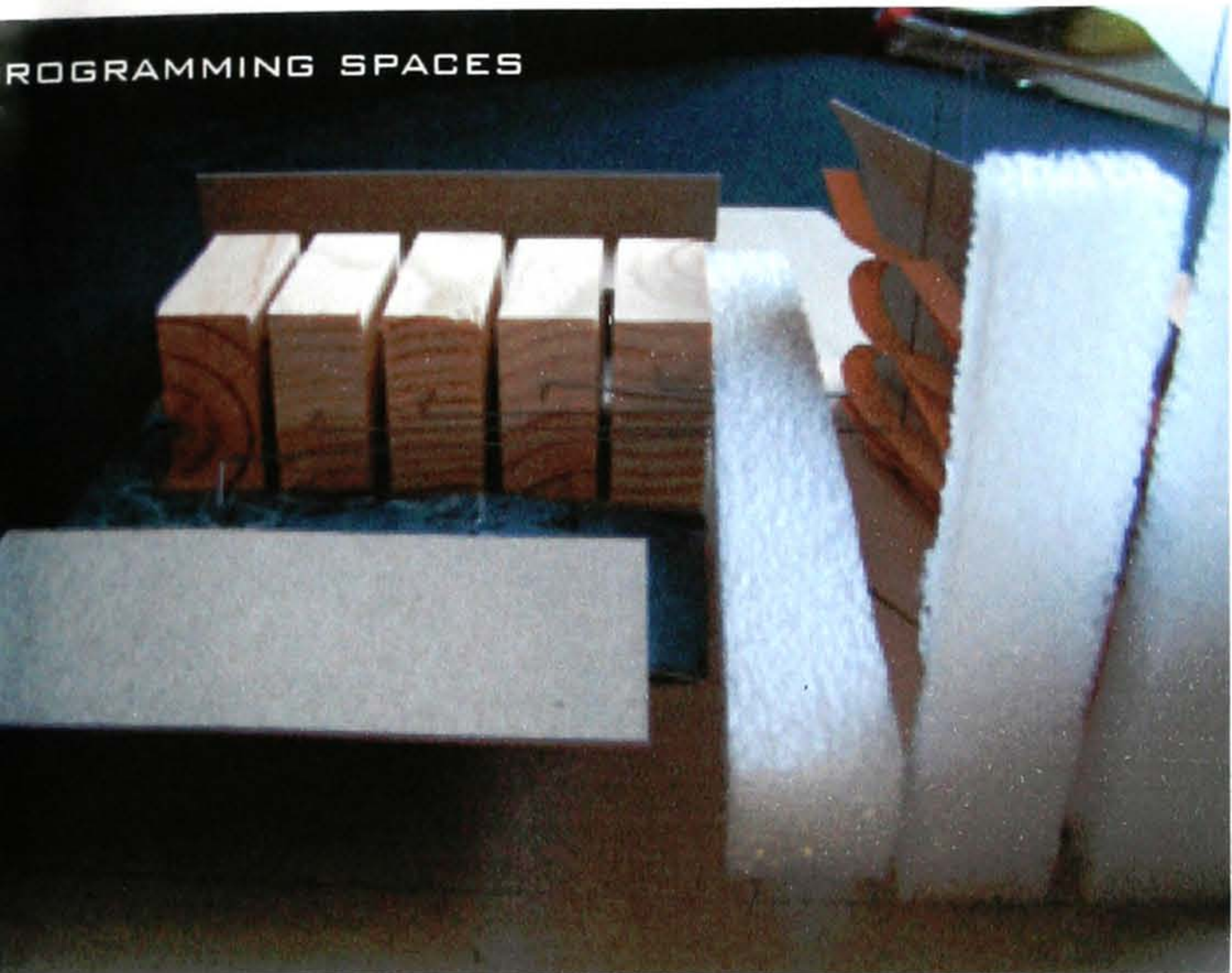
CARVING A PATH



SOUNDS OVER FLOWING
ONTO THE SITE

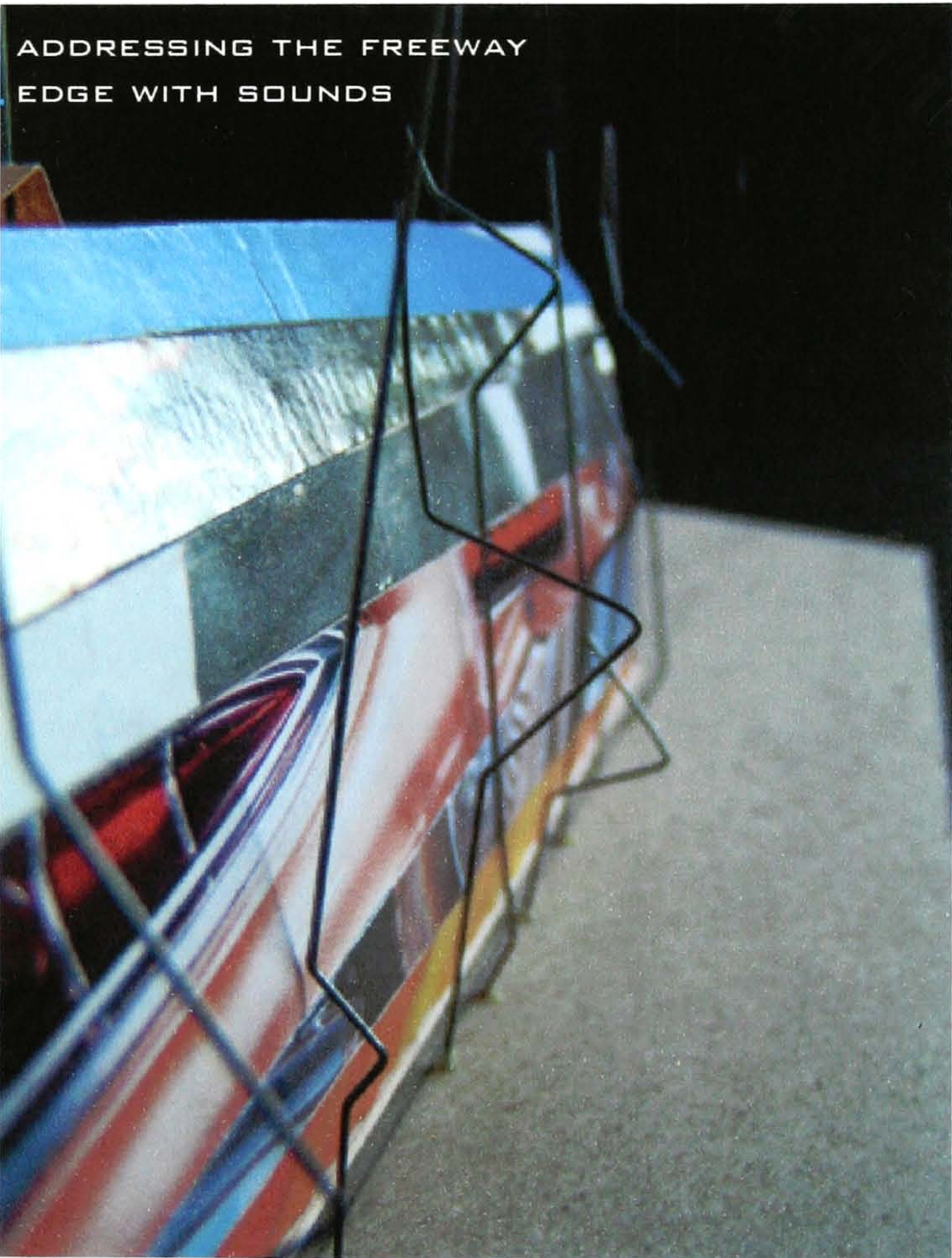
DESIGN DEVELOPMENT

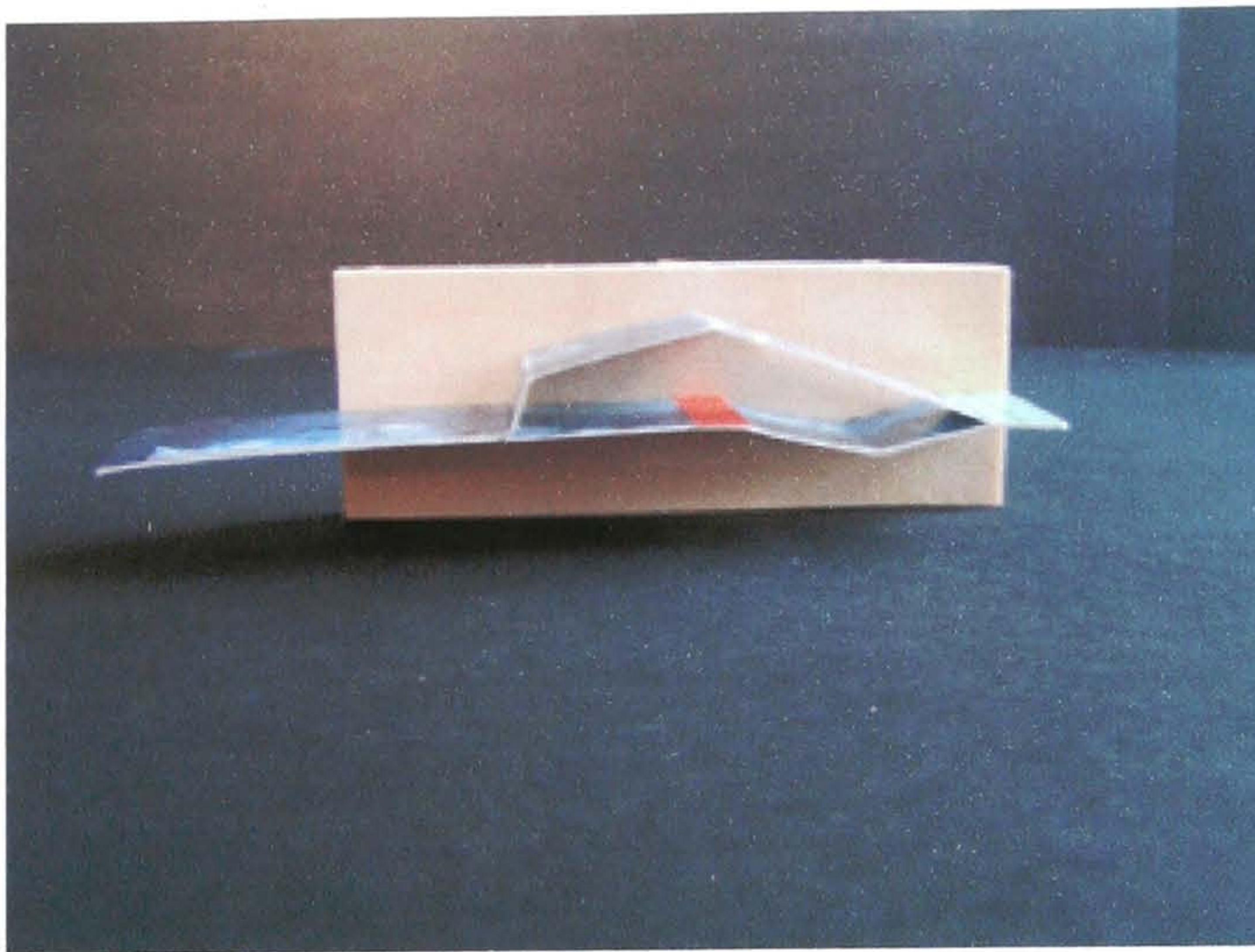
PROGRAMMING SPACES



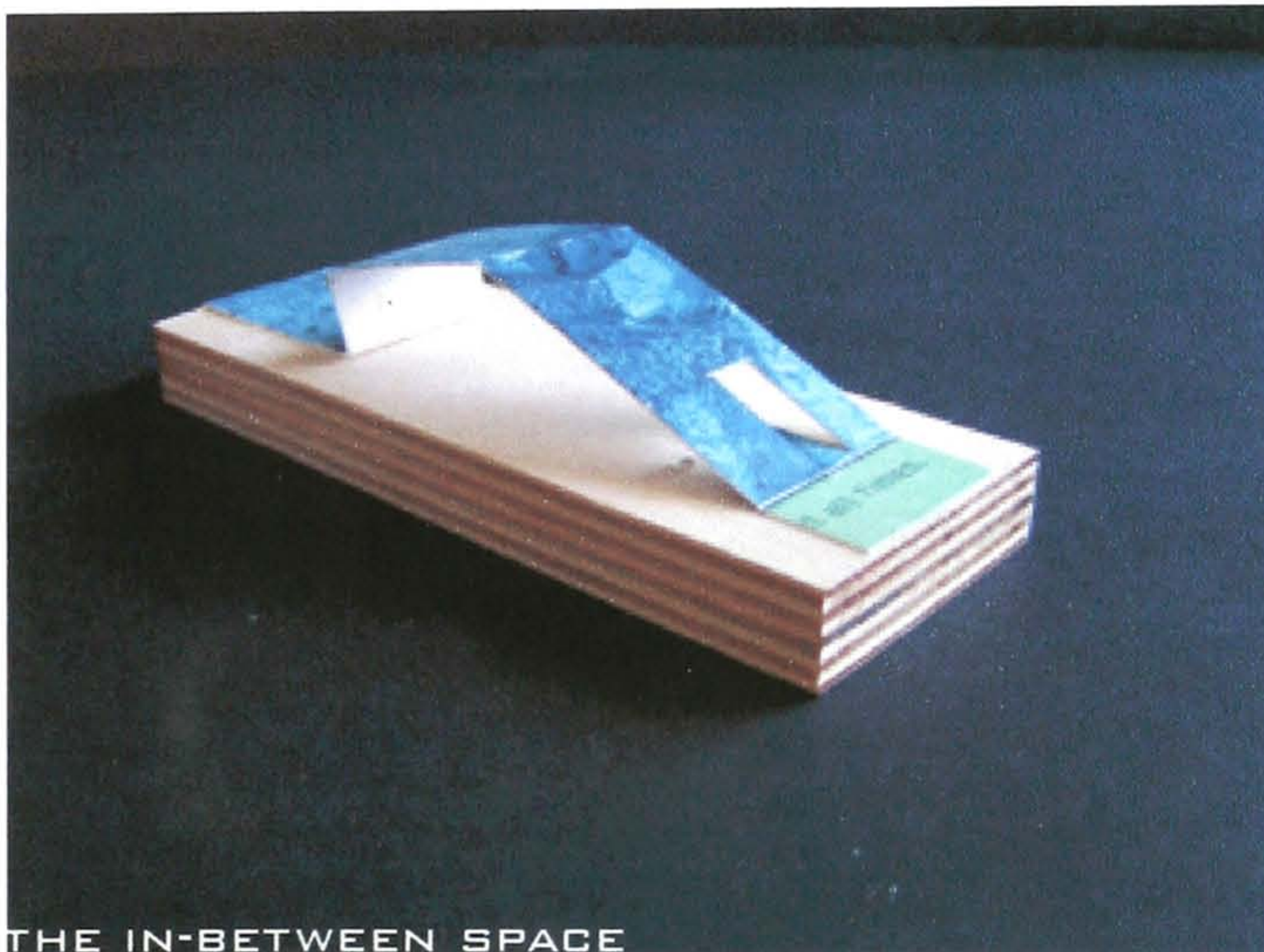
HOW CAN THE FAÇADE START TO CHANGE? EACH MECHANIC WORKSPACE IS GIVEN A GARAGE DOOR THAT IS ADJUSTED BY THEM. THE STUDENTS CONTROL OVER THE DOORS CAN START TO RELATE TO WHAT IS HAPPENING ON THE INSIDE, ARE THE SOUNDS FROM THE SHOP POURING OUT, THE SCREAM OF AN ENGINE.

ADDRESSING THE FREEWAY
EDGE WITH SOUNDS

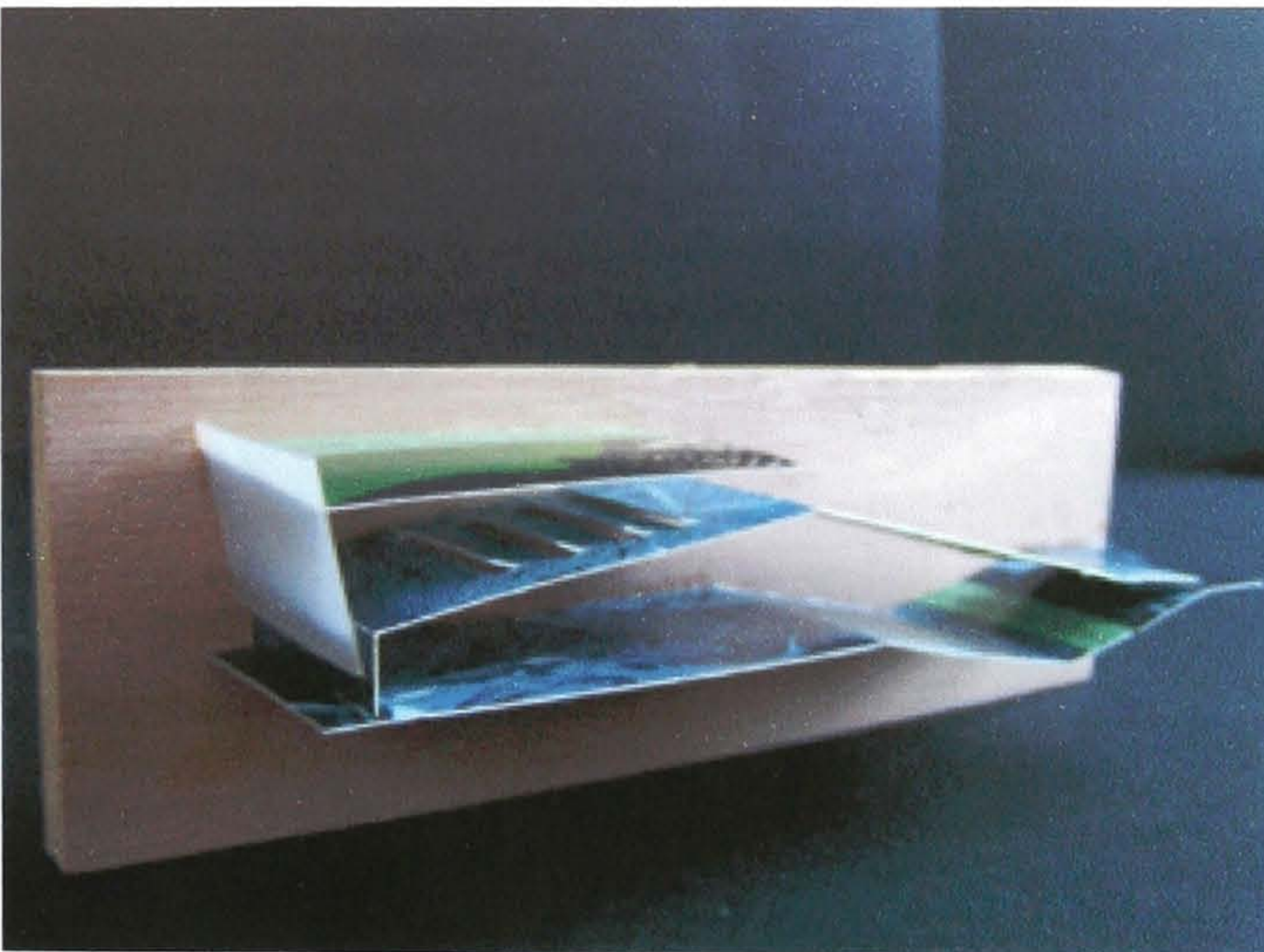




HOW CAN WE
START TO PEEL
AWAY THE LAYERS
OF THE EARTH?
WHAT ARE THE
NEW LAYERS AND
SPACE THAT THIS
PROCESS
FORMS? CAN AN
IN-BETWEEN
SPACE SERVE AS
A PLACE OF REST
FOR THE CAR?

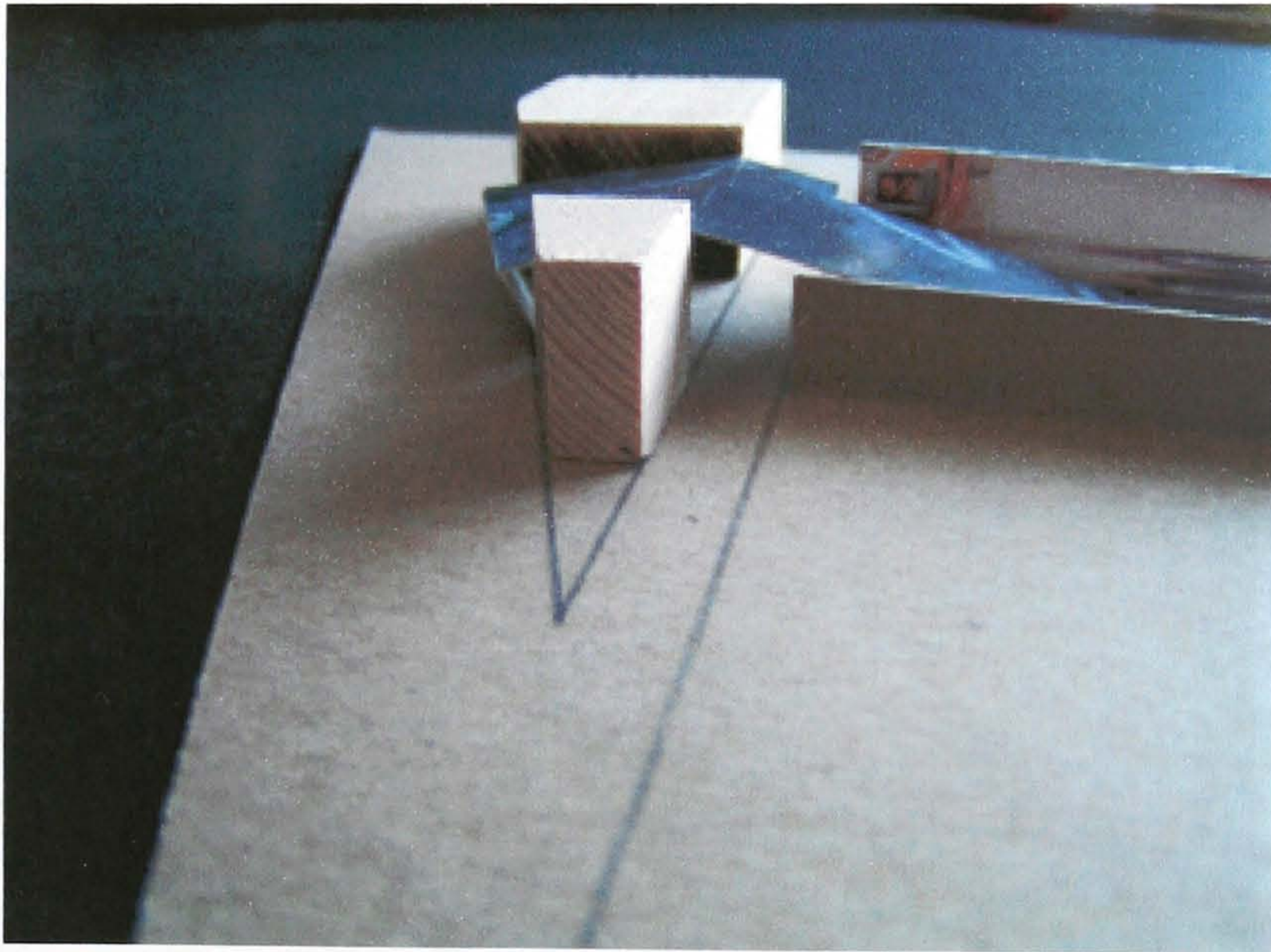


THE IN-BETWEEN SPACE

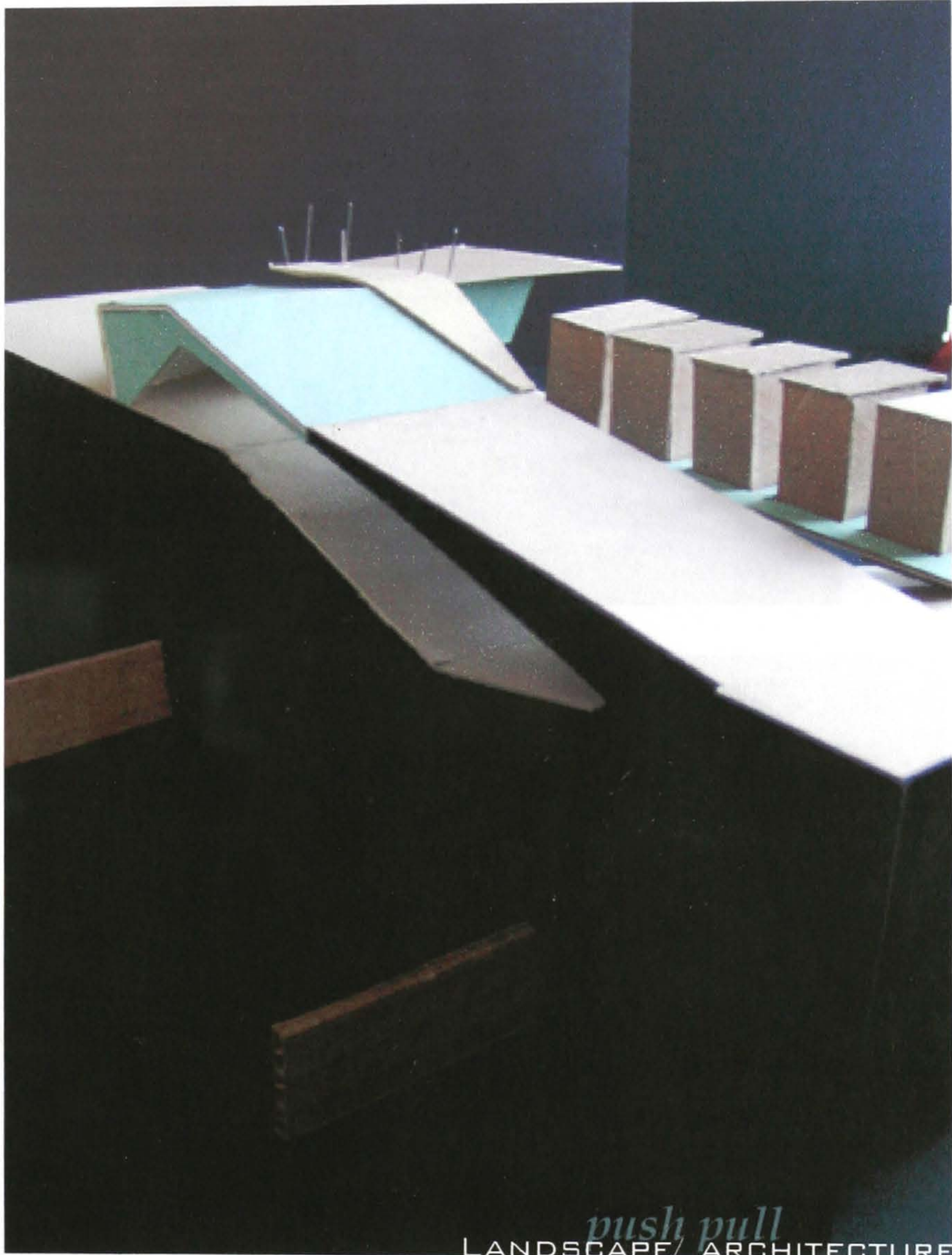




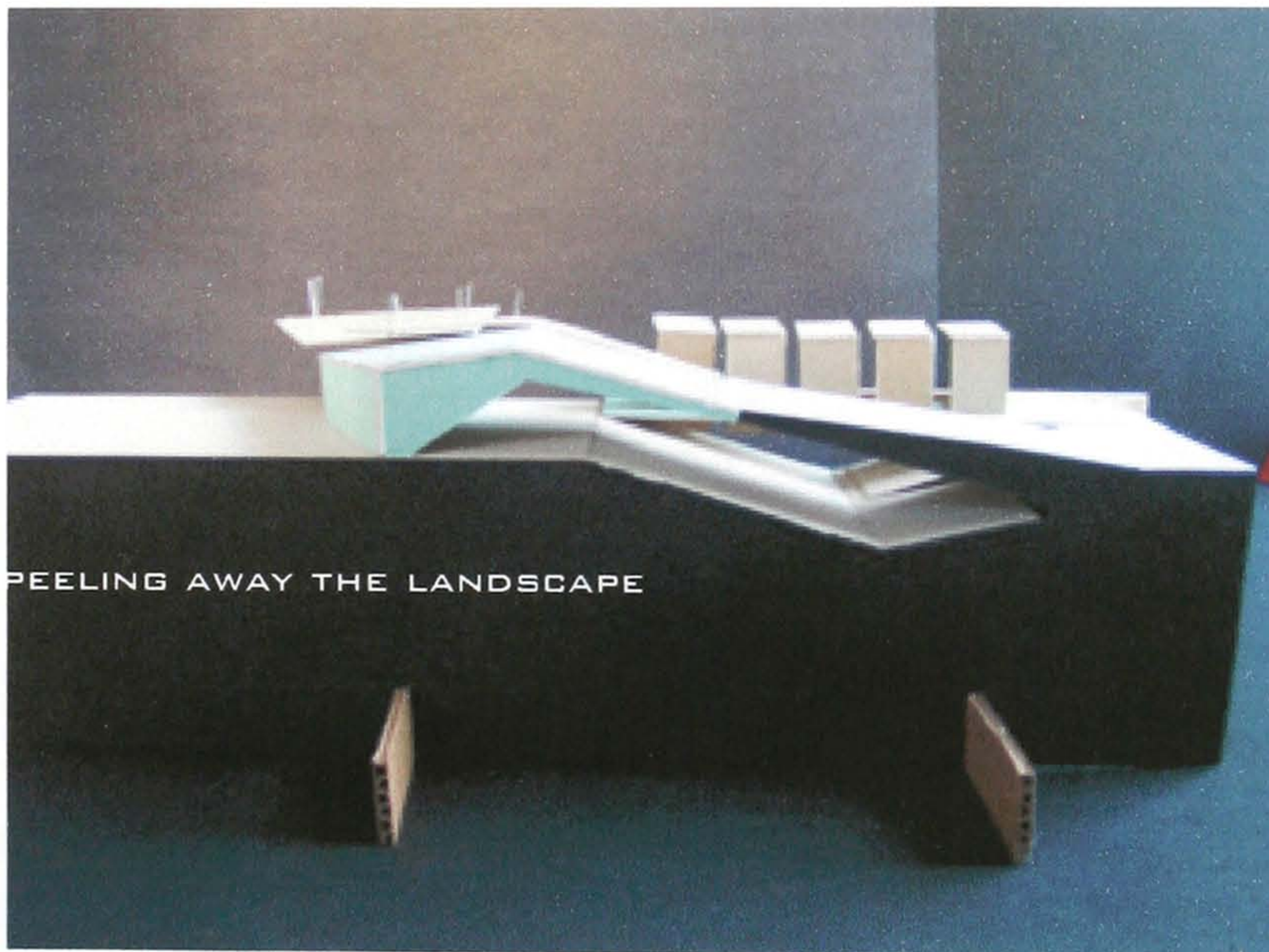
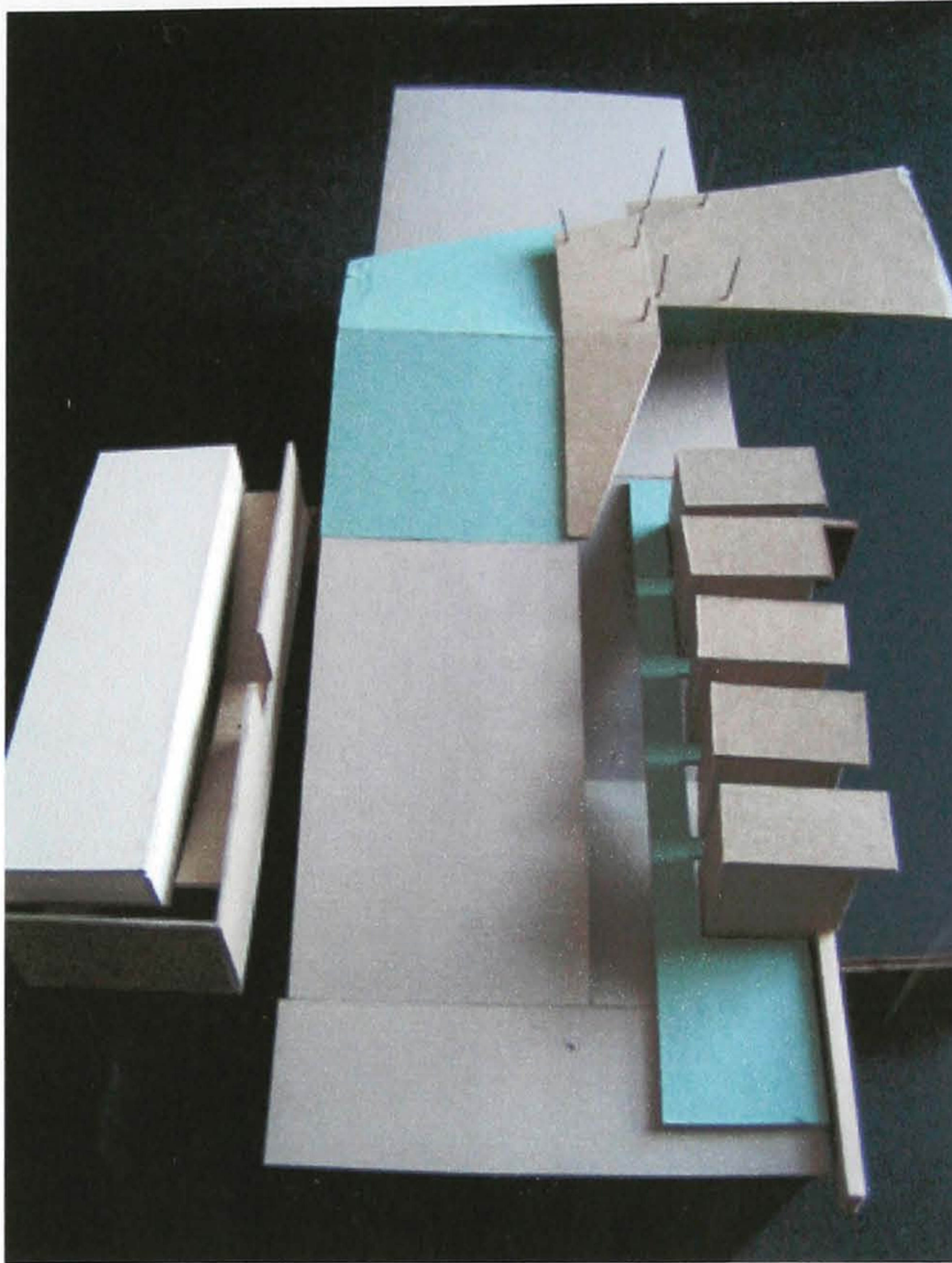
COMBINING LANDSCAPE AND ARCHITECTURE



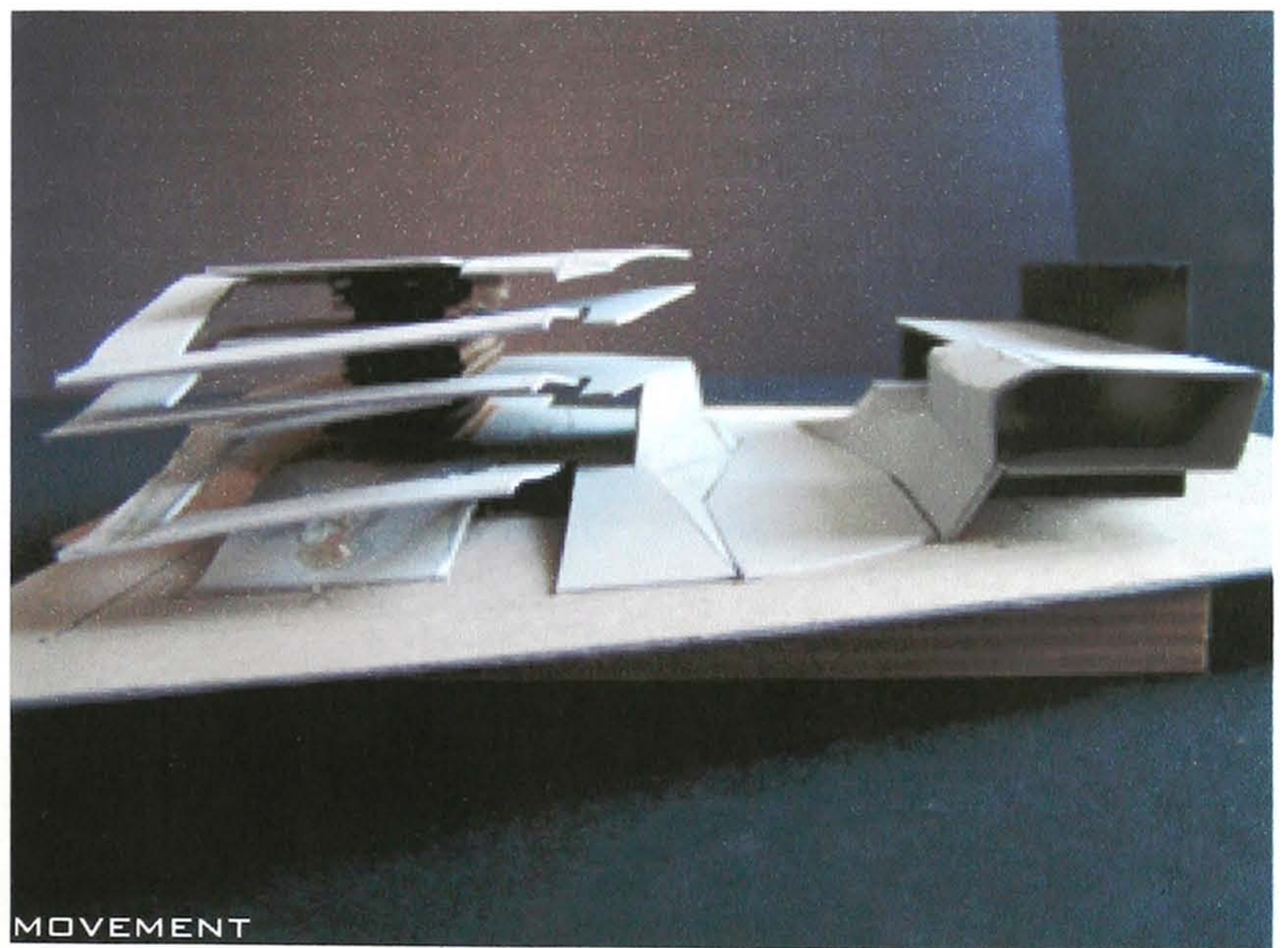
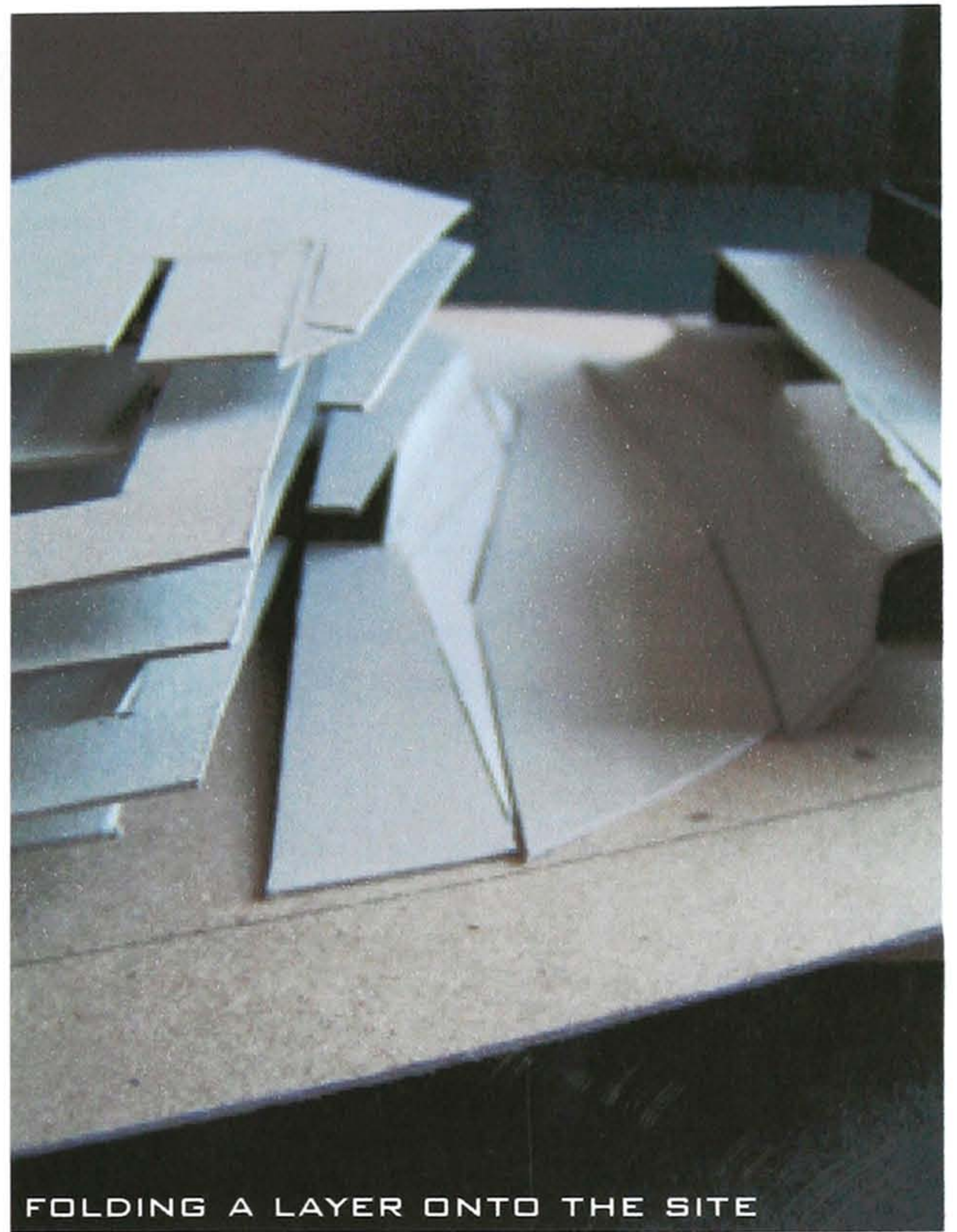
DESIGN DEVELOPMENT



DESIGN DEVELOPMENT



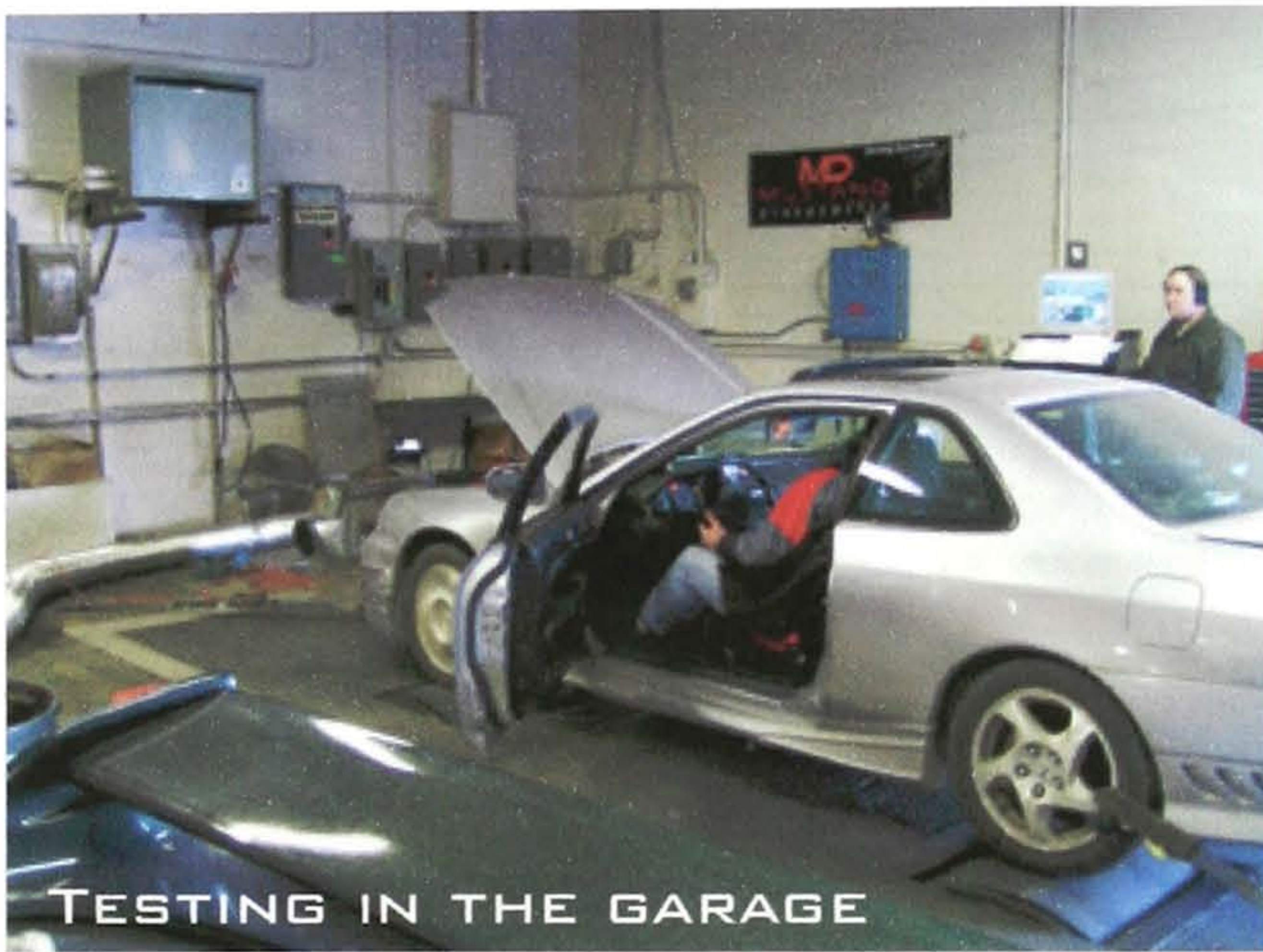
DESIGN DEVELOPMENT



DESIGN DEVELOPMENT



ORDER AND CLEANLINESS



TESTING IN THE GARAGE



MODIFICATIONS



RESEARCH



DESIGN DEVELOPMENT

FINAL DESIGN

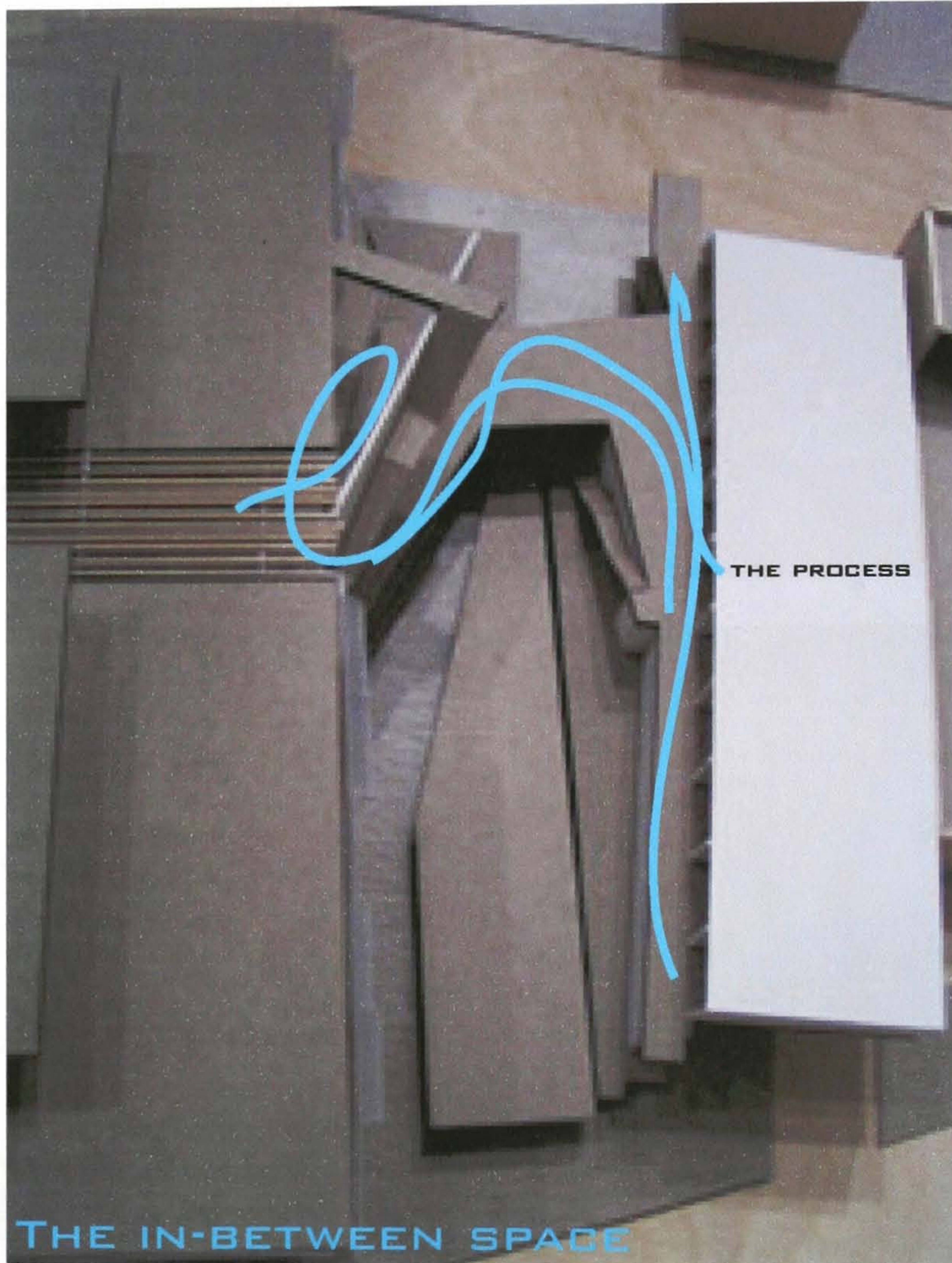


Thresholds and transformations

JAMES KRYGEL
UNIVERSITY OF DETROIT MERCY
SCHOOL OF ARCHITECTURE



FINAL DESIGN



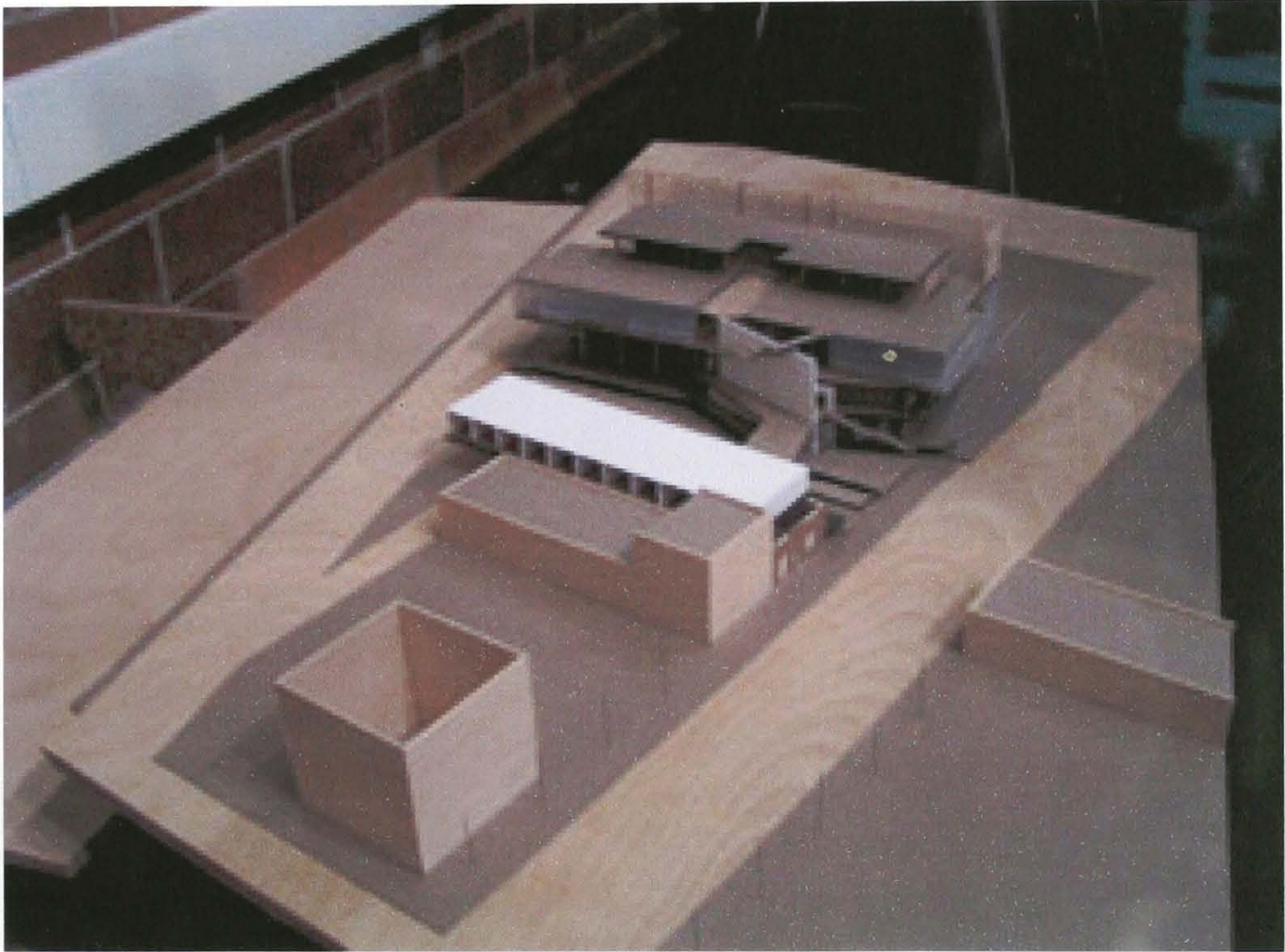
THE IN-BETWEEN SPACE

THE PROCESS

FINAL DESIGN

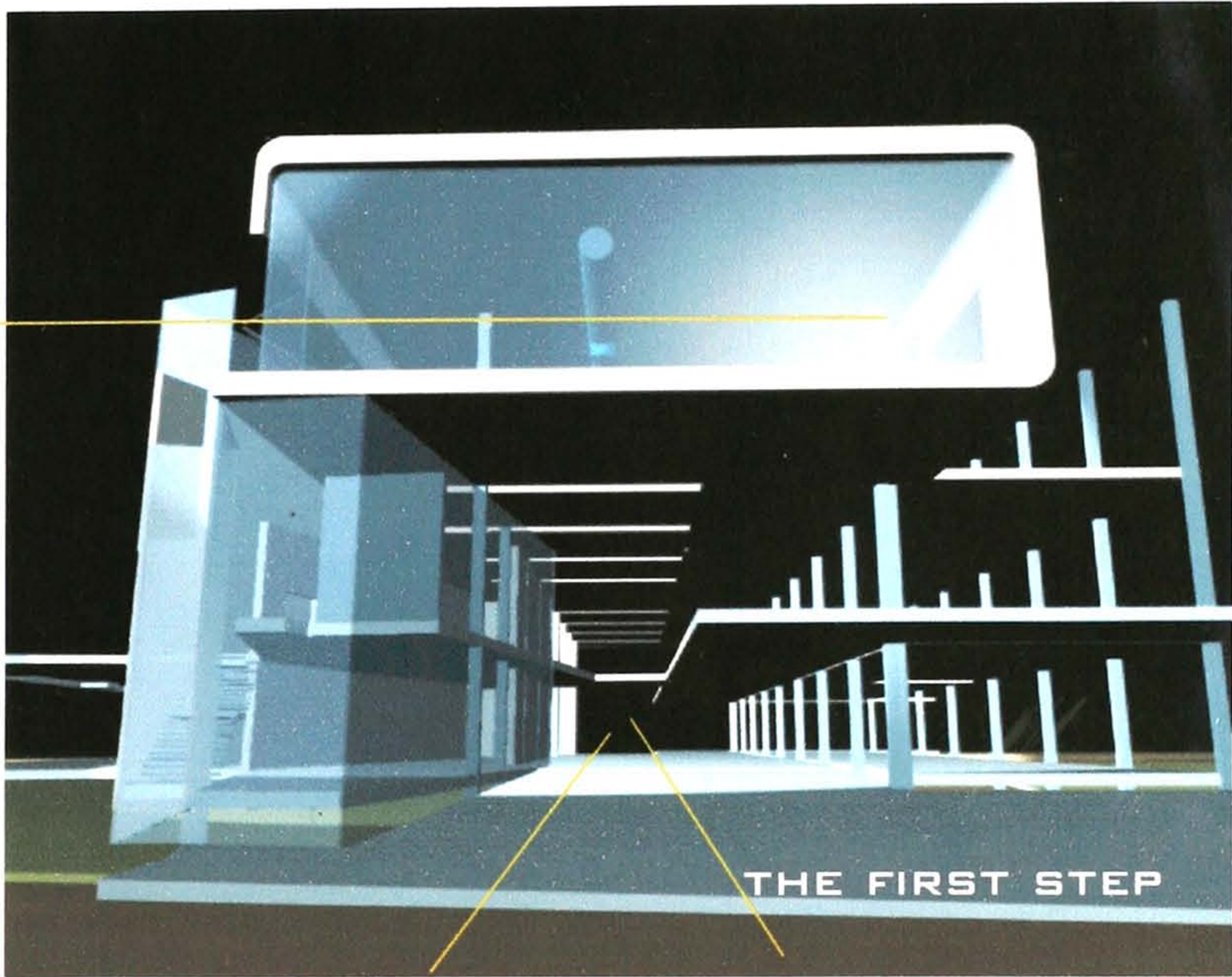


FINAL DESIGN

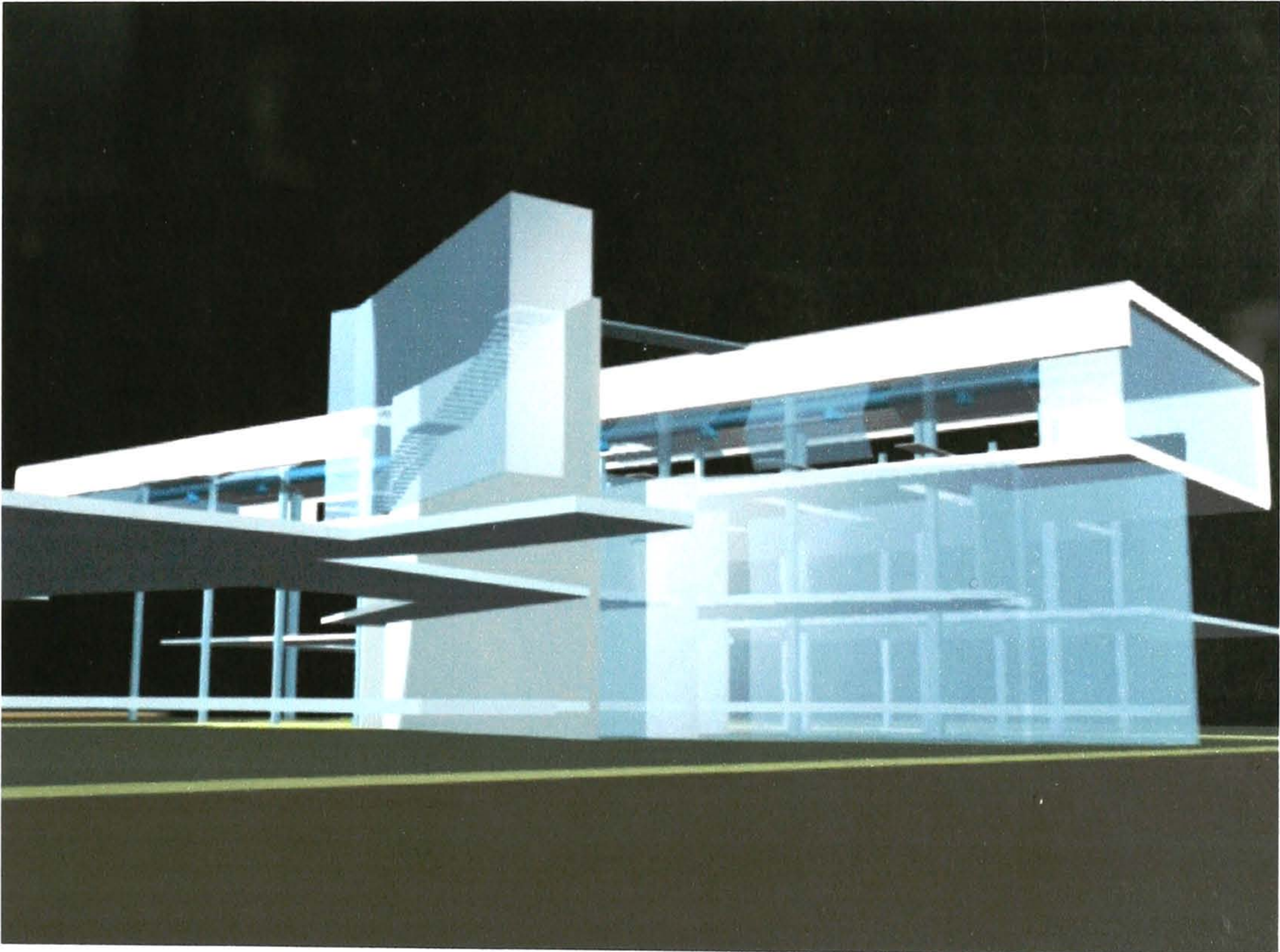


FINAL DESIGN

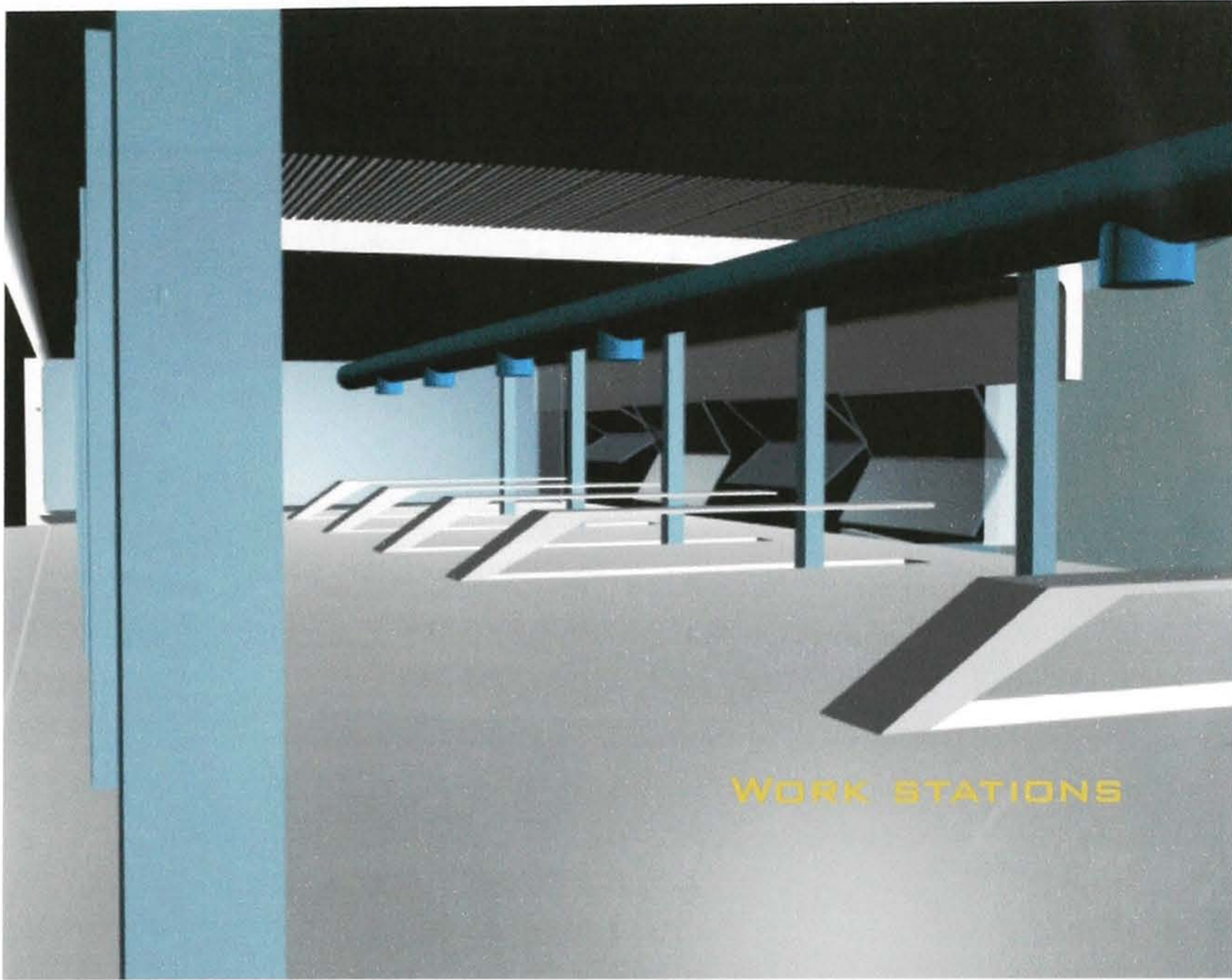
THE GARAGE



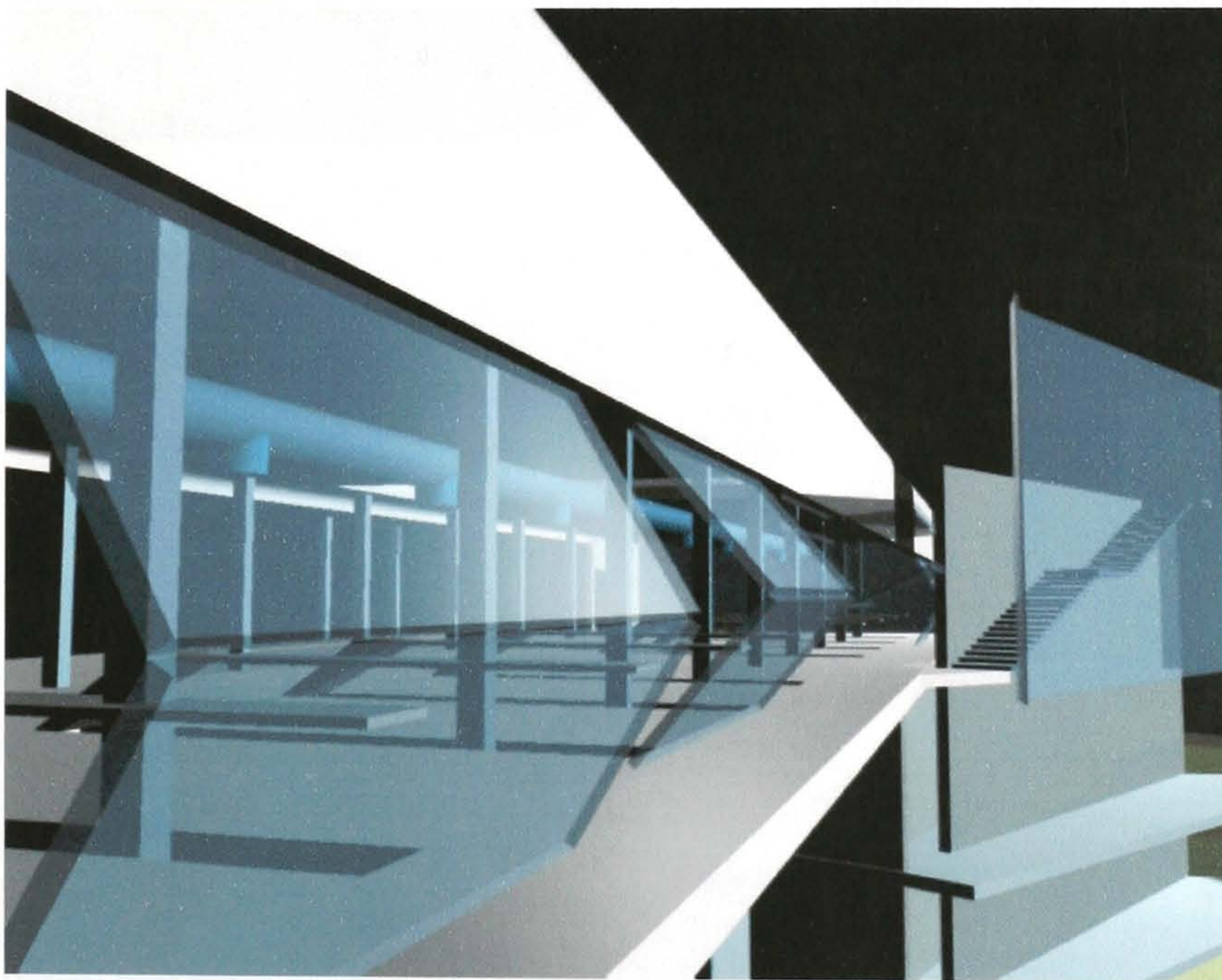
THE FIRST STEP



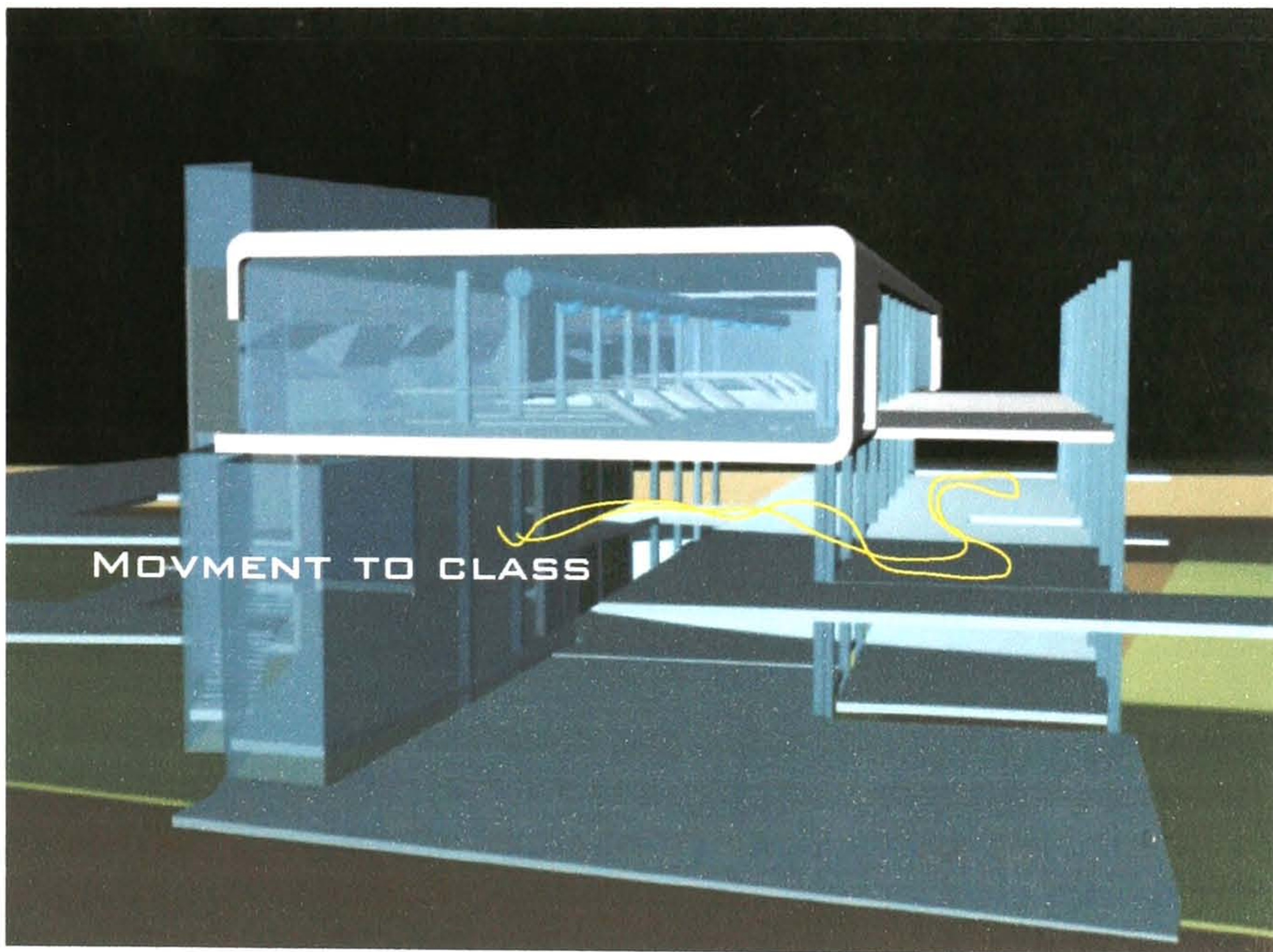
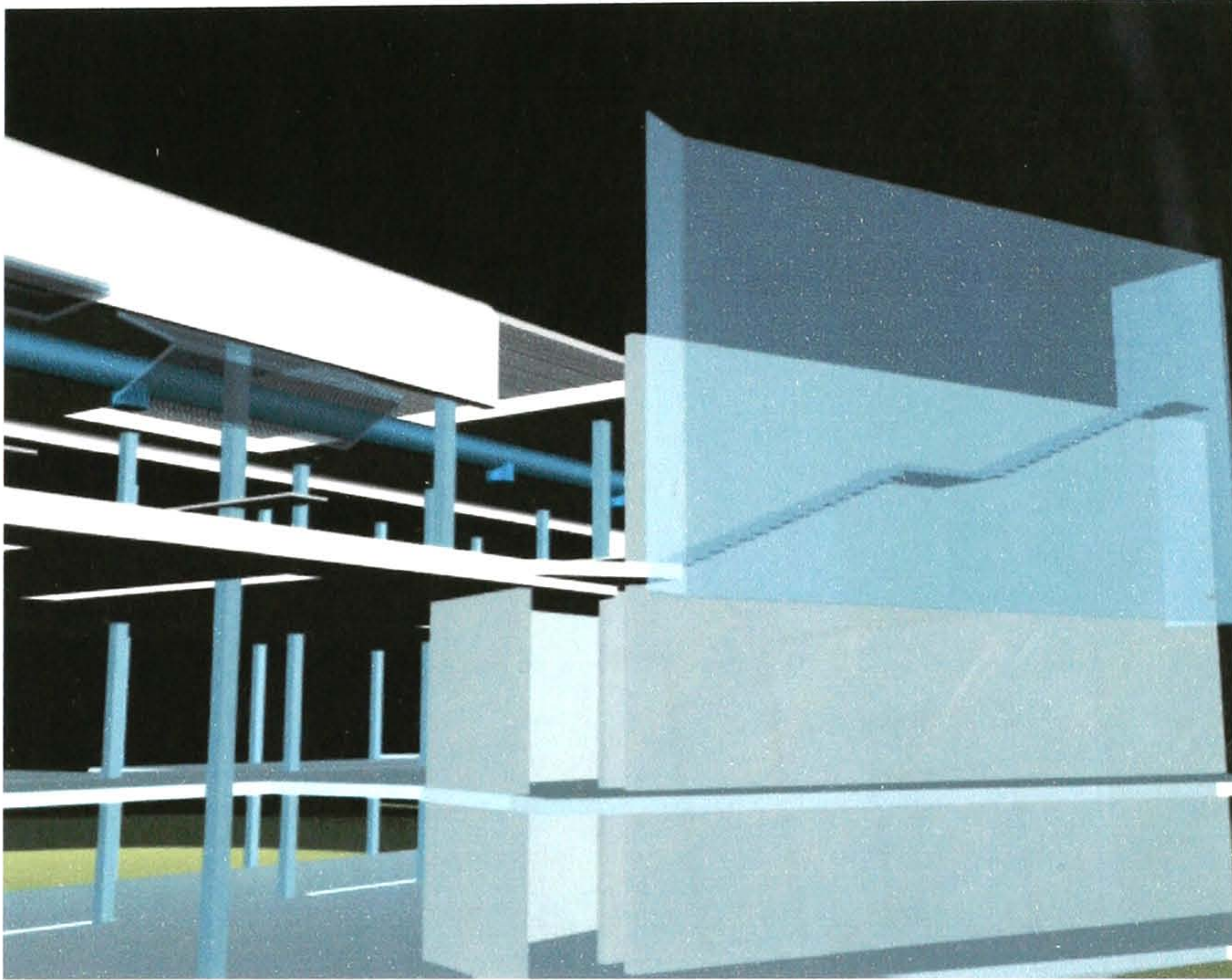
FINAL DESIGN



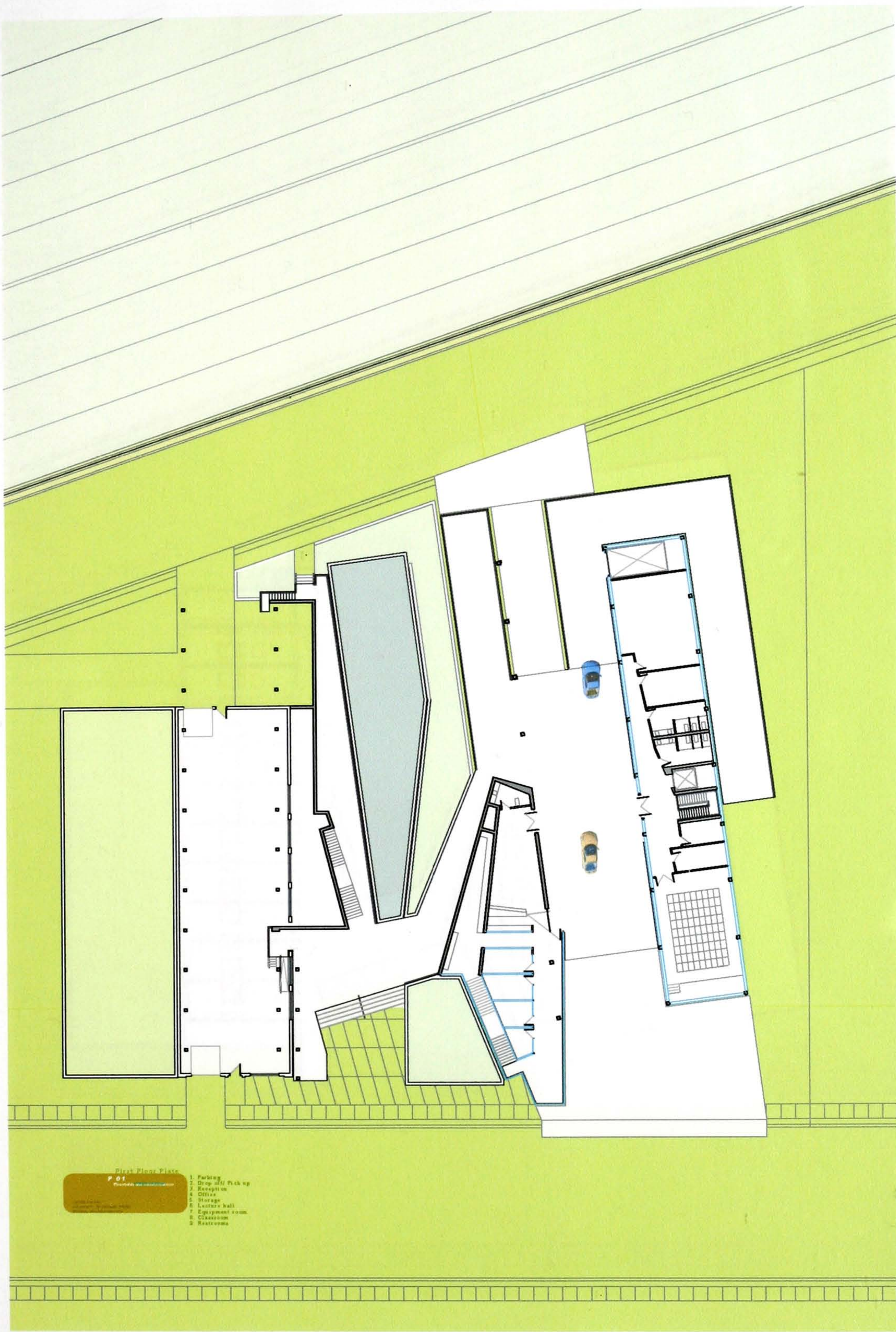
WORK STATIONS



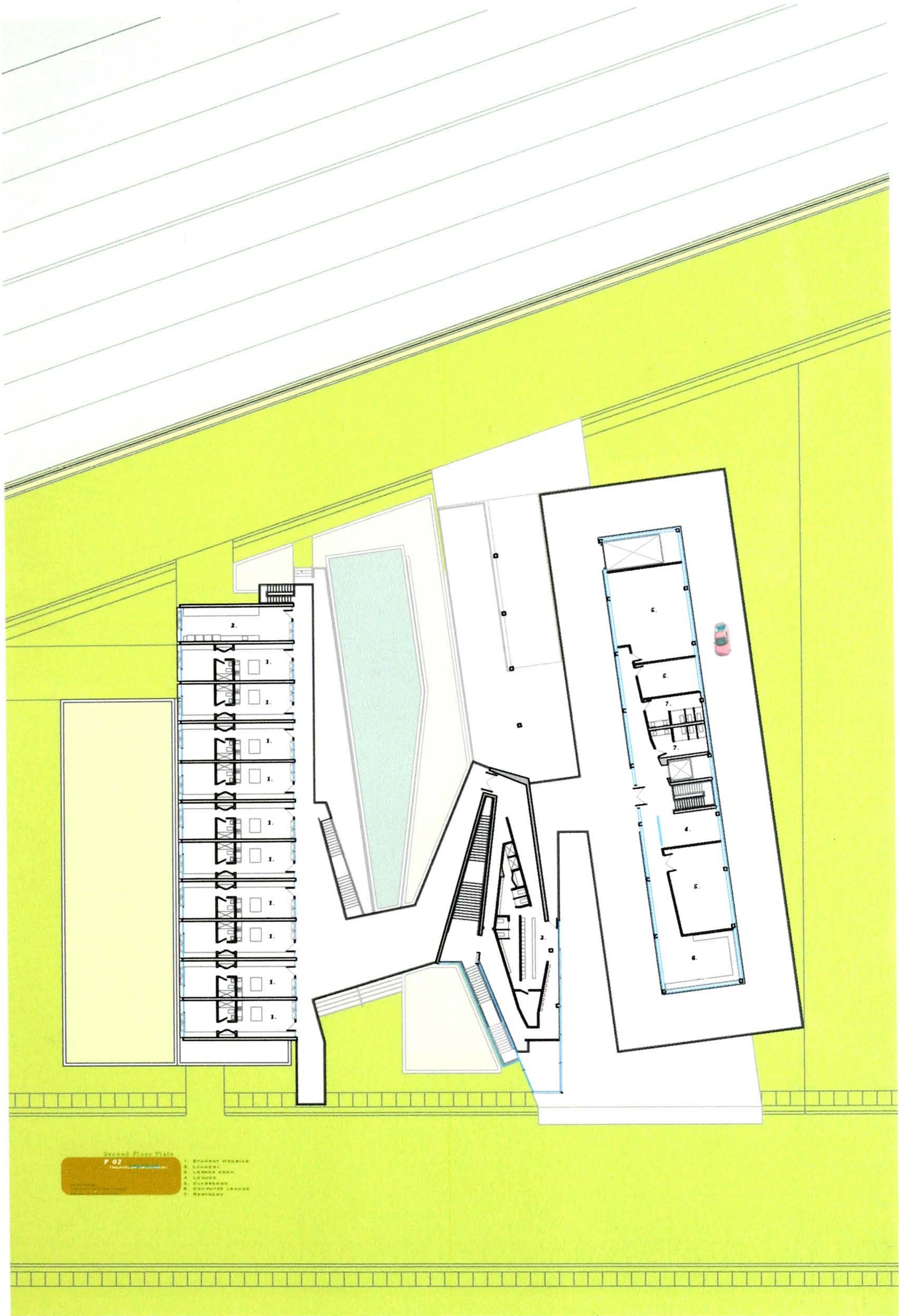
ALTERING THE FAÇADE



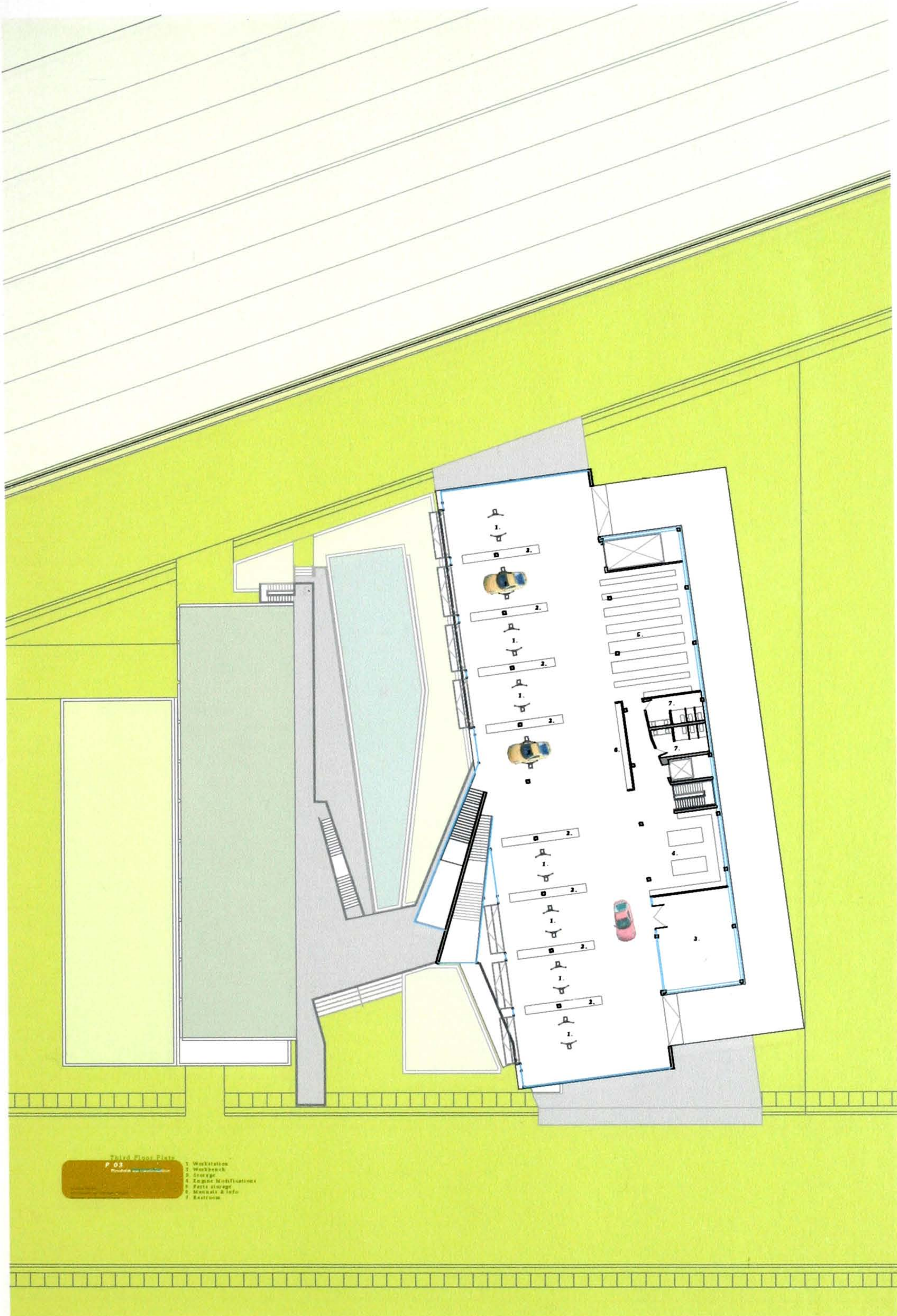
FINAL DESIGN



- First Floor Plan
P 01
- 1. Parking
 - 2. Drop off/ Pick up
 - 3. Reception
 - 4. Office
 - 5. Storage
 - 6. Lecture hall
 - 7. Equipment room
 - 8. Classroom
 - 9. Restrooms



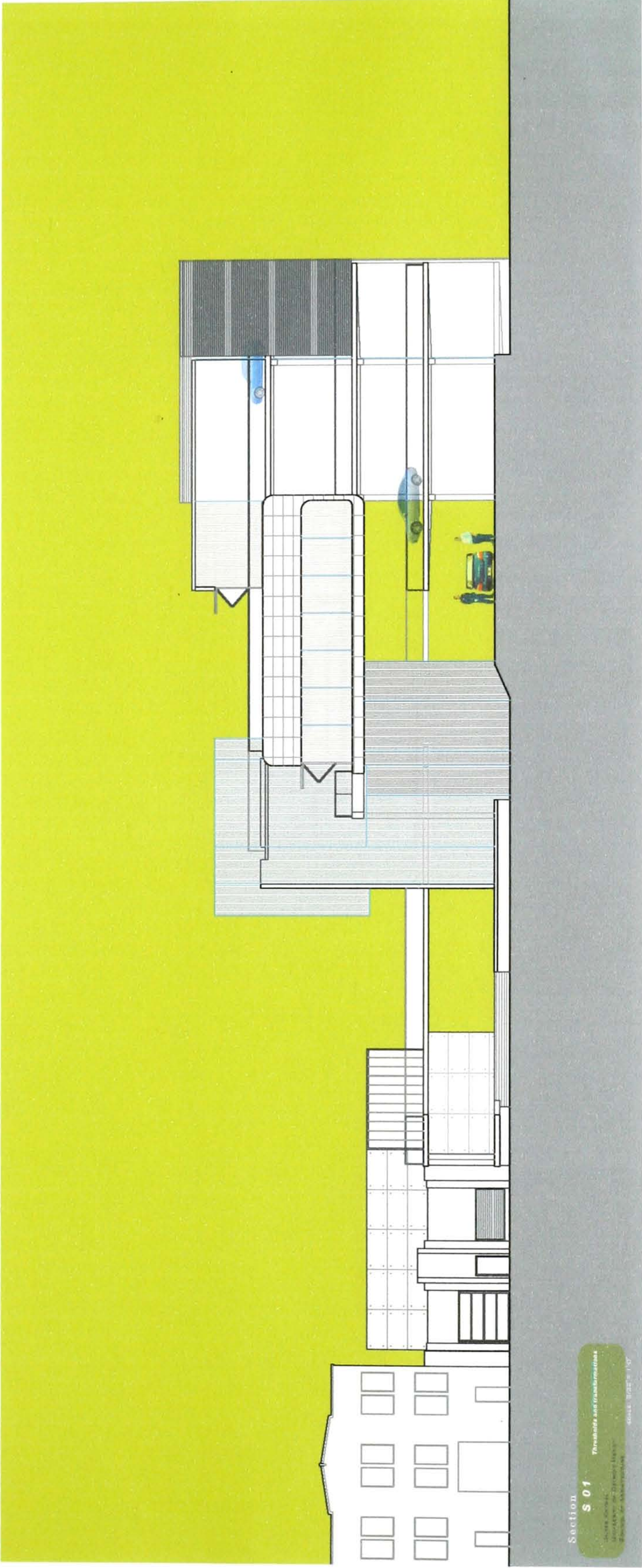
Second Floor Plan
P.02
1. STUDENT ROOMS
2. LOBBY
3. LOBBY AREA
4. LOBBY
5. CLASSROOM
6. COMPUTER LAB
7. RECEPTION



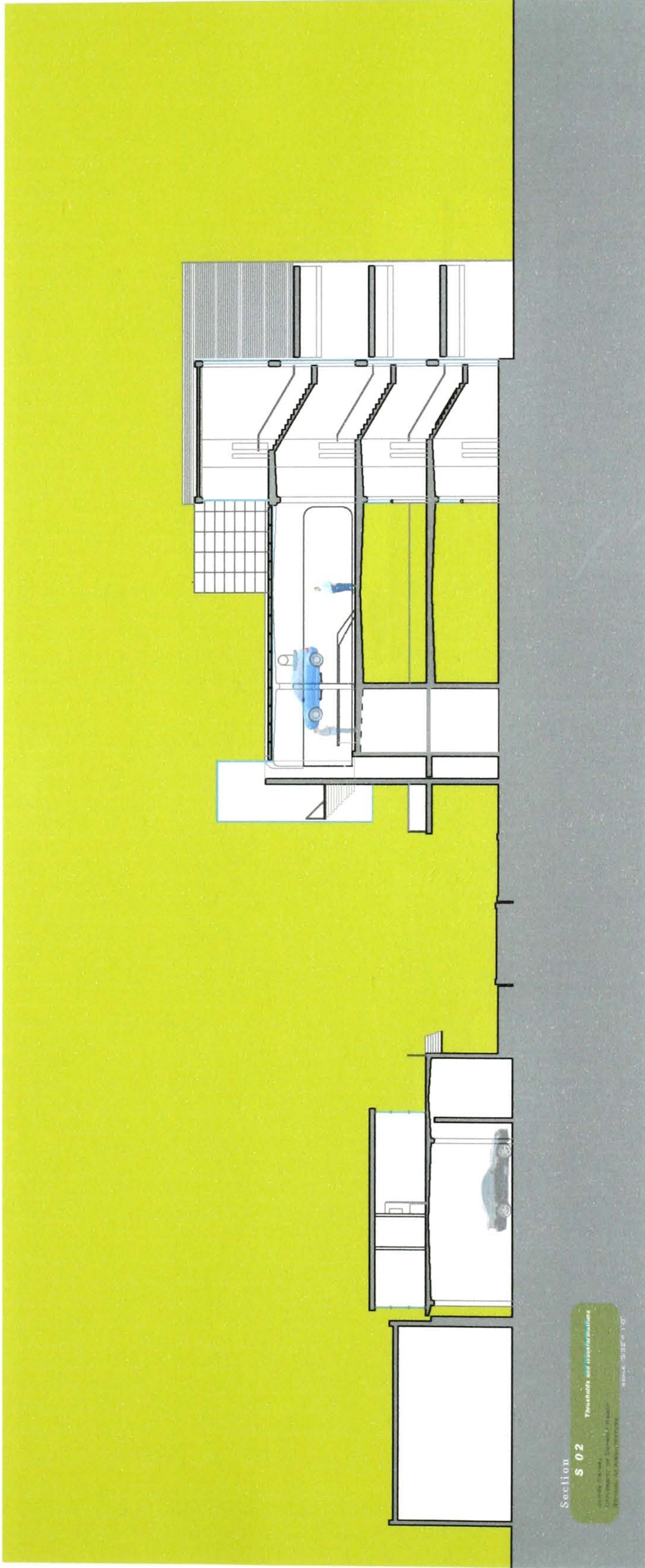
Third Floor Plan
 P 03
 1 Workstation
 2 Workbench
 3 Storage
 4 Reception/Notification
 5 Parts storage
 6 Reception & Info
 7 Kitchen

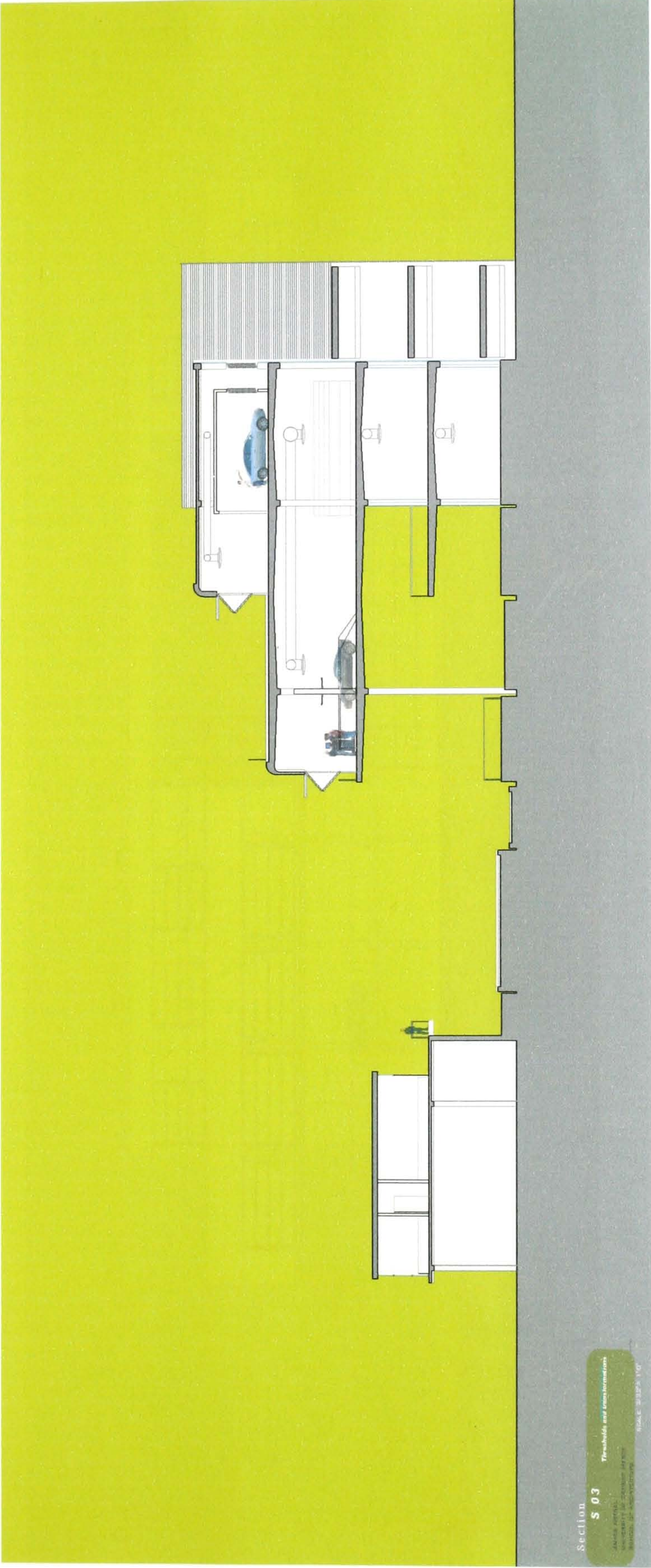


Fourth Floor Plate
 P 04
 1. Open
 2. Carbon fiber workshop
 3. Perf lab
 4. Perf booth
 5. Perf storage
 6. Ventilation
 7. Restroom

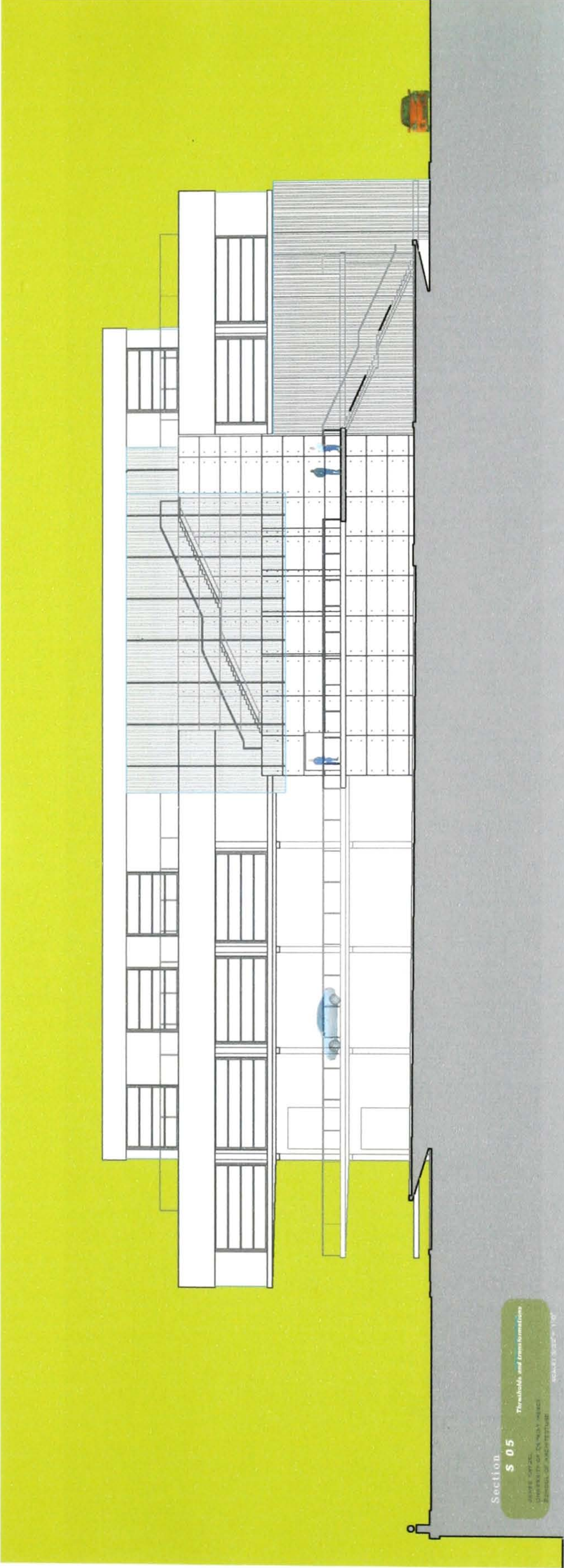


S 01
Through the transformation
of the building
into a modern office building
with a parking garage

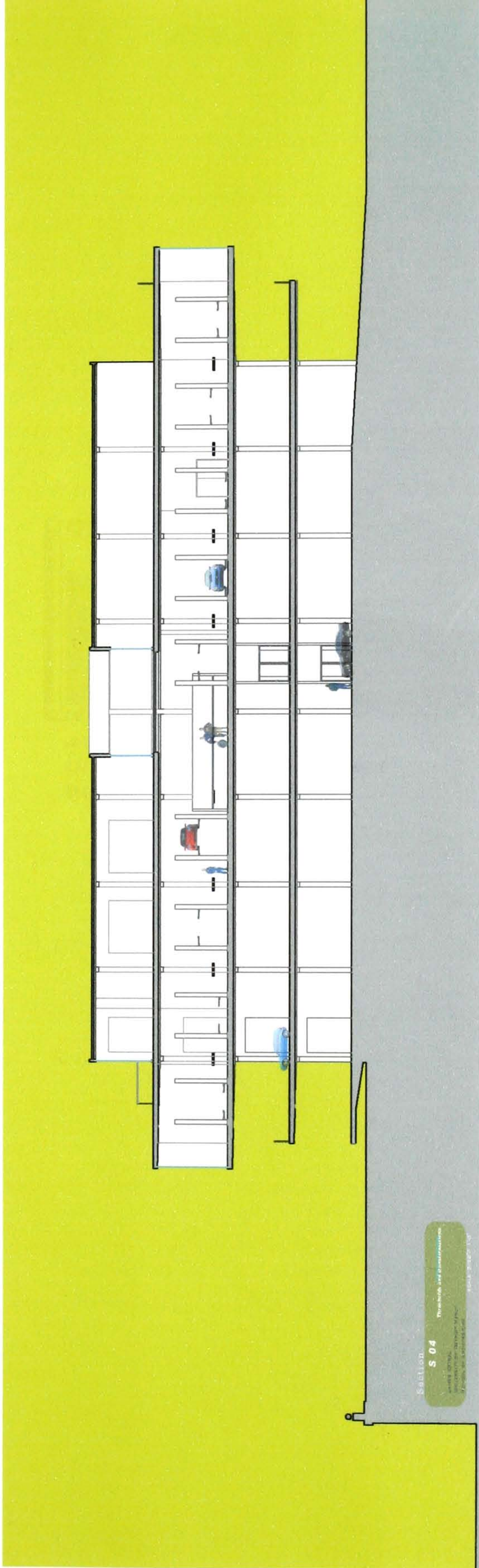




Section **S 03** *Treschide und Antriebsmechanismus*
Ausschnitt: *Ansicht von oben*
Maßstab: *1:100*

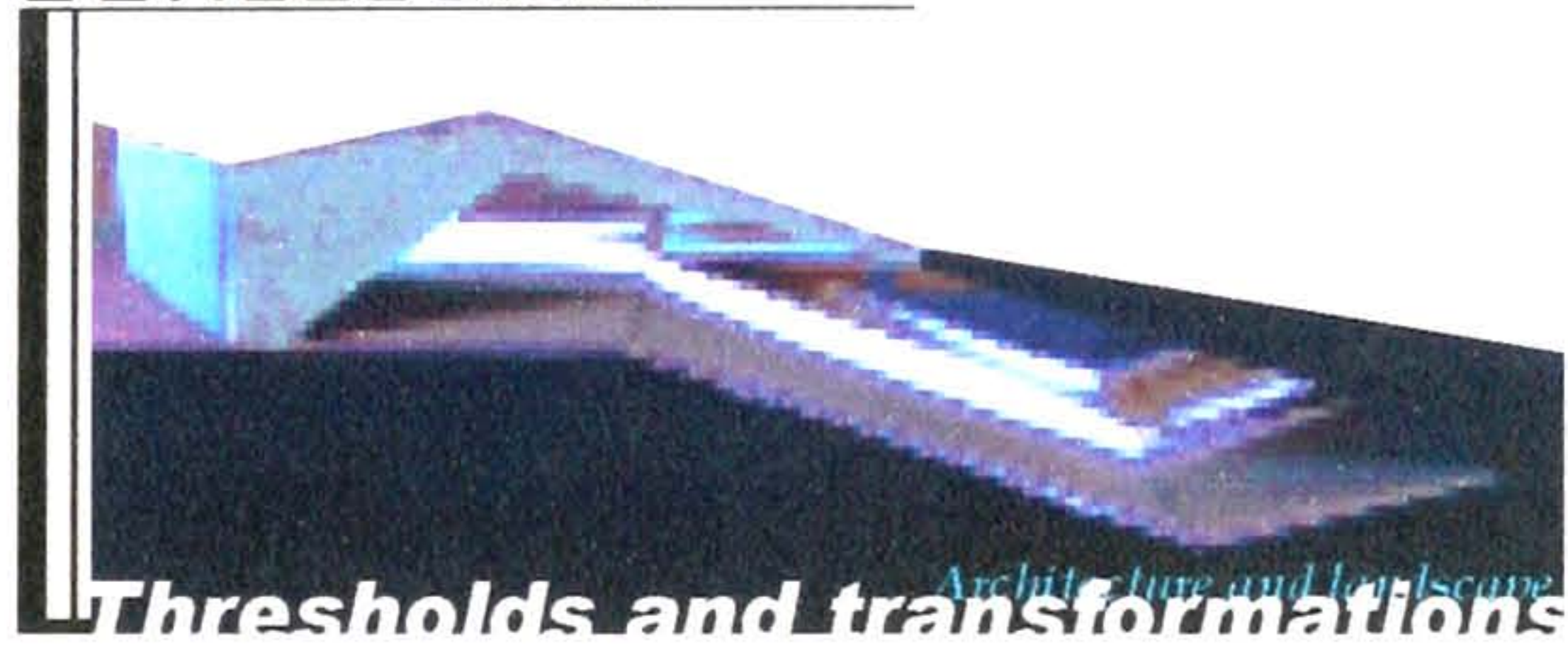


Section
S 05 *Through the and Cross Formations*
JESSIE SPITZEL
UNIVERSITY OF CALIFORNIA - BERKELEY
SCHOOL OF ARCHITECTURE
© 2007 SPITZEL YIP



Section
S 04 The high level of construction
Architect: [Name]
Project: [Name]
Scale: 1/50

CONCLUSION



Thresholds and transformations

JAMES KRYGEL

UNIVERSITY OF DETROIT MERCY

SCHOOL OF ARCHITECTURE

What is the threshold that divides us? How do our steps along the way influence our experience of one place compared to the next? The idea of transformation and threshold becomes a process in which the users on the site engage with. Like that of the farmer, the students have a separation from their work but are always surrounded by it. By separating the two completely and making the process part of the connection as well as the separation, a few critics questioned that separation. Was the idea of live/work pushed hard enough? The program that was used required large space and trying to intertwine a live space within the work environment was not feasible. I believe that the threshold and transformation can be accomplished through a process and a suggested set of rituals that happen in everyday life.

Some questions that have recently been raised have been the focusing on detail and the in-between space and how that space becomes prescribed. In regards to the details, more time and a closer inspection at a smaller scale to reveal the moments in the project that starts to refine the process of shifting from live to work. Where is the soap dispenser in the locker room where the mechanics can wash their hands? The process of moving through the site and from one state to a next could have more elements that help describe the process.

After talking to critics, the in-between space did have almost a to formal approach. The space was thought out to become a place of interaction. Possibly it could have been designed for a place of movement and the users of the site are the ones that create the places of pause by themselves and others. The landscape elements that create a push and pull with the earth start to give these opportunities of pause but was questions if they want to be even pushed farther.

To further this investigation more time would be spent on understanding the building completely, not having spaces drawn but understood and how the architecture creates an envelope. The idea of a light well was introduced into the project at a later stage so more effort in refining the puncture through the structure and how with the movement of the car could light start to further penetrate into the building.

Excitement of mine comes from the process of going through design and learning from what I have done. So many times this term have I thought, “this is the one, this design has what I need”. But constant pushing and reexamining opened my eyes to the other aspect of the projects program. The second term in design development I struggled with this idea of “I’ve got the right design here”, but it was when I stepped back I saw I was only designing for a part of the program. The movement of the car onto the site and into the building was a challenge. Understanding where the car is headed in the process, a ramp working in the constraints of the site help solves problems of movement and started to showcase the life of the building. When this relooking happened, it was clear that I understood the movement of the car but left out the process of why the car is here, to be transformed by students and master mechanics. The program itself was left behind; examining this point, the next step was understanding completely the needs of the garage and its human occupants. Building on my understanding on the movement of the car, the integration of the program was woven into the existing ideas to create the structure that became the final design.

A professor asked if I thought my questions that I had asked in the beginning been lost? He had a hard time see some of the answers in the design and concept that I ended up with. The part I am most satisfied with was the process of change, loving an idea and

not being afraid to push that idea to question if it really works with what I am hoping to accomplish. It was my questioning that helped me form the process, which help in turn form a design.

ANNOTATED BIBLIOGRAPHY



JAMES KRYGEL

UNIVERSITY OF DETROIT MERCY
SCHOOL OF ARCHITECTURE

Annotated Bibliography:

David Bennett, *Exploring concrete architecture: tone, texture, form.*
Basel; Boston: Birkhäuser, 2001

Kent C. Bloomer and Charles W. Moore, *Body, memory, and architecture.*
New Haven: Yale University Press, 1977

Francesco Dal Co and Giuseppe Mazzariol, *Carlo Scarpa: the complete works.*
New York: Electa/Rizzoli, 1985, c1984.

Mildred Friedman, *Carlo Scarpa, Intervening in Architecture.*
New York: Monacelli Press, 1999

Lance LaVine, *Mechanics and meaning in architecture.*
Minneapolis: University of Minnesota Press, c2001

Antoinette J. Lee, *Past meets future: saving America's historic environments.*
Washington, D.C.: Preservation Press, c1992

Richard Murphy, *Querini Stampalia Foundation: Carlo Scarpa.*
London: Phaidon Press, 1993

Christian Norberg-Schulz, *Modern Norwegian architecture.*
Oslo: Norwegian University Press; Oxford; New York: c1986

Christian Norberg-Schulz and Gennaro Postiglione;
Sverre Fehn : works, projects, writings, 1949-1996.
New York: Monacelli Press, 1997

Oscar Riera Ojeda, *Phoenix Central Library.*
Massachusetts: Rockport Publishing, Inc. 1999

ARCHITECTURE



2003-2004