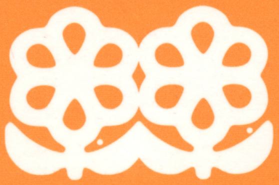
this napkin. discipline



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KEEP OUT OF REACH

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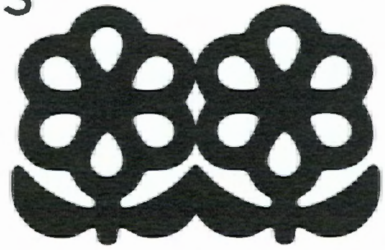

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FOREWORD

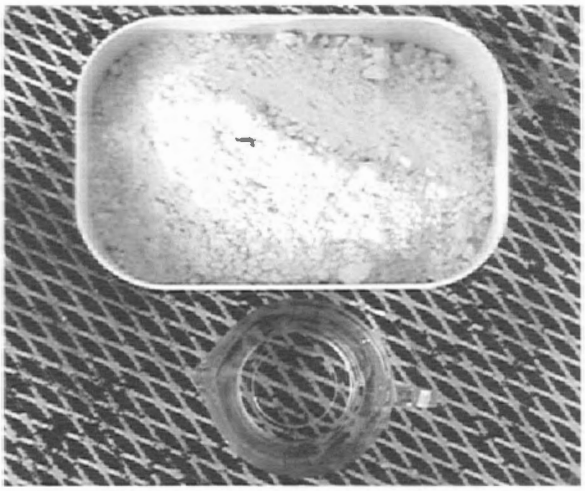
Eric Hartz
Elizabeth Keslacy
David Rhöse

Discipline is not a word that one can easily assign an exact meaning. The difficulty lies within a multiplicity of its subject/object relationships. Is one disciplined or disciplining and if so, by whom? Oneself, others, an institution? All definitions, however, include an element of regulation, of boundaries, of limits. The making of Dimensions 14 offered us the opportunity to consider the limits of the discipline of architecture. Traditionally, architecture as a discipline is self-referential—drawing on its own history of ideas, built form, and the persuasions of its practitioners—whether they practice in the realm of form or language. We believe that the definition of architecture can be enriched by expanding its influences and the expectations of how those influences are used. To engage in other topics allows a fresh perspective on the discipline. Working outside the traditional discipline allows us to work inside with greater wisdom and clarity.

This book is a record of our simultaneous engagement of the discipline and a registration of its change toward a more inclusive way of thinking. Dimensions 14 includes a number of articles that lie safely in the traditional boundaries of architecture, while other articles challenge those boundaries by introducing such topics as tattoos, painting, baking, and film. We hope you find Dimensions 14 to be broad, yet purposeful and persuasive in redefining the discipline of architecture.

DAILY BREAD

MELISSA HARRIS



Baking bread is like designing buildings. Bread fills our stomachs and buildings keep us warm and dry. Both may also transport the mind or elevate the soul. Baking and architecture are essentially defined through transformation of material. When inert materials or ingredients such as wood, metal, and cement—or flour, salt, and water coalesce, a building or a loaf of bread is born. But of even more value to me as an architectural educator, the discipline required to bake good bread and the aesthetic considerations essential to its success translate directly to teaching students the basics of drawing and designing buildings.

I have noticed a pattern during my bread baking. The more aesthetic pleasure I take in the actual making, the better my bread is. By aesthetic pleasure I mean visual and sensual, cerebral and corporal—observing each step as a uniquely creative process within itself. Kneading dough and solving quadratic equations for building dimensions weave together seemingly unrelated activities, but the roles of craft, economy and proportion are critical to the process going on both in the kitchen and in the architect's studio. All involve discipline.

I bake bread every week. The ingredients of great bread are elementary: water, flour, and salt added to a sourdough culture. But from these basic ingredients a process evolves which demands precision, sensitivity, and the discipline of constant involvement. A myriad of variables affects the outcome of bread: temperature, humidity, timing, how to stir and for how long, how to knead the dough and for how long, the selection of flour, the water, regular salt or sea salt, the possibilities go on and on. The interaction among the variables boggles a casual attempt to correlate cause and effect. Every experience informs my next baking.

The culture I use is a living organism with a history that predates anyone reading this. Supposedly, it is originally from Russia. It came to me through my stepfather, Professor Harold Hopfenberg, via another professor in North Carolina, David Auerbach, who got it from Sourdough International, an organization that nurtures, catalogues, and distributes sour dough cultures. Two professors taught me the basics of making this bread.

Maintaining the culture is a responsibility not dissimilar to caring for any other living being like a dog. It languishes if neglected, dies if abandoned, and flourishes vigorously with frequent use. The more you bake the better the bread, because the starter is extremely active. There is no added yeast; the bread is leavened by wild yeast complemented by symbiotic bacteria in the mother culture. These are living organisms that demand food.

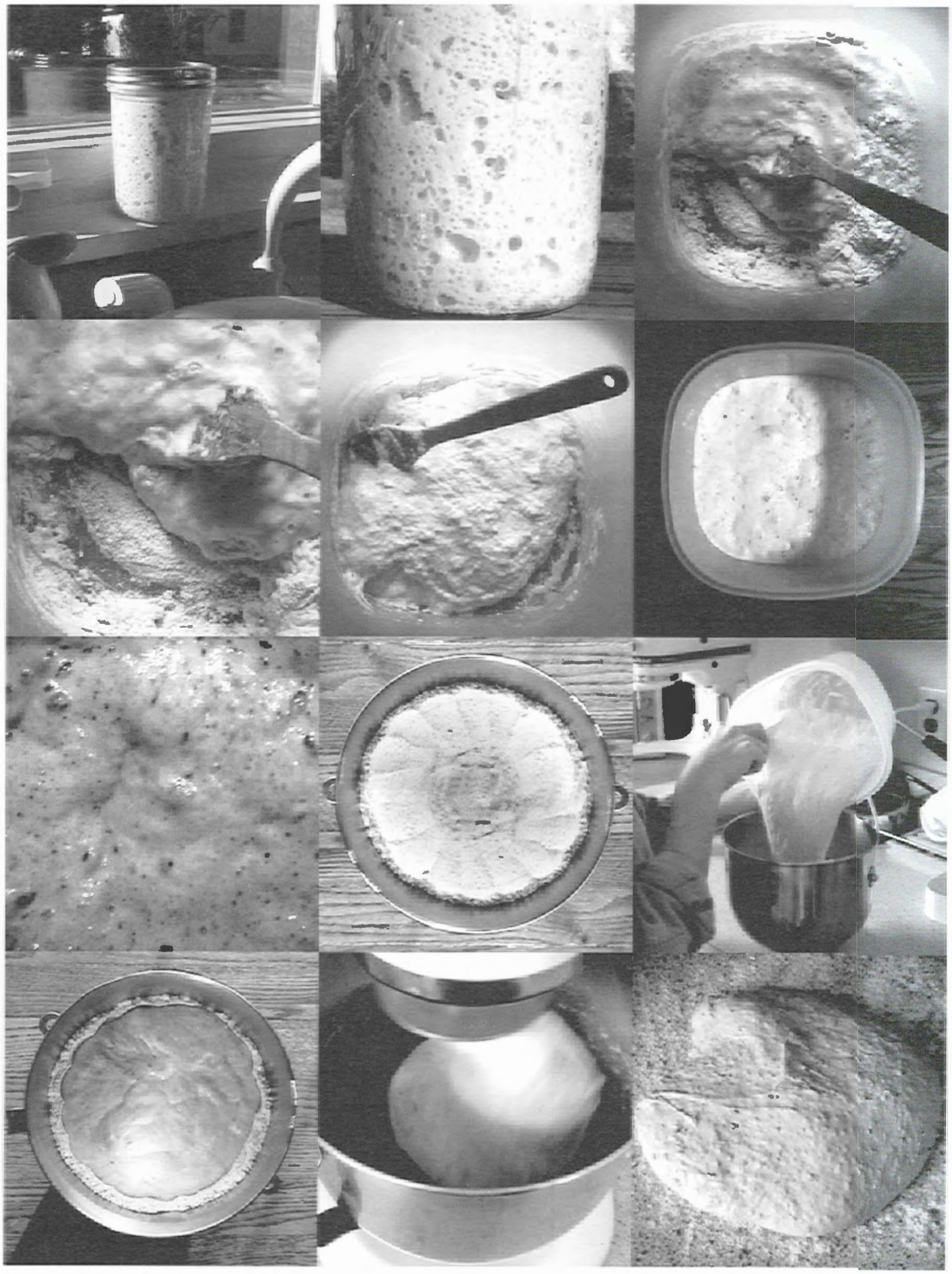
Making the bread is a two-day process. The first day requires three periods of "feeding" or doubling the starter to generate a basis for the actual bread dough and, of course, recycling a small reserve for the next baking. The second day involves kneading and shaping the dough, waiting for the rise, and then baking. Professional bakers use a wood fired oven; I use a standard kitchen oven, with more than acceptable results.

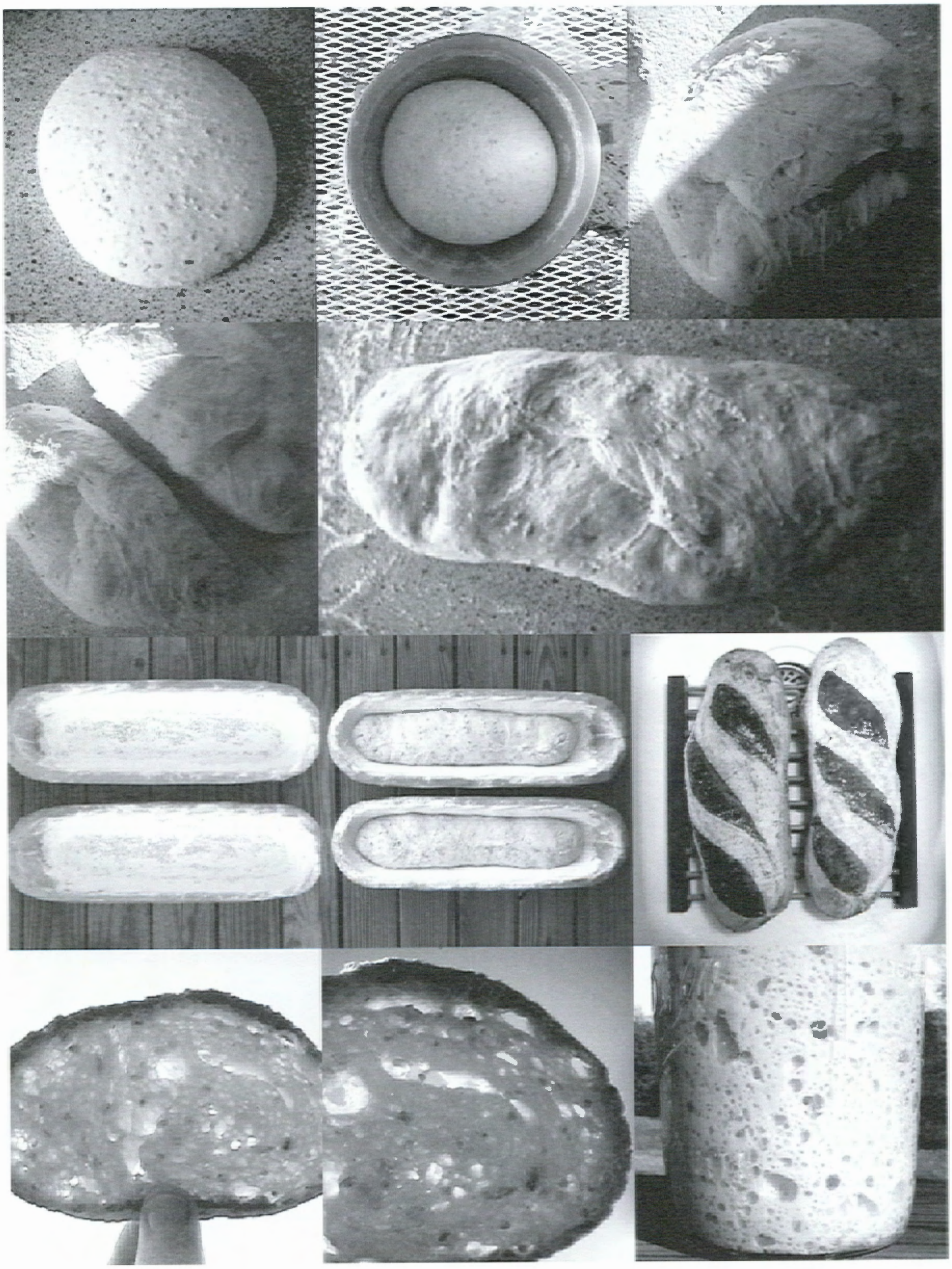
Why do I bake this particular labor-intensive bread when I could pop into any food market and buy bread for a few dollars? Or when a bread machine could do it for me?

Because no bread I have eaten in traveling around the world (with the exception of rohelimpuu in Helsinki) rivals the taste. The process satisfies two basic urges: to eat well and to make things with my hands. It also stimulates my scientific curiosity and my inclination to record, to measure. Because the general steps are consistent—adding, mixing, shaping—the impact of each finely tuned nuance is pronounced.

Baking Bread

The series of procedural steps spaced over a thirty-six hour period are all gerunds: feeding, waiting, mixing, kneading, stretching, shaping, proofing, and baking. For me, sequence matters—from which ingredient touches the Tupperware first to where the others land when added. At each step there are goals of proportion and balancing of forces: how aggressively to stir, in what shape or motion, and when is it stirred enough? Unfortunately or fortunately, depending upon your personality and point of view, everything matters.





Feeding

Feeding the starter means doubling it by weight with equal parts water and high gluten flour. The flour and water are mixed into a refrigerated culture held over from the last baking. The consistency of a one-week old starter hovers between liquid and solid. Even in its embryonic condition, the bread seduces you with a mysterious inner nature defying classification. If the characteristics of both liquid and solid are maintained, the bread is better.

Mix is an ambiguous verb. It is sort of like my grandmother's final instruction in a recipe: "Cook until done." I've been into mixing since I could see over the top of the stove. During this "feeding" stage, I try to preserve the textural integrity of the starter. I create a pyramid of ingredients: first the dry flour as a base, then the stretchy starter, and lastly the water. A gradation from dry to wet.

Machine Mixing

Spread the flour up the side of the bowl to facilitate the integration of flour and water. The angle of repose of flour is steep, characteristic of small particles. How far up the side of the bowl the flour can reach before collapsing is an ongoing challenge, a personal competition from week to week. I take it to the point of collapse and begin again.

I choose the same tool over and over, my great-grandmother's old spoon. It is almost spherical in section and when I drag it against the flour, the shape of its trail is graceful. One groove segués into another with inter-generational ease. An inverted flower.

Kneading

Kneading follows the initial, tougher work of the machine mixer. The machine step is optional, but hand kneading is not. The aim is to stimulate the development of gluten, indispensable to the dough's elasticity. The best bread results from a very loose, wet dough. This is both counterintuitive and physically difficult to achieve. Wet dough sticks to your hands and to your kneading surface. And when it sticks, the glutinous strands you've worked to achieve and want to preserve tend to tear both themselves and your nerves apart. It may be the origin of our Southern idiom, "It tore me all to pieces."

Neatness, craftsmanship, or economy may all seem outside the concern for taste or quality of the loaf. But a kneading surface that is overly-floured or floured haphazardly results in a dry dough, or worse, small clumps which survive during the baking.

Equipoise is a term I first heard used with reference to baseball. Now I use it often in my drawing class to encourage thoughtful, fluid lines. The term combines two apparent opposites, relaxation and concentration, both essential to effective kneading. Movements must be flowing and continuous, yet powerful and assertive. The choreography of this step requires *a pas de deus* between sprinkling flour and keeping the dough in motion. Even the slightest hesitation results in a stick. And that could lead to a tear. Hand jive.

Rising

The dough rises initially for four to five hours depending on the temperature and the humidity. After the hand kneading, the dough, like a newborn calf, is wobbly and barely able to stand alone. Moving my hands back and forth in a scissors-like motion enables me to form the most spherical shape, one I believe is conducive to a high rise. A figure ground of dough and air.

Stretching

A quick respite from the long rise, the dough is stretched, not torn, into a rectangle. This organic liquid/solid resists the precision of an orthogonal shape, yet this visual goal probably increases the likelihood of an even rise, with no air hole disproportionate to the rest. Even folds, and back into the rising bowl.

Shaping

For the final rise, or the proofing step, the dough is formed into loaves. These can take many shapes, but my current favorite is the batard—a larger baguette shaped loaf. The boule, yet another shape, may be the most beautiful, resembling a large, dark, mountain stone. Again my lesson of shaping this loaf is passed from Paris through David Auerbach, philosopher and an organizer of the Slow Food movement in America. David learned his baking from Michel Cousin, master baker of *L'Autre Boulange* in the 11th arrondissement. Folding, rolling, and pinching into a form smooth and consistent. While the visual image may motivate this, clarity of form is crucial. The crumb (the part inside the crust) should be coarse and resistant to the tooth but absent of huge blow-outs where air bubbles distort like a human goiter.

Proofing

The batards are now placed in long, flowered bannetons (linen lined baskets) which allow air circulation and also wick moisture from the dough's surface. They rest covered for two hours.

Baking

The actual baking of bread is a complex procedure. Chemical transformations (mostly of water inside the dough) exceed the limits of my knowledge (for beautifully written descriptions of all aspects, see *The Bread Builders* by Daniel Wing and Alan Scott). High heat (over 500°F) and moisture in the oven are key.

The transition from the banneton to the baking sheet or stone demands great finesse. Though I do not use a stone or peel, I treat the loaves like fragile newborns. Any trauma adversely affects the height of the loft. Sometimes when failure seems certain, my best loaves happen. The other day I forgot to turn the oven temperature down for the last twenty minutes and I discovered a multi-layered crust that I had never before achieved.

Considerations move deeper into the subconscious the more I bake. They are part of the experience which informs my hands. Every time is different because no two-day period is the same. Each loaf is a temporary record of its making. Last week, movie times coincided with starter preparation.

The ticket taker stopped me at the door of the Michigan Theater:

"Excuse me, what's in your paper bag?"

"It's my bread ingredients. I have to feed my bread the day before I bake it," I responded.

Inside the bag was my tall Tupperware, a plastic bag full of pre-measured flour, an old olive jar filled with ten ounces of water, and a wooden spoon for stirring. After a quick survey, the ticket taker remained perplexed, but let me in. We saw the movie and added the final mix by the light of the screen. That night the culture stayed out of the refrigerator longer and the resulting bread was flat due to over-extension.

My bread reinforces the need to revel in the process of making and my buildings are beginning to reflect a cross fertilization of designing and baking. At no point in creation can a vision of the end product diminish the significance of each step, nor divert the urge to ride the wave of a tangent, even if momentary. Applying the golden mean to a garden structure may, at first glance, tread on the dangerous ground of formulaic formalism. A proportioning system might offer the designer relief from the need to be continually present, engaged. But understanding the mathematics of the golden mean is as elegant and sensual as shaping a round loaf of soft dough, and may be the necessary aesthetic immersion for a better structure.

A Shade Structure

Sometime around November and February each year I explain the golden mean to my Basic Drawing students by way of a graphic demonstration. I discuss the golden mean as a specific proportion whose usefulness and beauty lay within the larger arena of relationships. The challenge is to distinguish for the students a means from an end, taking care not to cast visual and formal decisions as mere formulas.

This concern stems from past experience teaching beginning design students and witnessing the explosion of proportioning rational seeking to justify design decisions. In such rhetoric I miss what I consider larger ideas, goals with tentacles to reach both broadly and deeply into issues of form, structure and experience. Beginning design students always look first for rational answers to design questions.

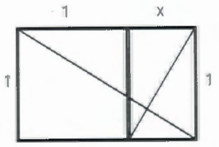
I have always felt "prepared" for the class on the golden mean, armed with colored chalks and a steady hand. First a square, divide that in half, rotate the

diagonal of one of those halves, extend the base. But this summer I received a design request that shook my confidence and changed the way I teach. The client, my mother, wanted a shade structure roughly ten feet by sixteen feet.

Last winter a cherry tree marking the middle of my mother and stepfather's garden blew over in an ice storm, roots and all. They had always eaten meals under that old tree in the good weather. Sheltered and shaded under limbs of white blossoms, the table rested on a bed of dark mulch and fallen petals. Practically speaking, the cherry tree with its wide, protective embrace, enabled summer use of the backyard. A young replacement would not mature until my parents were well into their eighties. That seemed too long to wait.

Ten by sixteen feet is so close to the golden mean ratio, that I bit. But I did not realize what I would relearn about the beauty of mathematics. There is, of course, an irreconcilable dilemma when applying a proportioning system of an irrational root onto lumber and posts limited by whole numbers: 2 x 2s, 2 x 4s, and 4 x 6s. Because of its irrationality, there is no end to sizing or dimensioning. One must "cheat" or approximate dimensions since the tools of most contractors do not recognize decimals. I began to discover the significance of the Fibonacci series and to rediscover the elegant algebra and calculus I left behind years ago.

To actually solve for the golden mean, one could ask what length would be added to a square to create a rectangle whose sides are both arithmetically and geometrically related. In other words, what rectangle whose one side is shared by a square, will, when added to the original square, form a larger rectangle proportional to the first?



If the two rectangles are similar (in a geometric sense,) then:

$$1/x = (1+x)/1$$

which rearranges to form: $x^2 + x - 1 = 0$

Since any quadratic equation of the form:

$$ax^2 + bx + c = 0$$

can be solved by the quadratic equation:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

and the equation describing the golden mean is:

$$x^2 + x - 1 = 0,$$

where: $a = 1$
$b = 1$
$c = -1$

then, when we substitute these values for a, b, and c into the quadratic equation, the equation solves for x with two values:

$x = -1$
$x = 0.6180339\ldots$

Of course, only the positive value, $x = 0.6180339$, is relevant to the real world problem of rectangles. The ratio corresponding to the golden mean is, therefore, 1.0 plus 0.6180339 or 1.6180339. This unique result reveals that the only ratio of rectangular dimensions, which satisfies the similarity criterion, is 1.6180339.

From a seemingly completely different point of view, the Fibonacci series is an arithmetic series wherein each progressive number is the sum of the two previous numbers, e.g. 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, etc. This is deceptively related to the golden mean since as the series progresses, the ratio of one number divided by its predecessor approaches 1.6180339. As the numbers being divided increase, the value of the ratio begins to move above and then below the value of the golden mean, oscillating with diminishing amplitude, coming ever so close, but never reaching the limit of 1.6180339, the exact number of the golden mean.

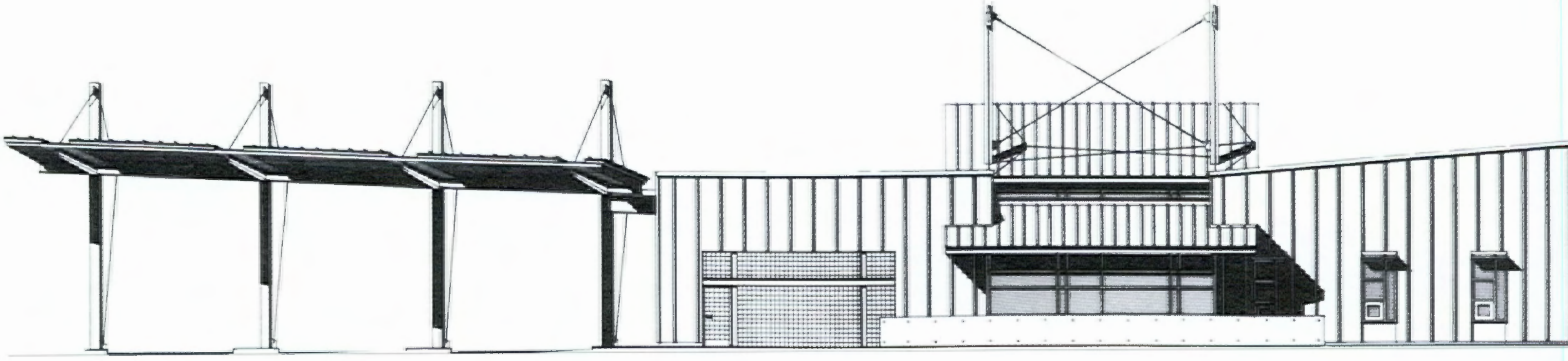
The arbor was shaped by other desires, as well. The view through the structure needed to frame a "captured landscape" as in a Japanese garden, with a clear view of the distant, white Carrara marble sculpture in front of weeping Japanese maples. It had to be structurally strong enough to support annual shade vines. And I wanted a feeling of two spaces inside—one more private or service oriented and the other more open. I chose the natural divide between the infinitely repeating square and the golden rectangle to distinguish these two functions. It is marked both in plan (by a smaller grain floor decking), in elevation (by horizontal slats increasing in interval spacing according to the Fibonacci series), and in a more dense spacing of overhead members. In plan, the square rotates into the section to become a golden rectangle and the golden rectangle becomes a square in elevation.

I have recorded most of the past twenty years of my life in sketchbooks (now almost 40 of them) filled with daily drawings. A friend recently dubbed this addiction to visual recording as "note-itis." I see in drawings the creation of relationships. All of my work, teaching, designing, baking, writing, is influenced by my drawing, which demands daily refinement of one's awareness, visual acuity, and skilled hand to eye coordination, as in kneading bread. On each page of my sketchbooks are conscious and subconscious decisions—where text goes in relation to image, what medium I use and why, what type projection. This is surely the path to my life as a teacher. And it is, again, where bread baking and building converge.

Training in the visual and applied arts has far reaching implications when one weaves the experience it provides into all disciplined production. The aesthetic concerns of a building's proportion or the shape of the dough which forms a loaf of bread become almost second nature to someone involved in routine baking and drawing. The product is nothing if you have not enjoyed the fragile beauty of a mountain of flour, the flow of ink on smooth toothed paper, or the disciplined struggle to calculate a set of dimensions.

All photographs courtesy of the author.

DAVID MILLER/AN INTERVIEW



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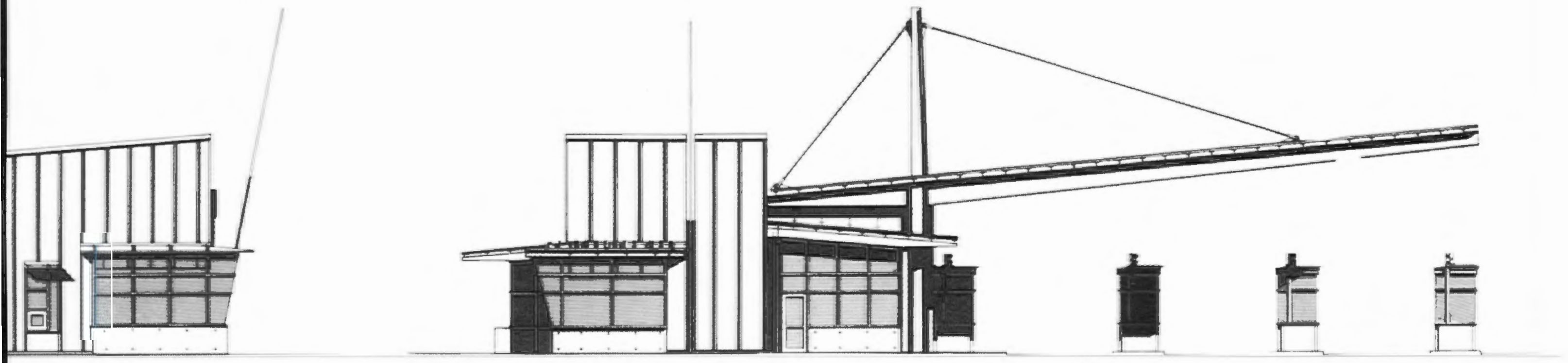


Dimensions interviewed David Miller on 6 February 2000. The interview team included Yumiko Aoki, Lillie Arrazola, Tara Earnest, Christopher Gerrick, and Elizabeth Keslacy.

EK: Tell us about your role in the graduate studio at Michigan.

DM: I am officially a "Distinguished Visiting Critic." I come in and work with a graduate studio, give my observations and then come back every few weeks and see whether those ideas have been followed through or maybe rejected for good or not so good reasons. I come back, revisit the schemes and make some observations again. Hopefully, there's continuity.

EK: One reality that students are acutely aware of is the gap between practice and academia. You work in both worlds. What's that like?

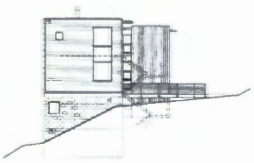
DM: It's something that I have done my all my professional life. I have always liked that mixture of practice and theory. I don't like to be labeled a "practitioner." There are a lot of faculty that label me because there are a lot of faculty at the University of Washington that don't practice at all. But, I am very interested in conceptual and theoretical ideas. Teaching gives me a connection to that kind of thinking, it gives me things to contemplate. I can't imagine practicing architecture without teaching. At the same time, I can bring a sense of how to execute an idea to students, which I think is valuable.

↑ North Elevation
Pt. Roberts Border Station

EK: Your website describes your firm as deeply rooted in an evolving modernist tradition of architecture. How does modernism evolve?

DM: I went to school in the late 60s and early 70s, and, at that time, our heroes were Lou Kahn and Mies van der Rohe. It was a very rigid approach to modernism. Certainly Lou Kahn had a good sense of history and of tying his ideas to context. But overall, it was still a very dogmatic kind of modernism and there wasn't a lot of flexibility within the genre. It wasn't very open to specific influences. I worked for Skidmore Owings and Merrill in Chicago right out of school. At that time, they employed lead designers who were from IIT and Mies's office and had an established approach to formal, spatial, and technical issues. Afterwards, Bob Hull and I joined the Peace Corps. He went to Afghanistan and I went to Brazil. We saw the influence of regional and technical issues and learned regional building methods as well as the regional vernacular styles and forms. Those experiences had a big influence on us in different ways. When we came back and started a practice, we tried to think about a modernism that is more responsive to certain conditions. . . conditions of place and building methods. As we've grown, other issues have come in: energy, responsibility, and issues of sustainable architecture. It's a regional approach, and our way of working accommodates other influences more than the modernism that we were schooled in did.

Another problem with the early modernists is that they had a stylistic approach. Buildings were steel-framed with Mies and Wright always did horizontal compositions. You could recognize their buildings. Our projects tend to be more derived from site and program, and are not as style driven. We are not very good with ornamentation, so the ornamentation comes from the building itself and its construction. Our buildings might look quite different if you put them side by side on a table.



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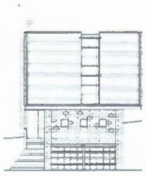
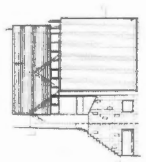


↑ East Elevation

EK: Most of your projects that I've seen so far are very tectonic in nature. Your website also mentions masonry and rammed earth as interests, but I didn't see much of that in your published work.

DM: Bob learned a lot about masonry while working in Afghanistan. They used a lot of rammed earth and mud brick. He designed and built a large two-storey government building using this technology. It was amazing. I also used masonry when I was in Brazil. We made a large block using a mechanical apparatus that would actually shape the block and compress it. Then, it would be sun-dried. Since that time, I've worked with concrete block but I haven't ever done a traditional brick building. However, the interest remains. The tectonic quality you mentioned before comes from working with post and beam construction systems. With it, you get this rhythm of structure and the important connection details. We work very hard to reveal the structure and we try to avoid lay-in ceilings as much as possible. They are like the soft underbelly of America.

Post and beam structures tend to give us more to work with. We built our reputation on buildings that are very affordable, with low budgets, and simple programs. There's not a lot to work with there. Structure is one of the few things we have that give the buildings character. It's always been something that we value. When Bob Hull and I went to school, we took structures classes in the civil engineering department. We had to compete with their students for the two years of structures classes that were required. We had a very good structural education. We love to work with structures. It's a major part of our work.



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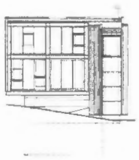

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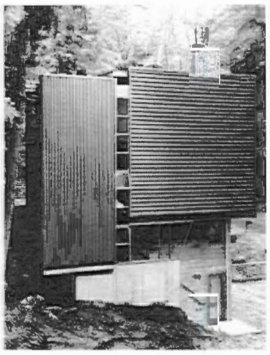


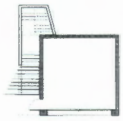
↑ South Elevation
Michaels/Sisson Residence
Mercer Island, WA
Completed Fall 1998

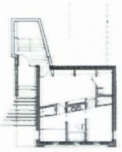
EK: In working with a tight budget, would you say that the structure is where you slip in the luxury?

DM: Yes, that is a good way to put it. The best structural elements, if you really want to make them visually strong and expressed as a major piece of the building, could be created by inflating the size of a member, detailing the connection more cleverly, or adding pins, all for visual reasons. When you express structure, often you are also expressing all of the building systems—mechanical, electrical, sprinklers. These may not always be organized. The most direct route for a piece of conduit, for example, will need to be studied and drawn. It adds cost, but you have to prioritize and decide where you spend that money, because there is not a lot of it to go around.

EK: Miller/Hull is known as a green firm. What is your relationship to the movement and to the term "green"? It's a little trendy.

DM: It has to do with being responsible. Bob and I have a commitment to doing things in very direct, simple, and authentic ways. It's in our bones. And so it was natural for us in the 70s to get involved with the passive solar movement. We did a couple of houses that got a lot of awards at that time for passive solar design. We got a bit of a reputation, so we started working with new energy systems, active mechanical systems, and passive solar techniques. This has expanded into a much more holistic way of thinking in terms of using recycled content material, daylighting, and enhancing indoor air quality. We just like to think of it as a way to practice architecture responsibly. You can call it what you want.





EK: Miller/Hull's houses on Decatur Island are characterized as having been influenced by vernacular architecture. What do you think about "the vernacular"?

DM: I think we understand the regional forms that have developed in the northwest. They tend to be roofs with overhangs that shed water. They tend to be fairly open and transparent because light is so important in our cloudy environment. They tend to be connected to the land, because most are on sloping sites, which are hard to build on. I don't think I've built on very many flat sites in my career. I think we really understand how you build in the northwest, so I guess you can call that vernacular. We're very happy being architects that practice there. We understand our climate and our topography, and we use those lessons in many ways. It's taken us twenty-two years to feel like we really have our arms around how one builds in the Pacific northwest.

EK: What is the role of the computer in your office?

DM: Everything is done on computers now. Bob and I still have a Mayline and we encourage people to draw manually. I don't think that we should give up on the lowly pencil. I think there's still something about the pencil that makes a very direct connection with your mind. But, in terms of correcting and altering drawings, the computer is great. All of our projects are done on the computer, even the houses. We have a lot of new people that are much more comfortable drawing on the computer than they are drawing manually. It's a great tool for most things, but not all. We can do more precise dimensioning and coordinate between the mechanical, electrical, and structural systems. At the same time, I'm not sure if it's helping us design any better, but it's certainly helping us present our work more effectively.

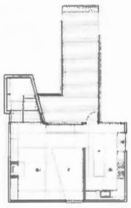
↑ Garage Plan

↑ First Floor Plan

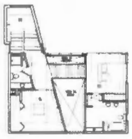
EK: Students are always struggling to find an appropriate process from which to derive form. Tell me about your process as a designer.

DM: It's a really critical part of architectural education to learn how to develop ideas. It's very personal. Everyone has their own personal way of working. But, especially in our media-saturated world, it's hard to think originally and authentically. This is something I've always done through programming. Programming isn't just functional programming, where you list your spaces and figure out the relationships between those spaces. It's when you actually dive into the clients mind and find out what the critical issues are. If you can start there, you will really understand the architectural ideas and concepts, and then you're going to be able to transcend style. People are going to understand the building. We avoid style as much as we can, because once you become a champion for a style, you're stuck with it. You're a deconstructivist or you're a post-modernist, and that's who you are. We try and stay away from that as much as possible and make our buildings deeply rooted in the client's program which very often takes some critical investigation to find out their true desires from their apparent and stated ones.

I think what's really important at first is to try to find a conceptual idea, and then encourage yourself to be brave. You have to start in a very bold way and proceed very carefully. If you can do both things together then its all going to tie together and make sense. It's great to learn how to put buildings together, and I think you get a good sense of that here at the University of Michigan. At the same time, you've got to be bold and conceptual. If you don't feel confident in doing that when you leave school, you won't get it in practice. It is very hard to do it in practice.



↑ Second Floor Plan



↑ Third Floor Plan

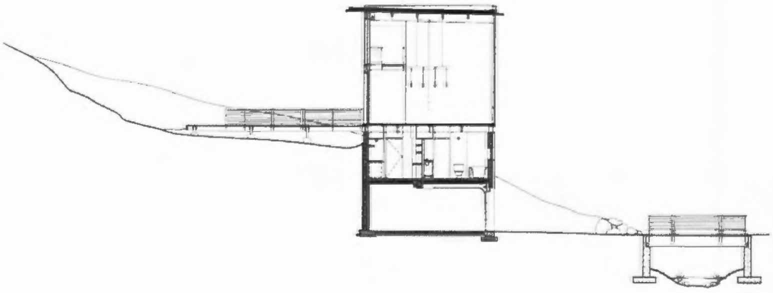
LA: If you had to spend a week studying in culinary school, what sort of food would you be interested in learning how to make?

DM: That's a good question. I love Italian food, but I think I've got a sense of it. Maybe French? I don't know. Well, I'll just go back to Italian. It's got to be Italian. I have spent a fair amount of time in Italy.

EK: Japanese food is quite architectural. . .

DM: Japanese food is very architectural. I lived in Japan for three months and I love Japanese food, but I don't think I could ever master it. So to me, it's unattainable, just like the perfectly composed façade.

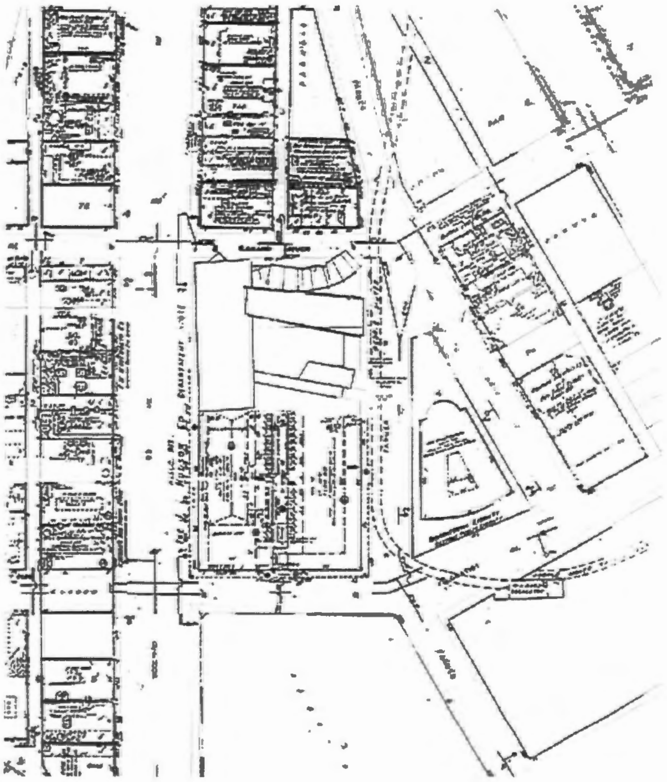
All images courtesy of Miller/Hull Architects.



↑ Section Thru Bridges
Michaels/Sisson Residence
Mercer Island, WA
Completed Fall 1998

BRYON MURDOCK

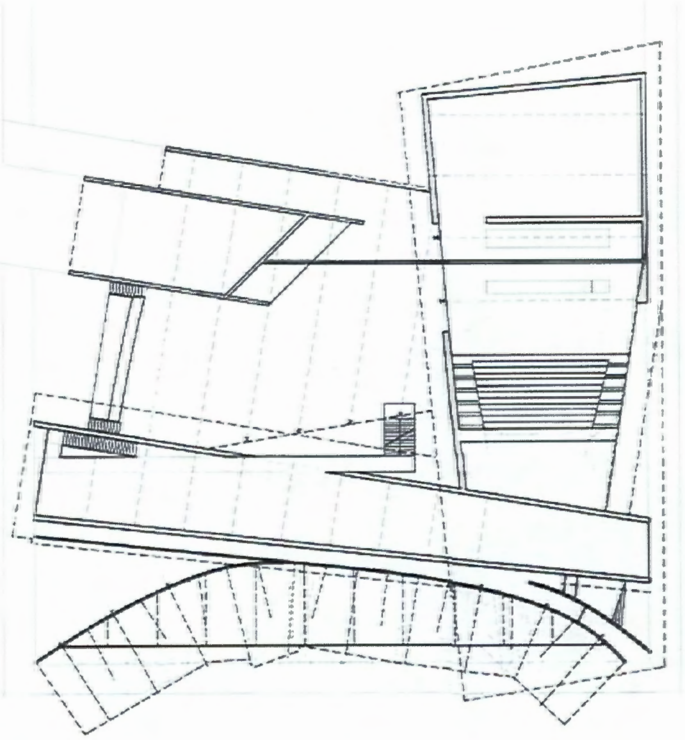
mythic TERRitORy/urban FICTIONS

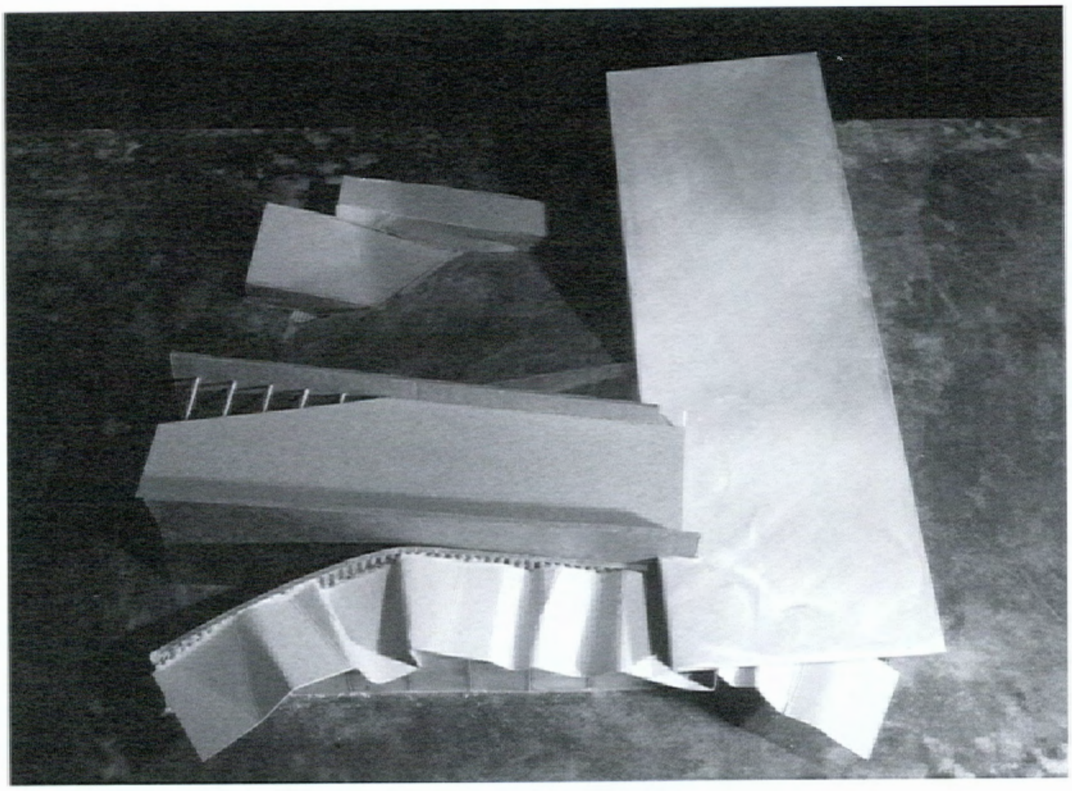


This project attempts to articulate a theoretical position on contemporary urban form through a highly specific design proposal which mediates the complex relations of urban space. Critical incisions are made into the metropolitan experience and the discipline of architecture in an effort to reach beyond the assumed conventions for conceptualizing the metropolitan condition of Detroit. These cuts were an attempt to render visible the political, economic, and social realities of the city, and recode or reterritorialize the boundaries which delimit the discipline of architecture.

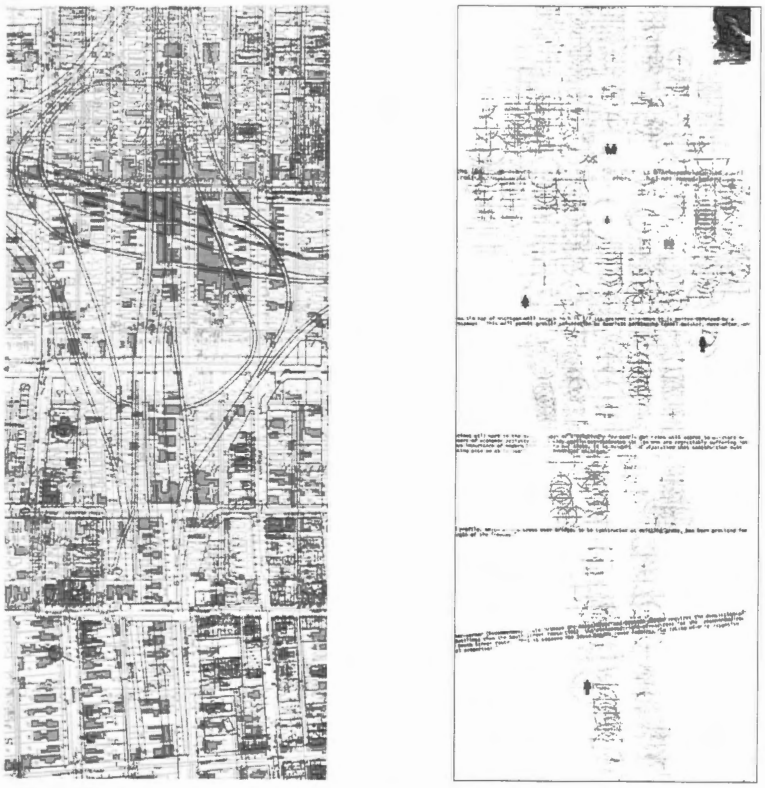
N↑

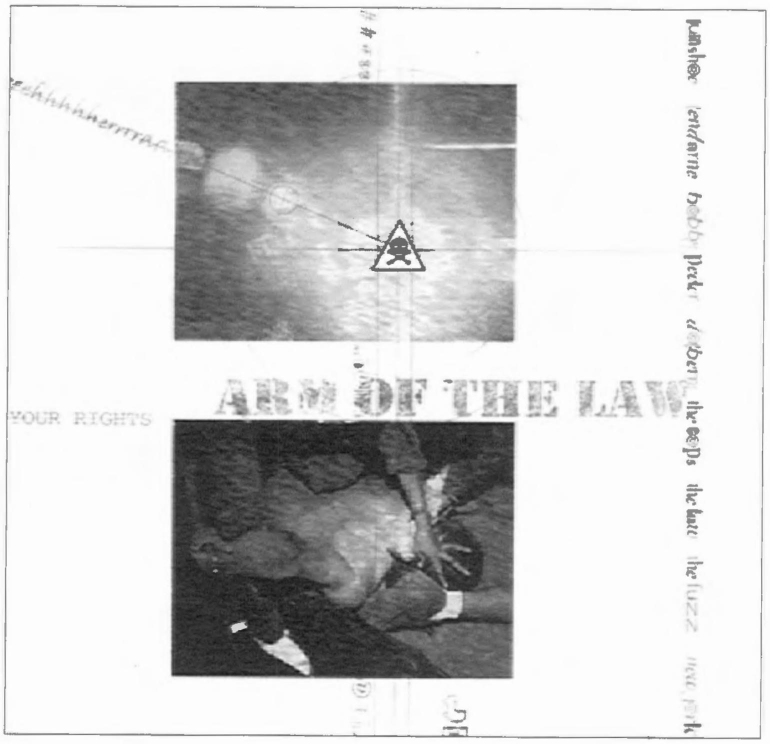
↑ **Site of Former Hudson's Department Store, Detroit**





↑↑ First Floor Plan ↑ North Model View
TV Station





↑↑ **Mapping Detroit** ↑ **"Detroit Is Burning"**

The project investigates architectural responses to two given artifacts, both related to the theme of mythic construction. Given:

1) a newscast segment "constructing" the subject of Detroit
2) a Sanborn map "constructing" the space of Detroit circa 1995.

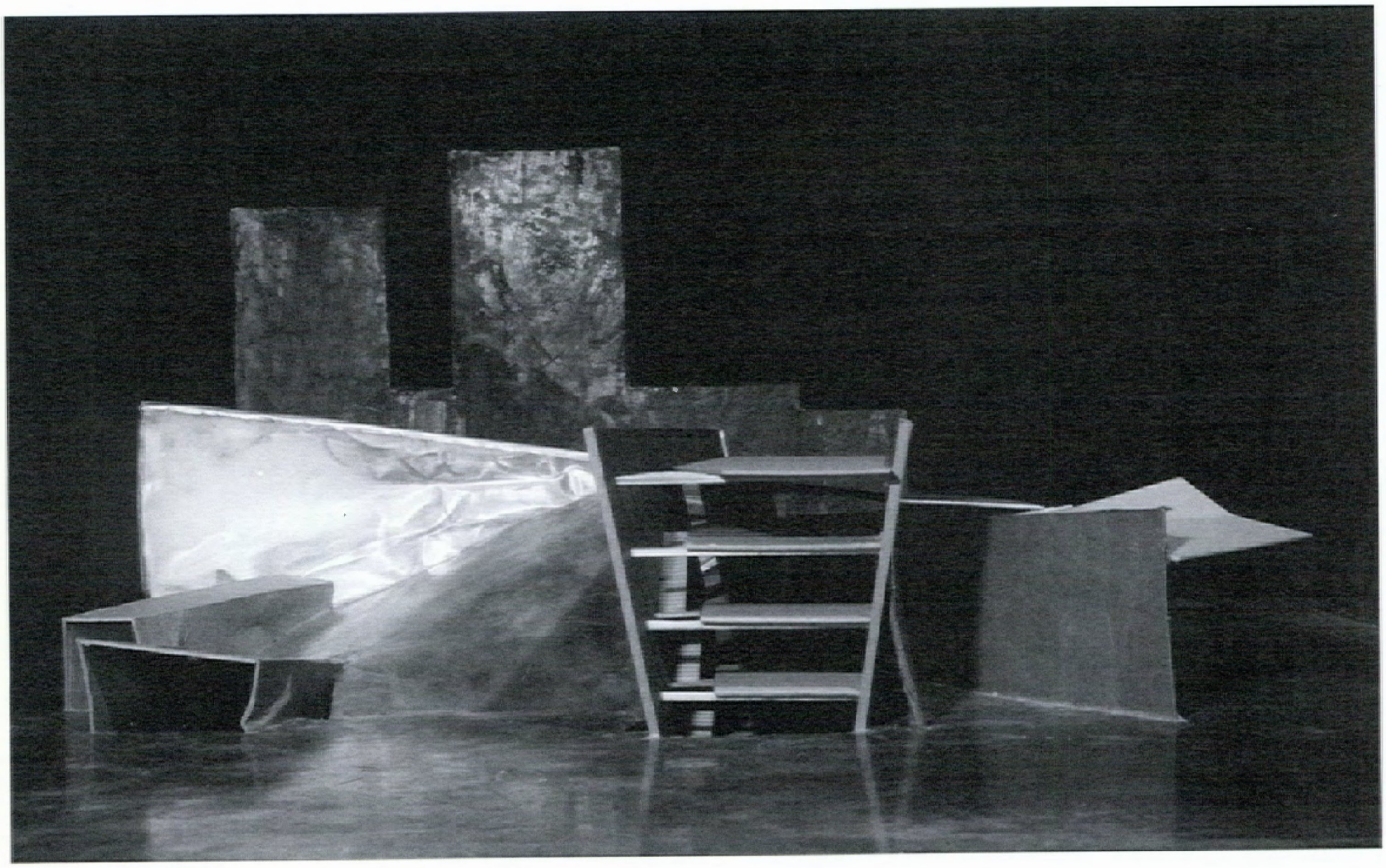
The study uses construction to focus on devising conceptual strategies and material resolution. Phase One projected and explored design strategies for the given urban texts of newscast and map; Phase Two projected a distillation of the process and notational matrix determined in Phase One to produce an interpretive construction and re-framing of the conditions of newscast map; Phase Three synthesized the research to produce a design for the fictions of a television studio, with related facilities.

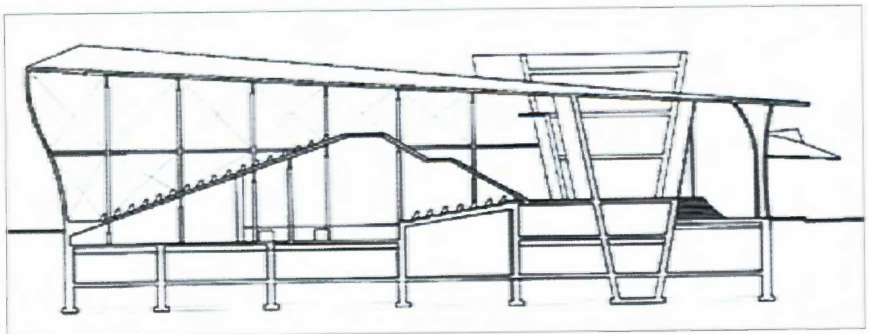
Force Diagram

Architectural implications abound in the *ABC Primetime Live* newscast, "Detroit is Burning." The newscast places Detroit in an entertainment spectacle, a simulation of experience for a nationwide audience. It maps the metropolis of Detroit as a site of conflict, racism, and decay. It gets in the way of our conception of the city and places it in a box—named, determined, and immutable. It is a story of where lines have crossed. Its framework portrays a society built on an economy of control, regulated by money and hierarchy. Ultimately, "Detroit is Burning" is about framing and targeting. The newscast has depicted a conscious and deliberate disenfranchisement that operates in a cyclical manner to root out all non-conformists.

Phase One—Mapping Detroit

The mapping exposes what lies hidden—in this circumstance, the overlying oppression resulting from a culture paving its way to freedom. A new map of Detroit emerges from the repercussions of oppression latent in the *Primetime Live* newscast. The imposition of a 1915 Sanborn map over the 1968 document reveals the large scale destruction of existing predominantly black neighborhoods, bought out and pushed out by the massive engine of the 1961 Chrysler Freeway construction project. We understand the site today as an amputated community, severed and plowed under by the siting of an interchange of two modern expressways. What it means to see a city becomes a landscape of overriding pressures and impositions.





↑ Street Level Section

↑ East Model View

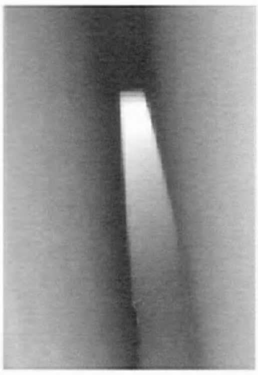
Phase Two—Interpretive Constructs

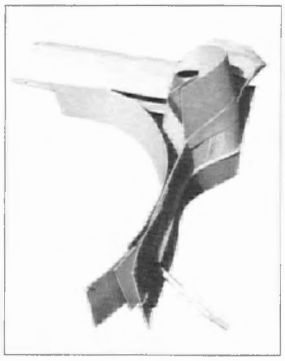
An exploration of *being at the mercy of an overwhelming force* becomes the thesis of a project that pushes material past its conceptions. This architecture seeks to define the spatial experience of oppression. The construct becomes a tool of production and the formal opportunity for oppression to manifest. It does so through the tectonics of construction. Materials begin to feel each other, to react, and to dominate. Butt joints behave as collisions, surfaces buckle and strain under heavy loading, stress becomes scarring. Space collapses, walls reveal the pressure of forces bearing on them from the other side. Interstitial space forms at the collision of materials. As pressure comes to bear, movement and direction become by-products of such manipulation. Spaces form compressive qualities and perform by pushing occupants toward spaces of expansion. Thus the architecture begins to behave and serves to inform its occupants through varying levels of perceptual comfort and intimidation.

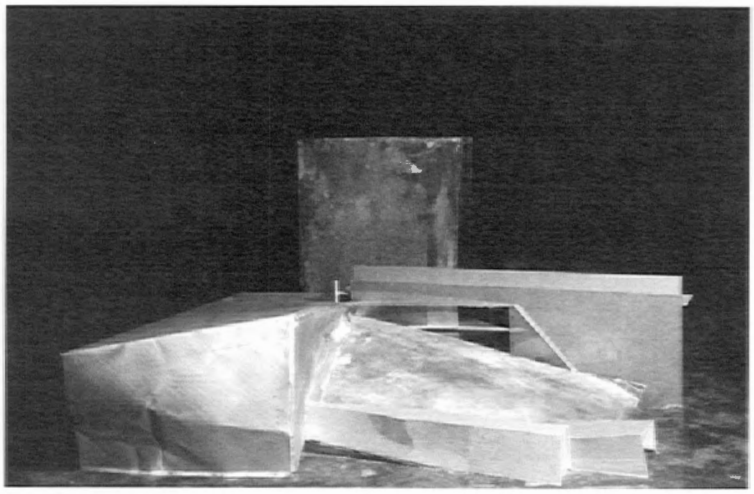
Phase Three—Television Station

The site is downtown Detroit. It overlies the rubble of the recently imploded Hudson's Department Store. The introduction of program presents an opportunity for the formal gestures of conflict and weight to become a public discourse for the implication of architecture, what is implied, and how it takes meaning from the city. A building for a television station brings forth the idea that cultural pressures bear down on the production of media. The organizational matrix of the program together with the formal implications of oppression produce a discourse.

Images courtesy of the author and David Cabianca.







↑ South Model View
TV Station

↑↑ Interpretive Constructions: The Insertion of Program

EERO SAARINEN—OPERATIONAL THOROUGHNESS

A WAY OF WORKING

BRIAN CARTER

Eero Saarinen came to America from Finland in 1923. He was thirteen years old and his father Eliel had been appointed by Emil Lorch as Professor of Architecture at the University of Michigan. While he was teaching there, Eliel Saarinen met Robert F. Swanson and Henry S. Booth. Both were architecture students who subsequently introduced Saarinen to Henry's father George G. Booth—the publisher of the Detroit News and a philanthropist. Booth was interested in creating a new school for the arts and crafts and invited Eliel Saarinen to prepare a design. When his father began his first executed architectural work in the United States in 1925—the Cranbrook School for Boys—Eero moved with his family from Ann Arbor to Cranbrook.

He lived in Michigan until going to Paris in 1929 to study sculpture. A year later he returned to study architecture and, after graduating from Yale in 1934, worked with Norman Bel Geddes, traveled in Europe, and eventually returned in 1936 to join the faculty of the newly created Cranbrook Academy of Art.

Eero was also working in practice with his father who, in 1945, received the commission to design the new Technical Center for General Motors. They collaborated on the scheme but it progressed slowly and, as Eliel Saarinen was becoming less involved with the practice, General Motors confided responsibility in Eero. When his father died in 1950 Eero formed the office of Eero Saarinen & Associates and oversaw the design and construction of the General Motors Technical Center which was finally dedicated in 1956.

The design was developed in close collaboration with General Motors and their technical staff were instrumental in helping Saarinen investigate a range of materials and develop mock-ups so as to include them in new systems of construction. It was a discipline which Charles Eames identified as very influential in the development of Saarinen's way of working when he noted that "Industrial research vocabulary and procedures accorded in many ways with Eero's fondness for testing by models, both abstract and concrete; innovative building elements were tested at full scale, in real conditions, over time. Energy and experience from each stage of construction were fed back to the successive ones, to upgrade the details and materials. Surface finishes were changed and changed again; aluminum glazing strips gave way to precisely detailed neoprene gaskets, as the same new techniques were incorporated in GM's assembly lines. From the beginning, the 5' grid governed not only the plan and structure but the mechanical services, lighting, and movable fittings as well; the modular principle, so often taken only as an aesthetic guideline, was applied with unprecedented operational thoroughness.

By the time the Center was completed, Eero had become a master of the feedback principle; he had found confirmation of his natural commitment to systems, but he didn't narrow it to technical applications. He retained from then on the capacity to sit down and really communicate with engineers and businessmen.

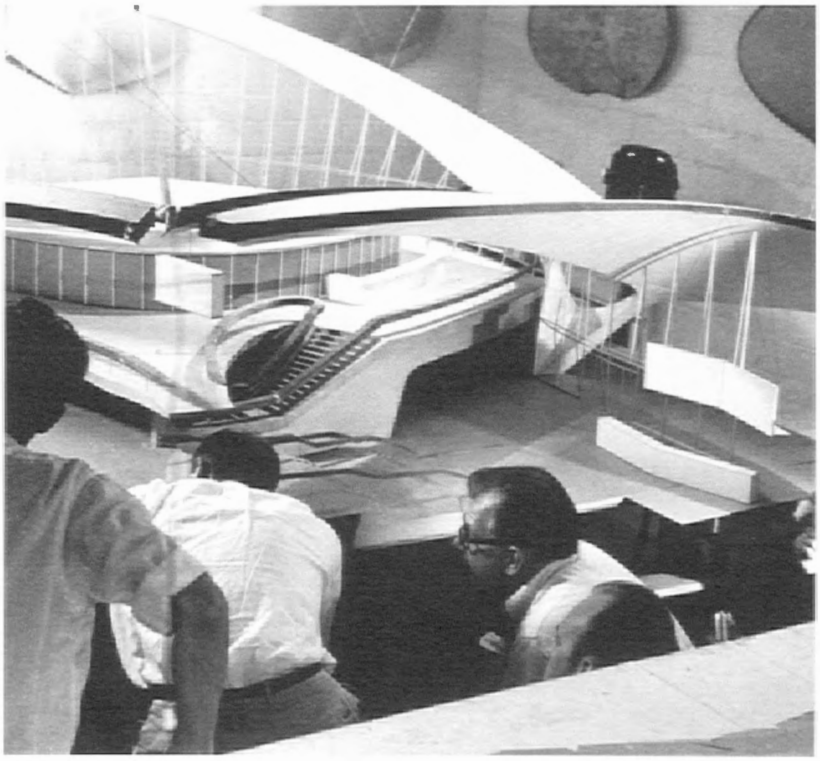
In the work that followed, Eero intensified his pursuit of the concept and the structure peculiarly appropriate to each particular problem. It is this consistent attitude that gives continuity to Eero's architecture; each building is in effect a model of the particular problem it seeks to answer. Both Kevin Roche and John Dinkeloo joined the Saarinen office just at the time that the first of the General Motors buildings was going into construction. They have succeeded in carrying on this continuity—perhaps because it is a legacy of concept and procedure, rather than of form."[1]

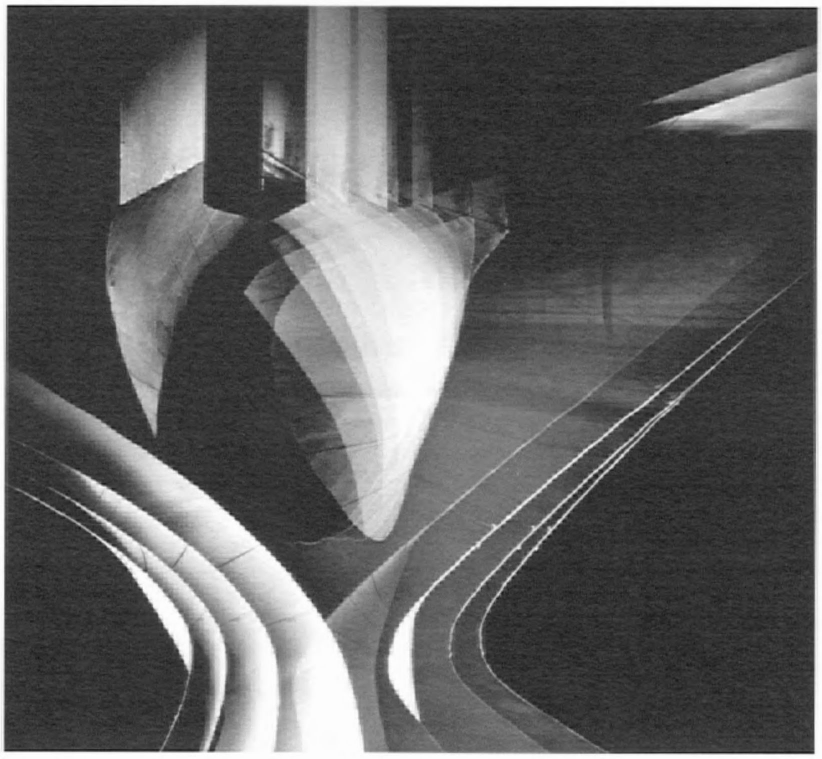
With the construction and eventual completion of the project for General Motors Eero Saarinen attracted a group of outstanding architects which included Robert Venturi, Cesar Pelli, Gunnar Birkerts, Glen Paulsen, Balthazar Korab, Tony Lumsden, and Chuck Bassett alongside Kevin Roche and John Dinkeloo. Describing the office and how it was organized Allan Temko notes that, "A wealth of new work poured into what, a few years earlier, had been a ten-man atelier. The staff rose to fifty, and eventually surpassed ninety. Joseph Lacy, in charge of project management, had been a partner since the firm had been organized as Eero Saarinen & Associates in 1950. John Dinkeloo, in charge of technical development, working drawings, specifications, and construction supervision, was made an associate in 1951 and a partner in 1956. Once again the firm was doing all of its working drawings, which of necessity had been farmed out in the case of General Motors, but which Saarinen naturally wished to control in his own office."[2]

Eero Saarinen was commissioned to design the TWA Terminal at Idlewild in 1956 shortly before being invited to design the Ingalls Hockey Rink at Yale University. The terminal's design and construction continued slowly until 1962 and, as a consequence, was influenced by his experience with the design and construction of the hockey rink which went more quickly and was completed in 1958. Both projects were designed in close collaboration with structural engineers—Fred Severud at Yale and Amman & Whitney for TWA—and the designs sought to explore structural forms and the expressive qualities of materials.

Saarinen was particularly interested in materials and emphasized how he "would very much like to produce a real concrete building. . . and I think TWA will, as a concrete building, also have the sort of the total unity of the flowing, cast material of concrete, I have great hopes for that. Now I see the problem much more clearly. Let's design the best building in concrete that we can for its purpose, but a building that in every part smells concrete."[3]

Perhaps Saarinen's enthusiasm for the construction of large scale models as an integral part of the design process was partly because of his training as a sculptor as well as an architect? However it also provided an excellent way to explore the potential of materials. The techniques initiated for General Motors were advanced significantly by the study models which were prepared in the design development for TWA. They enabled the designers to have a better understanding of the wholeness of a project and in particular in the realization of the complex three-dimensional schemes which were being





↑↑ Eero Saarinen examining TWA Terminal model in office

↑ Model Study
TWA Terminal at Idlewild

proposed as the potential of concrete was investigated. The architects also required the understanding and collaboration of engineers and builders and the creation of large scale models assisted in getting their advice in the refinement of the design and detailing. The significance of TWA in the development of this way of working was highlighted by Allan Temko who noted that "To make certain that TWA would be totally resolved—"one thing"—Saarinen relied on model design to a degree probably unparalleled in the contemporary movement and he found the method so rewarding that it was elaborated steadily in later projects."[4]

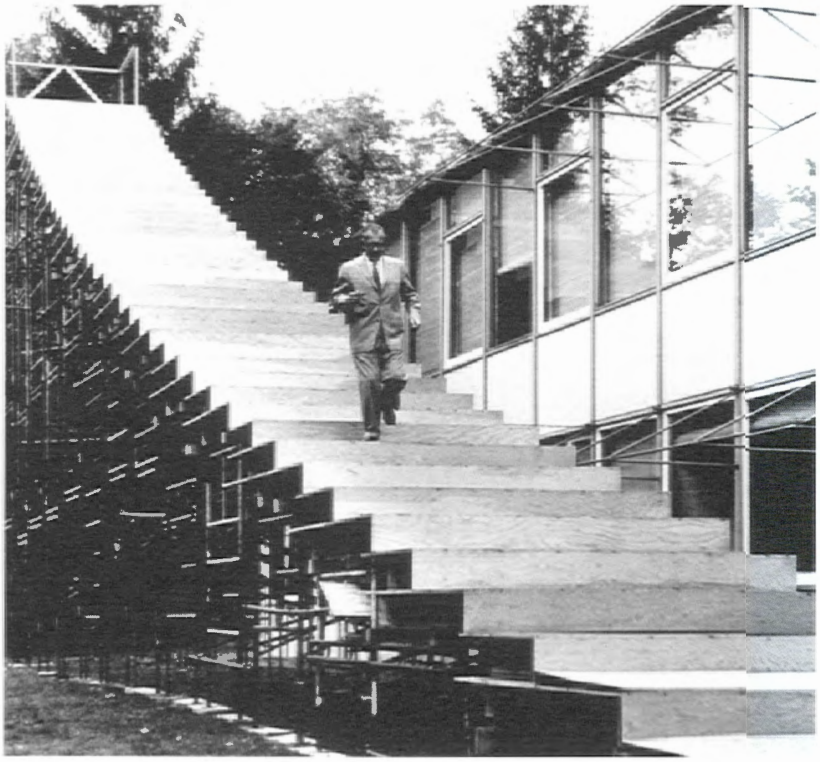
Many models of the project were constructed in the office. Some were of details but others were extremely large studies of the building. Most were for the benefit of the designers but some that were carefully photographed by Balthazar Korab, an architect working in the office, were used in presentations to the client. For Saarinen it was a way of working that was an integral part of his approach to design. Tony Lumsden commented that "Eero had a peculiar way of working with his staff. Eero made a lot of people make models,"[5] and, after working in the office for two and a half years, Robert Venturi observed that "I think the most impressive thing was the method of working. . . Starting out and saying lets try north, east, south, west. . . I was very impressed then and still am by the thoroughness of the way of working. . . there was enormously thorough study in that office from massing to detailing."[6]

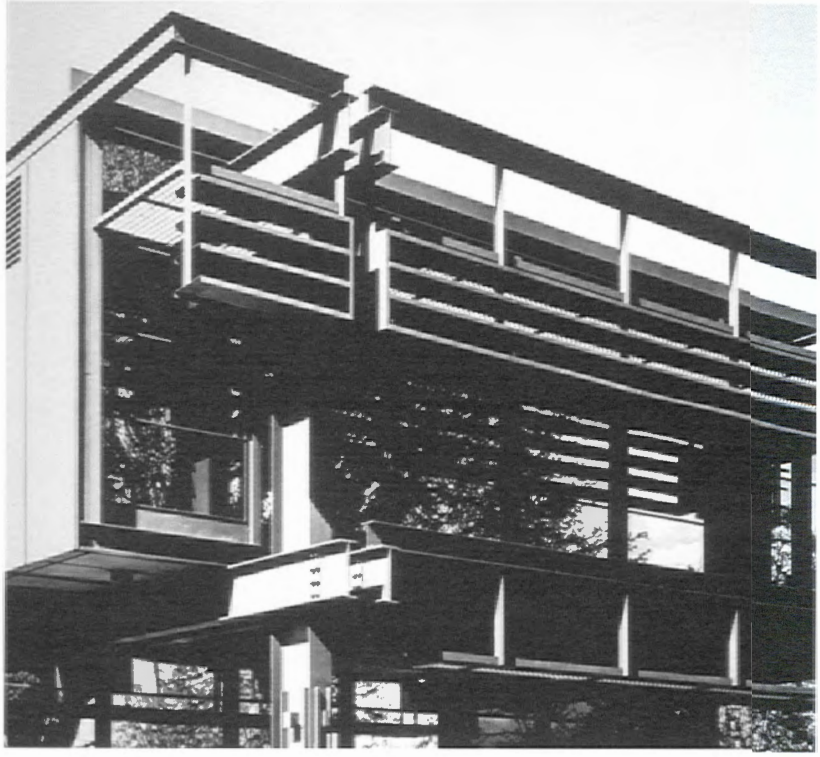
The scale of the models increased as the working method developed and projects became more complex. Some were even built at full scale. In order to study the design and dimensional coordination of the staircase in the development of his competition-winning scheme for the Jefferson Memorial in St. Louis, a two storey high flight was built as a full size mock-up outside Saarinen's office in Michigan. As well as helping to resolve some of the complex geometry, it confirmed details of the setting which would have been extremely complicated to study only in drawings.

Other full scale mock-ups were constructed for buildings where the architects were seeking to develop not only the potential of familiar materials but also investigate the use of new materials and improve methods of assembly. Several bays of the neoprene-glazed curtain wall designed for the IBM Rochester project were built in a full size mock-up prior to the eventual construction of the building. It was an external wall system with 5/16 of an inch thick aluminum sandwich panels with good insulation properties and neoprene gasket glazing designed to improve the system that was used at General Motors. Models like this, developed in collaboration with component manufacturers, consultants, and builders, made it possible to test materials, assemblies, and performance. They also helped corporate clients who were being encouraged to underwrite technical innovation to understand the design prior to the construction of the actual building. It was a process that Saarinen developed to integrate research in his architectural practice and which directly connected design and invention.

Eero Saarinen received the commission to design the Washington International Airport at Chantilly, Virginia in 1958. It was the first airport intended exclusively for jets and, as a consequence, the architects saw it as an opportunity to reinterpret the idea of an air terminal. As a regular air traveler, Saarinen was irritated by the long walking distances demanded of passengers. He was also eager to find ways of addressing the special requirements of jet travel and the office carried out a detailed study of other terminals. It was a process which Saarinen himself explained: "We've taken an existing building such as St. Louis Airport, Washington National, and the airfield in Dallas and made studies. We've made counts finding out exactly how these function and what is wrong with them, what is wrong with the circulation. We have documented every part that can have any relation to our project of a much larger terminal where the distances become larger, where the times become longer. How can one fight that problem?"[7] This empirical research matched numerous studies using physical models. Saarinen was anxious to develop his ideas about the use of concrete for this building as well as the design of the mobile lounges that were so integral to the overall concept and these investigations lead to the development of prototypes in collaboration with the Chrysler Corporation.

When he received the commission to design the John Deere Headquarters, Saarinen spoke of his interest in developing "a real steel building, a real iron building."[8] This lead to the investigation of materials hitherto little used by architects.





↑↑ Eero Saarinen testing mock-up of full scale stair

Jefferson Memorial, St. Louis

↑ Full Scale Structural Bay

John Deere Headquarters

Saarinen worked closely with his colleagues, and especially with John Dinkeloo, to explore the use of high-strength low alloy weathering steel as well as new glass and glazing systems. The construction of a full scale two storey high, fully glazed mock-up of a structural bay on site at Moline was a logical development of their design research and a move which helped significantly in the design and detailing of an outstanding building that was to be completed by Kevin Roche and John Dinkeloo after Saarinen's untimely death in 1961.

Eero Saarinen's initiation into architecture—first at Hvitträsk in Finland, later at Cranbrook, and subsequently working in practice—was significantly influenced by his father. Eliel Saarinen's philosophy of education, summarized as one rooted in "The premise that all work done by students must be based upon reality, and therefore be a part of life itself, and not upon artificial conditions about which the student can only theorize,"[9] had obviously shaped attitudes at Cranbrook. It was also an approach that deeply influenced his son and shaped the extraordinary discipline of work in his studio in Michigan.

This essay was prepared in association with the exhibition, "Between Earth & Sky: A way of working developed by Eero Saarinen," which was curated by the author and first shown in the College Gallery of the Taubman College of Architecture + Urban Planning at the University of Michigan in the Fall Semester 1999. The exhibition, which documented a way of working pioneered by Eero Saarinen through contemporary photographs by Balthazar Korab, was subsequently exhibited at the University of Texas in Austin, the University of Tennessee, and at the Graham Foundation in Chicago. It is scheduled to be shown at the Embassy of Finland in Washington, D.C. in Fall 2000 and at Yale University in 2001.

1. *The Architectural Forum,* (June 1971): 25, 26.
2. Allan Temko, *Eero Saarinen* (New York: Prentice Hall International, 1962), p. 28.
3. Peter Abrams, *The Oral History of Modern Architecture* (New York: H.N. Abrams, 1994), p. 205.
4. Temko, p. 42.
5. Ibid., p. 47.
6. *A+U Extra Edition,* (April 1984): 231.
7. Ibid., pp. 219-220.
8. Abrams, p. 206.
9. *Architectural Record,* 63 (June 1933): 431-432.

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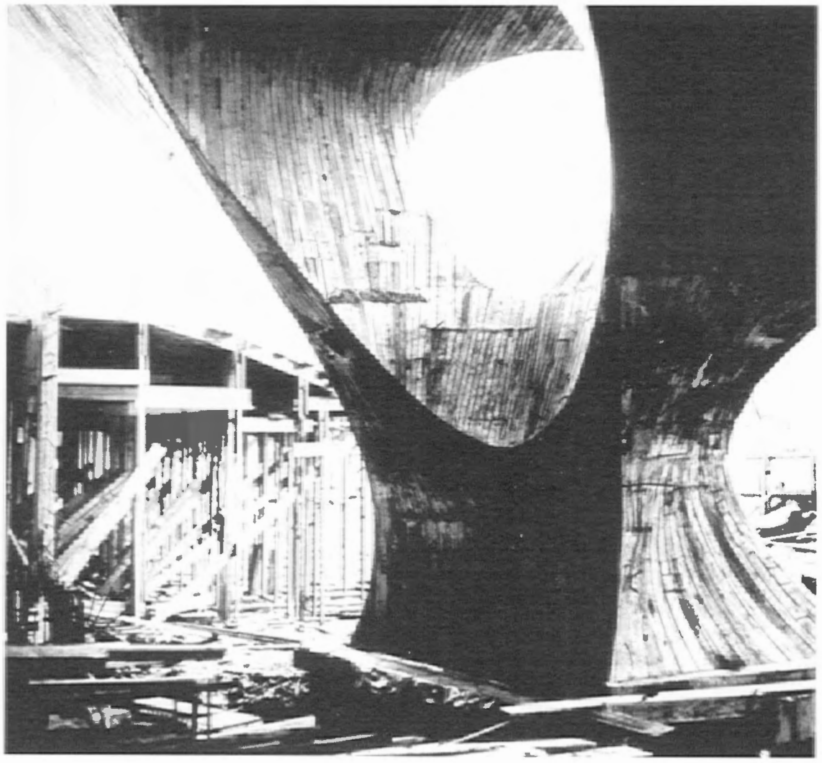
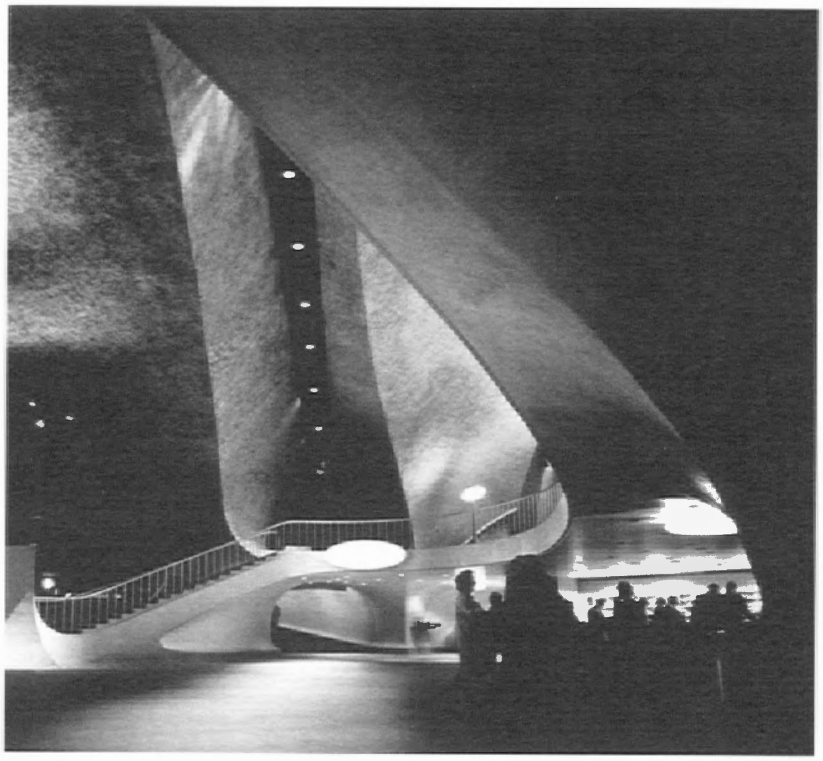




↑↑ During Construction

↑ Interior

TWA Terminal at Idlewild

IMPRINTS: INQUIRIES INTO CULTURAL RESIDUE[1]: UNDERPINNINGS

DAN PITERA

Speculations

To speculate is to establish an inquiry into the various aspects of a subject or relationships between subjects. However, it is also the opportunity to engage in a risky venture for possibly huge profit.

Our venture of speculation will require being risky—existing on shifting ground. To ground oneself is to set limits. It requires the understanding of what is inside and outside of those limits—knowing one's ground. This ground (that we think we know) is malleable—perpetually indeterminate. At the same time, it is definable. However, the boundaries of its definition may be subjected to further speculation. The ground, or territory, which will be the subject of this speculation will focus on the tattoo. The intent of this essay is not to establish a general ideology or another prescriptive code for architecture. Instead, it is a mis-reading of architecture through the mis-reading[2] of a specific cultural phenomena: a tattoo. It is not the tattoo, as a study of pattern and composition, that is the focus of this essay. It fosters the view of the tattoo as an artifact and residue of cultural interactions and pursues this as a way to provide strategies for a thought process of design.

Generative Moments

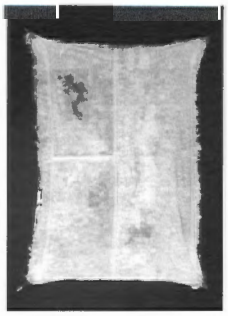
The generative moment of this investigation was my reflection/speculation on two events.

Following a discussion I had with the installation artist, Maria Velasco, I returned to desperately prepare a lecture I was scheduled to present later that week. Upon my return, I noticed on the light table two particular slides that were next to each other. They were interpretations of the Vitruvian body. In the first slide, the circle and the square were both centered on the naval. Upon inspection of the second slide, drawn by da Vinci, one sees the simultaneity of two centers—the naval (the center of the circle) and the groin (the center of the square). This poses the question of perfection. One center versus two. The Da Vinci body seems to imply a shift in the understanding of perfection. The single centered naval is replaced by multiple centers. This implies an importance in the relation between the points and not the points themselves. This simultaneity of conditions broadens implications and suggests a gray area.

The second event was my reflection on the amputation of one-quarter of my father's body due to cancer in 1970. This also poses a question to the concept of perfection. Is cancer alien to the body? -or- Is it now a part of another system that is different from the one before the cancer existed? Cancer is an interference upon an existing system, one that alters the understanding of ourselves and other's perceptions of ourselves. Amputation of the cancer is a response, externally initiated, to the cancer's internal biological interference.

Hide + Seek[3]

Political Interference



One morning I was waiting in the UMKC School of Dentistry. I was there because my wife, Allegra, was receiving a "skin (gum) graft". The waiting area was not separate from the surgical areas. The organization of the waiting area left me no choice but to sit with my back to the area where Allegra was receiving the graft.

While waiting, I would frequently turn to see, directly behind me, hands in Allegra's mouth. It was an image of fingers and instruments lost in her mouth. They were interfering through moving some-"thing" in her mouth—her skin. At the same time, I became aware of another coincident event occurring directly in front of me. I saw a man, also in the waiting area, picking and tearing obsessively at his skin—*to lose one's skin.* He was interfering through removing some-"thing"—his skin. In the same spot, and in the same manner, he was using his left ring finger, to pick at the top of his right forearm, midway between his elbow and his wrist—altering obsessively and compulsively his skin. He was removing skin and drawing blood. He was scaring his arm. He was marking his arm.

↑ Stretched latex skin

In both cases, a mark, a trace, a scar was left; a residue of the interference. To interfere is to alter an existing system. It changes the course of that system. An altered correspondence, or an altered relationship (as well as anti.relationship) occurs between what interferes and what receives the interference. (Though, in time, this new system will become the new existing condition.) The assumption here is that what interferes remains present. If it is removed, its trace or memory is what remains to influence the new system.

This interference upon an existing condition results in a union that causes a loss of distinction between the individual layers. In the case of my UMKC visit, the "moved" skin in Allegra's mouth and the removed skin on the arm of the man in front of me have healed to leave partial scars. These scars are visible but they are also part of the skin itself. Thus, an object is formed as an archeological composite of all layers. Although present, the layers are not distinct. They lose their identity as individual events or acts. They are a result of an act of palimpsest.

For the definition of palimpsest, we must look to history. Before printing presses and production lines (or perhaps reduction lines), select monks would transcribe or translate selected knowledge (or an edited knowledge) into books or manuscripts. Because bookbinding and paper-making were also hand fabricated, the text that was transcribed or translated did not always find a place on new untouched parchment. New or blank manuscripts were scarce. Value judgments were made and selected books were erased. On this newly available *tabula rasa* they would transcribe and translate the new text. However, the pages were not entirely blank. A "shadow" or trace of the old text remained visible. This process may have occurred over and over again; each time more "shadows" or traces remained. Thus, the object, which was formed, was an archeological composite of all layers. The layers were not distinct. They loss their identity as individual events or acts. The term for this type of object is palimpsest—"a parchment from which writing has been partially or completely erased to make room for another text."

Thus, a palimpsest is about marking and un-marking, erasing and un-erasing. It is about hiding and seeking. Palimpsest is a process of reading and writing that occurs through hiding and seeking. The intent behind the game hide and seek is not about a permanent covering. It is about uncovering or discovering. What is hidden? Who is hiding? Who is seeking? *Value judgments were made and selected books were erased.* This is not about marking or erasing. It is about what is marked and why it is marked, or what is erased and why it is erased. A conscious decision (though the reasons or impulses for the decision may not be conscious, but always culturally instigated) occurs regarding what is erased and what is marked.

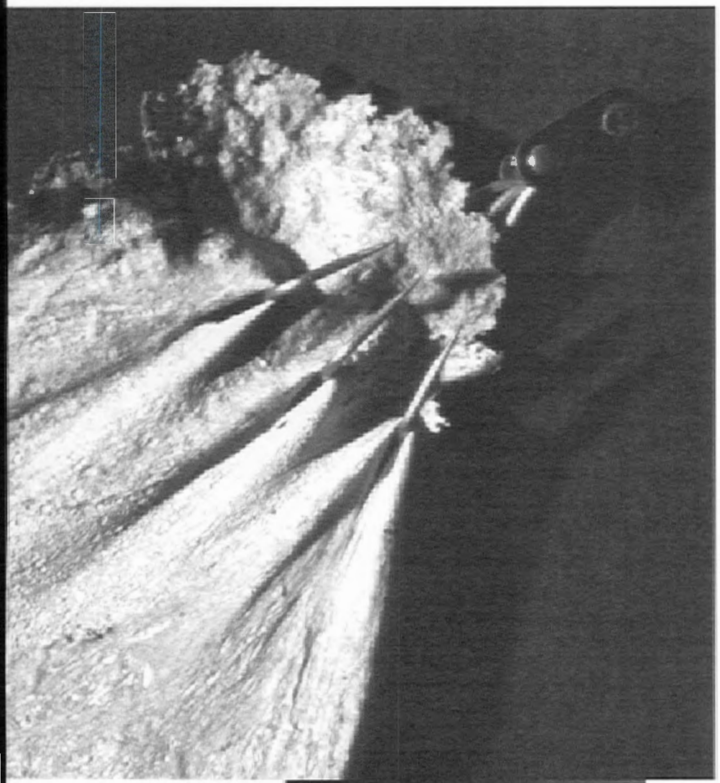
Marking and modifying the body is a political act. To be political means to be aware of the inter.relationships between our acts and the cultural context in which they occur. Marking ourselves alters the understanding of ourselves and other's perceptions of ourselves.

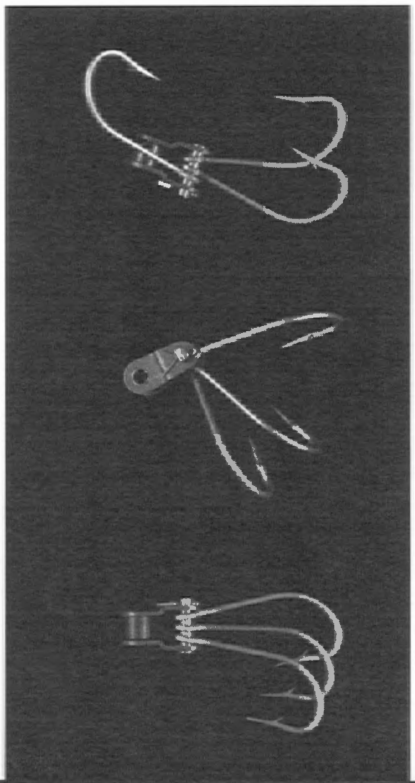
Altered Body/Altered Perception

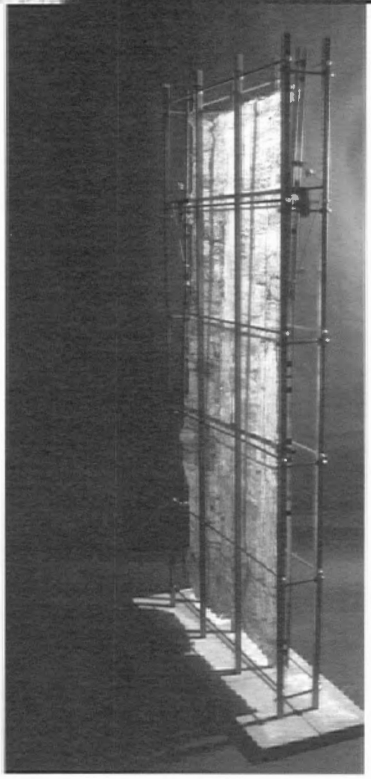
Marking the body is a use-full act, though it may seem impractical. A tattoo is an ornament. It functions outside of the conventional view of what it means to be practical. It is poetic, aesthetic and social. It establishes a license to alter (and perhaps expose) one's personality. Another personality is exposed, or perhaps exhibited, providing an opportunity for another reading, which in turn, directs other interactions, actions, or reactions. To mark the back of a hand with a pen (say with an "X", *"X" marks the spot.*) offers the opportunity for not only the hand, but also the person, to be read (but most likely mis-read). Attending an important meeting with this "X" visibly drawn on the back of the hand may alter the reading of authority by the other attendees present at that meeting. This thought, prior to the meeting, may cause the person to wash clean the mark. This mark, though surface in its physical condition, is not surface in its implications on our interactions, actions or reactions. The depth of a tattoo is in its surfaceness. It is in its thinness.

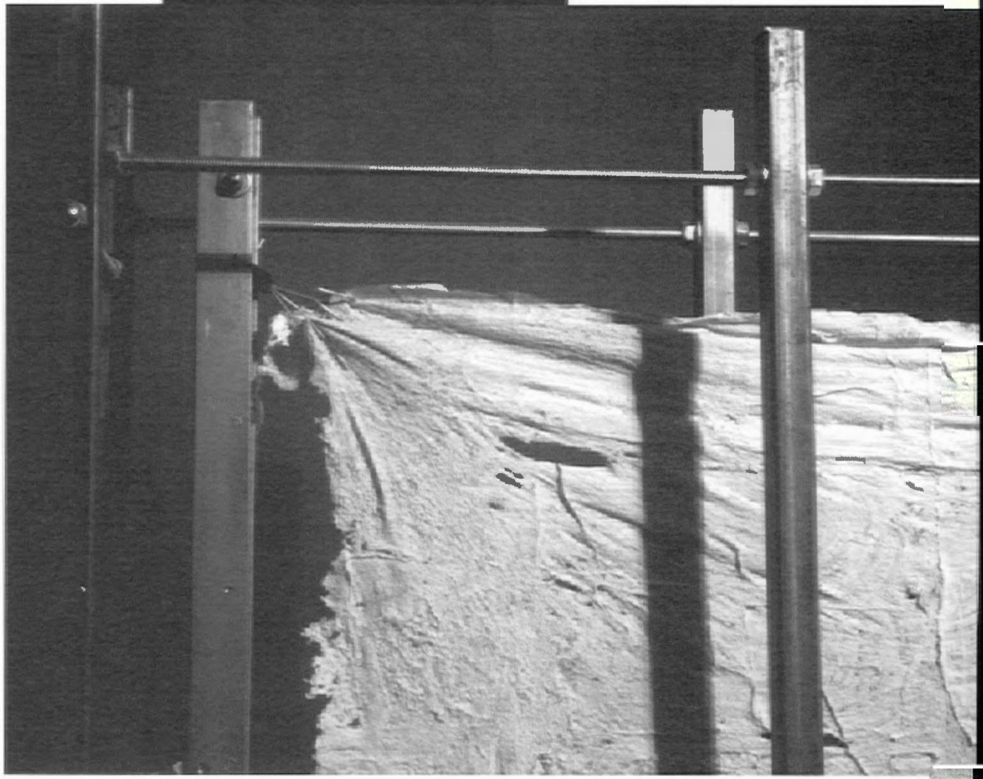
We make moves everyday upon ourselves that alter the understanding of ourselves and other's perceptions of ourselves. When we dress in the morning. . . Our decision to wear certain clothing (a black turtleneck, a black four-button sport coat, a pair of black pants, a black belt, a pair of black socks, and a pair of black shoes with the appropriate silver buckle) is a directed alteration of ourselves. It communicates, (whether read or mis.read) to those around us: our values, our self-assessment of our position within the surrounding context, etc. . . It, by its very nature, defines and limits our circle of interaction and how that interaction occurs or will occur.

What is revealed is that the marked body, the tattooed body establishes an indeterminate relationship between ourselves and the other. Marking things and ourselves as a way to establish identity is dependent upon particular readings of coding and decoding. Since all readings are potentially mis-readings, what is assigned, or intended to be read, will at best, be partially read. Thus, marking things as a way to establish









↑ Detail at stretched latex skin

↑ **Stretcher**^{2}

↑ Connection hooks

↑ Detail. **Stretcher**^{2}

identity is lost (without the code) when the intended identity is lost—if the intention is intended identity. Instead, general readings, stereotypes, and misconceptions are formed.

One of these misconceptions is the notion of the original or the natural. Is the marked body no longer original or natural? For this, we will look at Linda Kauffman's idea of the *posthuman*: "Posthuman signifies the impact technology has had on the human body. Any candidate for a pacemaker, prosthetics, plastic surgery, or Prozac, sex reassignment surgery, in vitro fertilization, or gene therapy, can be defined as posthuman."[4] These physical interferences have defined an alternate way of understanding our "authenticity."

The unaltered body is a myth—a product of "mis"-conception. To understand the tattoo, like the concept of the posthuman, brings into question the authority of authenticity. Therefore, it is not about searching for, or striving for the authentic or original human body that is of interest here, instead, it is about accepting and celebrating how the body is being re-defined or re-assigned. Remembering Walter Benjamin's "Art in the Age of Mechanical Reproduction" reminds us that what is being re-produced here is more than the object of art, but also the human object—the posthuman. What is being re-produced is actually being re-defined, re-assigned. It is this re-defined and re-assigned body that is the subject of architecture. It is the Loosian Body re-visited.[5] Where tattoos and body markings are merely other ways of modifying the body similar to surgery or Advil.

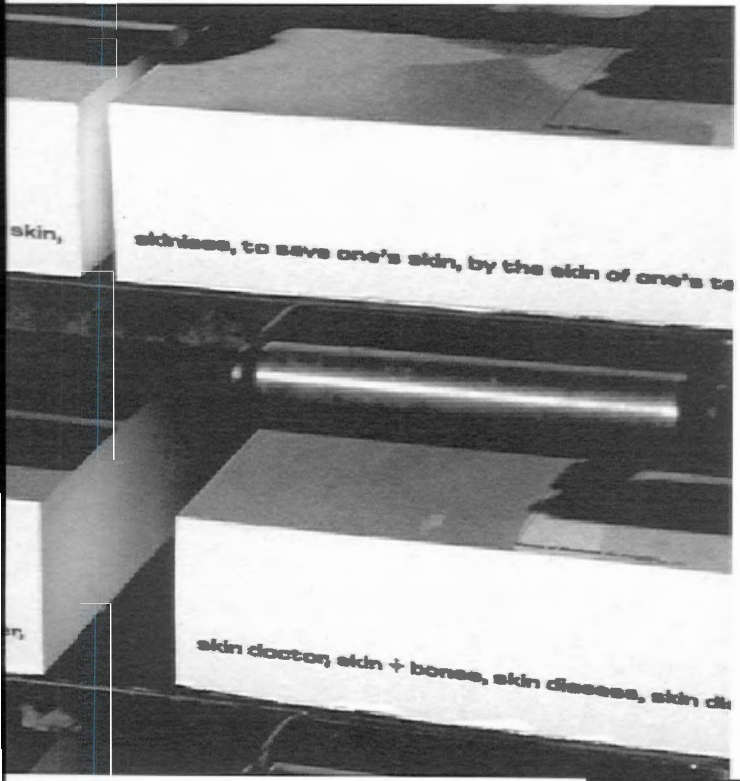
The architect, submitting to the notion that progress and its technology rejects the modified human body, attempts to define the universal body, not necessarily the perfect body. Caught in the utopian myth of the universal (of cultural objectification), the architect constructs and construes the anthropometric object. The objectification of this body is born through the rationalization of every-"body." It is Everywoman or Normal Woman. It is Everyman or Normal Man. Thus, perfection is substituted with the average—both are unattainable. Who, for instance, can have 2.3 children? The average has become the goal to meet. The architect's attempt to accommodate every-"body" (to be politically correct) in many cases has made the body and architecture's treatment of it anonymous—celebrating sameness not difference.

out of one's skin, to lose on
, thin skin, skin dealer, skin dre

This treatment establishes and perpetuates a particular authority of architecture as something that can be assigned particular motives. The authority of architecture is not didactic, which is about the reading of architecture as an object that is to be understood and not to "observe the metaphysical cravings it reveals" (quote adaptation: Avital Ronell, "Interview," *Mondo 2000*). Architects do not assign meaning to objects. Though, architects continue to search for meaning. We lift up the sheets. We peel back the skin. . . in search of something. In search of meaning. It is not: What does it mean? It is: Is it meaningful? Culture constructs the reading, or readings, of meaning(s). Meanings are not multiple. They are indeterminate. Significance is not multiple. It is indeterminate. Architects construct the opportunity for "reading," not "meaning." Meaning alone has no existence. The act of reading gives "meaning" presence, and more significantly, the act of reading is constructed by culture.

A child's toy box. The objects in this box are capable of assuming many forms and carrying many values. To a child, a fragment of rope tied to a doorknob may be a guideline for a mountain climber. . . a portion of a ship's sail. . . -or- a leash on an exotic animal. To the child, each reading is not independent and complete, but tenuous and fleeting—artificial lines delineating separation, or an artificial taxonomy has not yet been formed. The rope does not contain these meanings, they are read by the child. In the same way, meanings and motives should not be imposed (or assigned) by the architect. The architect designs the opportunities for interactions, actions and reactions. It is through these interactions, actions and reactions that we construct meaning: And that meaning is indeterminate.[6]

Thus, Architecture as a "thing" and as an experience can not be, or should not be understood, though, it does establish connections for understanding. As it was stated earlier, to be understood "establishes closure—it limits thought. 'Establishing connections for understanding' acknowledges thinking as a present and active process that inherently rejects closure." Though, it seems we still attempt to circle architecture's perimeter trying to find a way to penetrate deep inside to find out "what it truly means." Perhaps we should lose ourselves in the act of performance in architecture which offers an opportunity for indeterminate (mis)readings and shifting connections for understanding.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skinless, to save one's skin, by the skin of one's te
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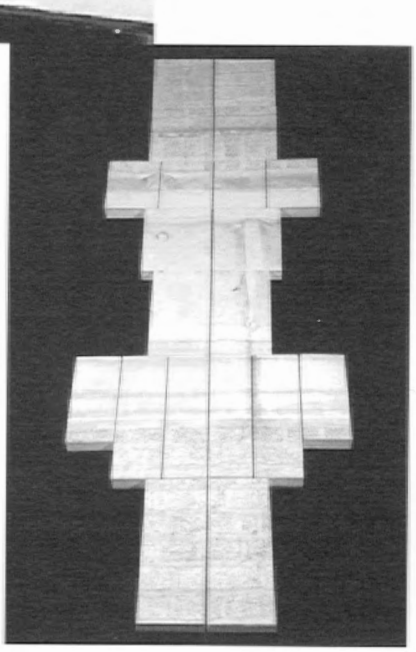
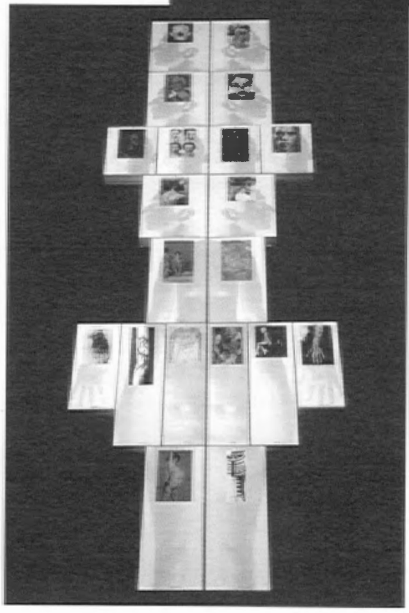




↑ Detail.

↑ Back

↑ Front
The Cabinet

↑ **Stretcher**[1]

↑ View of exhibit interior

1. The work manifested in this essay occurred during a five month period in the Fall 1998. During this time, I held the position of the Hyde Chair of Excellence at the University of Nebraska Lincoln. Presently, this work is being prepared for publication as a transcription of these five months. The impetus nudging me to transcribe and translate these several months was the delight I hold for the indeterminate nature of architecture and the distaste I hold for those who try to "correct" and suppress this very same indeterminate nature. I am also bewildered by architects who attempt to assign meaning to architecture through symbolic or similar modes of representation. The work contained in this article looks at the meaninglessness of architecture as a meaningful approach. It is not: *What does it mean?* It is: *Is it meaningful?*

The work occurred in three parts—or more specifically, the work occurred as three investigative installations, or interferences, within the context of the College of Architecture at the University of Nebraska Lincoln. Interference I: Hide + Seek was an analytical inquiry resulting in my reference library—my stacks of information. It was an act of indexing, of documenting, and of mapping. Interference II: Skin Flick was a further dissection of the implications of body marking through the making of a film-"strip"—a strip of marks. Interference III: Shadow Cast continued the prior investigation through the construction of a "projection/injection booth." This essay is not intended to be a synopsis of this work, instead, it is a selected slice of thought focusing primarily on the first of the three installations—Hide + Seek.

2. To mis-read something is a matter of being "out of alignment." The acts of reading and writing occur through a particular view point (pointed view, appointed view or perhaps anointed view). This point of view is established through a particular time period, a particular location, and a particular set of experiences. The view points of the writer and the reader can never align. This "out of alignment" is a mis-reading. This out of alignment is what makes cultural interactions, actions and reactions indeterminate and their interpretations shifty. We are always in the process of mis-reading. Thus, anytime something is read, it is mis-read. The act of reading is often predicated by an intention to establish authority. It is about establishing truth. *He is an authority on the subject.* To mis-read something displaces that authority (or subverts it)—allowing alternate ways of looking (whether intentional or not) that foster alternate ways of thinking or making. The work in this essay is a residue, or trace, of this type of thinking and making. It is the product of this type of reading—it is a mis-reading.

This authority of reading is manifest in our desire to read as an act of waiting to be told what to understand, or what to take away. Mis-reading displaces this act of "waiting." In other words, in the constructing and construing of the work documented in this essay, I was not attempting "to be understood," instead, I was attempting to establish connections for understanding. What I mean by this distinction is—"Thinking" that you have "understood" something establishes closure—it limits thought. "Establishing connections for understanding" acknowledges thinking as a present and active process that inherently rejects closure.

3. Cf. Mark C. Taylor, "Ski(n)scrapers," *Hiding* (Chicago: University of Chicago Press, 1997): "In the end, it comes down to a question of skin. And bones. The question of skin and bones. The question of hiding and seeking is the question of hiding and seeking. And the question of hiding and seeking is the question of detection. Is detection any longer possible? Who is the detective? What is detected? Is there anything left to hide? Is there any longer a place to hide? Can anyone continue to hide? Does skin hide anything or is everything nothing but skin? 'Skin rubbing at skin, skin, skin, skin, skin. . .'" p. 11.

4. Linda S. Kauffman, "Prologue," *Bad Girls and Sick Boys: Fantasies in Contemporary Art and Culture* (Berkeley, CA: University of California Press, 1998), p. 2.

5. During the late 19th century and early-to-mid 20th century, arguments presented the idea that if culture could evolve, than it could also de-evolve. One of the primary promoters of this fear of cultural devolution was the anthropologist Cesare Lombroso. Biological abnormalities were considered backward steps in our evolutionary progress. Due to this desire for a progressive evolutionary trajectory, Lombroso also pinpointed (besides biological anomalies) bodily ornament as devolutionary elements. Ornament, which included tattoos and decorative scars, were described as sexual attractors. In "primal societies women were kept in chains, which gradually evolved into ornaments." "Lipstick is an unconscious imitation of the blood drinking that accompanied (the) ornamental rites." Lombroso uses this to partially establish an argument that perpetuates the notion that women are biologically inferior to men. -and- Since women desire ornament and men do not, than ornament must be decadent. Being a follower of Lombroso, Adolf Loos continues this belief to include architectural ornament—although Loos did believe that women should wear ornament since it is necessary as a "sexual attractor" to ensure the perpetuation of the human species. See George L. Hersey, *The Evolution of Allure: Sexual Selection from the Medici Venus to the Incredible Hulk.* Hersey also argues that Loos, being aware of his physical diseases and disabilities (including deafness) must have been aware (again, being a follower of Lombroso) that he was not one that would further the progressive evolution of the species, instead he was a "weak link": "One puzzling, and at times tragic aspect of the Great Fear is that for all the celebration of healthy art, healthy cultures, and healthy bodily and facial types, the prophets of doom often exhibited in their own persons the very symptoms they found so menacing in others." -and- in particular, in reference to Loos, Hersey writes: "He could not have helped learning that he himself was degenerate. Perhaps his unornamented architecture served as an escape, a disinfected Eden, in which the demons of degeneracy, which loomed terrifyingly close, would for a while cease to haunt."

The architect's fear of cultural devolution, fear of "his" own physiological and psychological pathology, has fostered fear of the degenerate, of the ornamental. Thus, operations on the body of the human are vicariously redirected away toward the body of architecture. The architect, now medicine man, peers beyond the surface, peeling away the skin of the building—di-secting its subject; rationalizing what "he" finds, ultimately in an attempt to (re)generate a healthy "body" (both human and architectural). Thus, did Loos encouraged ornament free architecture to purify himself?

6. When we construct (whether in brick, concrete, bytes or pencil) we alter, we interfere. It is a sense of artificial power guided by the desire to assign meaning that gets in the way of this understanding. A construction is a matter of an interference in space. We do not create space; we alter space—we interfere. Architecture alters and transforms the spatial quality of an existing condition. It is always an intervention, or perhaps an interference. It is our interaction with this interference that derives meaningfulness not a didactic reading or meaning.

Project Statement:

The pieces of the first installation are an act of palimpsest. They are an act of covering and uncovering—an act of hiding and seeking. They begin the process of indexing the acts of body modification as a residue of cultural interactions, actions, and reactions.

An interior exhibit (9:00 AM—5:00 PM), the passage through an exhibition space, and an exterior exhibit (5:00 PM—9:00 AM), the passage by the exhibition space, defined the boundary of the first installation. The interior portion was composed of four parts: 1. The Cabinet; 2. The Stretcher^1; 3. The Stretcher^2; 4. Vital Signs.

The Cabinet held 20 "Plates," each containing a front and a back face. The front face was an analytical inquiry resulting in my reference library—my stacks of information. A latex "skin/shroud" casting of a small portion of the University of Nebraska architecture building formed the back face. (The three-dimensional re-constructed in two dimensions.) Exhibit goers were free to remove the "plates" from the Cabinet and reconstruct them (perhaps on the floor, on the hospital bed, or in the next room—perhaps in one set of relationships, or perhaps in another).

Stretcher^1 was located in line with the cabinet. It was a hospital bed covered in a latex "skin/shroud" casting of a small portion of the University of Nebraska architecture building—artificial skin. Exhibit goers were free to adjust the bed, which in turn stretched the latex.

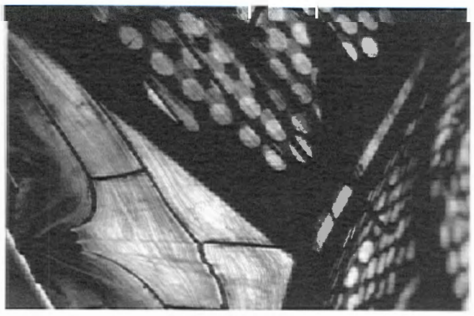
Stretcher^2 was in line with Stretcher^1 but across the exhibition space. It was located on a south facing windowsill (at 6'-0" above finish floor).

Sunlight began, in time, to deteriorate the latex stretched within a steel frame—to save one's skin.

Vital Signs offered the opportunity for exhibit goers to document their own body modifications.

During the time frame of the interior exhibit, the sound of people reading numbers was slightly audible within the space of the exhibition. More specifically, they were sets or groupings of numbers—different sets of different numbers in different languages. They were seemingly unintelligible sets of information that were actually scrambled codes recorded from specifically deliberate short-wave radio transmissions These stations are called Numbers Stations and have been extensively documented by The Conet Project (Notting Hill Music, London, 1997). This information was latent and audible but inaccessible—making the search for the "original meaning" fruitless, as well as meaningless. Though, through the act of misreading, accessible meaningful interactions occurred nevertheless. The exterior exhibit was essentially one event. Slides were projected from through an exterior passage between on to the side of the adjacent building. This provided a complementary subtext to the companion interior pieces. Their timing prevented the viewing of both exhibits in one visit.

All photographs courtesy of the author.



↑ **Detail of latex skin**
Stretcher^2

INSTITUTIONAL DOMESTICITY: the Subdivision as a Voluntary Prison

GRETCHEN WILKINS

↑ Prisoners
from ***Killing Time: Life in the Arkansas Penitentiary***

↑ Generic House Types

Modern forms of domesticity are more strongly linked to the traditional disciplinary institution than to the American dream of independence, privacy, and land ownership. Indeed, the predominant American form of detached housing comes bound to a set of restrictive by-laws and exists only as part of an isolated and supervised residential enclave. Ownership in the true sense is shared with the property management organization who maintains legal rights governing uses, activities, and appearances of all units. What has emerged from an overwhelming desire to take part in the right to own property is a domestic form of the disciplinary institution, a system that regulates homeownership to secure the socioeconomic interests of the owner and the institution alike. The function of this institution is to establish a regulatory framework governing property use that can be enacted by "common interest developments" (CIDs), in the (semi) private domestic realm of the American subdivision.

To say that domesticity is akin to imprisonment, hospitalization, or factory servitude is in no way meant to trivialize those institutional conditions (or imply a forcible oppression) taking place in our suburbs, rather the analogy is rooted in how these institutions operate. The disciplinary institutions represented by the prison, factory, or hospital, are structured in such a way so as to most efficiently control a large body of potentially volatile (and free-willed) individuals. To do this, it places absolute power in hands of a single entity, represented by the warden, headmaster, foreman, (or CID chairperson), who must stabilize and control the mass to mobilize the intentions of the particular discipline. As such, the administrator must require the forfeiture of certain civilian privileges within the institution to minimize the opportunities for disruption or disarmament of the system.

The rights and privileges most often restricted are those related to the outward expression or advancement of individual identity, those that potentially deviate from the (externally) prescribed intention of the collective body. In the domestic institution this is accomplished through legally binding deed restrictions (restrictive covenants), which are written in service of the subdivision community rather than the property-owner in that they neutralize and homogenize th effects of personal preference in favor of a shared domestic identity. Whether it be in the interest of punishment, rehabilitation, or pursuit of a 'desirable' residential community, the success of the institutional model depends on a clear delineation of those in control and those under control, and an organization which, in theory, allows for the mutual advancement of both sides. These strategies in place, each discipline creates a system specific to its own efficient and productive outcomes, which, in the case of the subdivision, is to secure a sound and lasting financial investment.

Discipline of the mind and body

"A stupid despot may constrain his slaves with iron chains, but a true politician binds them even more strongly by the chains of their own ideas."[1]

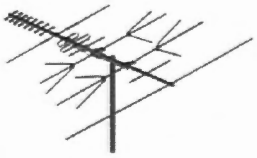
The disciplinary system emerging within the domestic institution of the subdivision can be understood through an analogous discussion of penal reform taking place in the last half of the 18th century. During this time there was a shift in public perceptions of crime and punishment and a move toward the establishment of a generalized system of correction rather than specific punishments to suit the crime, as was then the standard.[2] Increasing industrialization and widespread humanitarian efforts brought a reduction in the once-prevalent mode of punishment-as-spectacle, in which the 'beast' within the body of the condemned was publicly tortured as a ritual of truth and justice for the community to take part in. This was replaced with a system eventually becoming the model for American and European correction's facilities, a system that encourages and regulates anonymous, mindful rehabilitation in the context of physical confinement. The prison thus emerged as the tool by which criminals could "do time" to reflect on and compensate for their crime and return to society as rehabilitated and reformed citizens. Rather than focusing punishment on the criminal body for a public example, penal reform held that the criminal should (and could) be rehabilitated and re-socialized into society after a period of institutional confinement.

The emergent mode of imprisonment was at first denounced as a despotic abuse of power, a privilege reserved for only those with absolute authority. This belief was overcome, however, and it was eventually heralded as the most efficient and economical method of punishment in that it utilized punitive discipline as a means of production. Instead of wasting the body of the condemned on public torture or death, reform advocates sought ways to harness its ability to work and produce. It was believed that the criminal would benefit from the psychological rehabilitation which resulted from repeated physical exercise and obedience training, while the institution capitalized on the resulting physical output as a quantifiable form of repayment to the society they had wronged. In this sense, the beginning of punitive modes of imprisonment viewed the body not as a receptacle (or spectacle) for pain and punishment, but as a docile body capable of transformation into a skillful component of collective production.[3]

In addition to the productive benefits of the confined body, reformists also recognized the opportunities afforded by the imprisoned mind and its capacity for manipulation and coercion into an "ideal" prisoner. This prisoner would reinforce the hierarchical relationships necessary in the disciplinary institution between the empowered and the controlled by serving as an obedient subject who voluntarily responds to authority and who sets an example for other inmates to follow. To achieve these ends, the emergent disciplinary institution identified the need to homogenize the individual within the whole, and to train and exercise discrete minds to respond as a part of a collective. Homogenization was achieved through development of initiation procedures to be conferred on the individual upon arrival into correction's facilities. Inmates were stripped of their name, clothing and hair, bathed and reassigned a uniform, an identification number and cellular location within the facility. Devoid of any reference from which one came, the generic inmate submits their autonomy and legal rights to the institution, and takes part in a daily regimen of work and reflection in the service of social rehabilitation.

The paradigmatic institutional typology attempting to realize these revolutionary theories emerged from Jeremy Bentham's panopticon. Arranged in a ring of cells about a central tower, this architectural strategy was a step towards perfecting the discipline-machine through a geometric study of surveillance and control. It broke from conventional penal methods in that it sought to clearly delineate the power to control the mind with that which acts upon the body, employing the spectacle as a psychological device by which the imprisoned would discipline themselves. By masking the human figure from public view, the inmate feels the gaze of the tower rather than the guard, and is relegated to an eternity of (self) domination as there is no verification that they are not under continuous surveillance. Bentham states, "It is the idea only of the punishment that really acts upon the mind; the punishment itself acts not any farther than as giving rise to that idea. It is the apparent punishment, therefore, that does all the service."[4] In this sense, it is the potential presence (or absent presence) of the human gaze that empowers the panoptic system, as any visual confirmation of the human figure denies their omnipresence and disarms the system. This proposal was fundamentally in contrast to the penal model reformists were reacting against, a system which becomes non-functional without a visual confirmation of both the accused and the corporeal figure of justice.

The theory of panoptic surveillance eventually evolves to the point at which it is no longer dependent upon the physical enclosure of prison walls, ut finds its way into power structures outside of the conventionally known disciplinary institution. Bentham's notions of self-discipline and the omnipresent gaze do not require a typology or even a specific site, only the mindful obedience to their existence. Released from the institutional setting from which these power structures grew, they have become absorbed and subverted within modern systems of control based on high-tech surveillance, communication, and the transfer of information. The society of discipline has become a society of control, where power is not neatly delineated or quantifiable, but rather but made manifest through language, numbers, and electronic signals.[5] In the society of control, power is not necessarily determined by that which displays the most efficient or productive system, but rather by that which creates a new system and the environment to support it. It does not leave the critical operations of the institution behind, rather it employs them in new ways which are not dependent upon physical enclosure. The solid wall of confinement has dematerialized into the electronic panoptic signal, lending authority to anyone with the ability to encode or decode the system.



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The domestic institution has been infected by this modern tool of power. It has developed a systematic code which supports its own growth by employing power structures not only for the benefit of its own survival, but for the perceived advantage of those it affects. It has marketed its regulatory nature as a means of securing personal investment rather than as a restriction of personal rights, such that homeowners begin to seek out those subdivisions with the strictest policies in return for the perception of an elevated social status and economic stability. In this sense, the domestic institution has achieved what Bentham intended for prisoners of the panopticon, participants regulate themselves under the gaze of the institution, the body in control of their socio-economic investment. It is in the homeowner's best interest to not only obey the policies of the restrictive covenants, but to assist in the enforcement of them. This will only increase the strength of the collective identity of the subdivision, allowing for greater exclusivity and higher resale value.

The code written to regulate the development and activity within subdivision is rooted in domestic ideals of property owner-

ship. Throughout history, owning one's home has long been associated with politically and socially-constructed values surrounding the "proper" domestic arrangement. In addition to the undeniable economic benefits of this investment, homeownership also represents a moral standard which fosters:
strength,

> A nation of homeowners, of people who own a real share in their land, is unconquerable. (F.D.R., 1940s);

happiness,

> Habitat [for Humanity] needs your support and that of every American who understands that the opportunity to own a home is also a chance to create a better life. (Jimmy Carter, 1997, his emphasis);

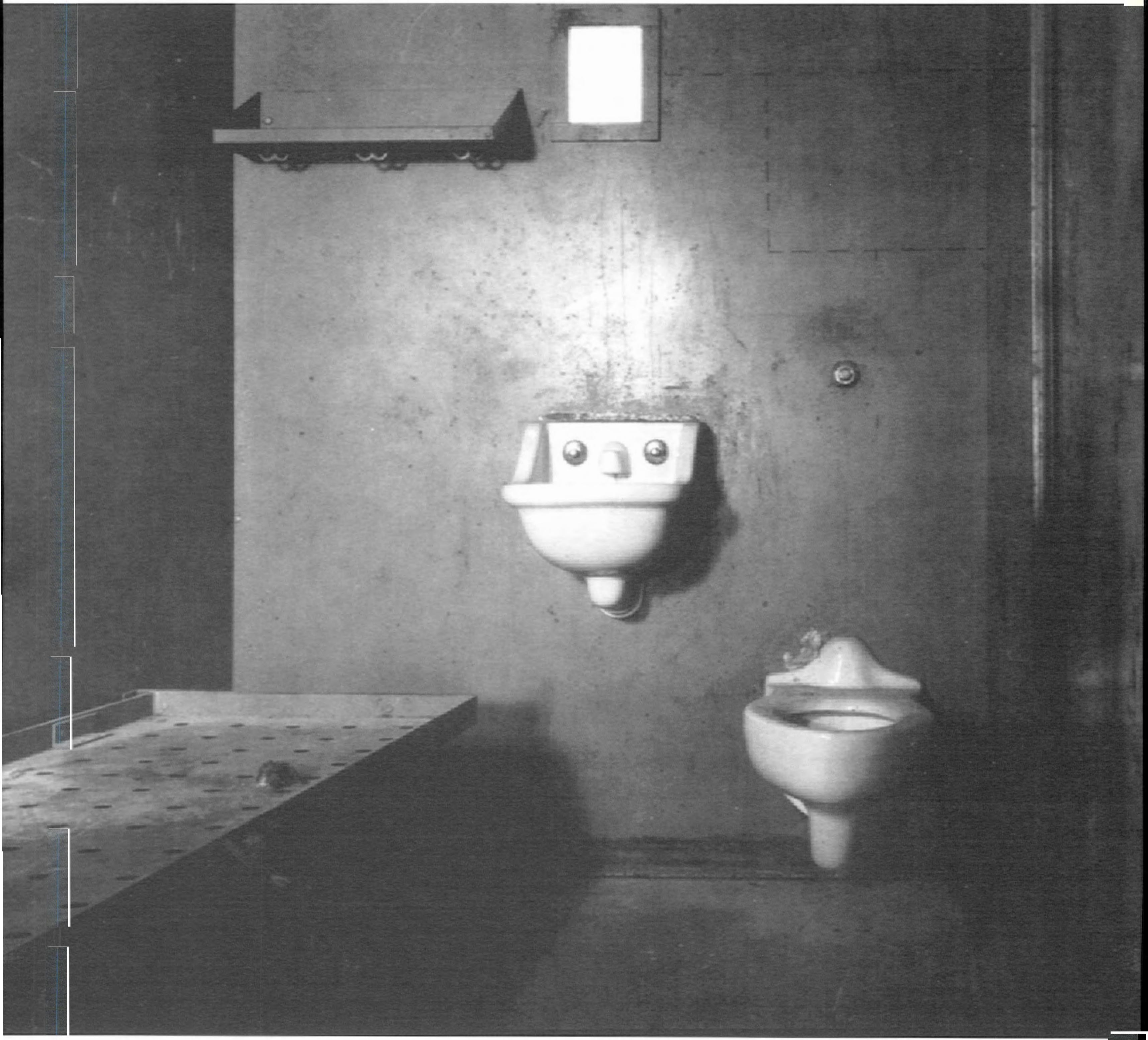
and even lawfulness,

> Man's identity is thus residential, and that is why the revolutionary, who has neither hearth nor home, hence neither faith nor law, epitomizes the anguish of errancy. . . The man without a home is a potential criminal. (Immanuel Kant).[6]

It assumes that homeowners will unite to form a cohesive community which represents their shared socio-economic interests, those advocated by the elusive "American Dream." As such, the domestic code written to regulate this community attempts to align itself with these established principles and guarantee a "strong, happy and safe" residential environment.

In this sense, the domestic institution has moved beyond a reactionary mode to a position in which it perpetually redefines these established principles. Originally established according to market research and the desires of the domestic community, it has now acquired the power to define these market trends and prescribe an ideal residential environment to support the very desires of the occupants. It creates the "American Dream" and develops the subdivision as a physical translation thereof, thereby securing both a market and a product which it provides. In a similar manner to which the prison attempts to reform the inmate to preconfigured ends, the domestic institution of the subdivision is a prefabricated community in search of a population. The preconceived "ideal prisoner" who fits in to the regulatory environment and serves as an example for the others, is analogous to the prefigured domestic inhabitant who upholds restrictive covenants and becomes the 'product' marketed by the institution to its target consumers. The new homeowners, after (mandatory) initiation into the association, begin to maintain the collective image of their community for their own self-interest, while the institution benefits from their obedience to the restrictive covenants. In this sense, the homeowner is at first an individual consumer and later becomes a representation of the product for consumption, consciously and unconsciously perpetuating the domestic disciplinary machine.

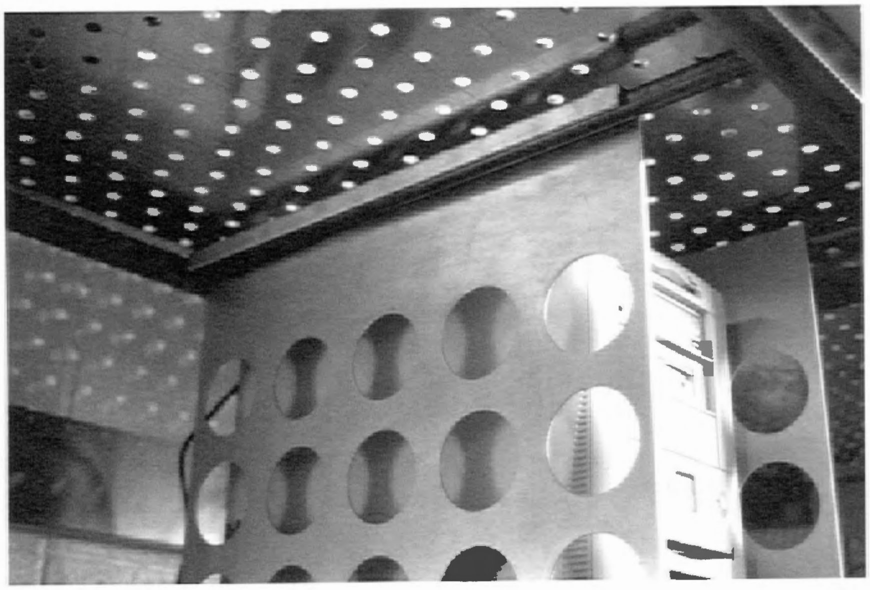
1. J. Servan, *Le Soldat Citoyen* (1780): 35, quoted in Michel Foucault, *Discipline and Punish, The Birth of the Prison* (New York: Random House, 1977), p. 102.
2. Michel Foucault, *Discipline and Punish, The Birth of the Prison* (New York: Random House, 1977), p. 119.
3. Ibid., p. 138.
4. Jeremy Bentham, "An Introduction to the Principles, Morals of Legislation," *Jeremy Bentham: The Panopticon Writings* (New York: Verso, 1995), p. 4.
5. Gilles Deleuze, "Postscript on the Societies of Control," *October* 59 (1992): 3-7.
6. Michelle Perrot, "At Home," in *A History of Private Life*, vol. 4, From the Fires of Revolution to the Great War, Arthur Goldhammer trans., (Cambridge, MA: Harvard University Press, Belknap Press, 1990), p. 342.



↑ Cell
The Spence Hotel, Women's Correctional Facility

THICKNESS

LISA IWAMOTO AND CRAIG SCOTT



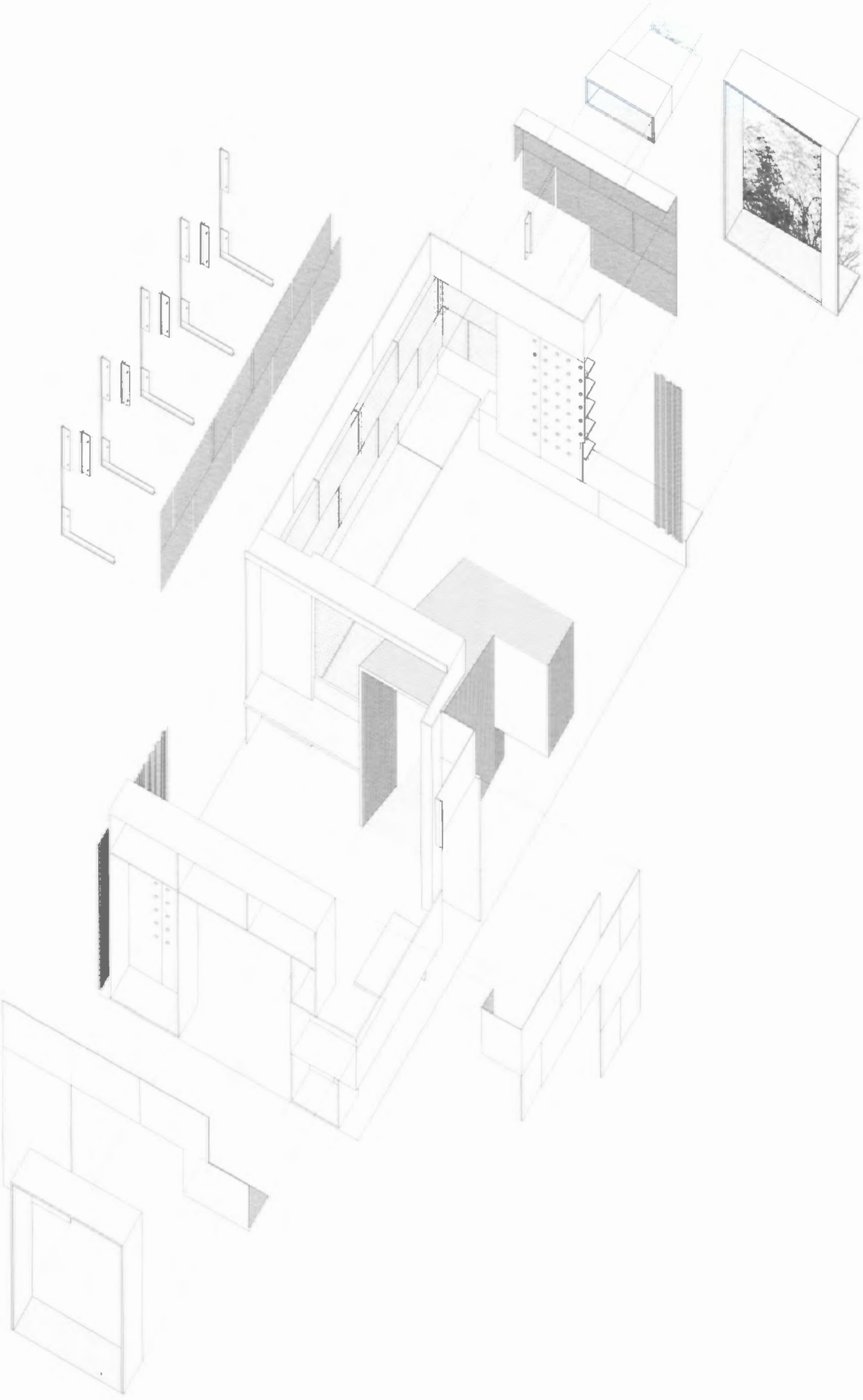
FACULTY RESOURCE ROOM
TAUBMAN COLLEGE OF ARCHITECTURE AND URBAN PLANNING

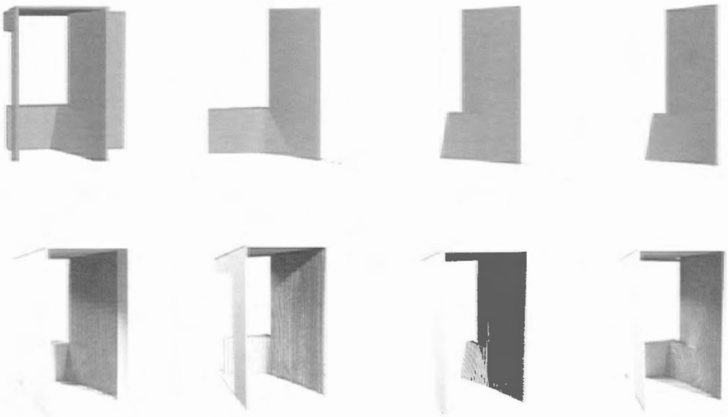
The Faculty Resource Room is designed to support the teaching and research of the Architecture and Urban Planning faculty. It is built inside the existing concrete block shell of a former storeroom—a 550 SF space which housed a photography copystand and storage. The new design was to accommodate its existing use as well as support the additional programs of model photography, shared computer resources, and informal meeting spaces. They requested that the two main programs—computer resources and photography—be separated into distinct areas with the computer area screened visually from the entry for security. This project was conceived in relation to the Building Design Workshop at the College which supports the development of faculty led design projects within the University. In the Workshop, students work together with faculty to design and construct projects as a direct approach to understanding architecture.

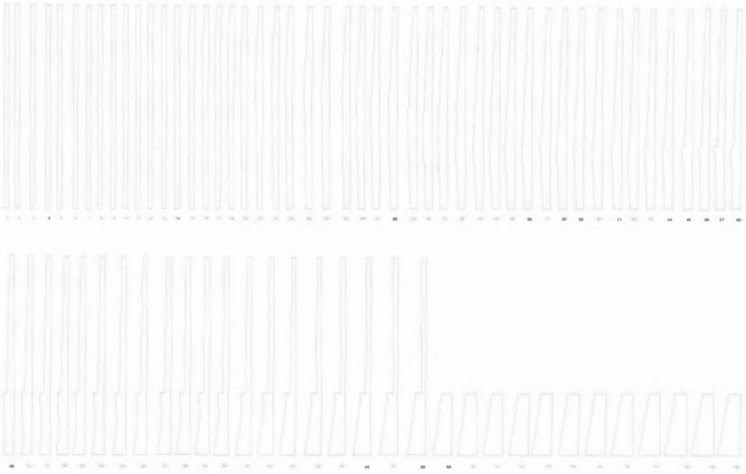
The design transforms the hard, empty shell of the room into a soft, full space. The given program, size, and enclosed nature of the room suggested a design tactic of adding surface layers onto the already existing raw nature of the room. We saw this implied 'fix' as a point of resistance to question the inherent thinness and planarity which the insertion of paneling or lining nominally suggests. As a way to expand on the idea of lining, we began to think of *thickness* as a term that could potentially apply to surface as well as to volume. We sought to achieve a physical and visual material depth as well as a thickness of space by foregrounding a monolithic and clothed presence in the room.

Using a design-build methodology, which could create a sustained and reciprocal dialogue between the design's conceptual terms and its materials and methods of construction, we focused on exploring the visual and tactile qualities of materials and how they might be fabricated to gain desired effects. This research worked towards developing a material dialogue within the design while establishing methods of fabrication that could be constructed in the College woodshop and metalshop by students.

The design strategy wraps the room in a series of programmed liners which combine to form a continuous surface that shapes and subdivides spaces. The liners become tactile and functional surfaces meant to engage the body through touch and use. They house all the program requirements and suggest separate spaces—like pockets—within the room. The wall surfaces become storage, desk surface, window seating, lighting, photography backdrop, wall and floor covering, door frame, and room divider. These intertwining liners become a snaking figure whose visual continuity fluctuates between readings of edge, surface, and volume. Spatial thickness is sought through

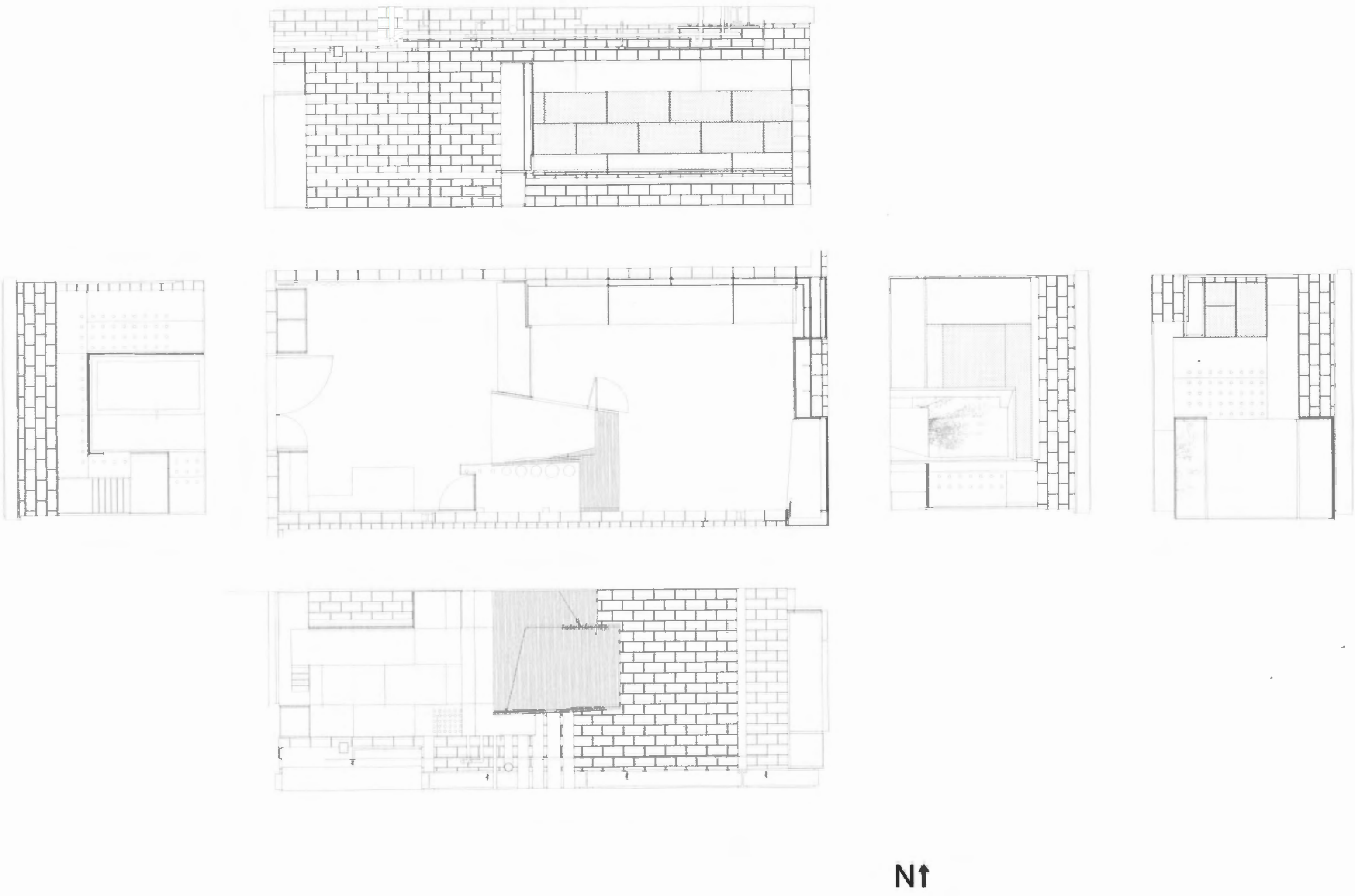






developing multiple levels of 'interior' by overlaying loosely suggested programmed spaces with more defined ones. Moving through the room, one encounters a series of perpendicular thresholds such as doorframe, room divider, and windowbox. These are formed volumetrically by the use of thickened elements such as wall storage and enclosing frames. They are interiorized spaces within the context of the room that are seen as both isolated moments and as part of the continuous liner. Certain material edges become articulated to define these moments as well as to suggest the transformation of these cut out spaces into protruding programmed surfaces.

The budget for the project necessitated the use of mostly inexpensive materials. We tested standard building products such as medium density fiberboard and particle board to see how they could be transformed visually and constructionally. They make up the majority of the lining's surface and structure and are employed to become edge, plane, and volume. As room divider, a volumetric funnel is made by turning the liner back on itself forming a compressed interiorized space. Its method of fabrication is translated directly from the computer model through cross sectioning, and the resulting pieces are assembled into laminated layers. This non-planar construction technique creates a monolithic and flexible form which allows the surface of the funnel to bulge to accommodate the protruding pre-existing pipes and conduit behind. As well, the funnel draws the light brought in by the new windows to the front of the room and frames the view to the landscape outside.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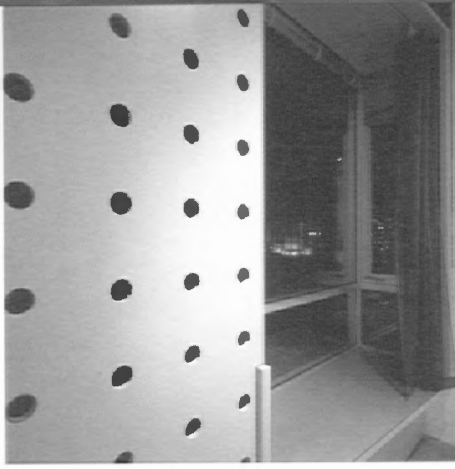
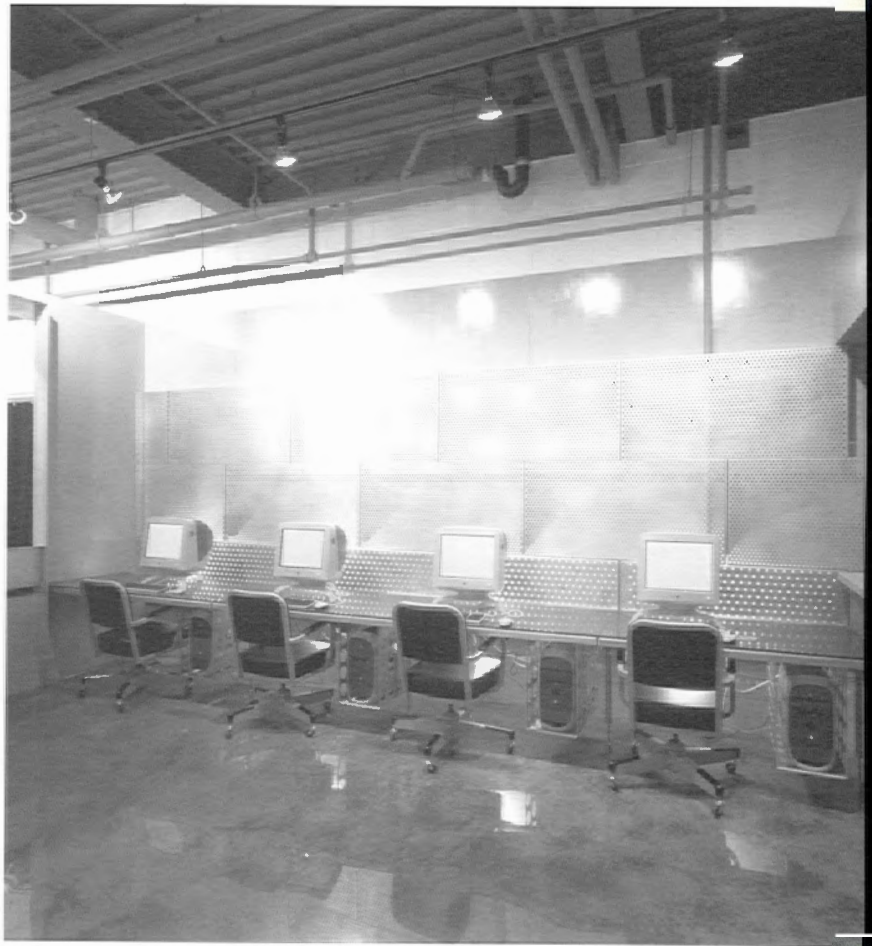




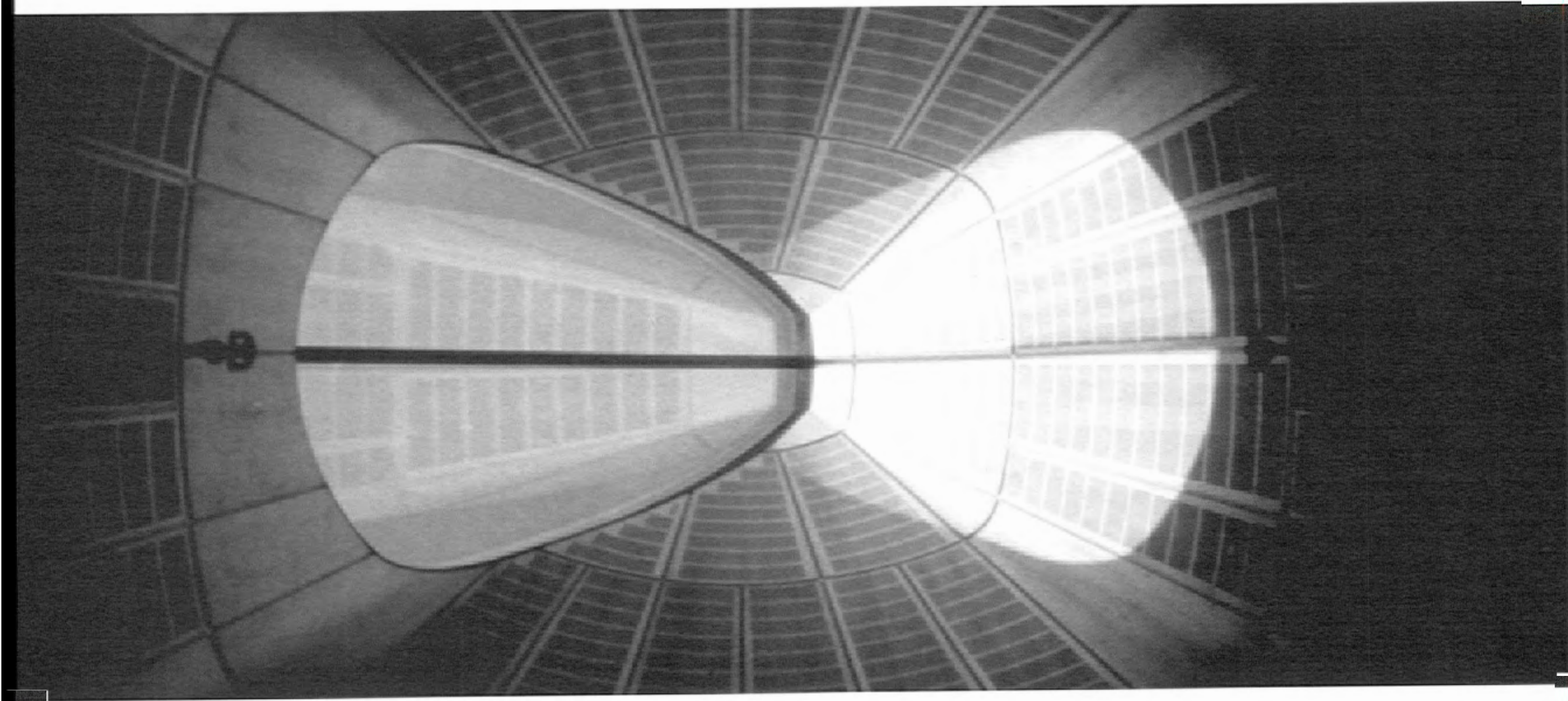
In the funnel, *thickness* is achieved through the use of the material, in other cases, it is sought through a layering of materials and through the use of finishes to give visual depth to particular surfaces. Here, we explored the sensuous and tactile possibilities of using less conventional building materials such as vinyl, cast rubber, and epoxy. In the case of the floor, tinted epoxy is used to obscure the surface of the concrete slab and give a liquid-like finish. The added color pools to form more opaque areas and gives the floor a visual depth with varying translucence and reflectivity. The glossiness of the surface transfers light throughout the room and reflects the color and three dimensionality of the window and computer monitors.

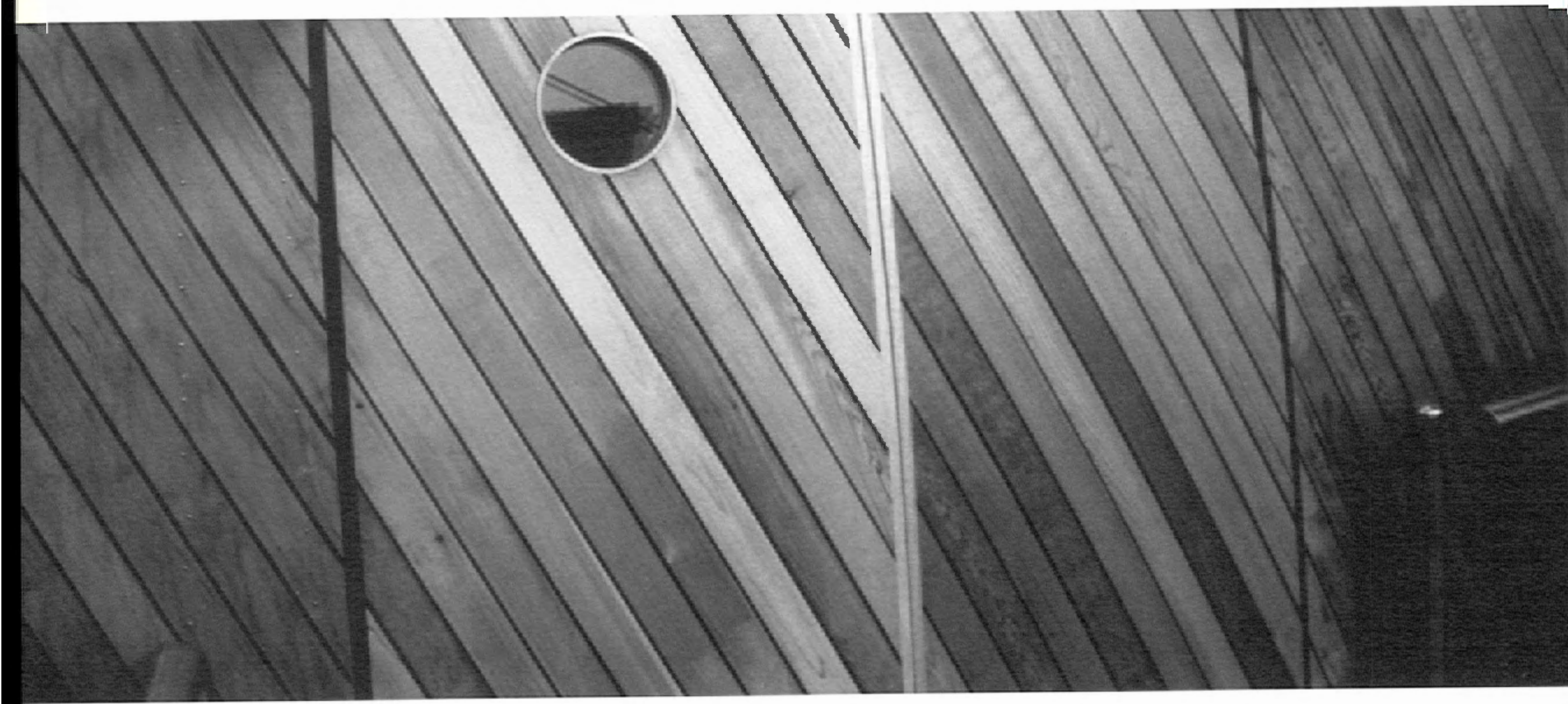
In areas where one comes directly into contact with useable surfaces such as the computer desk and windowseat, materials are employed which also have a tactile presence. The vinyl desk surface becomes a continuous mousepad that transfers light reflected from the floor and from the lightwall behind. The cast rubber bench top recalls the color of the floor and MDF and adds a layer of visual depth as well as softness.

Faculty Resource Room
Taubman College of Architecture and Urban Planning

This project was designed by Lisa Iwamoto and Craig Scott, Assistant Professors of Practice, in collaboration with students Timothy Wong and Adam Clous. The construction team included: Daniel West, George Ristow, Gerry Bodziak, Anselmo Canfora, and John Comazzi.

All photographs are by Christopher Campbell and Craig Scott. This project was sponsored by the Taubman College of Architecture and Urban Planning, OVPR, and the Brigham Fund.





↑↑ Courtroom Skylight

↑ Door detail
Bordeaux Law Courts

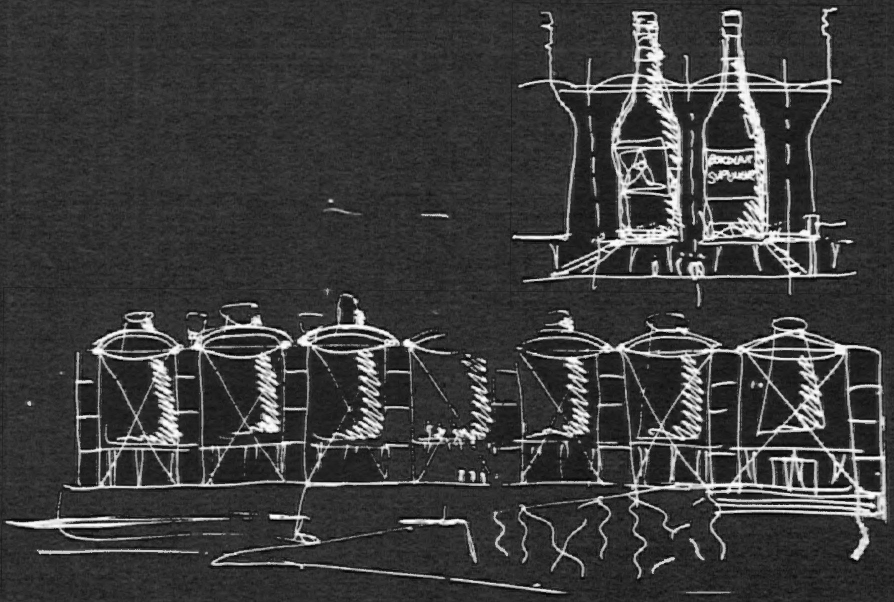
TRANSPARENCY AND DISCIPLINE

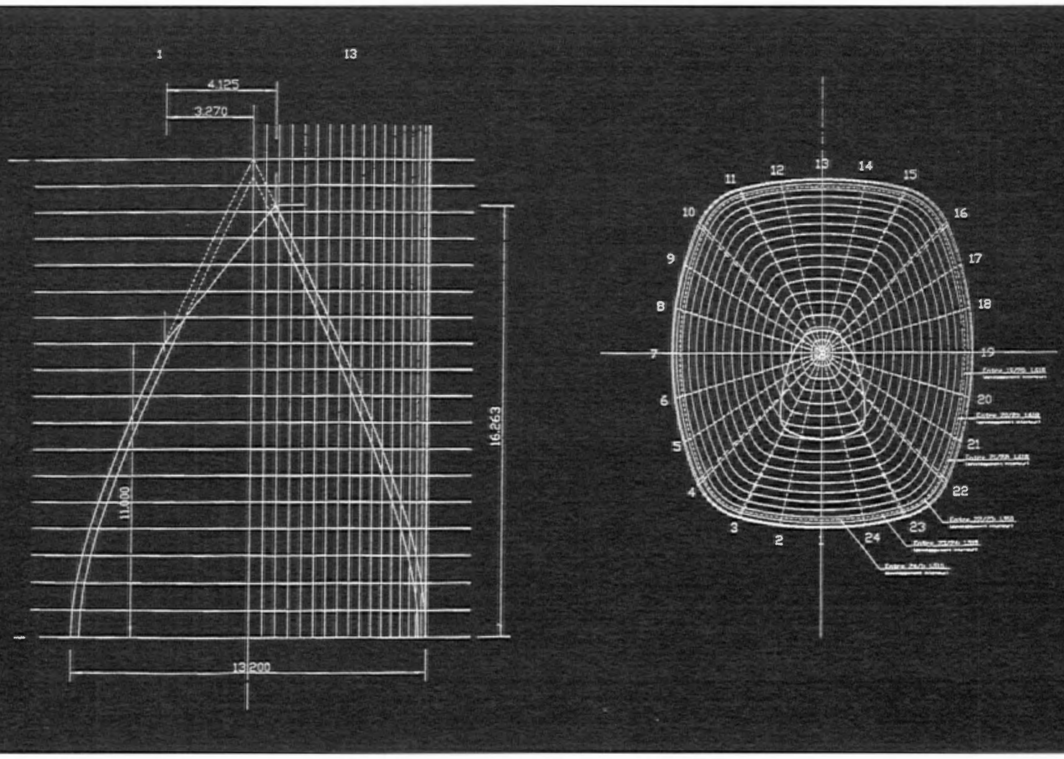
AMARJIT KALSI & LOREN MEYER

Bordeaux was a competition, which we started working on at the end of 1992. The challenge was how to design a new Law Courts Building in the most sensitive part of an ancient city. The site was bounded by medieval fortifications. Bordeaux has a very humane scale and there is also a unity to the whole city that is created by using local sandstone, culcare. After visiting the site, our primary responses were to consider the issues of context and program very carefully and to design a building that reinstated the street pattern.

Creating a plinth was the key to reinstating the street along Cours Albert. The new building could also be dovetailed into the existing courtroom by designing this plinth and by using the same sandstone that was used elsewhere in the city. Above this plinth the forms of the seven courtrooms—two criminal courts and five civil courts—were clearly articulated. By siting the building in this way, we were also able to create an open space with a clear view to the main cathedral.

In the early sketches, we also looked at the legibility of the programmatic elements of the building. So the primary spaces are pulled away from the ancillary

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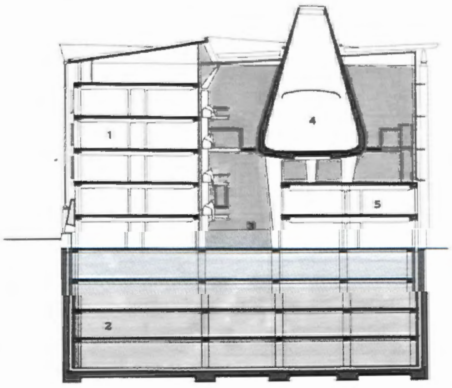
↑↑ Early Sketch

↑ Timber 'Pot' Schematic

↑↑ **Oast Houses** ↑↑ **Rowboat**



↑ Transverse Section

Offices	1
Parking	2
Concourse	3
Courtrooms	4
Entrance	5

spaces. The individual courtrooms were expressed and manifested on the façade. Consequently, there was an interest in transparency—inevitably there were also comments about the courtrooms being like pots or like bottles of wine too!

In plan, there is a clear diagram which separates the private functions—the lawyers chambers, prisoner cells and so on—from the more public spaces and the courtrooms. The sizes of the courtrooms vary and the two ends of the building are different. Those near the existing building are larger. In the two criminal court courtrooms, there is a separate circulation system, which provides privacy and security for those on trial.

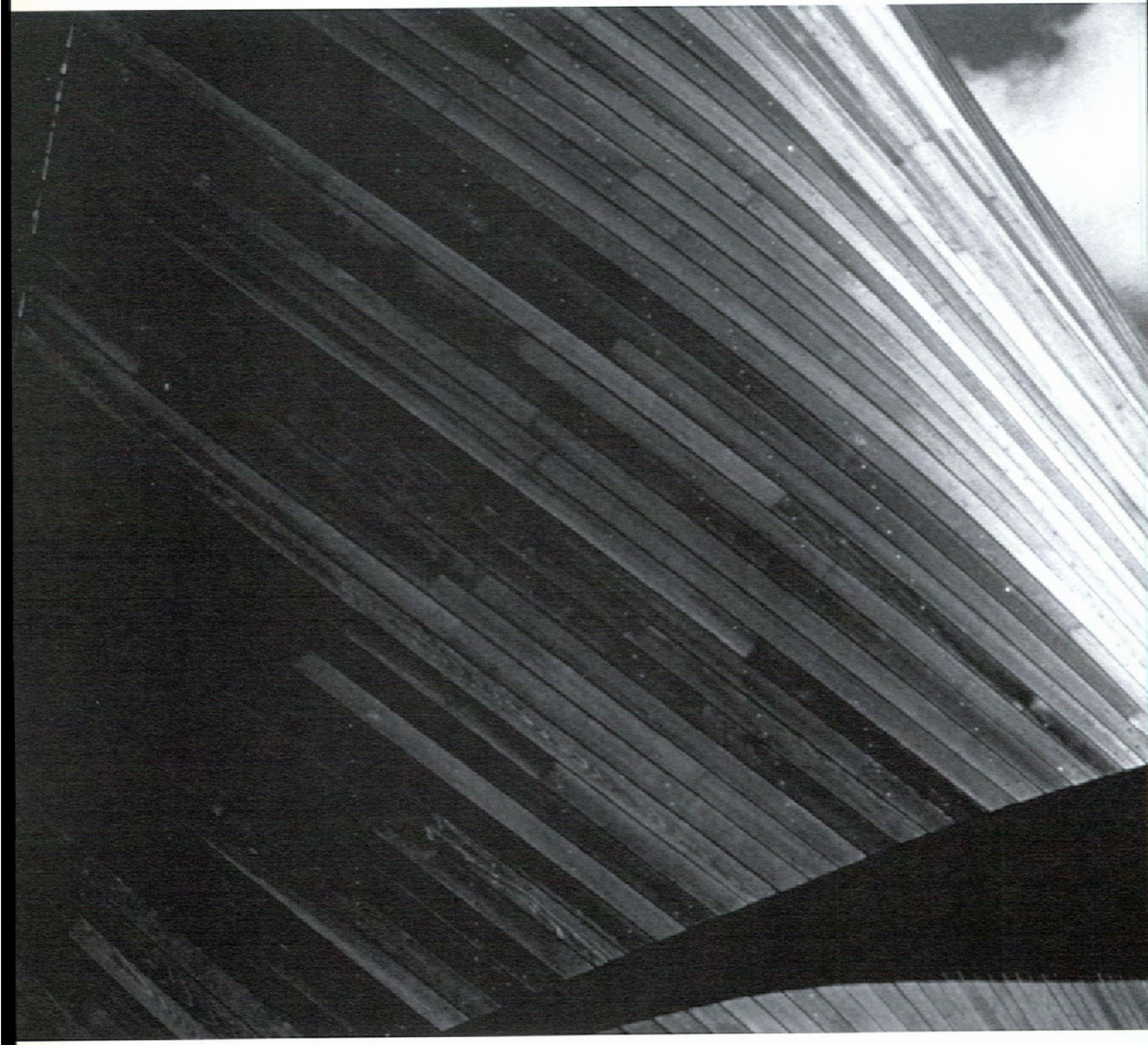
Early in the project, at the competition stage, the nature of the spaces was very important to us. We wanted natural daylight in the courtrooms. On the main concourse, we wanted the different courtrooms to be easily recognized and to have as much transparency as possible in order to understand the building and still see the existing fortified buildings nearby. We did not want to have the "Perry Mason" picture of a courtroom—a place with a pediment and a huge flight of steps where you feel condemned even before you get into the room. Our idea was that the whole process should be much more open, legible, and transparent.

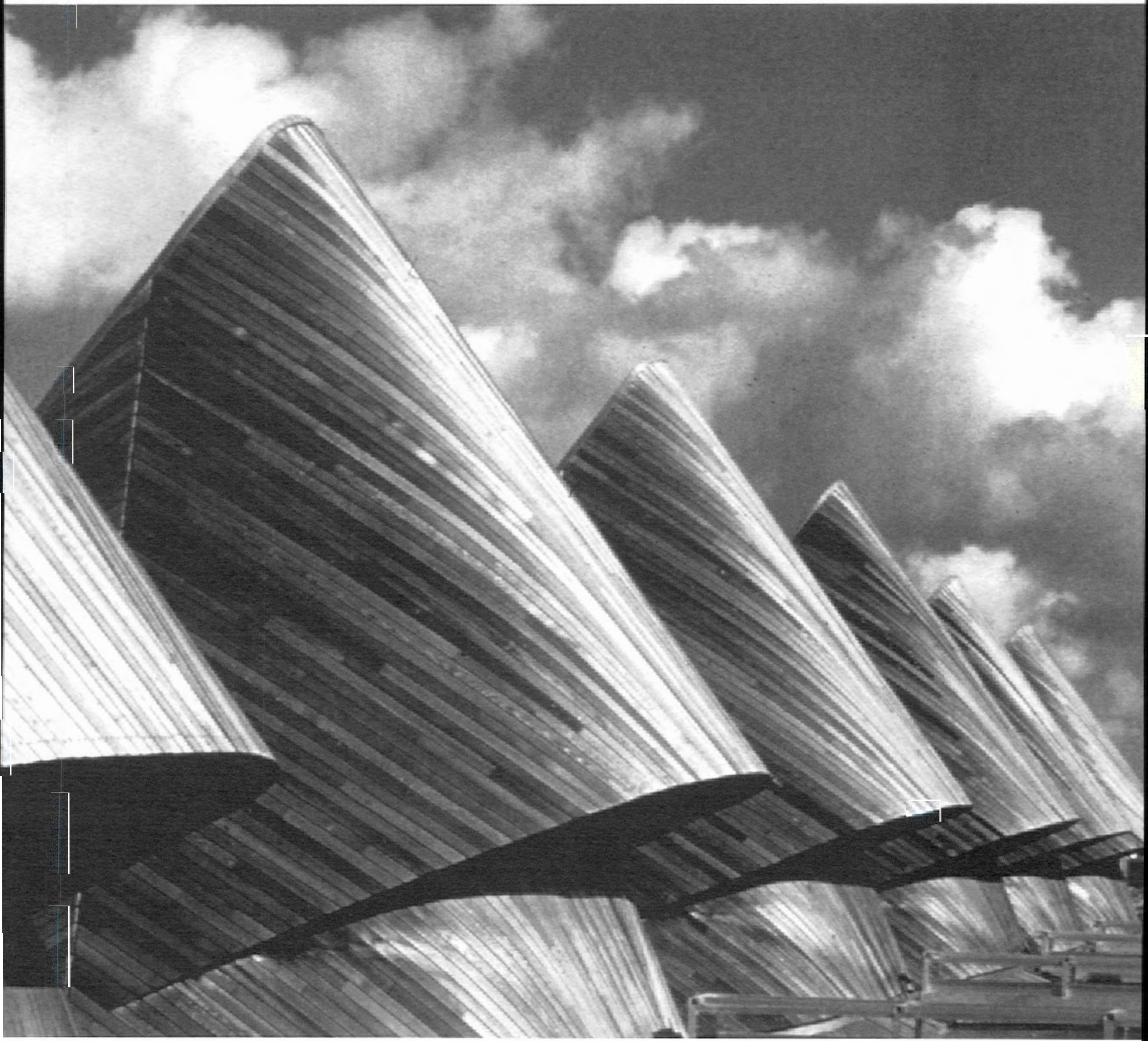
The courtrooms, which are located in a main concourse space, sit over four levels of parking and adjoin a five-story administration block.

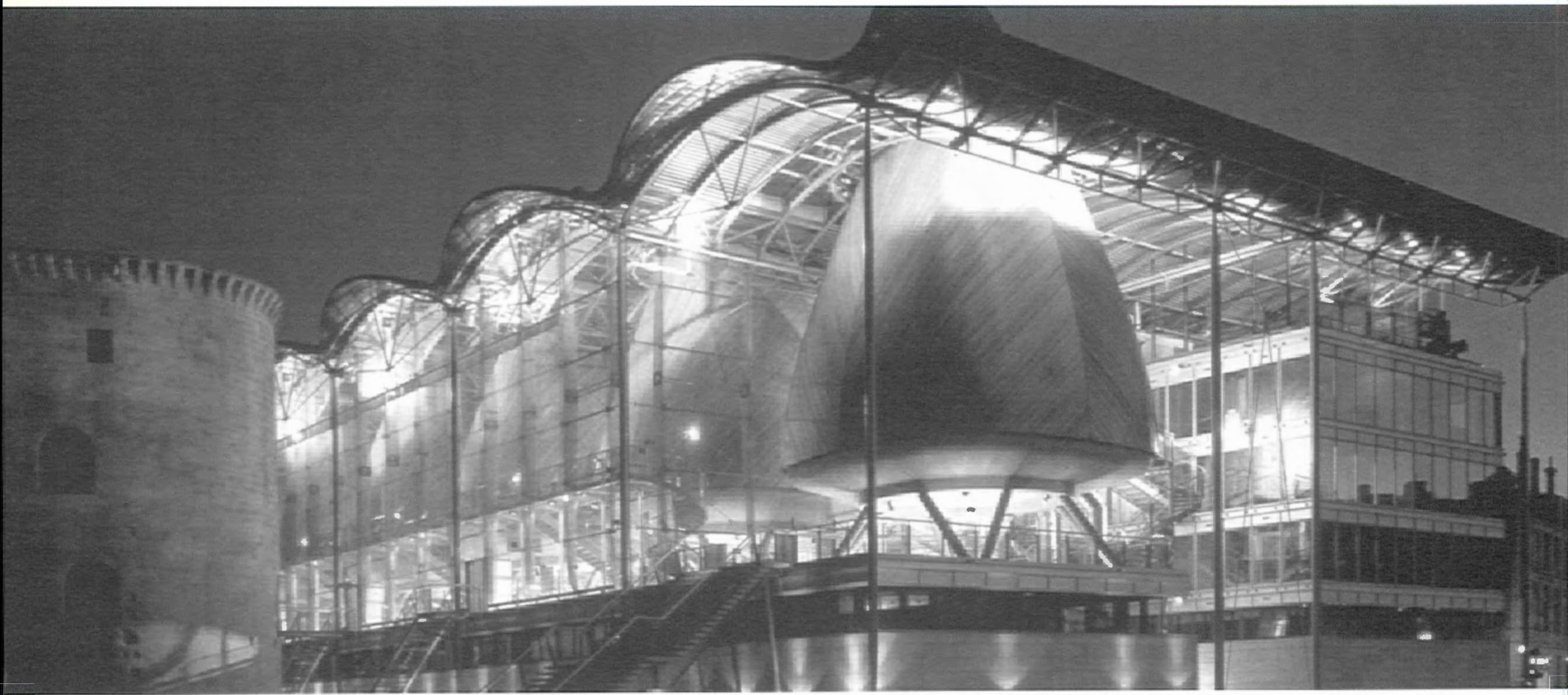
We looked at how we could utilize passive environmental controls for the whole building. A new outdoor water basin was proposed to reduce the building's cooling load. It was a shallow basin. The idea is that from the basin, a fall is created in front of an intake duct to the mechanical system. The water cools the air before it goes into the mechanical plant. On the east façade, there are shutters, which you can open and close manually. The windows open as well to get ventilation. In the winter heating is required, but because we have created this reservoir of temperate air in the glass box, the temperature of this air is always greater than what it is outside so there is less energy needed to bring these spaces up to the required temperatures. One of the other things we had to consider with more passive controls, was the whole issue of air pollution and acoustics. It is fine to have openings for natural ventilation, but you also have to deal with the problems of acoustics and air quality.

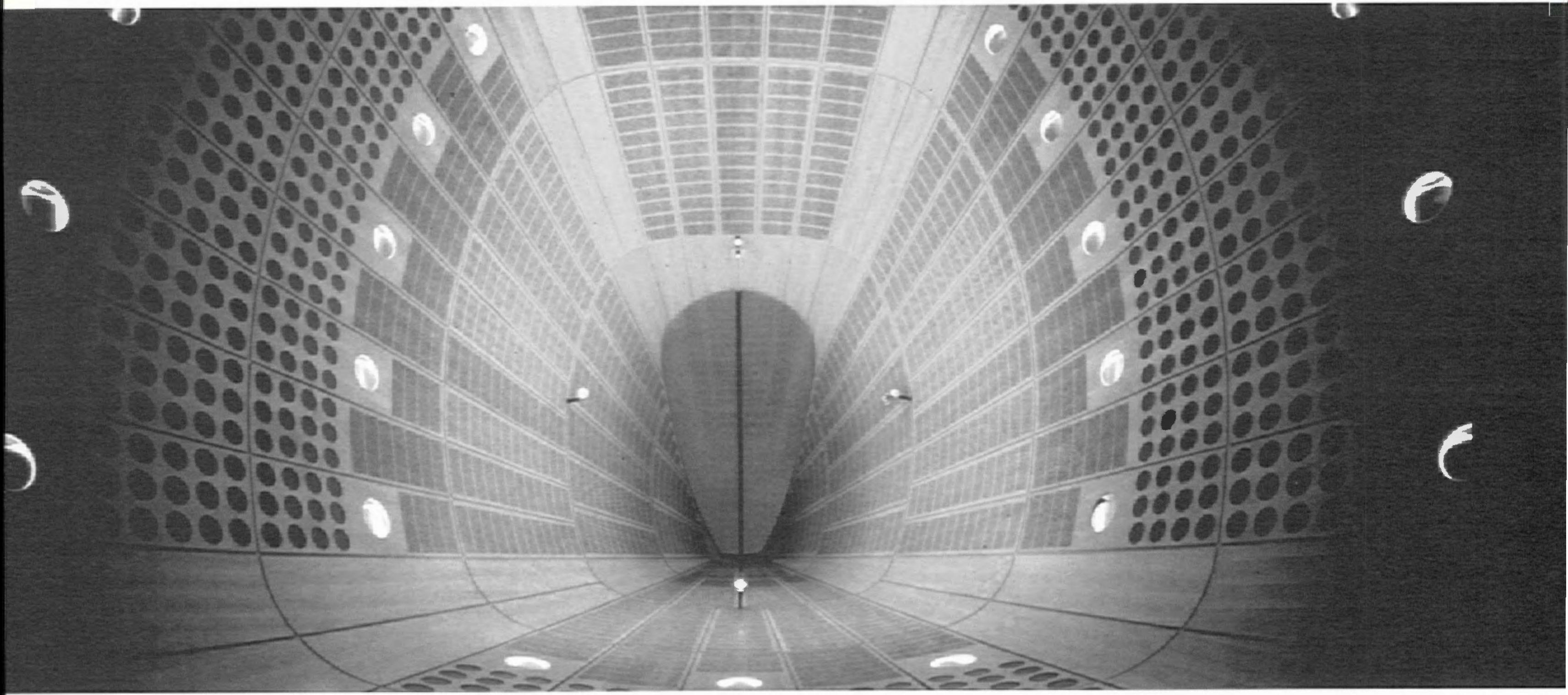
We looked at oast houses in Kent. These vernacular buildings were designed to dry hops. The tops turn depending on the direction of the wind to provide ventilation. That is the type of technology we were looking at, one which had been tried and tested and worked, rather than using an elaborate motorized system. So by shaping the courtrooms like pots we were able to create a natural extract system.

The pots were a 'dainty dish' for our office. They were discussed during many of our design meetings and everybody had their own idea about how these forms should be constructed. They looked so different compared to anything else we had done before. We looked at a range of different materials. At the competition stage, we identified the courtroom structures as being made out of ferro-cement. Using this material, one can produce very elegant, thin structures. But we had to abandon this technique due to fire rating problems. We looked at glass fiber reinforced plastic, which allows one to form compound curves and is lightweight and strong. We also looked at carbon fiber, with its greater strength, but sadly the company that we were considering went into liquidation so we had to abandon that technique. Some of the most interesting ideas focused around using a stressed skin type of construction. A skin on two sides and a honeycomb layer between creates a very rigid but lightweight panel. With this type of construction we could also have used carbon fiber matting. As we were trying to develop the honeycomb panels, that company also went into liquidation and so we had to totally rethink the construction. Another technique we looked at was the use of cedar shingles, so the pots could be formed out of a waterproof layer, and then a layer of shingles lightly applied. But the technique we explored most thoroughly was laminated timber construction like that used to make boats. We did quite a lot of work with a boat builder to develop this technique. The idea was that each pot could be created by assembling four pieces, which could be lifted onto site by helicopter and then stitched together. But the company was not keen on working in Europe so that too had to be abandoned. If we wanted to get someone to build these forms, we had to define a









↑↑ Exterior

↑ Courtroom Interior

geometry. One of the main generators of the geometry was that all of the radial lines, the ribs, always came to a point. A French engineer, Boris Asancheyer from OTH Paris, was a clever mathematician and came up with an equation to describe the hyperbola to generate the form. This was important for fabrication and it insured that information could be fed into a computer controlled machine and the curve would be cut from the information digitally provided. The most difficult task for the architect is to somehow retain that simplicity of the original idea. Defining the geometry of the joints and the panels was critical in achieving this goal.

We explored various timbers that were appropriate for outdoor use. We were told that we could look at cedar, oak, or teak. The problem with oak was that it would go black after five years. With teak we were concerned about using sustainable resources as well as with the actual working of the material. Cedar was familiar and the most appropriate choice because of its appearance and also it is a timber, which is much easier to work. For the final design, we chose red cedar slats on the exterior cladding.

The color of the exterior cedar is changing. It was a golden color a couple of months after completion, and is now a wonderful silvery gray. Some people said we should actually treat the cedar by applying a patina so the weathered parts and the non-weathered parts would not be different. But that treatment involves some very hazardous chemicals. Also for me this opportunity to create a building, which weathers and changes with age sums up Bordeaux; the new building set in amongst the medieval buildings which have aged over centuries.

In terms of our working process, one of our most important tenets is ensuring that we specify sufficient numbers of prototypes and mock-ups. This helps to develop the design and one avoids surprise when construction is underway. A whole series of mock-ups were created for this project at a timber yard in Limoges. I loved seeing those half finished forms while the guys were struggling to work out how to actually construct the shapes. They were helpful to develop an understanding of the forms and the most appropriate details for applying these cedar strips.

We also had to develop various manufacturing processes. Vices were created, that were bolted onto the concrete slab to the required curvature of each of the timber ribs. Then they were squeezed together to create the curved forms.

The shape of the pots ensured that the courtrooms were naturally lit from a skylight, which is sufficient to maintain the a comfortable working light level for each of these rooms for about 70% of the year. The interior wood panels are all compound curves. Working with an acoustician, we developed different types of internal cladding—perforated panels provided the necessary acoustic absorption, while others had recesses for light fittings. No electronic enhancement was required for speech within these volumes.

As the building took shape it became part of the city. While the sandstone plinth connected into the streetscape, the pots became a part of the silhouette of Bordeaux. The construction of the pots created a great amount of interest in the town. It was exciting to watch the forms gradually taking place. For me, one of the most rewarding aspects of this project was the construction of the building and the way that it is rooted in human labor and skill.

All images courtesy of Amarjit Kalsi and the Richard Rodgers Partnership.

↑ During Construction

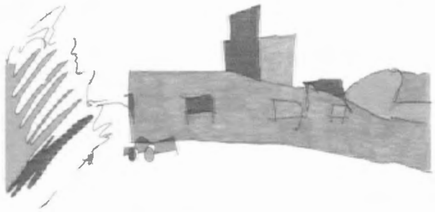
HOUSING PERCEPTION/PLEASURE/PRESENCE

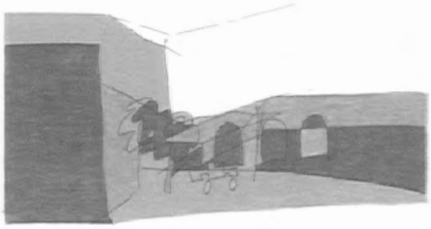
J. YOLANDE DANIELS

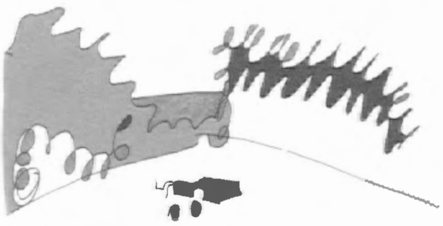
THE STUDIO

ERICA BISHOP
JI WOOK CHANG
JENNIFER EZROW
KACY GARSKE
MATTHEW HASELTINE
ANNE HINSMAN
JUSTIN KWOK
SHING KIN LEE
JESSICA MARSHALL
ROBERT RIETHMILLER
TIMOTHY WONG

↑ Jennifer Ezrow







I. Typically, the undergraduate housing studio at the University of Michigan begins with a two week density study. The students design several housing schemes: In this case, one for x and one for y; densities on two given sites, a and b. The idea is, in part, exercise and exorcism as we generally have many preconceptions about housing. Most of such preconceptions are informed by our own houses or housing from which we have intimate memories. For many students, the primary preconception is the conflation of house with housing; whereas, the primary preconception for developers and some architects is the conflation of housing with extreme economy and standardization.

II. The semester then begins with a charrette and a false solution. The expectation of the production of the students is to be somewhat limited and the time allotted assures this. I have found false solutions to be not false at all, instead they are paradigmatic of the end product. In fact, the challenge for student and professor is in surpassing them. The false solution yields simple and at times elegant plays within the modernist canon. With the exception, however, that the densities projected are a fraction of the size of modernist models. This contradiction places us squarely within the rhetoric of the 1990s as projected through the dissolution of housing models and concerns in the late 20th century, where projections of *house* onto *housing* are the common planning manna.

"X" Marks the Spot": 1st preconception: *Vision*

I. Go to the site and follow this set of instructions.
II. Drop yourself on a spot that is somewhat centrally located.
III. From this spot, draw the view toward each of the four site coordinate points (N/S/W/E).
IV. Study each view carefully.
V. Close your eyes.
VI. Draw each view carefully.

↔↑ **Erica Bishop**

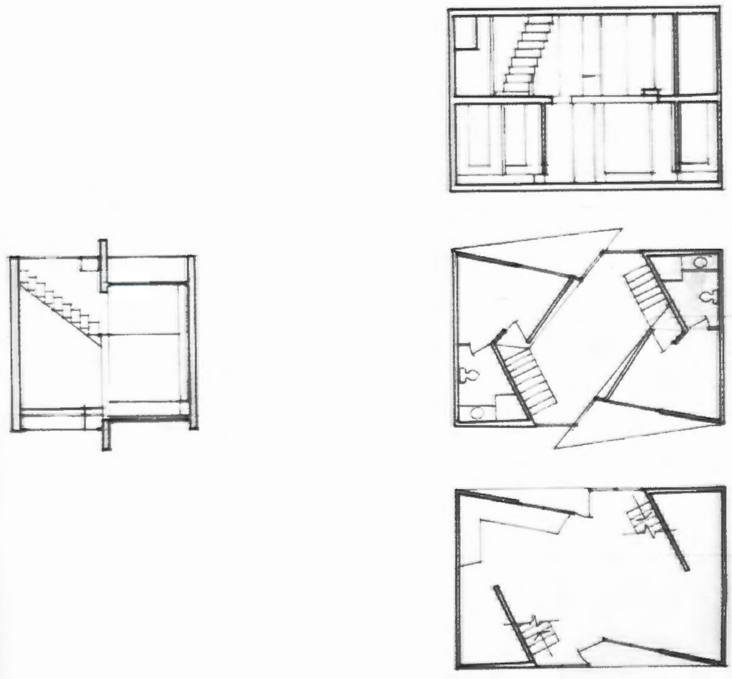
III. As a result of the short time period, the students tend to rely on Sherwood's *Prototypes of Modern Housing*. It is a vapid but concise survey of modernist housing tropes. In it one finds basics such as the "free plan" (the Five Points of Architecture), the *L-unit* section and the *interior street* (the Marseilles block), housing as standardized cells (the Domino house), etc. Missing in Sherwood's survey is the rich history of Russian social housing prototypes by architects such as Ginzburg, Milinis, Ivanov, Terekhin, and Smokin where all of the examples quoted are found to predate Le Corbusier. Other characteristics are elaborated on within the framework of the survey, such as the somewhat ambiguous spatial relationships that occur due to the dissolution of walls and the subsequent merging of adjacent spaces especially between the dining area and kitchen, or the use of programmable walls, such as closets, that may also act as room dividers, etc. In addition, the impact on modern housing due to the re-mapping of gender identities (specifically the liberation of women from household drudgery) has come to the forefront since Sherwood's survey. Lurking in the closet of modern housing prototypes are quite a few revolutionary threads. Ironically, the similarities between the free plan and free trade are underscored if we consider that those most liberated by the free plan were real estate developers.

"To Be or to Not Be": 2nd preconception: *Shelter*

"The objects which surround my body reflect its possible action upon them." —Henri Bergson

In this assignment you are to reconceptualize the housing unit. The *unit* has been conceived as part of a system of similar units or cells that add up to a complex whole when combined. This model is primarily based on economy, efficiency, and profit.

The reconceptualization of the unit begins with an explosion. The *unit* is in pieces. The generic containers or rooms are in shambles. What is left is 1 person, 2 people, 2 and 1/2, or 3 people or more who need spaces in which *to be.*



↑ Anne Hinsman

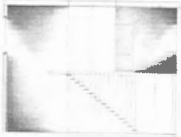
↑ Hilary Padget

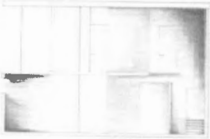
IV. In one of Le Corbusier's apartment sketches for the Marseilles block, the inhabitant rests on a chaise lounge in a bare interior that is focused through a one point perspective toward an overwhelming wall-to-wall view. The view is of the City. The model of mass housing and of housing as container relies on a particular urban setting: the Metropolis. The majestic view in Le Corbusier's sketch is represented in the life of the cell. The life which coursed through the interior was found, in the case of mass housing, exterior to it. Each unit was singular to the occupant and only when multiplied created the whole. Unfortunately, the Metropolis as an ideal became a contested idea in the 20th century.

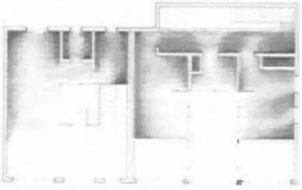
V. In the 1920s, the problem of providing sufficient workers' housing arose as a by-product of the population exodus from rural areas to urban centers owing to the process of industrialization: jobs were located in urban centers. In this way, the housing crisis was a result of political crises—of political revolutions. The ideas for housing further generated through desires to implement social revolutions to further the political ones in some cases or as a less direct result of them in others. One cannot truly examine housing without examining its relationship to its multiple social and cultural histories.

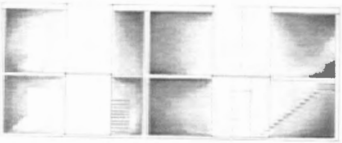
Mapping Acts/Modeling Relationships: Design a prototype for "spaces in which 'to be'." The Renaissance division of the senses distinguished between perceptual and physical realms: vision/light, hearing/air, smell/vapor, taste/water, touch/earth. The senses do not exist in isolation, for example, light warms surfaces to the touch, and is therefore perceived without the sense of sight.

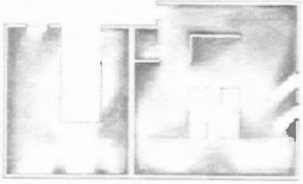
I. Map movement and rest.
II. Map solitude and encounter.
III. Note that from actions you may derive spaces.
IV. Map the relationship between the actions and spaces.
V. Map the correspondence between actions and spaces for 1 person, for 2 people, for 2 and 1/2, or 3 people.
VI. Through the correspondence of actions and spaces attribute materiality.











↔↑ Anne Hinsman

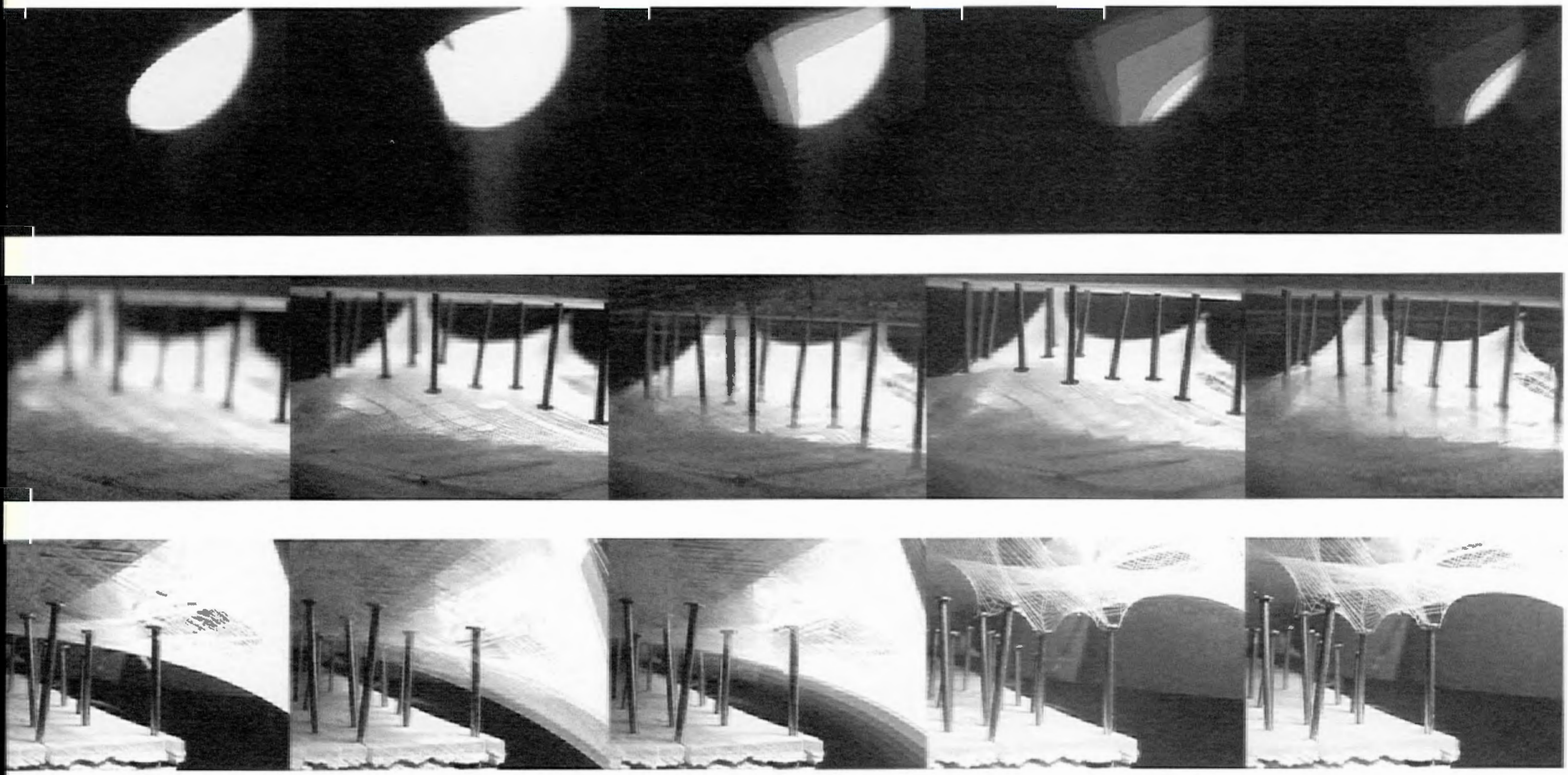
VI. Ideas of standardization changed over the course of the 20th century and mass production became the model of depletion and poverty (despite or because of its pervasive nature). The model for standardization, at present, intersects standardized procedures with customized products. And yet, the market again intrudes, for customization is in service to a diversified consumer driven economy.

VII. Rather than conceptualizing housing as a standardized container for Life dictated by economics, this Housing Studio focused on the study of housing through a range of activities at the scale of habitation.

Massing: 3rd preconception: *Intimacy*

The masses are transitory yet constant, and they occur as individual and collective bodies.

In the design of the prototype for "spaces in which 'to be'," we worked towards an outward expression of the "subjective" interior through a sensory analysis of the spaces of movement and rest, solitude and encounter. In this phase, we will move from the explorations of interior space to consider opportunities for collective experience. Collective experience is inadequately described by the reductive terms "the masses" or "massing" as it is shaped by a multitude of valued details and relations.

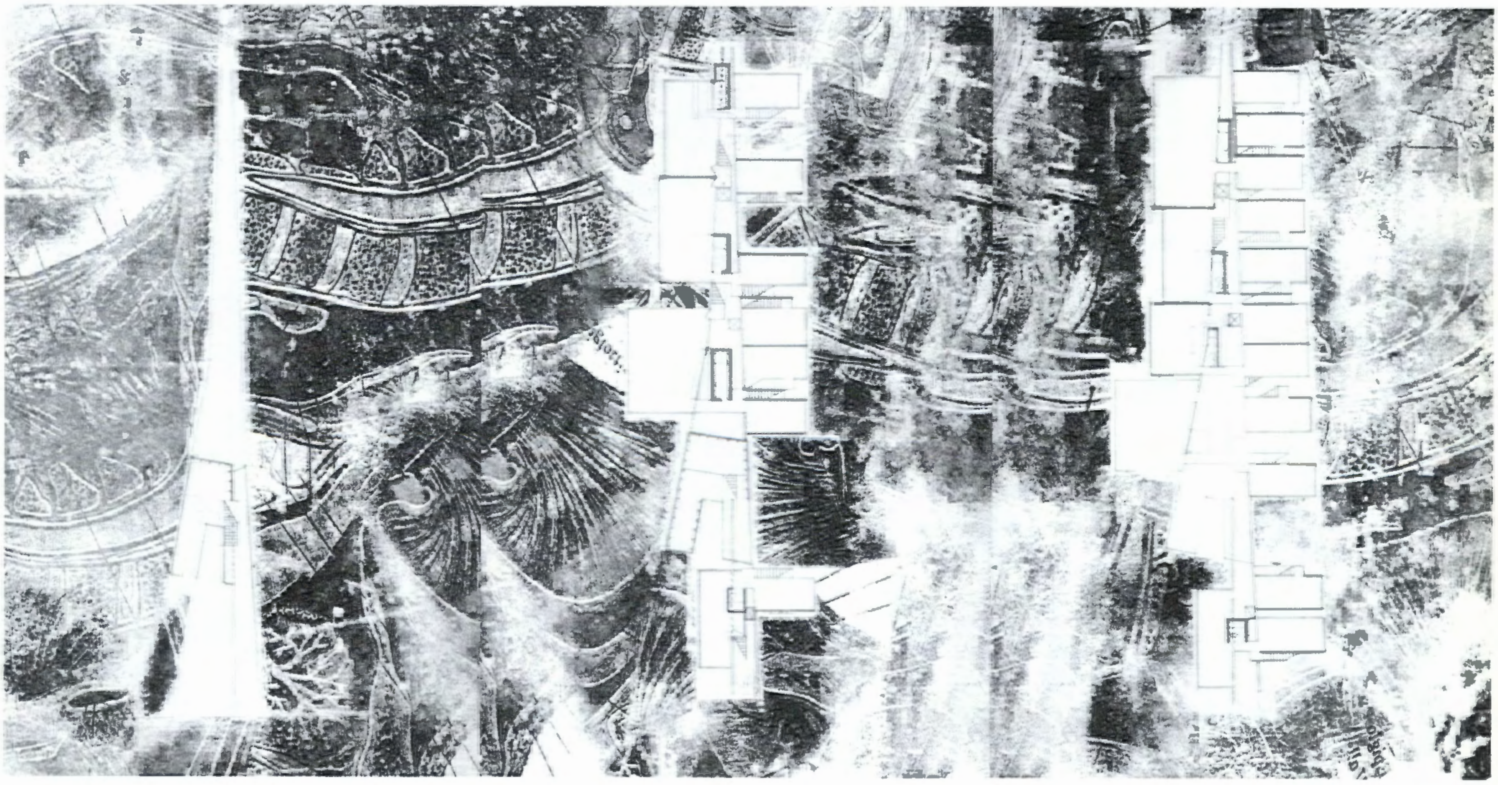


↕↑ Justin Kwok

VIII. Measured studies of the body at work have been integral to the reshaping of modern housing. In the early 20th century, housing, interiors, fixtures, and equipment prototypes directly incorporated anthropomorphic and biomechanical studies of labor and leisure into daily life. A desire for greater productivity and efficiency and at times comfort, most often drove these activity studies. Biomechanical studies of laborers at work were instrumental in the streamlining of labor and the incorporation of machinery through assembly line productivity. The cataloguing of activities occurred through the measure of the action and its components by graphing the space an action consumed. Such studies were both scientific and artistic. Eadweard Muybridge's photographic catalogues of human and animal motion are an example that strove toward the scientific, whereas Étienne Jules Marey strove more toward the perceptual in the cataloguing of the stream or flow of motion. What Muybridge edited out of motion through his studies was all data except the visual, while Marey retained the optic and haptic aspects of the body in motion. Muybridge's photographic method foreshadowed motion pictures whereas, Marey's method inspired the works of artists such as Marcel Duchamp and Giacomo Balla.

Dwelling Ideas/Spatial Relationships

I. Expand your exploration of intimate spaces into a scheme that details multiple intimacies, infrastructure, structure, surfaces, volume. . .
II. Consider whether the prototype will be developed as a model of standardization or variation.
III. Consider how the prototype begins to engage the site. Does interfacing with the site cause the "the spaces in which 'to be'" to deform in some way?
IV. Consider entry sequences and levels of intimacy for car and pedestrian, collective and individual, occupant, and visitor.



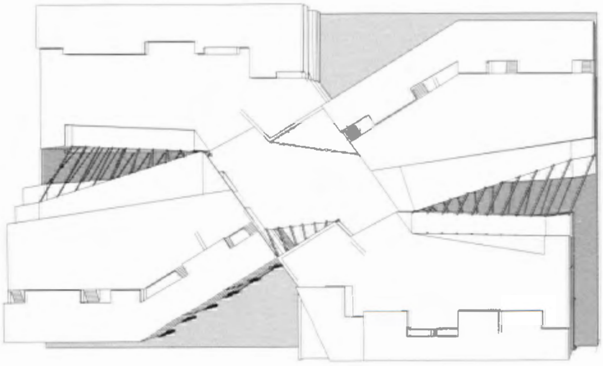
↔↑ Justin Kwok

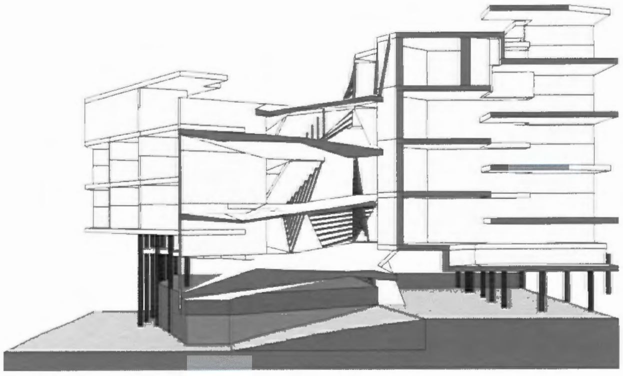
IX. In the act of inhabiting, we dwell and are present. To dwell is to live in or to be in or give attention to. The act of sheltering is to provide cover, or refuge. Shelter is a temporary condition of housing. Yet, music is capable of forming a sheltering space unlike any roof or four walls ever have. What then is *Shelter* and by whose edict do we dwell?

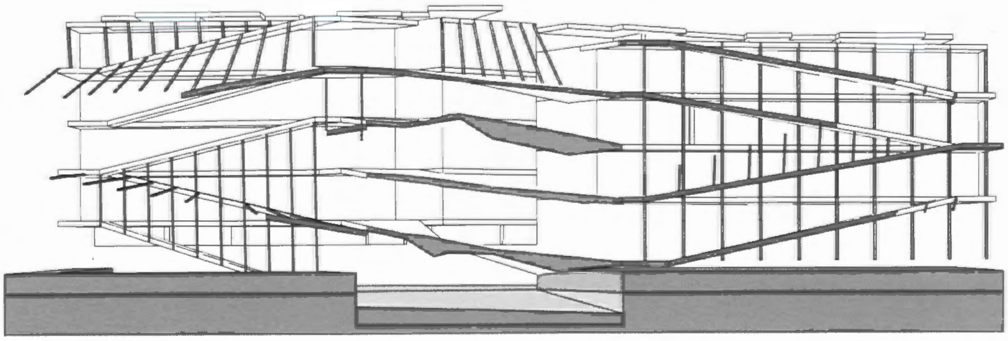
X. In that building as dwelling is both (the) building that erects and (the) building that cultivates, the conflation of the physical structure with the psychological schemata, was reiterated, when Heidegger clarified the definition of *Building as Dwelling* and *Dwelling as Being*. Such ontological and essentialist longings although proven to be problematic on a global scale, have remained thinly veiled in the functionalist edicts that followed them. And yet, the question of existence—even within diversified economies—remains. The study of the sphere of dwelling is the study the anatomic/structure, the physiological/function, and the psychological/behavior, and yet it is something "extra" as well.

Production: Integration of Parts: *Incorporations*

Work from the SERIES to further the END:
The END of PRECONCEPTIONS, is not an end, but, the beginning of the realization of new ideas for housing.







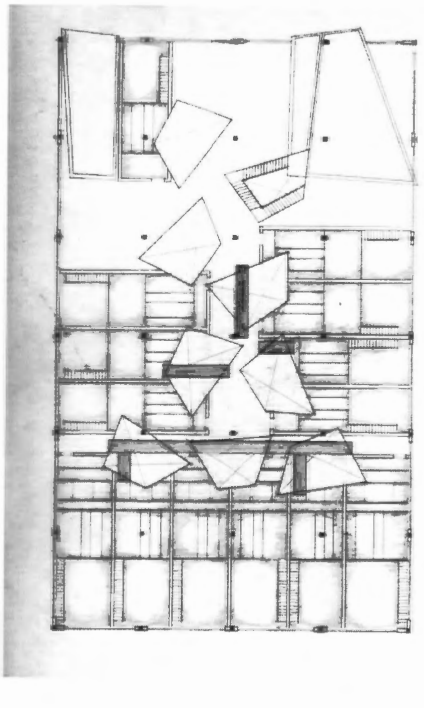
↔⇅↑ Timothy Wong

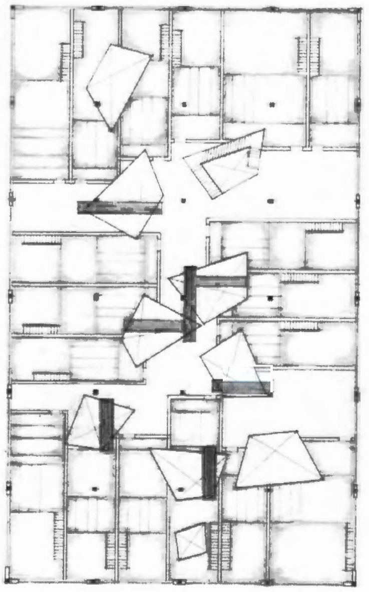
XI. *Housing* has lost specificity—has lost ties to being and is a function of. . . function. Yet, architecture has been historically defined not as function—as (mere) building—but as in the words of John Ruskin "in excess." Architecture is in excess, and, yet, the extraordinary is both local and specific. We are faced with the contradiction of the *tabula rasa* of existence. Being is both ontological and temporal, global and specific, original and mundane, both grave and fickle. Rooted in both perception and pleasure, presence is a constant indeterminacy—one that is extraordinary in the details.

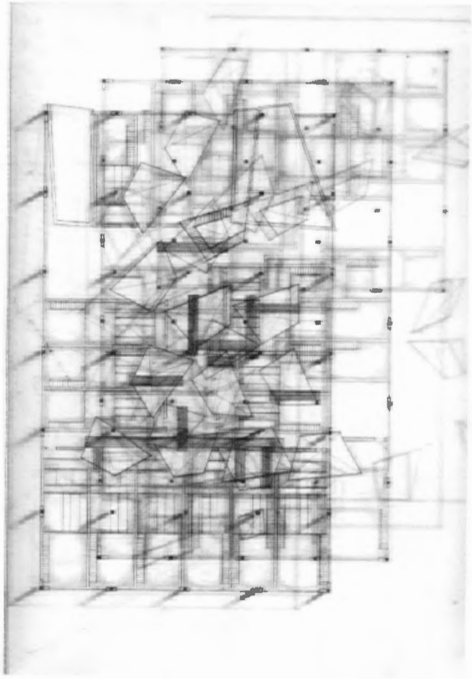
XII. If to be in motion is to be alive, then, stasis may be equated with death. Yet, each movement contains stasis. In this sense, every breath conceals or reveals death. What, then, could be more arbitrary and deterministic than your next breath?

Gaston Bachelard, "The Dialectics of Outside and Inside," *The Poetics of Space* (Boston, MA: Beacon Press, 1969), pp. 211-231.
James Gibson, *The Senses Considered as Perceptual Systems* (Connecticut: Greenwood Press, 1983), p. 97.
Martin Heidegger, "Building, Dwelling, Thinking," *Poetry, Language, Thought* (New York: Harper & Row, 1975), p. 148.
Anatole Kopp, *Town and Revolution* (New York: Braziller, 1970), pp. 126-152.
Juhani Pallasmaa, "An Architecture of the Seven Senses," *Questions of Perception: Phenomenology of Architecture* (Tokyo: A+U, 1994), pp. 28-37.
John Ruskin, *The Seven Lamps of Architecture* (New York: Dutton, 1969).
W.T. Singleton, "Biomechanics," *The Body at Work: Biological Ergonomics, Grieve and Pheasant* (London: Cambridge University Press, 1982), p. 71.
Robert Vischer, "On the Optical Sense of Form," *Empathy, Form, and Space: Problems in German Aesthetics* (Getty Center Publications, 1994), pp. 112-122.

All images courtesy of the author.







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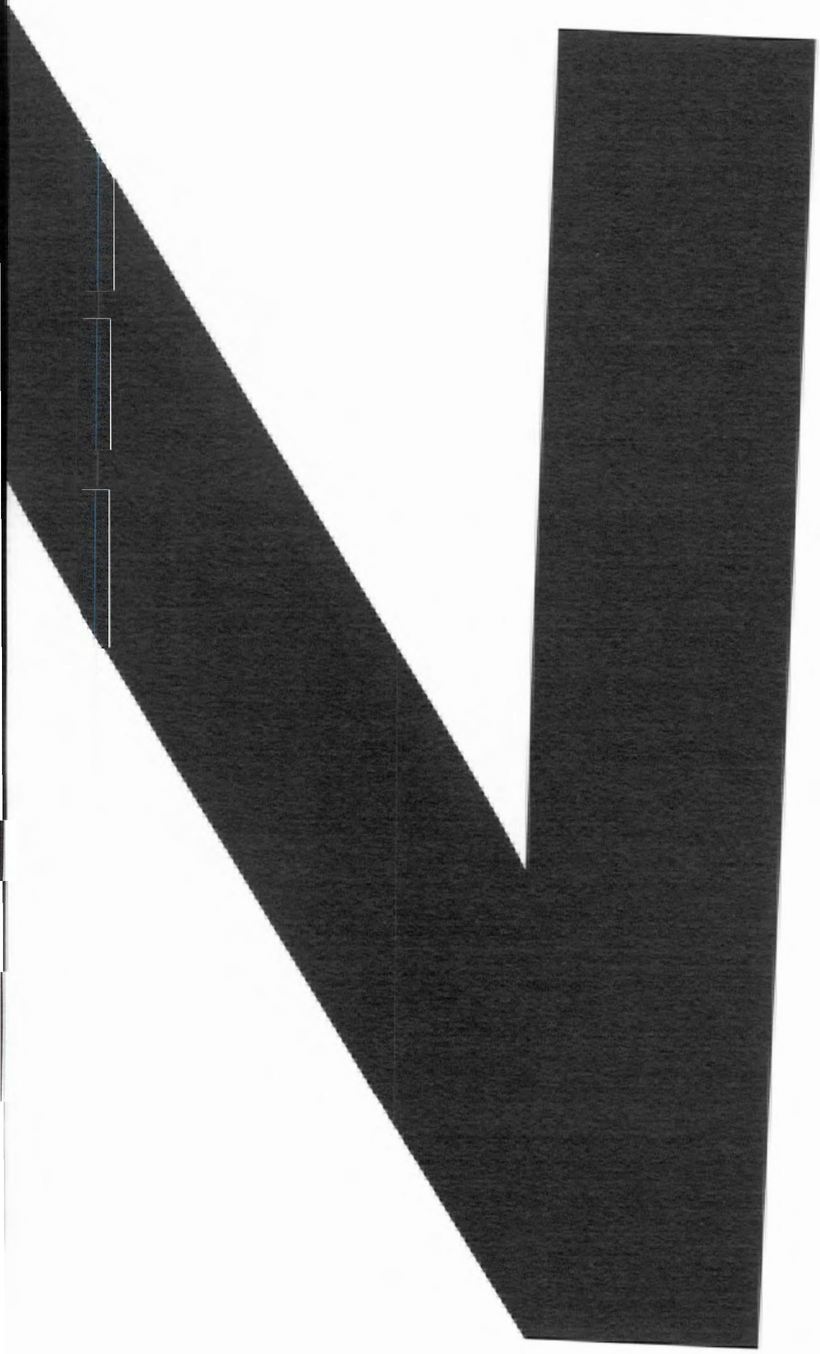
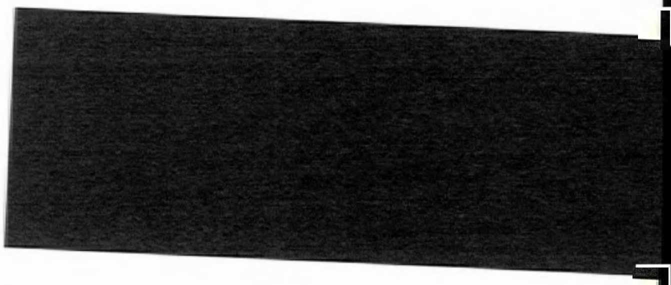


RYAN von DREHLE



The Teacher does not necessarily believe word for word everything the Student is telling him. He has seen enough plagiarized papers, forged scripts, and borrowed theses to recognize in the student's tales descriptions too profound, a style too polished, a pattern too familiar. But the instructor listens attentively, even unconsciously inclining himself forward, as if not to miss a single detail, though certainly he has heard every word before.

In the life of any great teacher there come moments of doubt, of wondering, of questioning backwards. Time was short, consequences were not understood, people were not what they seemed, cities were not as they first appeared.

Perhaps he sees something of himself in this young traveler. Perhaps he wonders eagerly whether this student will make the choices he made or forge some other route, visit other cities, follow some other teacher.

The Student himself seems to realize that what he is saying is nothing new, at least not to the Teacher. But his story is more for his own ears that those of any listener. Through the telling and recounting of his own experiences in the words of others he hopes perhaps to discover what those others discovered, who themselves used the words of others before them.

expectation

One must fly over fathomless seas, sailing silently over cultivated fields, and mysterious forests, to reach the city of Sarip. When one dreams of travelling to faraway capitals it is of Sarip that one imagines. For this is the city of lovers, where no expectation or desire can remain unfulfilled. Bristling with palaces and fountains and basilicas and libraries and gardens and monuments of every variety, the city of Sarip exhausts a visitor with the wonders and amazements lining its endless boulevards, avenues, and promenades which stretch out towards every horizon. A visitor to Sarip must spend days exploring the palace-turned-museums filled with treasures from every age and every nation on earth. Next he must climb a thousand stairs to the top of the whimsically tapering tower constructed of filigreed iron and tempered rivets from which to survey the city spreading below. Then there are the gardens with their tulips and lawns for strolling, the dark and incense-filled cathedrals where emperors have been crowned and beheaded, and the palaces with their jewels and chandeliers and mirrors.

But after days of wandering among these delights, a visitor begins to doubt that he has truly discovered what he came for. For Sarip creates only those desires that it can fulfill, and it fulfill only those desires it can create.

Undoubtedly the visitor to Sarip leaves amazed at the marvels of construction and culture he has witnessed. However, he cannot remember a single face of an inhabitant, or a single conversation he had there, or a single thought that occurred to him while within the city's limits.

Only after he has departed does the visitor to Sarip begin to realize that while perhaps he has found what he was seeking when he first arrived, he has left with no more than he arrived with.

From the Student's narrative it becomes apparent to the Teacher that he was completely uncertain why he went where he did, why he set out at all. Indeed, this becomes a theme that recurs over and over: why travel, what is there to be gained, what imperative is fulfilled by seeking new things in unfamiliar places? The Student paradoxically hints that the reasons he had for embarking at all were simply to find out what reasons there might be for such travels.

—I too had such urges when I was your age, offers the Teacher. The answers I was given, if one can call them answers, came only after returning to my home.

—But after travelling even this long, I sense that there is no place I can rightfully call "home," protests the Student. As soon as I arrive in a place and make new acquaintances and memorize the layout of the streets and assemble things, people move away, streets are rerouted, things fall apart.

—Perhaps that is why you travel, either to prove to yourself that you need no home, or else to possess the entire world as your home. You wish to feel at home wherever you are.

construction

The city of Libren is in a state of constant destruction and constant renewal. Every few generations a new cycle of disruption is initiated by some combination of charismatic native revolutionaries, dictatorial counter-revolutionary reprisals, and invading foreign armies. Each new wave of destruction however, is succeeded by a conversely industrious and ingenious wave of rebuilding and new construction.

A visitor to the city is amazed at the vast amount of construction: there is no part of the city untouched. Skyscrapers, department stores, railway stations, capital complexes, and whole city districts of translucent glass walls, perforated terra cotta façades, and airy tent-like awnings are resolutely rising from beneath forests of cranes.

One can see old buildings alongside the new. Some, pockmarked with age or bullets, will soon be replaced; others, miraculously surviving the latest round of troubles, will exist in peace for awhile only to face yet another generation of uncertainty to come, either from war or the ensuing reconstruction.

For the city of Libren reconfigures rather than expands, reconstitutes rather than abandons. But even while feverishly tearing down to rebuild, the citizens of the city harbor a deep respect for the city's past. Each new building and neighborhood that is rebuilt bears some vague resemblance to what preceded it, so that if some long-dead citizen were to return from 200, 100, even 50 years ago, he would recognize the pattern of boulevards and squares, though not a brick of that city remains.

Destruction and construction continue relentlessly, simultaneously sowing seeds of pessimism and optimism. The construction of what is new becomes inseparable from the destruction of what is past. Always, in the back of their minds, the residents of Libren are aware that, years from now, as the feverish activity continues, their city will have again assumed an entirely new countenance; nothing of what they have built today will remain, except in spirit.

At times the stories the Student is telling seem to be the same one over and over. Maybe there are different characters, maybe the names of places vary, or sometimes a new event or circumstance is added, mixed into an ever growing but increasingly homogenous whole. Sometimes the Teacher stops the Student, asking, Didn't we meet so and so before, in this other scene in this other city?

—To be sure, the student acknowledges, I cannot explain it myself, but there are some characters who resurface from time to time, sometimes with different names, sometimes with different faces. A friend left behind suddenly appears before, somehow now ahead. A complete stranger with a knowing look on his face, glimpsed in a crowd years ago, is seen again, on different streets in a different city. A lover painfully departed suddenly returns to the stage, if only for a moment, rekindling concealed desires. A chance encounter forgotten years ago turns out to be a close friend in future cities.

—In a way, all events take up their meaning as parts of the same great Event, agrees the Teacher. There is a point at which one begins to understand the interrelationship of all cities, suspect that they are all, in the end, part of a single, great City.

opposition

There is a city one reaches after travelling over lands that used to be seas and past factories that used to be farms. The city itself is half on water and half on land, half island and half peninsula, half above sea level and half below. A visitor to the city cannot tell whether the water or the land was there first.

This is the city of Straamdem, a city of opposing halves. For there appear to be two Straamdems which a visitor to the city may choose to explore. The first is loud and forthright, renowned for catering to every lustful and indulgent desire one could conceive of. In this playground of pleasure the buildings are covered with signs and windows which announce the licentious activities taking place within. The residents seem jubilant, beckoning any visitor as if from afar to join with them in his own revelries.

The second part of the city is pleasant and subtle, full of tall, stately houses and gracefully arched bridges which span twinkling canals. The signs and windows here indicate industrious workshops, charming cafes, and hint at comfortable dwellings. The residents of this half are friendly and relaxed, inviting a visitor to spend pleasant evenings with them beside quite canals under whispering locust trees.

At first a visitor feels he must choose one side of the city and ignore the other. It seems impossible that such antithetical neighborhoods should be part of the same city at all. However, in time it becomes apparent that the two halves are indeed inseparable parts of a whole. Despite their obversities, there are continuities that permeate the city as a whole, inextricably linking and subtly intertwining the two halves. It is the same water that fills the canals of all parts of the city, the same red brick which paves the streets, and the same inhabitants which go to and fro, mixing business with pleasure, fine living with covert license.

One senses that within a matter of weeks, days, or even hours the inhabitants of each part could simply switch places with those of the other, merely transferring their signs, furniture, namesakes, and lifestyles back and forth upon an urban framework which receives all things with equanimity.

—Am I wrong in thinking then, asked the Student after a short period of contemplation, that there is one city that is perfect. A complete and perfect realization of everything that a city can and should be?

They sat together in silence for another minute more. Then the Student continued this train of thought.

—Perhaps this city does not exist, or at least not yet, but surely there must be an ideal city, of which all the others are merely copies or emulations.

—You are not wrong in thinking that there is an ideal, affirmed the Teacher at last. But it is nothing so simple as you imagine, and certainly nothing that could be built in this way, in these times. Judge for yourself: either every city ever built is a complete expression of the ideal, or else no city is or ever can be. Each city falls short in some way of the ideal, confirming with its failure that there is an a ideal before which to fall.

sin

I will now tell you about a city that is a great port and was once the capitol of a vigorous maritime empire. Some called it a pirate empire which plowed the oceans in search of bounty. Others might commemorate it as the birthplace of naval exploration, the native land of new world explorers who alternatively enslaved and preached salvation to the peoples they conquered.

The city of Ogena is built on five tall hills which shelter four steep valleys and two deep harbors. There is virtually no flat land in the city and its storehouses, universities, railway stations, and palaces are terraced above and below each other, dramatically forming canyons, precipices, and ravines which echo, if conceal, the dramatic landscape.

A visitor to the city is tastefully advised to keep to the main streets, to observe the major sights, and follow the marked paths. But those who are either careless, curious, or adventurous wander off the marked paths and broad boulevards into a confounding maze of ancient sidestreets, alleys, and corridors. Here is seen another side of the city. On every stoop is a pair of grey alley cats, perched perfectly still, staring at each other, ready to pounce. Suddenly you realize that below your feet are dirty needles and drops of blood. From windows high above, obscured by lines of airing laundry, come wafting the sounds of disregarded televisions or mysterious sighs, muffled screams, and ecstatic shrieks. An impulsive shard of fear abruptly grips you, perhaps you have penetrated too far into this heart of darkness. Turning around, panic just behind. Was this the way you came?

Ogena no longer gathers the bounty of pirate ships into her large storehouses, which are now filled with the mundane items of everyday life. Captains of the ships of distant cities no longer cringe when they spy the flag of Ogena on an approaching ship. Civilization, modernization, and unification have forced vice to turn inwards, but it is still there, lurking in basements, alleys, and sidestreets, not far behind inhabitants and visitors alike, who choose to see it. Cities transform, populations shift, vices assume new names, but the heart of darkness remains.

—Let me now describe for you a dream I dreamt one night, said the Student. I dreamed that I came to yet another city, one I had not been to before, a city with no name, or with many names, as many names as it has inhabitants, I cannot remember which. I descended into the city from the sky, or maybe the city was in the sky and I ascended to it from the waters below, its position seemed indistinct but all-encompassing. I arrived with a feeling of suspense—for the unknown, the unexplored. I began to wander through the empty streets and crowds, noting prominent buildings, streetlights, squares, and utility poles. There was some confusion as I made my way through the city, for, though certain I had not backtracked, I began to see some of the same places two and three times. Soon I recognized every palace, every church, every sidewalk, even individual paving stones as either the same ones I had seen before or their exact copies. And although I recognized them they seemed different: increasingly grotesque and inhuman. Greatly perplexed, I quickened my stride, first running, then floating, then flying. I was nightmarishly lost amid an endless blur of frighteningly bizarre yet familiar skyscrapers, highways, and overpasses, concrete, steel, and plastic.

—The city in your dreams is indeed a real city, replied the Teacher, somewhat bemused. In fact it is every city, and indeed the only city, you have visited or will ever visit: enticingly new yet horrifyingly familiar.

shrouded

The city of Rupag is difficult to describe, perhaps more so after a visit there. For this city is surrounded perpetually by a great mist and lies just beyond what is familiar, barely out of reach, slightly beyond grasp. To be sure, one can travel to Rupag and explore its tangled streets, press through its crowded squares, and pause in its dark churches. I can describe in detail the delicate spires and bulbous onion-shaped domes which pierce the swirling mists arising from the river which divides the city. Or I can tell you of the infamous fortress palace that crowns a hill above the city, overflowing with gardens and dungeons and guards. Or describe the fantastic building at the foot of one of those bridges that, constructed of magical glass and steel, dances the evenings away to the delightful sound of forgotten waltzes.

But to describe these things is to tell you next to nothing of the true Rupag, even less than nothing. Indeed the more I describe its physical aspects, the farther the true Rupag dissipates into shadowy and unknowable mists. For the essence of this city is not in its foreboding castle, bristling churches, many-arched bridges, or whimsical buildings. Rather these things are clues about, or emanations of, or cast-offs from, its true form.

Perhaps a more accurate way to describe Rupag is to tell of the people who have written, ruled, preached, hidden, built, and died there. These philosophers, statesmen, reformers, prisoners, architects, and peasants are inseparable from their city and it is perhaps their lingering spirits, rising in the form of mists, which conceal the city from all but the most resolved of visitors. There is first the maiden princess, who prophesied the emergence of a great capitol from swampy riverside mists. Then there is the uneasy author whose stories of paranoia have both uncovered and provoked the fear at the heart of man. Or that great firebrand preacher whose words of truth spread like wildfire, quickening or hardening the hearts of all who heard them.

One could spend a lifetime uncovering the truth about Rupag, only to discover that you remain merely on the threshold of a city that contains far more than was ever imagined.

There is a strange phenomenon the Student has noticed that he now shares with the Teacher.

—It seems to me that every time I travel to a new place, my excitement is such that I long to be gone, to look back on my time as a memory. Certainly I look forward with great expectation to each new place on my itinerary. But while I am there, I am aware that all I am really doing, all I really can do, beyond whiling my time away with perfunctory pleasure, is to create memories to be enjoyed, turned over, catalogued, examined, learned from later. It is as if I cannot both enjoy what I am doing and do it at the same time.

—Herein lies an important aspect of travelling and learning, suggests the Teacher: All our travels are really only past memories or future anticipations. There is no such thing as the present; that is merely the point of contact at which the future becomes the past.

—Then again I ask, why travel at all? If images in my memory are all I am gathering, surely these can be more efficiently obtained from books and pictures, study and discourse.

—The asking is part of the answer. The sincere articulation of a question is nearly all an answer requires. Your travels are both question and answer, though perhaps not simultaneously.

—But what am I asking?

—Exactly.

decay

A traveler to the city of Saplen arrives with mixed expectations. He is certainly acquainted with the city's double reputation: glorious capitol of an ancient empire built at the place where leafy hills intersect with azure seas, also the run-down heir of innumerable failed attempts to breath new life into a capitol that has lost its empire.

When one first arrives in Saplen, there is the familiar sense of bustling activity that usually accompanies places of arrival and departure. One knows better than to judge a city by such places, for they are where all cities intersect and become one. So one walks in any direction, expecting at any moment to come upon the real Saplen, the Saplen of fabled wealth and intoxicating beauty. Perhaps around the next corner lurks that mansion gilt with gold, perhaps at the next metro stop there is a lush garden piazza with a sparkling fountain in it. But such imagined opulence never materializes: the mansions are abandoned and broken down, the trees are brown and the fountain is dry. The hot sun beats down relentlessly on exposed streets and roofless tenements.

Nearby there is an ancient city that was buried in a day by the eruption of a volcano. That city has been uncovered recently and was found to be remarkably intact, surviving buried for thousands of years. Undoubtedly no citizen of Saplen has ever thought it, but the fate of the two cities has been almost the same. The first is a city of perfectly intact temples, townhouses, and forums but empty of citizens. The second is full to its brim with people and life who either don't notice or can't arrest the decay of its churches, tenements, and squares.

Yet the more this city decays the stronger the image of it's former self becomes. Some think that slowly but surely Saplen is becoming another city that will share only its name with the city that preceded it, and somehow still exists, on the same site.

—These cities you are describing to me, said the Teacher, interrupting gently but suddenly, as from a thought just now entertained, They do not exist. Or rather, they do not exist as you have described them.

—I know that I have been meticulous in describing for you accurately what I have seen, countered the Student, somewhat surprised at the comment, but anticipating more than the Teacher had said. I have been exacting in describing what I have experienced.

—Certainly you have been most accurate in recounting what you have seen. But who are you to say that what you have seen in the cities you have visited is similar or even comparable to what anyone else has seen, or indeed what was intended by the builders of those cities themselves? It is possible, indeed probable, that others, upon hearing the accounts you give, would imagine entirely different places from those you are actually describing. Or, grasping at familiar strains and fragments in your speech, recognize places other than those you intend, places you have not even been to.

—That is entirely possible, conceded the Student, not at all reluctantly. I know that the cities I visit exist most fully and only truly in the minds of those who inhabit them, just as the cities I am describing exist most truly in my own imagination.

stories

One has seen the city of Zenevia before: in history books and watercolors and fairy-tales and dreams. Once the capitol of a far-flung naval republic, Zenevia is filled with the remains of dying empires, the treasure of ancient kingdoms, memories of old worlds, and rumors of new ones.

Zenevia consists of two cities superimposed over each other. The first is a maze of walkways which link the townhouses and churches and squares. The second is a labyrinth of waterways which connect the palaces, basilicas, and piazzas. At certain places the two cities intersect and from each a glimpse is caught of the other.

There is a myth among the inhabitants of Zenevia that the city is not static; that the exact locations of the buildings and canals and bridges are not fixed, but that they subtly reconfigure themselves from time to time, confounding even those who have lived in the city for years and years. Certainly a visitor to the city is inclined to believe such a myth, wandering perpetually lost in the fantastic maze of streets, churches, courtyards, and towers. There are other myths that are also told about Zenevia. Some have to do with specific places in the city: where an inquisition was held, a judgement pronounced, or a reprieve granted. Others relate to the mysterious origins and fabulous powers of relics and the institutions that wield them. Still others are more ominous, having to do with recurring plagues or calamities. Some claim the city is slowly sinking into the sea, returning to the watery womb which gave birth to its imaginative power and timeless majesty.

Each inhabitant of Zenevia has his own stories to tell about the way the city has shaped his life, or the way his life has shaped the city. And each visitor to Zenevia sees his own version of the city, slightly different from the one everyone else sees, and yet all of them are real and equally true. Perhaps this accounts for the inconsistencies which seem to have given rise to the myth that the city is constantly changing. The city is restlessly shifting and altering itself in a perpetual effort to accept all these stories, both real and imagined, and form them into one continuous city.

But there is always a city one returns to. It is a familiar city, a city without any particular face, embracing all and rejecting only the unique, the unusual. This is the city one inevitably calls home. A city taken for granted, longed for in unexpected ways, and forgotten only superficially. This city could be any city for anyone. But for you it is the only possible city that you can return to and feel it a return. Others might pass through this city without giving it a second thought, but you know its innards and dark alleys, its potholed streets, crumbling parking garages, and rusted train tracks. And you love them all, perhaps more for the memories and familiarity they represent than any unique greatness they possess on their own. But that of course is the greatness they hold inherent in them.

—So what do expect when you return? queries the Teacher, again.

—I expect to find things just as I left them, replies the Student. Both Teacher and Student know this is only a hope, not a belief. For time forces changes, separations, and alterations unforeseen. Time spent away only accelerates such changes, so that they seem to have taken place all at once.

There is and can be no end to the story the Student is telling. For there is no end of new but ancient places to travel, of fresh but familiar choices to make, of unheard questions and timeless answers. Even as Student gradually becomes Teacher himself, he will refuse to give up travelling, learning, being.

For he will ascend to take his place among those who are copied, by new Students who are looking for an easy way out, or just trying to keep up with those who always seem to be ahead, or attempting to anticipate and experience for themselves the choices encountered, the voyages undertaken, the cities visited by those in ages past and aeons future.

CRITICISM: Q & A

JERRY HERRON

¿

What Should Criticism Do?

If you can't do it with feeling, don't.

—*Patsy Cline*

I

What should criticism do? Given what criticism has already done—academically—it ought to just admit defeat and quit. That would be the honorable thing. A defeat so profound, so expensive, so humiliatingly spectacular, so head-up-the-butt oblivious that it veritably takes the breath away. If there were any breath left to take, which there is not. Because criticism is a dead and breathless affair.

II

By *criticism*, I mean the stuff college professors write about subjects traditionally referred to as the arts and humanities: literature, the languages, painting, architecture, philosophy, music. And so forth. These subjects were once thought to be essential to a meaningful, happy life. Even the public schools taught them, or else tried to. They were required, as a part of our putative cultural literacy. What every citizen of this republic—by right—ought to have access to. Now, they have entirely ceased to matter because of what criticism did.

III

Not that criticism is especially powerful, because it is not. Practically nobody reads it, including the people who produce it. And why would they? (I know I don't.) It doesn't remotely matter, and the writing stinks, and there are almost never any pictures. What *does* matter is what doesn't happen because criticism is getting written instead. Kids in classes have to produce criticism—or an imitation of it—to show they're doing their homework. And that's where the trouble begins and all hope of pleasure ends. Because instead of enjoying themselves, students have to produce criticism, which nobody enjoys, or uses. Professors don't have fun writing criticism, or making other people pretend to write criticism. Otherwise, the writing wouldn't be so unbearably joyless. Every student in every school in this country is taught by teachers—all day long—who were taught by a professor—a critic—whose job it is to make people do something else instead of have fun with the things—the very best things—people have invented to please themselves: art, song, literature, painting, building. Criticism is what happens instead of something that matters. Criticism kills the soul, and diminishes our store of shared goodness, as humans. There ought to be a law against it.

IV

That the humanities still exist is a lucky accident. For which we who purportedly teach the humanities are decidedly not to thank. Sometimes, we simply have more luck than we deserve. (Thank God.) Especially critics.

V

The point of having fun, of making pleasure professionally, is to empty yourself out. Like a vacation—a vacancy. You can't *force* yourself have pleasure, or a good time. You can only plan—*critically*—and then hope for the best. Pleasure is the opposite of being full of yourself, like most critics are, which is why they have so little of it. Pleasure, I mean. Pleasure is peripheral, it happens when you're not looking. It occurs at the edge of things, in spite of something else. In the shower. Sitting on the toilet. If criticism could approach the delight of a stream of hot water rushing down, over your head, or of a good solid shit, we could declare victory and all retire. In the interim, we at least have something to aspire to. Or at least we should.

VI

Criticism—if it's done right—is not good for anything: not politics, or enlightenment, or gender equality. Criticism is not deconstruction, or feminist analysis. Criticism is not queer. It is not Marxist or Freudian. It doesn't give a hoot about Lacan. It is not *interested*. In anything. If all the self-interested bustling of critics remotely mattered, then human liberation would long since have been achieved. But it hasn't. Instead, what we've got, in America, is a lot of disaffected people living in gigantic houses, with all kinds of stuff, driving enormous cars, getting more pissed off by the minute. Not that critics remotely care. Which they don't. They're probably pissed off too, for reasons none of us understand.

VII

What should criticism do? Simple. It ought to do its job. And what is the job of critics? Pleasure. Pleasure is the people's business. But it's under attack on every side. It's being privatized, taken away, proscribed, killed, commodified. Life is ugly enough without criticism adding to the ugliness. If criticism wants a political objective, that's it. Pleasure. If critics want to be dangerous, live on the edge, then let them do that. Give people pleasure. As an economic, subversive goal, that's a great one. A republic of people besotted on pleasure, wanting more: more art, song, poems, novels, plays, architecture, movies, TV. Critical pleasure makes people hard to control. It makes them happy, on their own. Pleasure causes trouble. It ought to be our business. It *would* be our business. If we weren't cowards.

VIII

Is there such a thing as criticism that works? Of course. But none of it is the result of critics.

The Las Vegas Strip, all of it (still)
Oprah's Book Club
Any episode of *The Simpsons*
Martha Stewart selling Christmas
David Letterman making fun of Martha Stewart
The films of Stanley Kubrick, including *Eyes Wide Shut*
Michael Graves wrapping the Washington Monument in plastic
Target wrapping Michael Graves in plastic
The new VW
Amadeus (the movie)
Norman Rockwell's return
Dave Hickey writing about Norman Rockwell's return
Marilyn Manson
The Cooking Channel (on cable)
And a whole lot of other stuff too (none of it thanks to us, the state-supported, professional critics)

That's what criticism is supposed to do. Cause trouble, with pleasure. That so much of it exists, and that critics don't have a clue how to do the right thing, and that we try to make other people feel guilty for our own incompetence, ought to make us ashamed. But it doesn't, of course.

What Should Would-Be Critics Do About Criticism?

Why cannot the Ear be closed to its own destruction?
—William Blake

I

First, read Blake—William Blake (1757-1827), poet, engraver, visionary, genius. The father of modern criticism—*true* criticism—who is now largely ignored. For wholly unsurprising—and dishonorable—reasons. I quote:

> 1. Man has no Body distinct from his Soul; for that calld Body is a portion of Soul discerned by the five Senses, the chief inlets of Soul in this age.
>
> 2. Energy is the only life, and is from the Body; and Reason is the bound or outward circumference of Energy.
>
> 3. Energy is Eternal Delight.

That William Blake. These maxims come from his critical masterpiece, *The Marriage of Heaven and Hell* (1790-1793). Look him up; it's what scholars do. By the way, scholarship is not the enemy of criticism. But it *is* the cowardly redoubt of bad writers. Lots of them.

II

Refuse to let phony criticism go by unnoticed—in writing, in speech, anywhere. Call it out, point to it, castigate it. Make fun of it. Don't take jargon for an answer. "Opposition is true Friendship." Blake said that too.

III

Write nothing that isn't useful or beautiful. (I'm cribbing William Morris.)

How will you know if it's useful? Ask yourself these questions. Does it give you pleasure to have the ideas that you intend to write down. Did the having of those ideas increase your ability to give and receive pleasure? If the answer is *no*, then you're in trouble. Stop what you're doing. Right now.

How will you know if it's beautiful? If you have to ask, it's probably too late. For you. Still, if you have trouble telling the difference between something that's ugly and something that's not, read Blake. That's why he's here: "Prudence is a rich ugly old maid courted by Incapacity."

IV

Encourage all the people you like and respect to write less, maybe stop writing altogether. Writing is like smoking; it's a known health risk. Writing criticism—the kind most critics write—is like smoking unfiltered cigarettes. You ought to quit. And not just for yourself. Second-hand criticism is lethal, just like second-hand smoke. Look at all the harm it does to students, trapped in those unventilated classrooms. They're dying in there. If you don't believe me, ask one of them.

What Should Would-Be Critics Do About the World?

The philosophers have only interpreted the world, in various ways; the point, however, is to change it.

—Karl Marx

I

First, do no harm. An old rule. But critics ought to follow it. It is harmful to do work you don't love. It is immoral to make work you don't love the basis of teaching. It is criminal to let ugliness go forward unmocked.

II

The Burger King Effect. "Aren't you hungry. . . aren't you hungry. . . aren't you hungry for Burger King Now?" Remember the commercials? Each spot lasted maybe fifteen seconds, on TV. The world's most beautiful, desirable hamburger gets prepared right before your eyes. The voice-over slogan repeats in the background. By the time the hamburger is fully assembled, even vegetarians want to eat the thing. Yes, I want Burger King. I want Burger King now! It's that beautiful. What critics should be doing about the world is what J. Walter Thompson did for Burger King with those commercial spots, back in the 1980s: make people want to have the thing that critics are selling, because it looks so delicious people can't imagine living another minute without it. If critics could do that for the world, for the pleasures of the imagination in the world, they'd be heroes. Real ones.

III

Ugliness abounds. That much is obvious. But nothing is being done about it, at least not by critics. Not by most critics, anyhow. That's obvious too. Criticism is so butt-ugly awful it makes a person wonder, do the so-called critics *talk* like this? Or is it just when they write that they're overtaken by masturbatory dementia, rhetorical acromegaly, and stupidity?

> The man of independent mind,
> He looks and laughs at a' that.

That's Robert Burns (1759-1796), the great bard of Scotland—country of poets, kings, and philosophers. One of criticism's immortals.

Like the cliché says (and for good reason, because it's true): if you're not part of the solution, then you're part of the problem. If people knew how to take pleasure in beautiful things, if people demanded that kind of pleasure as a right, the world could not go on being as ugly, stupid, rude, vapid, and politically retarded as it is. (Not to mention over-hurried, pissed off, violent, and dangerous.) But they don't, so it does. And criticism is doing nothing about it. Except for maybe two or three people. That's why criticism is part of the problem. And it has no business being.

IV

Criticism is a public service. Critics who don't produce pleasure, in public, for the public good, ought to be fired. Even if they don't get fired, they don't matter and so can be entirely ignored. They are irrelevant. It is your obligation morally to ignore critics who are not worldly, who are not on the side of beauty and clarity and pleasure.

V

Do the right thing. Either play, dance, or get the hell off the stage.

00:19:27:00

TORONTO.ONTARIO.CANADA.DISCIPLINED.DAY.

ELGIN CLECKLEY

00:00:02 Wonder what's ahead for the day, again, attempt r.e.m. . .

00:04:10 Aggressively look at alarm clock to slow time. . .

00:05:23 Aggressively look at alarm clock to slow time, assume it's on Atlantic time. . .

2A

00:06:01 Obey Panasonic digital alarm clock (after 9 minute snooze period to second alarm), Citizen microwave, Mr. Coffee coffee maker, try to calculate Celsius / Fahrenheit again, wonder why we didn't adopt system in the states, cheat and turn to Buffalo news station to be sure. . .

22A

00:06:15 Press call button on horn elevator, think of Ontario elevating device rules, do not exceed weight maximum, remember New Year's resolution to use the stairs more often. . .

20A

00:06:20 Follow Toronto Transit Commission rules of conduct, pay fare, stand behind yellow line, remember story of young woman pushed in front of oncoming train in Toronto and New York, and that they were both blonde, see young blonde woman near yellow line. . .

00:06:40 Arrive at athletic facility, recall the effect of advertising imagery, debate weekly caloric intake, quickly scan room for recognition / morning face avoidance, react in disciplinarian fashion, use approved lock, use all machinery in correct manner, hopefully. . .

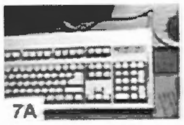
00:08:00 Follow social / cultural / moral rules of hygiene and appropriate fashion, wonder approximate times of ritual, obey internal exercise facility decorum and put camera away. . .

00:08:35 Follow Toronto Transit Commission rules of conduct again, note calm, orderly behavior of passengers in subterranean bubble, all advancing to follow self-employed rules of modern life, try to avoid advertisements, exit on command of overhead voice and station identification. . .

3A

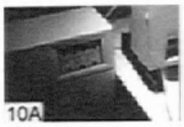
00:08:40 Remind self to record actions again, notice nervous man watching me take photos, think of Warhol, *Poseidon Adventure*. . .

00:08:50 Microsoft, nerve centre command center, wonder about Gateian principles, how much control one man has over my day, if not several, get "no go" message from fax machine again.



7A

00:09:10 Begin AutoCAD 2000 regiments, complete approximately 1 command every two seconds, daily processing of AutoCAD commands at 15,000 a day of programming for eight hours minimum, notice designers names at introduction of program, note cramp in right hand again, note caffeine addiction, think of global impacts of coffee importation / production, internal notation of physical discipline as soreness / inertia hints.



10A

00:09:40 Start Hewlett-Packard regiment, follow Microsoft regiment to operate machine, load paper incorrectly, get error message as well as delay in feed, reload, wait five minutes, get pulled away by telephonic umbilical cord, forget to load paper altogether.

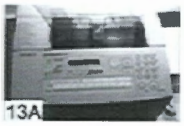
00:10:10 Continue with Meridian communications system, follow orders from automated computer voice at Bell Canada, wonder where the digital voice is recorded, note caffeine addiction.

00:11:10 Practice disciplinary actions such as diplomacy, negotiation, delegation, obedience, load paper.

00:12:10 Toronto Transit Commission rules again, defy rules of Ministry of Works by crossing roadway at undesignated point, remember jaywalking ticket I got in Seattle, and that I never paid, see parking tickets on several cars. . .

00:12:17 Remind self to record actions again, wonder how suspicious it looks photographing out in the street. . .

00:12:30 Site visit due to Ontario Building Code verification, study of existing drawings for compliance, re-planning for needs determined by occupancy loads predetermined from built examples, notice occupancy rules posted in rooms. . .


13A

00:13:10 Minolta regulations in documentation of redeveloped meeting room space, determined by the social / personal codes of Toronto District School Board officials. . .

00:14:30 Follow rules of Microsoft, Qms-400, office rules of correspondence, Adobe Photoshop, avoid looking into office on other side of alley for strange moment when eyes lock. . .

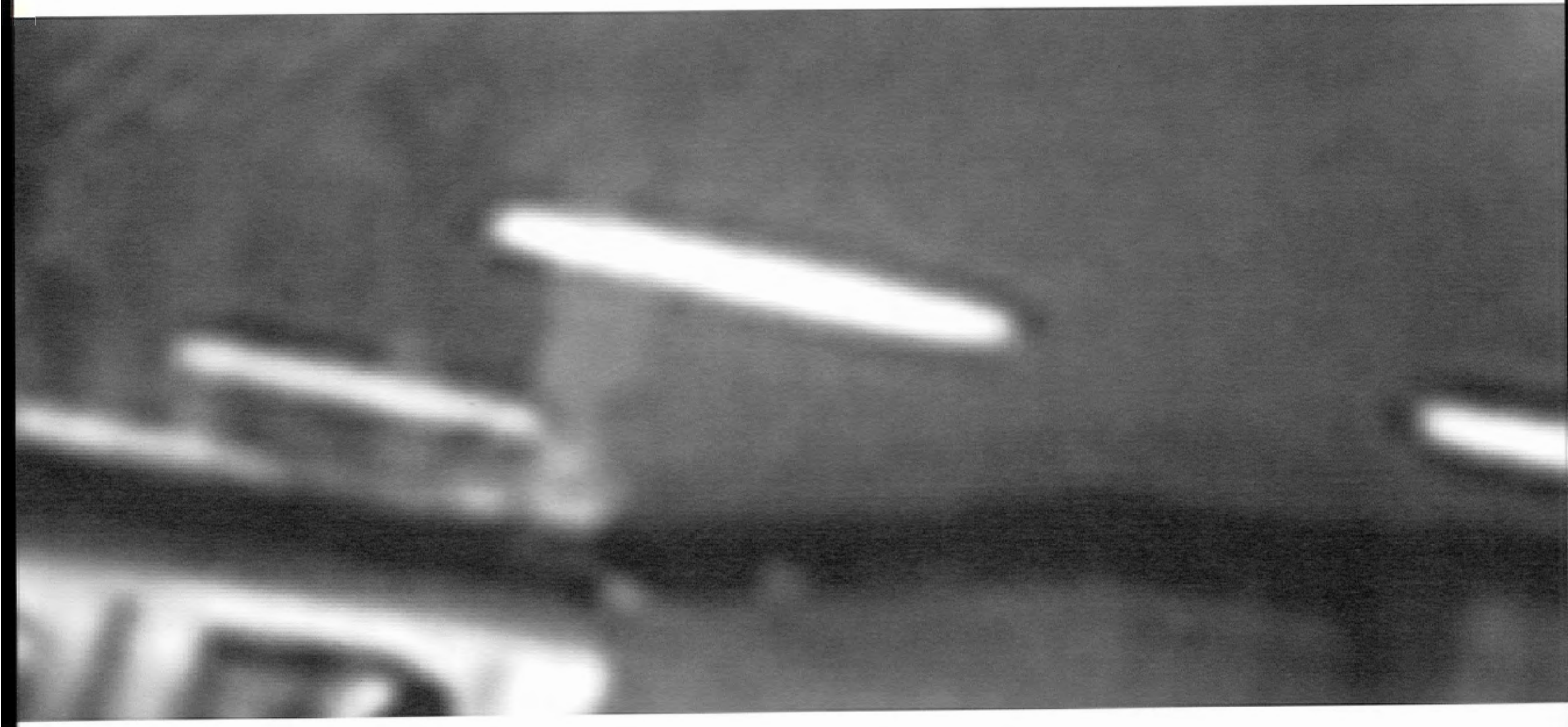
00:14:50 Forget to record again. . .

00:15:10 Use / obedience of Toronto Hydro, social / cultural procedures, Mom telling me to wash my hands. . .

00:15:52 Remind self to record actions again, lose lens cap for camera. . .

14A

00:16:00 Study codes of city of Toronto, zoning regulations of setbacks, volumetric studies built to enhance midtown Toronto quality of life, wonder how much money lawyers make, follow mandates of Meridian phone system to verify impact zoning issues, relegate beliefs of client and impact with desires of the University of Toronto student population, continue AutoCAD standards, Minolta fax systems, call back client requests, think of University students living in hotels, not in sleek new Morphosis building, think of contractor's discipline. . .



00:16:22 Remind self to record actions again, find lens cap, pay bills soon. . .

6A

00:16:37 Realize mandates of current Toronto District School Board project contains control of office environments of 1,891 people, forced to relocate due to governmental decisions, and social anger / concern / hysteria of Ontario education policies and cuts, realize impacts of a constitutional monarchy. . .

00:17:35 Think of nutrients, give quarter to homeless man on corner, get a "healthy" snack, see 00:06:40, see advert for health facility (typical Photoshop job), note woman talking to hydrant. Moral judgement of relocation of employees, follow cultural procedures of communication with client and co-workers. . .

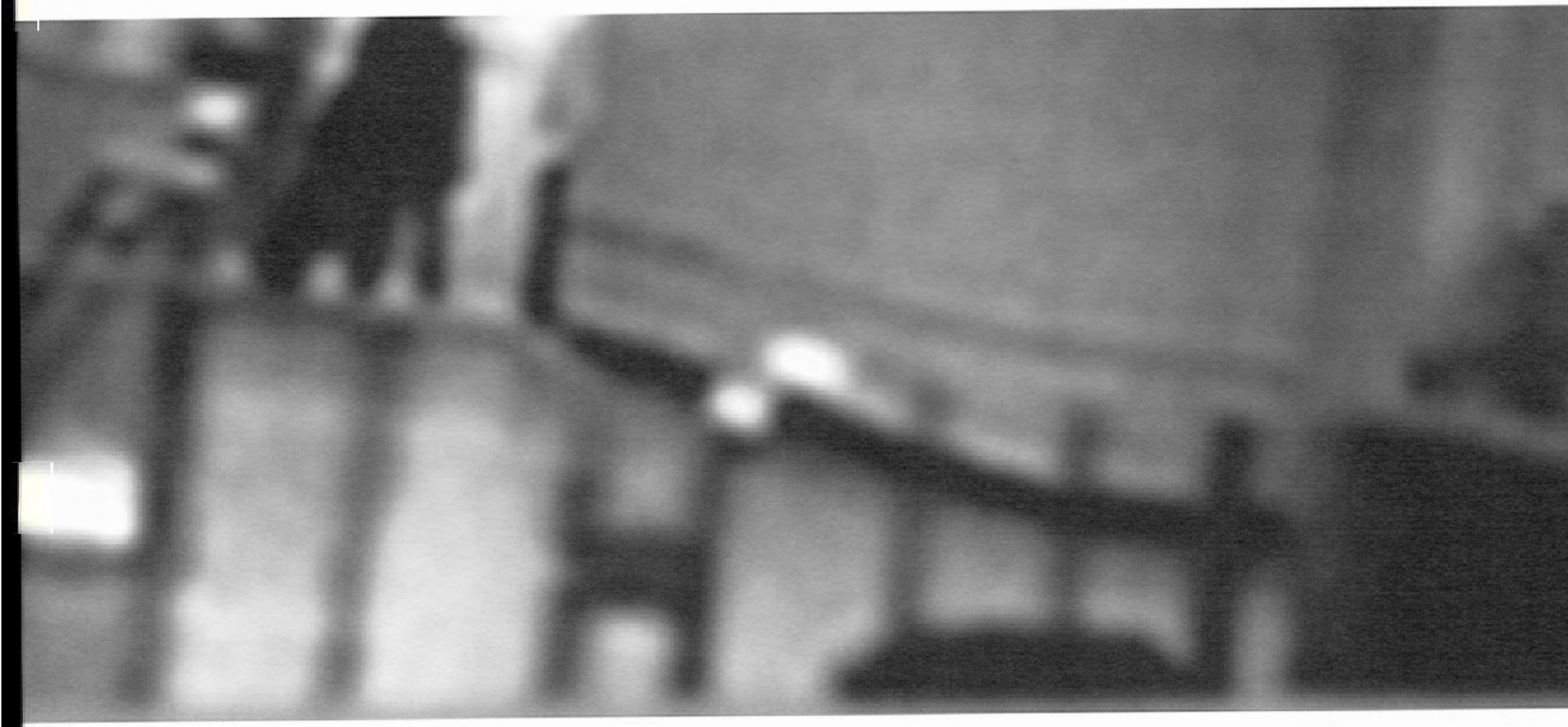
00:17:48 Remind self to record actions again, try to remember where camera is. . .

00:18:17 Forget to record. . .

00:18:40 Forget to record. . .

00:19:27 Remind self to record actions again, try to remember where camera is. . .

00:20:08 Remind self to record actions again, try to remember where camera is. . .



00:21:56 Realize that the true key to successful self-discipline is to allow for inconsistency, the power of estimation, the beauty of a scrawled initial of a street gang or (insert name here) into freshly poured cement sidewalks. . .

4A

00:22:10 Break New Year's resolution and turn TV on, work on drawings for end of week review at the same time, with back to the TV, ignorance of social life, messages on answering machine, unchecked e-mail. . .

All images courtesy of the author.

ALICE FRIEDMAN/AN INTERVIEW

Dimensions interviewed Alice Friedman on 9 February 2000. The interview team included Yumiko Aoki, Lillie Arrazola, Eric Hartz, Elizabeth Keslacy, and Richard Sucre, with special thanks to Assistant Professor Robert Levit.

EH: Where does your interest in the role of the client in architectural history/theory stem from and how do you see your scholarly work with regard to architectural history?

AF: This first question is relatively easy to answer. I started out studying social and cultural history of the Renaissance as an undergraduate. The program that I was in was called History and Literature, Renaissance and Reformation, and it emphasized the importance—which was very new at the time—of interdisciplinary study of Renaissance culture. On the one hand we would look at historical events, political history, and economic history, and on the other, looked at literature, art, and architecture and tried to figure out how the traditional political history could be made to work or could be made more complex by looking at art, literature, and architecture in the context of macro-history. Having done that, I went off for a master's program to the Warburg Institute in London with the intention of studying Renaissance occult philosophy.

EH: Occult, as in magic, etc.?

AF: Yes, magic. There were a number of scholars there. There was a woman by the name of Frances Yates who worked on Renaissance philosophy. She wrote a well known book on memory entitled *The Art of Memory*, which researched the design of theaters as mnemonic devices. There was a person there who was very interested in Marsilio Ficino and neoplatinist theories of the relationship between the macrocosm and the microcosm. In the Renaissance, this kind of philosophy could be used for magical purposes, at least for influencing moods and people, and the course of events. In any case, after a few weeks there, I realized that my background in languages and my interest in Renaissance philosophy was not sufficient to study with those people. I did a lot of work as an undergraduate on the imagery of alchemical texts, the imagery of magic, and occult philosophy in the Renaissance. It was the imagery that really interested me. It wasn't the philosophy per se, but the images that represented the philosophy.

I immediately began to look around for other kinds of topics. I don't know if you know anything about the Warburg Institute, but it is a place devoted to cultural history. It specializes in the cultural history of what it calls "the survival of the classical tradition." Meaning the Renaissance in particular, but also 18th century art, theory, science. They study the cultural period of all periods in which the culture of antiquity is seen to survive. The great art historian Ernst Gombrich was also part of the Warburg Institute and there were a number of other people like Professor Michael Baxandall who then went to Berkeley, who were looking at works of art and architecture in the same interdisciplinary way that the Renaissance philosophy people were working. I did my masters thesis on a garden that was designed by a French Protestant ceramacist as a retreat for Protestants. I found a landscape architecture project that brought together philosophy, religion, history, design, and in this case since the ceramacist's major contribution to the garden was a number of very ornate grottos that he designed, it allowed me to do some art history.

By that point, I realized that what I was interested in was the interdisciplinary study of architecture: Why people did what they did, what motivated them to build, what kinds of ideas did they have about design, and what they thought they could accomplish. In this case, the Protestant garden retreat was a kind of utopian paradise for the social outcasts of France at the time. When I went to get a Ph.D., I knew this was the way I wanted to proceed. From the time that I was an undergraduate doing history and literature to the time I returned to Harvard to do a Ph.D., I had discovered that in all these interdisciplinary programs the piece that was missing was the history of women and gender studies. Even the most committed social historians of architecture like Mark Girouard or James Ackerman who taught me in my undergraduate and Ph.D. programs, never ever talked about gender as an issue.

Gender affects one's experiences as a client or user of buildings. So I added that in to the mix. I came to look at clients because I was interested in the history of ideas and the history of culture, and then I came to look at gender and social history because it seemed that it was the next step that no one had taken. What I discovered very early on was that the experiences that the women of all classes had of the built environment were different than those of men—based on their training and on their gender identities.

TE: Did modernism have anything to offer women of lower classes that could not afford architect built houses—i.e., did the revisions in domesticity for the wealthy impact women in mass produced housing?

AF: My inclination and training as an architectural historian has drawn me to look at monumental architecture and architecture for individuals who tend to work with relatively high budgets. Of course, the question of what the implications of innovative design are for a broad public where there is not an identifiable individual client and where in many cases the architect may or may not be a prominent architect is an interesting one. Even though it's not my particular interest or field to try to answer that question, I think it's very important politically and methodologically. I only have partial answers for that because it's not strictly speaking my field in the same way that the study of individual buildings, and individual clients are.

I can recommend a book called *The Sex of Architecture*, in which I have a short piece on the Rietveld Schroeder house. There's a response by a women by the name of Ghislaine Hermanuz who teaches at the City College of New York School of Architecture, in which she looked quite specifically at the ways in which the Schroeder house broke down the boundaries between parents and children and tried to reconfigure domestic space. She showed some examples from New York City housing projects where a similar kind of starting point for the program had been experimented with. Her response to my work on Schroeder is an enormously valuable discussion of some specific case studies. For example, in some of the cases she looks at the individual's bedrooms of female headed households. The parent's bedroom is smaller but more private and the common spaces for the family are more prominent. That's one kind of housing.

A lot of the cases in my book also use program types where the private bedroom of the head of household is combined with other kinds of program requirements besides the body and private space, like workspace or family living space. There are some examples where Hermanuz writes of places in which the woman's bedroom and her workspace are on the front of the building and are larger and the common space of the family is back, usually adjacent to the hallway.

There are examples of reconsiderations of program, breaking down of traditional or conventional notions of space allocation or circulation. One of the major ones was bringing work into the household, and still giving the female head of household more privacy and more control over the way in which she uses space. There are some wonderful examples in an article by Sherry Ahrentzen, in a book called *New Households, New Housing*, and Dolores Hayden have also written on a kind of communal living. One of the things that comes out of one of the examples in my book is that in many cases there's a re-conception of community not just within the household, but within the boundaries between households. In those examples that one finds in Ahrentzen and Hayden, you can also see the effect of that. I don't think that its causal. You see some of the same kinds of concerns reappearing in progressive projects of both types where there's a progressive client as a spokesperson or whether there's a progressive client and architect working together on these new kinds of design.

I think probably the only other example that has an interesting parallel is within the Co-Housing movement as it is interpreted in Denmark. Some of the issues that arise in some of the cases that I've encountered, like the issue of breaking down the boundary between individual households, you obviously see reappearing in the Co-Housing example. Provision of services, like cooking, cleaning, and child care frees up women for other kinds of pursuits in very similar ways that you see some of the clients aspiring to a design that would free them up to pursue other things besides the maintenance of the body and the nuclear family.

EH: I'm not sure about how comfortable you would be answering the next question, but it has a lot to do with sensitivity to space and the way that program is organized. Does your own residence have an implied social hierarchy or a domesticity that forces itself incongruously against your own sensibilities?

AF: One of the things that happened to me as a result of working on *Women and Making of the Modern House* was that I began to think much more about the kinds of spaces I would design if I had the opportunity. Unfortunately, I haven't had the opportunity to make those kinds of changes in my own living environment because I live in a little 1860 house, a cottage really, in Cambridge.

I haven't had the opportunity to build, but because I only live with one other person, the specific allocation of space within my house is less of a problem. For example, each of us has our own study, and I think that the privacy that having the proverbial "room of one's own" allows is absolutely critical to kind of work that I do as a woman academic. The allocation of the space in my house is such that I am able to have a lot control over it, and I think that's one of the things that comes up time and time again in the my book.

The project from the book that is closest to my heart, in a way, and maybe because of the relatively modest nature of the project, is the Perkins House for two reasons. First, the work space is divided into two areas, a drafting table on one side and a conventional desk on the other. This allowed her to separate her drawing materials from things like bills and I think that kind of control is very important. The other thing I love about the Perkins house, which is a house for one person, is that she had total control of her space. She had a guest room so that she always would have control and privacy if she had guests. I think if I had the opportunity to design a house I might do a few things differently and I might live in a warmer climate also... [laughs]

RS: Some may characterize the kind of scholarship that you do as a kind of gossip and that this reflects a change in architectural historiography. How do you see yourself and your work in relation to this characterization?

AF: I think this is an interesting question too, because I've never heard that characterization of this kind of research. Although I think some people find that there is an overemphasis on the voices and on the texts of architects and clients and not enough analysis of built form. So, what do you think about this idea of "gossip," social history as gossip, is that an idea that you've heard a lot?

EH: I guess we weren't thinking of it through the lens of social history, but rather through the lens of architectural history. We are used to literature and analysis focused upon built form; information concerning the architect is not included in that kind of writing. It's just a dry analysis of the building. You are including something new by addressing the human interactions that caused the project to come about.

AF: I see what you mean, although, I don't know that "gossip" is quite right. In contrast to the conventional ways of looking at buildings and architects, some people might characterize this approach as being distracted by minutiae or by being distracted by too much emphasis on the personal. What I think is important is to recognize responsibility for the kinds of decisions that are made in a design project. They are made by individuals acting from a set of values and prejudices, and for me, the only way to get at what those values, identities, and ideologies of these individual players are is by understanding them as three dimensional personalities, and not divorcing the architect's or client's contributions from a discussion of who they are in the world.

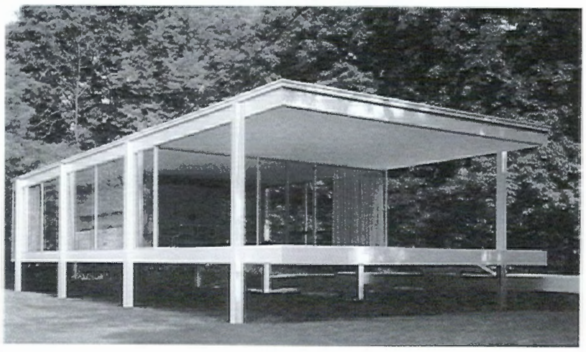
Every one of the architects in my book, male and female, interacts with clients based on a set of values based on their own life experience and what point they are at in their career. For example, Wright's building for Barnsdall can only be understood in terms of his conflicts with her. The positive side of his relationship with Barnsdall can only be understood in terms of each of their biographies and what they brought to the table at that specific moment. They brought other things to the table and had other concerns later on, or before, because there's such a profound difference between designing something and building something. You can design whatever you what, but in order to build it you have to have somebody pay for it, someone must materially produce it. The number of individual decisions and individual responsibilities rises exponentially as you make the leap from paper to built form. And those individual decisions all come out of personal experience. In the case of Farnsworth, for example, she was initially able to take the risk of building a building that was radically new in design and in form. It was so different compared with any domestic program or domestic design than you can possibly imagine: one large room essentially with partitions and walls of glass. And Mies had designed many many examples of those sorts of houses, none of which ever made it from paper to built form. So it is interesting that this woman actually was willing to take the risk—and—in the process learned a great deal about herself, her limitations, the way in which her training as a woman in the 20s, 30s, 40s in the Midwest in the US affected her, these things combined with Mies's training as a man and his life experiences. The way in which all of that came together I think is absolutely critical to the history of the building. So instead of seeing it as peripheral or a distraction from the real question, for me that *is* the real question and the building can't be understood without it.

There is one other point to make. If not an equal amount of time, a significant amount of time has to be spent just looking at the building as form, to understand all of the pieces of the design process that have nothing to do with life experiences, but achieving that balance is very difficult. Because I think there are things, artistic problems that Mies is solving at the Farnsworth house for example, that have nothing to do with values, have nothing to do with ideology, they have only to do with *art.* [laughs] So you have to attack this thing 360 degrees and keep at it.

LA: As the relationship between culturally constructed gender and biological sex become more fluid, how does this affect theorizing architectural history?

AF: To answer that question really quickly, is to say, I think we shouldn't be overly optimistic about how much change there has been in the world. That's the answer to that question. And that sometimes the superficial appearance of change or particular instances of change amongst some women and some men obviously don't have broader implications across class and ethnic groups in parts of the world.

I like dramatic and shockingly beautiful architecture. But it's taken me a long time to get to that point because I started out as a historian and then I had to grow into the realization that the stories were one thing and the client's ideas were another thing, and the architect's ideas were another, and then you had to confront the reality of the building. Often times with buildings like the Farnsworth House, you can go and look at it—which I did just recently—it is astonishingly beautiful, and to try to put that together with the history of the building is very very difficult, because it has a way of being so beautiful that it makes your mind shut down to everything else.



↑ Farnsworth House
Mies van der Rohe 1950
The Farnsworth House, Franz Schulze, 1997
Photograph courtesy of Dirk Lohan, Lohan Associates

UT PICTURA POESIS

CARLA SWICKERATH

Ut pictura poesis [As is painting, so is poetry] —Horace

What if the world were ordered by sensibility rather than discipline? What if an alternate set of disciplines were structured according to mode rather than medium?

In his essay, "Tradition and the Individual Talent," T. S. Eliot claims that every work of art necessarily exists in relation to all works that come before it and will come after it. Eliot focuses on the relationship between all works of art and the influences they have upon each other. Eliot says of this relationship, "the past should be altered by the present as much as the present is dictated by the past."[1] His poetry epitomizes this relationship through its use of direct allusions. He not only directly quotes these sources, but, as he notes, he forever changes them. Eliot's theory recognizes that everything is created out of a negotiation with everything that came before. Eliot's inter-textural theories may be extended to a consideration of the relationships between different disciplines. There are perhaps too many boundaries that emphasize the difference between disciplines, when much work blurs the demarcations that are made.

To begin, Eliot has always quoted painting as he does literature. Eliot specifically refers to a painting as a source of his poem, “Mr. Eliot’s Sunday Morning Service.” Interestingly, this poem which centers on a particular painting, ends the first stanza and begins the second stanza with the same line, “in the beginning was the Word.” More interesting, however, is the relationship between the “Word” and the “painter of the Umbrian school.” Even though, as Eliot repeats twice in the poem, “in the beginning was the Word,” he is obviously criticizing the verbosity of the church. The first line of the poem is one single word, “Polyphiloprogenitive,” an octosyllabic word that means all words which become part of the diction with which to ridicule the theologian Orgen, to whom he also refers in the poem. Eliot creates a definite contrast between verbose diction with words like “polyphiloprogenitive,” “sapient,” “enverate,” “penitential,” and “polymath,” and the simplicity of the painting and the simple language used to describe the painting. Eliot seems to give some reverence to the purity of painting as opposed to the verbosity of language. A. D. Moody sees Eliot’s comparison between poetry and painting:

> It appears that it is the very word of God which the sapient sutlers are breeding: out of the One the many. Origen, having castrated himself ‘for the kingdom of heaven’s sake,’ brought forth ‘an estimated 6,000 books,’ among them an elaborate exegesis of the first chapter of John’s gospel which begins ‘In the beginning was the Word.’ These begot in their turn proliferations of commentary and controversy, and so the Word became words, words, words. The painter, in contrast, makes a simple and enduring image of the incarnate Christ, and even the Trinity.[2]

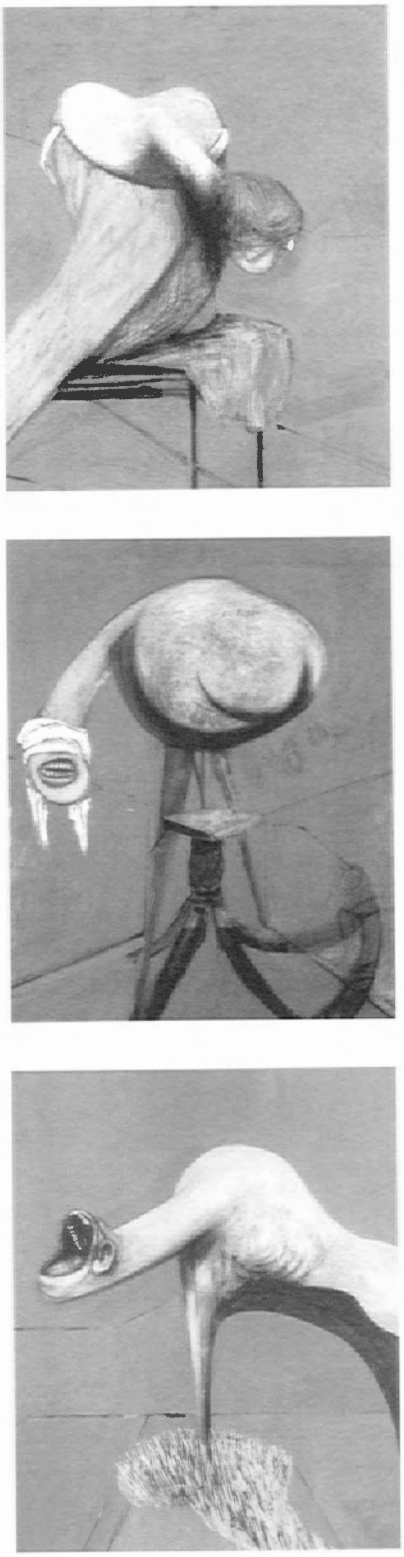
The word becomes what all people are allowed to obscure, while painting, which is less accessible to most, ironically becomes the preferred means of expression and communication of the purity of the meaning of the “Word.” This brings to mind the tradition of painting’s illustrational power to communicate a narrative. Especially in the late 13th and early 14th century, religious paintings made use of the book of symbols that allowed for a widely recognized system of shared iconographic images to “tell” the stories of the bible to an illiterate population. the simplicity of the paintings were necessary for the images to “speak” to people. Simplicity allows these images to hold the power to relate the “Word.” With this argument, Eliot sees painting as elevated above poetry in its purity, which becomes something that he admires.

In fact, all of Eliot’s poems in which the character Sweeney appears seem to deal with the visual realm and even more specifically, with painting, as already described with respect to the direct allusion to a painting in “Mr. Eliot’s Sunday Morning Service.” As Spender states: “In them (the Sweeney poems) he is very consciously writing for the eye, not so much imagist poetry, as poems based on metaphors from the visual arts.”[3] “Sweeney Erect” begins with another direct reference to painting, “Paint me a carnivorous waste shore / Cast in the unstilled Cyclades.”[4] In “Sweeney Among the Nightingales,” Eliot compares the violence of ancient times with the violence of modern times with descriptions of both Agamemnon and Sweeney, and Spender continues: “Eliot paints in these pictures the past and the present as though they shared one plane of time. There is no nostalgia and no anarchism. Sweeney is depicted sprawling in the foreground of the canvas, and Agamemnon is seen, as it were, through a door or window in the corridor.” Quite significantly, Spender is discussing the poem as if Eliot had literally “painted” it on a “canvas.” The images do, in fact, seem static and frozen as if, as Spender suggests, Eliot has indeed tried to “paint” the scene through his description. Spender adds to his discussion a very interesting insight. In the conclusion, he states rather casually, “‘Sweeney Among the Nightingales’ is, the, a violent cartoon, depicted with a ferocity which foreshadows the work of Francis Bacon.”[5]

Francis Bacon, a mid-20th century painter, may seem a strange comparison for Spender to make. But, referring to this topic of the relationship between painting and poetry Bacon has admitted, “I have been stimulated by reading great literary texts, like Greek tragedies, particularly Aeschylus, or Shakespeare, but not directly influenced.”[6] The relationship is inverted: the painter now looks to the poet. There is a connection that links T. S. Eliot and Francis Bacon in mood, theme, and even style, a connection that transcends the differences in discipline.

Many critics have commented on the thematic similarities between Eliot and Bacon. For example, Sinclair states: “Like T. S. Eliot’s people, whose lives were marked out in coffee-spoons, Bacon’s were measured in cigarette-ends and shaving cream, the instant scatter of the everyday.”[7] Sinclair’s connection brings up the interesting point that both artists deal with everyday life. They work frequently with a theme that seems to be rooted in the effects of an industrial society and the creation of the working class, a theme that focuses on the effects of industrial society's commodification and boredom. The references that both artists make to the banality of everyday life become metaphors for society. Prufrock measuring his life out in coffee-spoons becomes more than one boring man, he becomes a symbol for the effects of the modern world. Ironically, both artists are constantly alluding to the past as Davies and Yard suggest of Bacon: "While his paintings have consistently referred to contemporary life, he has also consciously rivaled the old masters."[8] In this, Eliot and Bacon have a similar sensibility not only in theme, but also in mode. They both deal with the horrors and violence of the modern world through specific references to the past. Ades points out about Bacon: "He was particularly responsive, perhaps, to the combination in Eliot of nostalgia for classical mythology, the abruptness of modern manners, the threat of the unseen and the eruption of casual violence; Sweeney in the poem 'Sweeney Erect,' 'Tests the razor on his leg / Waiting until the shriek subsides. . ."[9] Ades sees the connection between Eliot and Bacon in their references to the past and their connection to the realities of the modern world. She quotes Eliot's Sweeney testing his razor on his leg, seeing the razor as an object of the everyday, modern world. More directly, this line brings to mind Bacon's painting *Three Studies of the Male Back 1970* where the figure in the third panel is, in fact, cutting his leg with a razor. Bacon uses Eliot's poem as an allusion, as Eliot uses Agamemnon as an allusion to Greek literature.

With constant allusions to other works of art, Eliot and Bacon use what has been referred to as the "mythic method." Gish defines this method as "a reference in literature, of another work of literature or to another art, or to history, contemporary figures, events, or the like."[10] Eliot quotes references like Dante, Leonard da Vinci, and Shakespeare while Bacon visually quotes Velasquez,



↑ **Three Studies for Figures at the Base of a Crucifixion**

Francis Bacon, 1944
The Tate Gallery, London

Poussin, and Aeschylus. Both artists are making transparent the works of art that have influenced them, as Bacon admits: "I've probably been influenced by everything that I have seen."[11] Eliot, more specifically, discusses the relationship between modern artists and the artists of the past, commenting that the dead writers are so remote from us because we know so much more then they, since they are what we know. Gish suggests that "to be modern, then, to express what it means to be a part of one's own time, is to know and incorporate the past."[12] Similarly, Hughes says that Bacon's work "is unified by the smeared documentary force of certain key images clipped, as it were, from the grainy stocks of the 20th century and then edited abruptly together." He continues to comment that Bacon "liked taking didactic images out of context so that their intended meaning was either lost or blurred."[13]

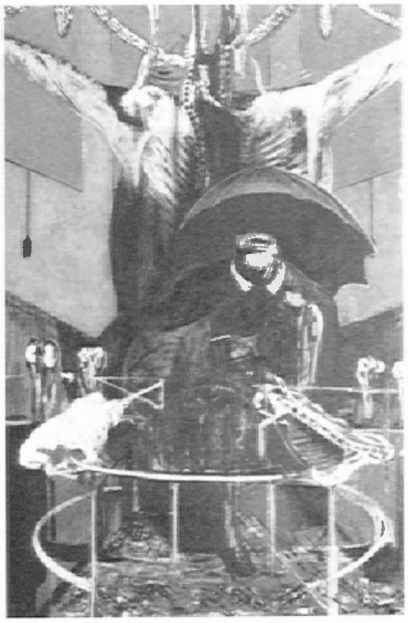
Aeschylus becomes a haunting theme for both Eliot and Bacon. In 1981, while reading Aeschylus's Oresteia, Bacon painted a triptych and titled it *Triptych Inspired by the Oresteia of Aeschylus*. Again, the idea was not for Bacon to illustrate Aeschylus's play. Ades agrees:

> The three images cannot, nor should we expect them to, be located in any specific scene from the *Oresteia*. Nor can each separate painting be linked serially in a dramatic progression following the three-part structure of the trilogy, although the trilogy form of classical Greek tragedy may have confirmed Bacon in his preference for the triptych.[14]

Earlier, in 1939, Eliot, too, looked back to Aeschylus and based his play *The Family Reunion* on the *Oresteia*. This relationship between Aeschylus, Eliot and Bacon is alluded to by Davies and Yard in discussion of Bacon's paintings: "The Furies have haunted Bacon's work since their appearance in *Three Studies for the Figures at the Base of a Crucifixion*, they reappeared in thirty years later in Seated Figure, calling to mind the Eumenides who pursue Harry to Wishwood in *The Family Reunion* (1939), Bacon's favorite T. S. Eliot play."[15] Eliot often referred to Aeschylus, for example the epigraph of "Sweeney Among the Nightingales" has been attributed to the Oresteia. Interestingly, both Eliot and Bacon use the references similarly. Moody says of Eliot: "'Sweeny Among the Nightingales' culminates in an anguished cry for that form of death, as the way to transcend the doomed state of mere endless existence and slaughter. This is a poem in which the allusions are especially dense, as well as nearly submerged in the contemporary detail."[16] Eliot references Aeschylus to provide a parallel to the modern horrors of war. Similarly, Bacon quotes Aeschylus as Sinclair notes: "His favorite line of Aeschylus, that he would endlessly repeat, was, 'The reek of human blood smiles out of him.'"[17] Bacon, too, often referred to his triptych, *Three Studies for Figures at the Base of a Crucifixion* as the "Eumenides," Eliot's name for the Aeschylean Furies.[18] Bacon's quoting of this line and visualization of this line in many of his works becomes, like Eliot's allusion, an attempt to make sense of modern horrors through examination of the horrors of the past.

Shakespeare is also an important influence for Eliot and Bacon. Bacon readily admits: "I have always read a lot of Shakespeare and he is one of the writers who has inspired me to do my best work."[19] Eliot often uses characters from Shakespeare as parallels to his modern counterparts. For example, in *The Waste Land,* in "Game of Chess," Eliot aligns the cockney character in the pub, Lil, with the mythologized Ophelia, connecting Lil's modern situation of despair and alienation in love, with Ophelia's desperation in *Hamlet.* Gish comments on the connection: "The pub is closing and the characters leaving, and the goodbyes are framed in the words of Ophelia's mad song in *Hamlet.* Driven mad by her father's murder and Hamlet's rejection, she says farewell to Hamlet's mother in these words as she drowns herself: 'Good night, ladies, good night, sweet ladies, good night, good night.'"[20]

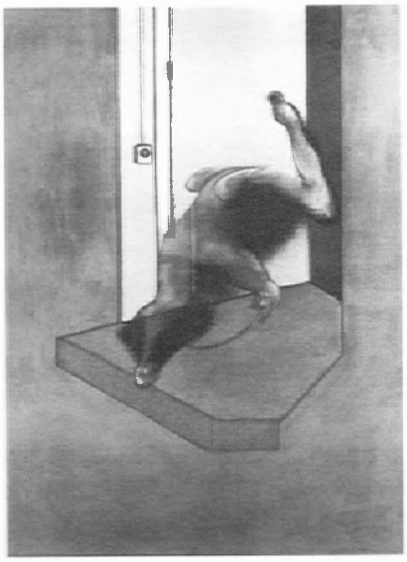
Bacon, like Eliot, was indeed influenced by Shakespeare. Sinclair sees the connection between Shakespeare and Bacon as he comments on on Shakespeare's obvious influence upon the painter: "Shakespeare also was his study, particularly for images that rose in his mind after reading the soliloquies of Hamlet or the horrors of King Lear, when Gloucester is blinded to Cornwall's words, 'Out, vile jelly! Where is thy luster now?', and gives the answer, 'All dark and comfortless.'"[21] Bacon quite often speaks of Shakespeare's influence: "He has written such exceptional lines. Take the last great speech of Macbeth, those very famous lines on death and the transience of life, on time which passes and has no meaning at all anymore."[22]The speech to which Bacon refers is at the end of *Macbeth,*



Out, out brief candle!
Life is but a walking shadow, a poor player,
That struts and frets his hour upon the stage,
And then is heard no more. It is a tale
Told by an idiot, full of sound and fury,
Signifying nothing.[23]

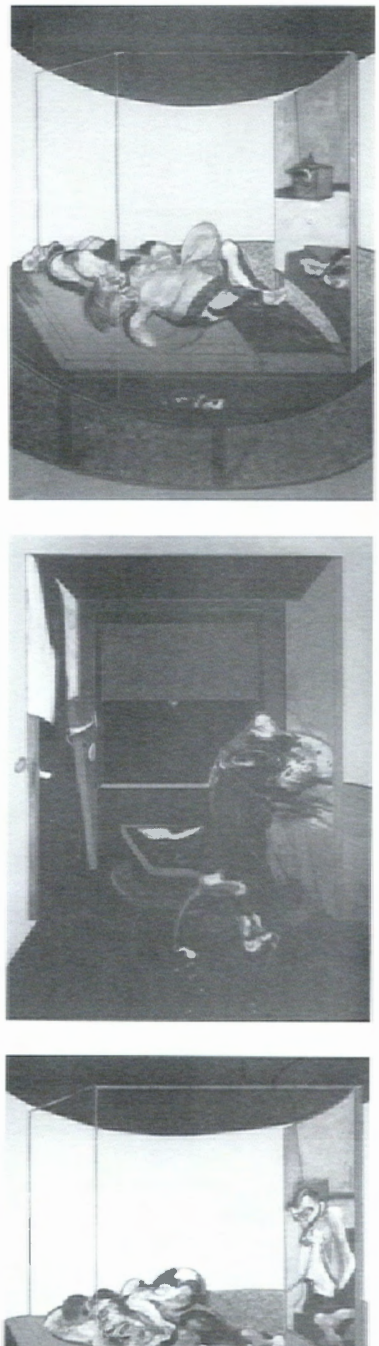
The theme of this passage from *Macbeth* is similar to the themes of Bacon's paintings. The sentiments expressed by Macbeth are strikingly similar to Bacon's much quoted claim: "I think of life as meaningless, but we give it meaning during our existence. We create certain attitudes which give it a meaning while we exist, though they are in themselves meaningless, really."[24] Many critics have seen these ideas in Bacon's paintings. As Wheeler suggests of Bacon's underlying theme, "Man is an accident, that he is a completely futile being, that he has to play out the game without reason."[25]

Eliot was indeed quite an influence for Bacon, as Bacon readily admits. I, think, though, attention should be given to the way in which Bacon speaks of Eliot's influence upon him and how he weaves this influence into his work. As Ades states: "Bacon has always considered that he was influenced by Eliot, or certainly that reading Eliot's poetry was a fruitful source, not directly of specific images that he would translate into paint, but of images which awoke a series of associations in Bacon himself and fed in that way into his painting."[26] Ades very accurately describes the relationship between and Eliot and Bacon. Bacon claims that he in no way tries to illustrate literary works, rather he lets them influence him. In discussing *Painting 1946*, Bacon refers to Eliot when he pin-points the source of the central figure, "coaxing out the image of the dictator taken from his war photographs of Goebbels or Himmler or Mussolini, even Roosevelt in his cape at Yalta and T.S. Eliot's Apeneck Sweeney, 'with the oval O cropped out with teeth' of his murderer's mouth."[27]



↑↑ Painting 1946
Francis Bacon, 1946
MoMA, New York City

↑ Study of a Human Body
Francis Bacon, 1983
Menil Foundation Collection, Houston



↑ **Triptych Inspired by T. S. Eliot's Poem "Sweeney Agonistes"**
Francis Bacon, 1967
Hirshhorn Museum and Sculpture Garden
Smithsonian Institution, Washington, D.C.

Davies and Yard conclude, in their discussion of Bacon: "Bacon's paintings are, in the end, about what we do in the space that we are allowed. . . In *Study of a Human Body*, a spectral figure, legs straining as though at the end of a long climb, steps toward a doorway, arms reaching for the lock, calling to mind the macabre lingo of the chorus at the end of Eliot's *Sweeney Agonistes:*

> And you wait for a knock and the turning of a lock
> for you know the hangman's waiting for you.
> And perhaps you're alive
> And perhaps you're dead
> Hoo ha ha. . .
> Knock
> Knock[28]

This argument is interesting because Bacon creates a work titled, *Triptych Inspired by T. S. Eliot's Poem 'Sweeney Agonistes.'* The relationship illustrated between Eliot and Bacon through Bacon's painting solidifies the parallels that exist between the two artists. The most memorable line from Eliot's Sweeney Agonistes occurs in the exchange between Doris and Sweeney:

> Sweeney: Birth, and copulation, and death.
> That's all, that's all, that's all, that's all,
> Birth and copulation, and death.
> Doris: I'd be bored.
> Sweeney: You'd be bored.
> Birth, and copulation, and death.
> Doris: I'd be bored.
> Sweeney: You'd be bored.
> Birth, and copulation, and death.
> That's all the facts when you come to brass tacks:
> Birth, and copulation, and death.
> I've been born once and once is enough.
> You don't remember, but I remember,
> Once is enough.[29]

These lines are so powerful, that after reading them and seeing Bacon's painting inspired by them, we recognize that the theme is, "Birth, and copulation, and death. That's all." It is pretty simple. Eliot's poem and Bacon's painting perhaps epitomize the similarities in their relationships. Here are themes from Aeschylus and Shakespeare alongside the banal elements of the modern world. Life, sex and death exist, but are all violently abstracted. Finally, though, there is the theme of the meaning of life, that is perhaps from Shakespeare's *Macbeth:* "It is a tale, / told by an idiot, full of sound and fury, / signifying nothing."[30] Although Eliot and Bacon are living in the modern world, for removed from these references, it is obvious that the link between all of the ages and all of the disciplines is that the basic human condition remains the same.

The poem is about the futility of life, about the banality of all that happens while we are alive—"I'd be bored." In the first section, the characters are playing cards; Doris selects the two of spades which foreshadows events to come, "THAT'S THE COFFIN!" Dusty replies, and the party continues. There are the small-talk party conversations to which Eliot often alludes ("In the Room the women come and go / Talking of Michelangelo").[31] The action begins in the second part, "Fragment of Agon." This is where Sweeney speaks to Doris of "Birth, and copulation, and death." More shockingly, however, Sweeney tells of the man who commits a murder:

> Sweeney: Knew a man once did a girl in
> Any man might do a girl in
> Any man has to, needs to, wants to
> Once in a lifetime, do a girl in.
> Well he kept her in a bath
> With a gallon of lysol in a bath
> . . .
> He didn't know if he was alive
> and the girl was dead
> He didn't know if the girl was alive
> and he was dead
> He didn't know if they were both alive
> or both dead.[32]

This story is reminiscent of many ancient tragedies, but the tragedy in this play is the inability of people to communicate. Eliot even said of *Sweeney Agonistes*, "My intention was to have one character whose sensibility and intelligence should be on the plane of the most sensitive and intelligent members of the audience; his speeches should be addressed to them as much as to the other personages in the play—or rather, should be addressed to the latter, who were to be material, literal-minded and visionless, with the consciousness being overheard by the former."[33] Sweeney tries to tell the story, but is constantly interrupted. He knows that he is not being heard, but must speak:

> I gotta use words when I talk to you
> But if you understand or if you don't
> That's nothing to me and nothing to you.[34]

Bacon's painting, indeed, contains the same theme. The painting is a triptych that is set, not as a narrative or illustration, but as a reaction to the poem. The theme is obviously birth, copulation and death. In the three panels it is impossible to to read which panel expresses which word. The point is the realization that this is all there is in life. Many interpretations of the connection between Eliot's poem and Bacon's painting have been given by the critics. Davies and Yard discuss the relationship between the painting and the poem:

> Spattered with blood, the Pullman car setting of the central panel of 'Sweeney Agonistes' contains the gruesome evidence of a violent crime, perhaps in reference to a line uttered by Sweeney in Eliot's poem: 'I knew a man once did a girl in.' The black window shade is pulled to reveal the night sky as a vibrant glimmering of blue. On the floor a valise lies open, its zipper glimmering like a row of teeth. The shallow space of this central canvas is echoed on either side in linear cubes that define the settings for pairs of figures whose feet are glimpsed in mirrors attached to dais-like platforms. The figures at left recline side by side in similar postures of relative repose, while those at right embrace or struggle. In their mirror the reflected image is dominated by a man on the telephone, who is curiously unmoved by the activity before him. This figure is perhaps suggested by Eliot's Pereira, whose call intrudes on the imagery of struggle, copulation, repose and death. . . the apparent blindness of the witness to the drama being played out before him speaks of the ultimate solitariness of human experience.[35]

Spender comments, "In *Sweeney Agonistes* Eliot does not sentimentalize disgust. He offers no feelings except those of hypnotic chilling horror at his characters."[36] This is exactly where Eliot and Bacon overlap. Both are concerned with the realization of violence as a matter of fact rather than a sentimentalized drama. Hughes see s similar element in Bacon: "The nub of the difference between Bacon's figures and those of expressionism is that his do not solicit pity. They are not pathetic and do not try to call you into their own space."[37]

Eliot and Bacon are linked across their disciplines by theme, sensibility and the style in which they operate. They have been stained by the same allusions and recall them in a similar form of collage. They at one moment quote their allusions and at the same time forever change them. They are influenced by disciplines beyond their own, Eliot ever-obsessed with painting and Bacon haunted by the images of Shakespeare and Eliot.

1. John Hollander and Frank Kermode, *Modern British Literature* (London: Oxford University Press, 1973), p. 507.
2. A.D. Moody, *Thomas Sterns Eliot Poet* (London: Cambridge University Press, 1979), pp. 63-64.
3. Stephen Spender, *T. S. Eliot* (New York: Viking Press, 1976), p. 53.
4. T. S. Eliot, "Sweeney Erect," in *Collected Poems* (New York: Harcourt, Brace and Co., Inc., 1952), p. 25.
5. Spender, p. 55.
6. Michel Archimbaud, *Francis Bacon in Conversation with Michel Archimbaud* (London: Phaidon Ltd., 1993), pp. 102-103.
7. Andrew Sinclair, *Francis Bacon: His Life and Violent Times* (London: Sinclair Stevenson, 1993), p. 227.
8. Hugh Davies and Sally Yard, *Francis Bacon* (New York: Abbeville Press, 1986), p. 7.
9. Dawn Ades and Andrew Forge, *Francis Bacon* (New York: Harry N. Abrams, Inc. Publisher, 1985), p. 21.
10. Nancy K. Gish, *The Waste Land: A Poem of Memory and Desire* (Boston: Twyane Publishers, 1988), p. 104.
11. Archimbaud, p. 35.
12. Gish, p. 105.
13. Robert Hughes, *The Shock of the New* (New York: McGraw-Hill Inc., 1991), p. 296.
14. Ades, p. 20.
15. Davies, p. 8.
16. Moody, p. 64.
17. Sinclair, p. 93.
18. David Wheeler, *Art Since Mid-Century: 1945- Present* (Englewood Cliffs: Prentice-Hall, 1991), p. 89.
19. Archimbaud, p. 120.
20. Gish, p. 65.
21. Sinclair, p. 93.
22. Archimbaud, p. 119.
23. G. Blakemore Evens, *The Riverside Shakespeare* (Boston: Houghton Mifflin, 1974), p. 1337.
24. Davies, p. 8.
25. Wheeler, p. 88.
26. Ades, p. 21.
27. Sinclair, p. 101.
28. Davies, p. 102.
29. T. S. Eliot, "Sweeney Agonistes," p. 28.
30. Evens, p. 1337.
31. T. S. Eliot, "Lovesong of J. Alfred Prufrock," p. 4.
32. Ibid., "Sweeney Agonistes," p. 84.
33. Moody, p 173.
34. T. S. Eliot, "Sweeney Agonistes," p. 84.
35. Davies, p. 55.
36. Spender, p. 189.
37. Hughes, p. 297

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PARADOX OF PUPPETRY: THE GROTESQUE IN BEING JOHN MALKOVICH

CHRISTOPHER GERRICK

Remember that what pulls the
strings is the force hidden within;
there lies the power to persuade,
there the life,–there, if one must
speak out, the real man.
—Marcus Aurelius,
Meditations

↑ John Malkovich

In the film *Being John Malkovich,* Craig Schwartz is a puppeteer by trade who is unable to make a living practicing his craft. Instead, he is forced to use his skillful hands filing papers rather than manipulating marionettes. Craig seeks to escape the human condition, to control life instead of being controlled by it. The movie presents a simple question, "What if puppetry ceased to be a representation?" *Being John Malkovich* presents the grotesque possibility of conflating representation and reality and demonstrates the ramifications of such fusion through puppetry. But what are the implications of this proposal when translated into the discipline of architecture? Could one propose a similar subversion?

In his book, *On the Grotesque,* Geoffrey Harpham defines the grotesque as a paradoxical condition, an instance where a fusion of forms results in a confusion of type.[1] Often the constituent elements of the grotesque are distinctly familiar; it is only in the combination of these familiar elements that the unfamiliar is created. In the resulting "unfamiliar" element, one begins to discern the cultural meaning associated with the familiar constituents. The "unfamiliar" is the result of a mismatch of meaning. Wolfgang Kayser states that the grotesque must consist of "the presence and clash, incongruity, or juxtaposition of two or more different or even contradictory elements within the same work that may result in a visual and/or psychological surprise or shock."[2] Stanley Kubrick's film, *A Clockwork Orange,* provides an example of the grotesque by juxtaposing scenes of violence and murder with Beethoven's 9th Symphony, creating a clash between cultural transgression and cultural celebration. The viewer experiences shock because one would typically associate a celebration of life with Beethoven's "Ode to Joy." The movie forces us to reconsider the cultural meaning attached to the music and propose a different association: one connected not to the celebration of life, but its cessation.

Steve Tillis, proposing a working definition of puppetry and puppets, describes puppets as "Figures perceived by an audience to be objects that are given design, movement, and frequently, speech, in such a way that the audience imagines them to have life."[3] Tillis remarks on the "double-vision"[4] of puppets, delineating how we perceive puppets (puppets as objects) and how we imagine puppets (to be alive, animate beings). Marjorie Batchelder states: "The enduring success of the puppet theatre rests. . . upon the facility with which it brings into juxtaposition the real and the imaginary, endowing both with equal plausibility."[5] It is this juxtaposition of the real and the imaginary, the perceived and the imagined, that forms the basis for a classification of puppetry as grotesque.

To a certain extent, the logic used to define puppetry as grotesque can also be used to define acting as grotesque. Both disciplines involve mediation between perception and imagination, and the effectiveness of a theatrical presentation is measured by how closely these two themes can be matched. A successful puppeteer can collapse the distinction between the perceived object and the imagined being; imagination becomes perception. In a similar way, a successful actor must convince the audience that the performer is not the perceived actor, but the imagined character. As in puppetry, there exists the manipulator and the manipulated. In acting, the actor's body is manipulated by a personal interpretation of a character, filtered through the actor's mind. Thus, the actor becomes both puppeteer and puppet. On one level, *Being John Malkovich* is a study of the relationship between acting and puppetry. The character, "John Malkovich," is played by the "real" John Malkovich, yet he acts not as himself, but as the public's perception of himself. This public perception is a figural mask that Malkovich wears in his role as himself. As with puppets, the question becomes whether or not this perceived persona of Malkovich is either an object or living entity?

Future references to Malkovich in this paper will dwell upon the "perceived persona of Malkovich" only and not the "real" John Malkovich. One of the basic premises of the movie is an attempt to objectify, or make physical, the "container" that is John Malkovich. The characters of the movie can occupy Malkovich by entering a small door in Craig Schwartz's workplace. After crawling through a dark, wet tunnel, they find their physical and mental selves born inside John Malkovich's mind. This only lasts for fifteen minutes, after which their bodies are ejected and dropped near the New Jersey Turnpike. Thus, the mind of Malkovich becomes a physically inhabitable space. To experience a physical manifestation of the mind means that whatever one comes in contact with in thought, or in memory becomes a physical artifact. Since thoughts and memory are given physical form they can be manipulated as objects themselves. Those that inhabit the Malkovich vessel can control, to some degree, his thoughts and actions. The occupants of Malkovich's mind become puppeteers themselves. The opposing forces at work, the physicality of the body combined with the non-physicality of thought, make this possibility grotesque. The resulting contradiction mediates between the two concepts, and questions the validity of each. If thought is given physical form, as discussed above, can there be a corresponding non-physicality of the body? The physicality of the body is questioned when the body is transformed through entry into the Malkovich body-container. Clearly, the physical size of the body would have to be modified to exist within his mind. Therefore, by passing through the tunnel entrance into Malkovich's mind, the characters can make their bodies non-physical, allowing them to occupy the physical mind of Malkovich. Even though the mind of Malkovich resides within its portable body, the entrance and exit to and from the mind of Malkovich remain fixed and site-specific.

The film's characters become obsessed with manipulating the mind and to a certain extent, the body of John Malkovich. Being John Malkovich allows them to exploit the persona of Malkovich to fulfill personal desires. In *The Puppeteers,* Gerald Alper discusses obsession with manipulation through what he terms as "behavioral puppetry."[6] Behavioral puppetry "is a preoccupation with issues of control, an anxious need to gain power over oneself and others, or a dread of failing to do so and of being irresistibly manipulated."[7] This resulting behavior can be "divided, roughly, into feelings of dominating or being dominated."[8] Each character that becomes John Malkovich essentially seeks to become puppeteers themselves, using the vessel of John Malkovich's body as their object-puppet. Through this internal domination, they seek to externally manipulate others, either directly or indirectly. The question arises: who is being controlled?

Behavioral puppetry exists on multiple levels in the movie. The main characters exhibit this behavioral action as they interact with each other. First, Craig Schwartz seeks to control Malkovich to the extent of being him indefinitely; he desires to be both the puppeteer and the puppet. He is the puppeteer, controlling the body of John Malkovich, but since his body resides within the Malkovich container, he is a puppet himself. Second, Lotte Schwartz, Craig's wife, seeks to modify her own sexual identity by using Malkovich as a mask. Finally, Maxine (Catherine Keener) seeks to exercise her sexual power to control Craig, Lotte, and Malkovich. All three characters lust for Maxine, yet their desire is not reciprocated unconditionally. She attempts to manipulate the characters as the "chief puppeteer" of the movie, acquiescing to their sexual desires only when their identities have been modified. For example, she refuses to have sex with Lotte or Malkovich unless Lotte is Malkovich, i.e. physically present within his body. On this level, the characters can be described as puppets under Maxine's control, where desire replaces the marionette's strings.

One of the performances that Craig Schwartz performs in *Being John Malkovich* features two puppets, one "male," the other, "female," engaging in simulated sexual activity that is separated by a wall on the puppet-stage. The reaction to this work is one of revulsion; a parent of one of the child spectators punches Schwartz upon witnessing the performance. The scene bears witness to the double-vision paradox discussed earlier in this paper. Puppets are physically nothing more than wooden objects, yet their imagined reality renders them gendered and sexual. This "otherness" forms the puppet's sexual nature. Puppets simultaneously exist as asexual objects on a perceptual level, and sexual beings on a imagined level. The grotesque presents itself in puppetry through sexuality, or lack thereof. John Brotherton has written about sexuality and puppetry in the plays of Garcia Lorca: "Again in seeking to exploit the paradoxical virtues of the mode, he focuses precisely on those corporal and sexual functions that are alien to these inert figures."[9] Here, in the "corporal" sexual qualities perceived of the puppet, we can find the grotesque; a contrast between what Brotherton describes the "excessively alive"[10] puppet and the "inert figure." Again consider the case of Lotte Schwartz: After being John Malkovich for fifteen minutes, she is exhilarated by the possibility of using Malkovich as a puppet to exercise her new-found desires for transsexuality. She comments on the entrance portal/tunnel into the Malkovich container: "It's like he has both a penis and a vagina." The puppet metaphor for Malkovich is reinforced on a sexual level; if Malkovich acts as puppet to the characters in the movie, then the characters will imagine Malkovich to exhibit the sexual qualities of "otherness" as discussed above. The grotesque nature of the Malkovich container is apparent in its imagined hermaphroditic nature.

↑ **Maxine**

The opening scene of Being John Malkovich features a marionette that resembles the puppeteer himself, Craig Schwartz. The marionette considers its reflection in a mirror and then proceeds to smash the mirror, doing a frantic dance before collapsing on the puppet-stage. This same scene is reproduced later in the movie, only the marionette is the body of John Malkovich, and the puppeteer is no longer controlling the puppet off-stage but from within the body of Malkovich. The latter scene is grotesque: the reality of the puppet-stage is combined with the reality of the world-stage. Puppetry ceases to exist as a representation of humanity. Instead, puppetry presents itself as a human reality. Malkovich, the living human being literally becomes a living human puppet.

Puppetry can be viewed as a metaphor for human existence. Corona Sharp mentions two metaphorical interpretations of puppetry: man as imitation of puppet and man making his own puppet (or public mask).[11] In the first interpretation, *Being John Malkovich* describes the possibility of man imitating his representation. The scene outlined above alludes to this metaphor. Gerald Alper describes advertising strategies as an attempt to control the consumer, to make the consumer a puppet.[12] Craig and Lotte provide examples of the second interpretation—both seek to create their own puppets by disguising their identities beneath a public mask. Craig seeks to assume the mask of Malkovich in order to use Malkovich's reputation to further his puppetry-practice. Lotte attempts to use Malkovich to transform her sexuality. These are figural puppet-constructions that deny the world-stage reality in favor of a desired puppet-stage. Sharp comments: "This type of puppet is an assumed role, or a projection of an unreal self before the outer world. It may conceal a different self or the terrible absence of any genuine self."[13]

↑ **Craig Schwartz**

↑ **Craig, Maxine, and Lotte Schwartz**

The use of the grotesque in *Being John Malkovich* is cause for a re-evaluation of the schism between architectural representation and reality. Architectural representation cannot exist as built reality. Representation needs to create its own reality, to express ideas as convincingly as the most effective theatrical performance. The architect must be able to design the gap between perception and imagination like a skilled puppeteer to convey her or his ideas. In the same way that Craig Schwartz sought to make the representation of his discipline a reality to create desire for puppetry, architects might be able to transform their tools of representation into reality and create desire for architecture.

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1. Geoffrey Galt Harpham, *On the Grotesque: Strategies of Contradiction in Art and Literature* (Princeton: Princeton University Press, 1982), pp. 4-20.
2. Wolfgang Kayser, *The Grotesque* (Bloomington: University of Indiana, 1963), pp. 20-24.
3. Steve Tillis, *Towards an Aesthetics of the Puppet* (Connecticut: Greenwood Press, 1992), p. 97.
4. Ibid., p. 28.
5. Ibid., p. 159.
6. Marjorie H. Batchelder, Rod-Puppets and the Human Theatre (Columbus: Ohio State University Press, 1947), p. 292.
7. Gerald Alper, *The Puppeteers: Studies of Obsessive Control* (New York: Fromm International, 1994), p. 219.
8. Ibid., p. 219.
9. Ibid., p. 220.
10. John Brotherton, "Promiscuous Dolls and Faithful Wives: Some Aspects of Puppetry in the Plays of Garcia Lorca," in *Romance Languages* 7 (1995): 387.
11. Ibid., p. 385.
12. Sister Corona Sharp, "Pirandello's Use of Puppetry as Metaphor and Technique," in *English Studies in Canada* Vol 14, no. 1, (March 1988): 28-29.
13. Alper, p. 219.

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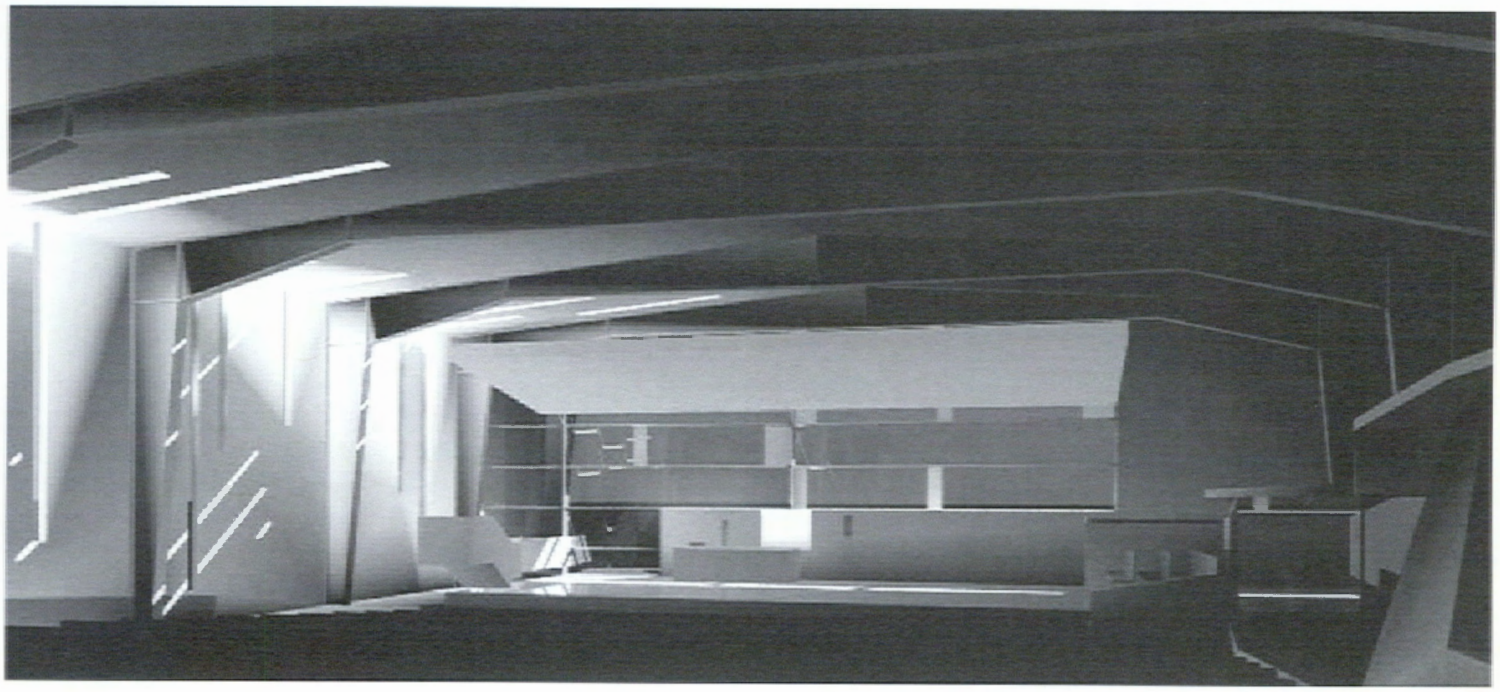
KARL DAUBMANN

<DIS>INTEGRATION AND THE ROLE OF INTERSTITIAL SPACE IN BUILDING PERFORMANCE



↑ Interior Model Rendering
Parish Church

Most architects are aware of their responsibilities related to the design of efficient buildings. The culture is still slow to change; even when faced with facts like the United States consumes 32% of the energy produced in the world even though it only contains 5% of the world's population. This fact is not used to scare but instead as a reason to re-think opportunities for design. Rather than rely solely on mechanical means to achieve human comfort, buildings can use a more thoughtful design process to make use of natural systems. The energy consumption of buildings could be reduced by 40% through the use of natural lighting, natural ventilation, and controlled thermal transmission.[1]

As Oberdick Fellow, I have investigated the use of a design process that is able to simulate and test design strategies at a conceptual phase. The goal of this process is not to create a high-tech aesthetic but use building technology and performance in a generative manner. The outcome of this process is two-fold: it allows for buildings to address their environment (at both micro and macro scales) and it brings about a more architectural integration of building systems.

A key text that addresses the interdependent role of technology and architecture is Reyner Banham's *Architecture of the Well-tempered Environment.* Banham presents a history of technological innovations that have impacted the comfort and well being of people in buildings. These innovations are not viewed as devices but rather as elements that shape the built environment. The text begins with an "Unwarranted Apology" in which architects have given up their responsibility for the technical component of buildings to an alien culture of subcontractors and consultants. In so doing, architects are able to "forget the environmental rubbish and get on with the architecture."[2] The lamenting is not about professional specialization but rather that these disciplines are not seen as critical to the architectural discourse. Banham's final line is, "This book must no longer be filed under technology." Again designers understand the importance but the culture has yet to evolve, technology is rarely addressed in the studio. Consequently, this book is still located in the technology section at the Media Union Library at the University of Michigan.

To build on this critique, one must go beyond the re-examination of design-technology from an analytical perspective and practice what is preached. The desire is to operate in a fashion that allows technology to be employed generatively, as opposed to something that is dealt with later in the process to solve problems. This concept is not new. It exists throughout history. The peripheralization of technology is a relevant topic now because of the specialization and resultant isolation of disciplines. The time is right for architects to reclaim the technological as part of their design arsenal.

One development that not only celebrated technological innovation but also emerged from a multidisciplinary endeavor was the "polyvalent wall" proposed by Mike Davies. Glass is the focus of the investigation both for its strong architectural character and the role it has played in architecture. Buildings are seen to become more transparent as they become more modern culminating with Mies's glass skyscraper of 1921 which proposed the clearest initial example of the glass curtain wall. The curtain wall was made possible by the increase in size and strength of glass production but thermal characteristics and insulation were two attributes that glass could still not offer.

The polyvalent wall attempts to compensate for the shortcomings through the use of additional layers. Davies, in collaboration with Pilkington Glass, goes on to offer a solution—an integrated polyvalent wall. Like a chameleon, the skin becomes a multi-functioning device that acts as absorber, radiator, reflector, and filter.[3] All of these active layers could be designed and integrated into a high-tech window that would be only a few microns thick.

Although I share the desire for buildings to be more dynamic and responsive to their site and climate, the high-tech strategy proposed tends to focus on the integration and fetishization of specialized building parts. The smart window is seen as the pinnacle of integration because it is able to provide multiple functions within one very thin element. If a client could afford to clad an entire façade with such a system, what would the architectural consequences be? Although much can be gained through the compression of the building enclosure into the fraction of an inch, many architectural qualities such as threshold and the experience of space might be lost.

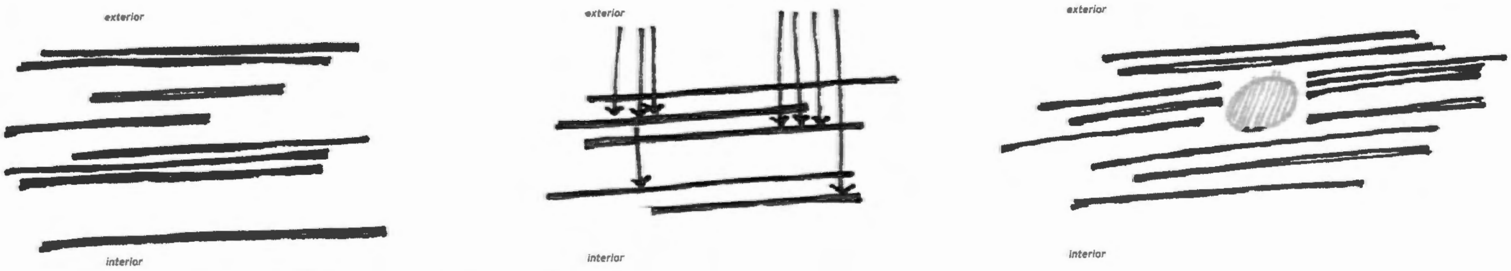
<dis>integration

The concept of <dis>integration seeks to find a more grounded condition in which the entire building is able to participate in the experience of light, heat, sound, threshold, and space. The sensitive manipulation of these qualities has the potential to also make the building more energy efficient and produce high degrees of inhabitant comfort—uniting architecture and technology. Instead of compressing building functions together, what might be gained by pulling them apart? Between these isolated layers a new condition of poché could emerge. This interstitial space could become a zone of technological/architectural occupation.

This disintegrative strategy understands a building in terms of its flows of energies through its boundaries. But rather than allowing all or none of the energy through its enclosure, a more distributive approach permits controlled amounts to enter into the building. These energies which may include solar, acoustic, and thermal can be used to add character to the interstitial zones captured within the bounding layers of the building. The building may be experienced as moving from cold zones to warmer zones as one moves deeper into the plan, allowing temperature to define space.

<Dis>integration views the entire building as a thick façade or threshold. This approach makes the design process more complex by bringing about a condition in which these interstitial zones are full participants in the overall performance of the building. As a means of testing these ideas two design competitions were executed during the fall term. These projects provided a critical environment within which the concepts and strategies could be articulated. The goal was to refine the utilization of simulation technologies during the conceptualization phase as a means of manipulating interstitial space and in essence integrating the technology with the architecture.

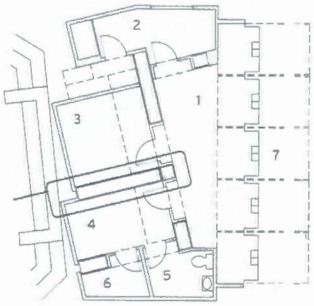
Three strategies for the creation of these interstitial spaces came out of the projects: laminating, filtering, and blistering. The laminating concept has to do with the parallel layering of zones to create inhabitable spatial stratifications. Filtering is similar to laminating in its parallel stratification but exploits the ability of layers to modulate the flows through its boundaries. The strategy of blistering allows for the capture of programmed spaces between the layers, to create figural spaces.

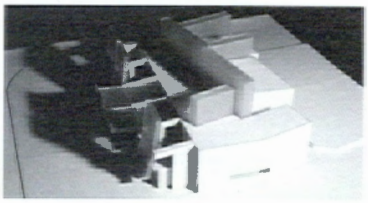


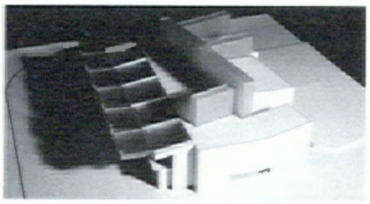
The first project was the design of a ticket booth in Times Square for the Van Alen Institute/TKTS competition. The brief called for a building to replace the existing TKTS booth currently located on the site. The primary design strategy was to invert the relationship of interior and exterior through the use of an interstitial space. This purpose of this inversion was to provide a degree of private space within the extremely public and chaotic nature of Times Square. The problem became how to create inward facing spaces that did not become dark and claustrophobic. The solution was to adopt a strategy of blistering that created pockets of light volumes that eventually evolved into organizational elements for the overall scheme.

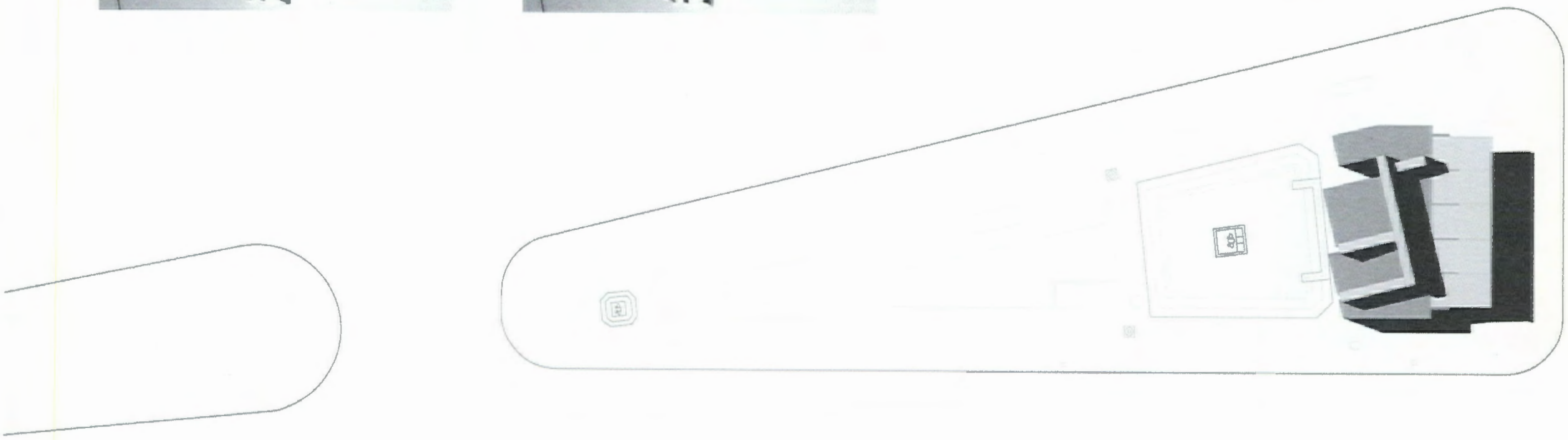
The ability to model light was of critical importance to the development of this proposal. The concept of using the light volumes to organize the building was only a starting point; the concept needed further testing to investigate its viability. By streamlining the process of building a digital model and then exporting it to simulation software, many alternatives could be quickly explored. The size, proportions, and glass types were all investigated to create both the appropriate quantity and quality of light to be captured for the adjoining spaces. The simulation software also illustrated the qualities of these volumes at night, which would again invert the perception of interior and exterior.

↑ Laminating, Filtering, Blistering









↑↑ Model

↑↑ Model

↑↑↑ Floor Plan

Ticket Selling Area	1
Entry/Messenger Waiting	2
Manager's Office	3
Employee Lounge	4
Restroom	5
Storage	6
Ticketing Area	7

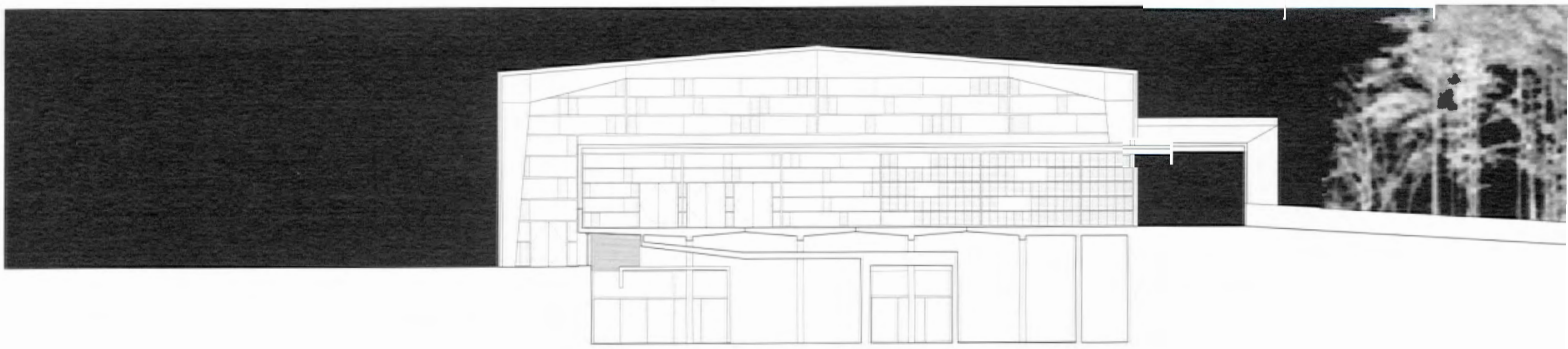
↑ Site Plan
TKTS

The second project, prepared in collaboration with Craig Borum and Greg Hanson, was for the design of a parish church in South Bend, Indiana. The key issues as defined by the clients were that the building be constructed by migrant labor to minimize the construction costs and that the building would allow for some degree of flexibility. The building would be used in various ways, one example being the celebratory seating. On average, the church required seating for 500 people but would need to expand to 1000 people for special events. The site was also of concern in its blankness; it was a flat, wooded parcel in the context of expansive, open cornfields.

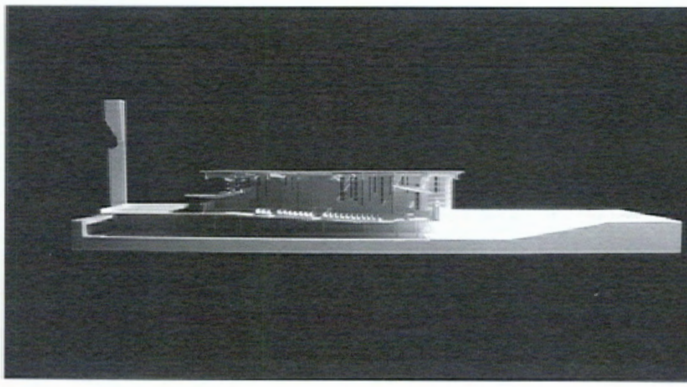
The design of the church was approached through the exploration of relationships between three key elements: landscape, church exterior, and church interior. Each element became figural in its development but it was the space or gap between that provided an investigation into the interstitial. This interstitial zone permitted laminations of space that could be occupied in different ways according to the use patterns. These interstitial zones also allowed for the filtering of light, views, sounds, and temperature.

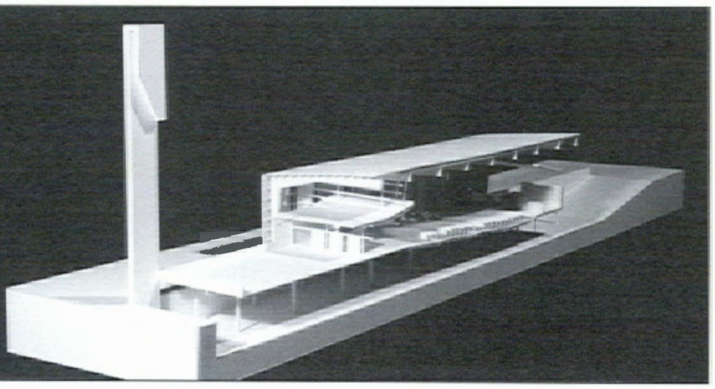
As previously mentioned the landscape was generic in nature. To create a connection of building to site, the landscape was manipulated in three simple operations. The first idea was to keep as much of the forest as possible, resulting in the carving of parking zones out of the tree canopy, and locating the church at its periphery. The ground was then excavated to allow for a tornado shelter in the lower level. A mis-registration of the excavation and church created two exterior zones, one for access and entry (to the side) and one for larger exterior gatherings (to the end). The larger exterior gathering zone could be occupied as an inclined seating area oriented toward the exterior pulpit. The third ground manipulation was a ramp demarcating the entry and associated gathering space, creating a space beneath for administrative functions.

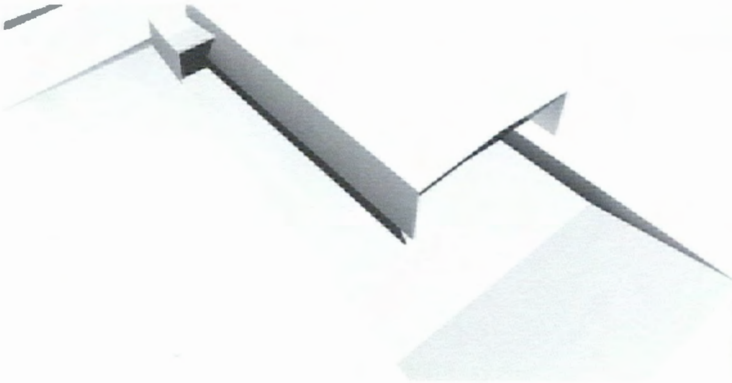
The church exterior also evolved into a figural form in response to the need for a cost effective enclosure system. A prefabricated Butler Building was employed to enclose the most space for the least price. The church exterior could be constructed quickly using standard parts by skilled labor. This layer would keep the elements out and allow the unskilled labor to finish the interior without having to worry about water tightness. The skin of the steel exterior was manipulated in two ways. The ends of the extrusion would simply be enclosed with glass curtain walls, creating an expansion of space into the landscape. The side walls were punched, to the south with deliberately located openings and to the north with distributed vertical slits. These windows created very different effects on the interior of the church.

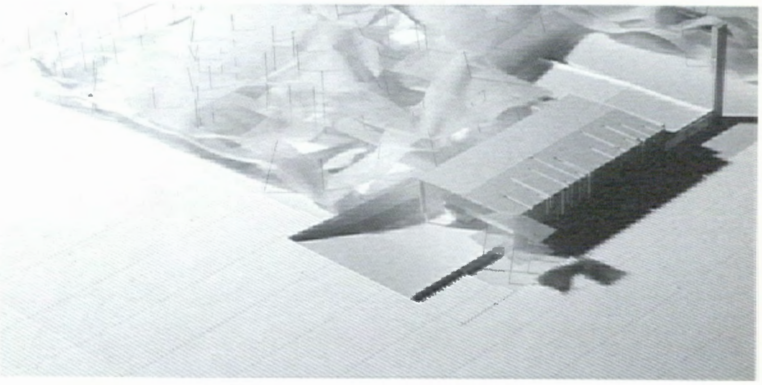


↑ North/South Section

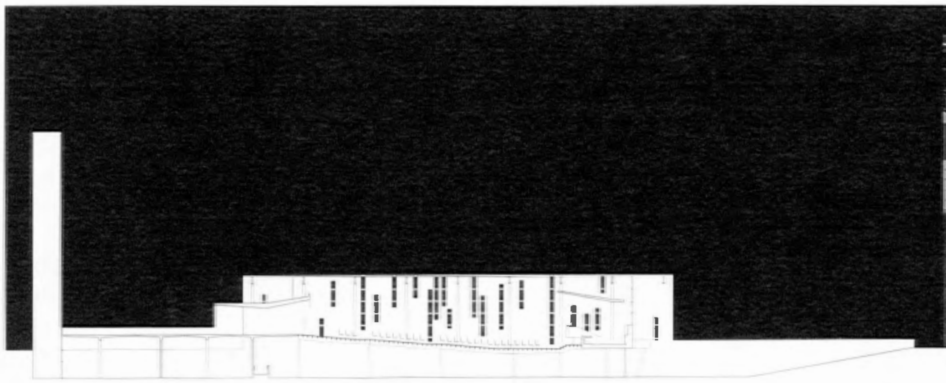




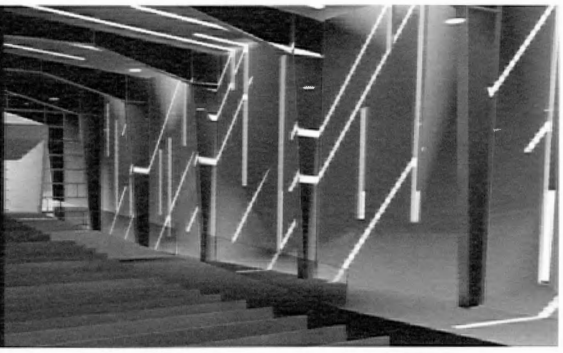




↑↑ Section Model ↑↑ Section Model
↑ Rendering ↑ Site Model
Parish Church



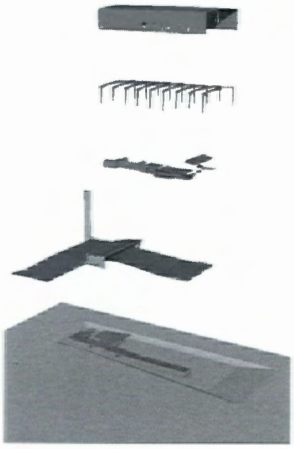
↑ East/West Section

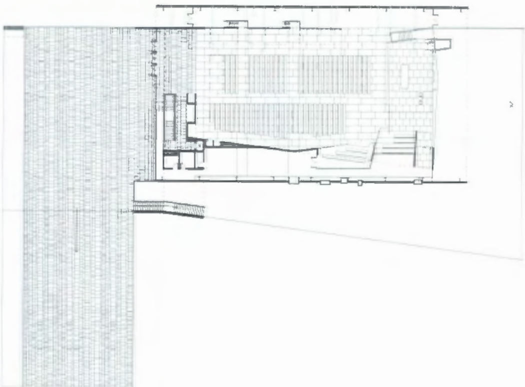


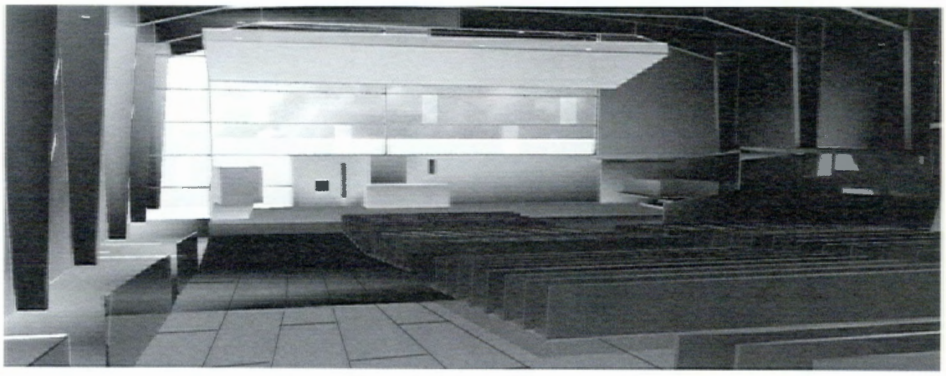
↑ Interior Rendering

The church interior became more articulated in contrast to the striped down quality of the exterior shell. The interior would be constructed with smaller scale lumber and be more welcoming to human touch. Three interstitial zones are worth mentioning that are created between the interior and exterior church. The liturgical elements become a continuous and folded element that defines a service zone to the south. The service zone receives light through the punched windows to the south. Direct harsh south light, views to the parking, and sound from the parking are all filtered by the placement of programmatic ribbon. The church seating also traps a layer of space against the north wall. This space is used as a large aisle for the normal seating and for overflow seating for large celebrations. The zone is intentionally left open not placing parishioners against what could be a cold north wall. Instead the open zone to the north is used as a circulatory space and as place to view the diffused light from the vertical slits. The third interstitial space is created through a lamination of classroom spaces in the lower level. These classrooms follow the placement of the programmatic ribbon of the upper level, in this instance they capture light and bounce it into the dining space which is able to expand and contract according to the user needs.

These two projects, the ticket booth and church, illustrate the potential of allowing technological concerns to influence design decisions. Both projects make use of simple concepts about light, environment, and heat to be used in the generation and manipulation of their final forms. Both projects are not technical or high-tech solutions to a problem but instead seek to integrate ideas from other building disciplines in an architectural and holistic manner.







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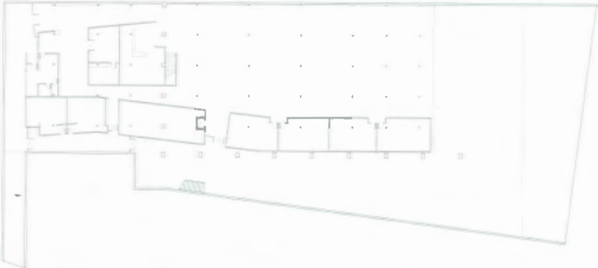

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1. Klaus Daniels, *Low-tech Light-tech High-tech*, (Basel: Birkhauser Publishers, 1998).
2. Reyner Banham, *The Architecture of the Well-tempered Environment*, (Chicago: University of Chicago Press, 1969).
3. Mike Davies, "A Wall for All Seasons," *RIBA Journal* (Feb. 1981).

All images courtesy of the author.

↑↑ Exploded Axonometric

↑ Floor Plan

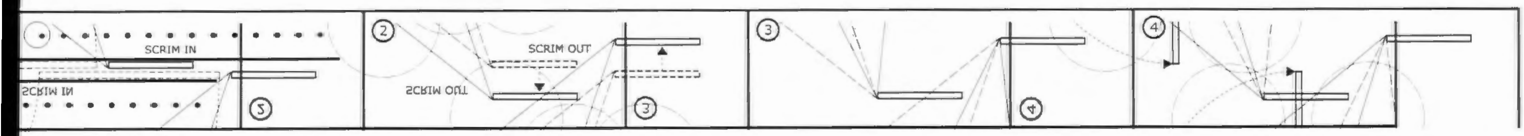
↑↑ Interior Model Rendering

↑ Lower Level Plan

Parish Church

ENFOLDED ROPE

GLENN WILCOX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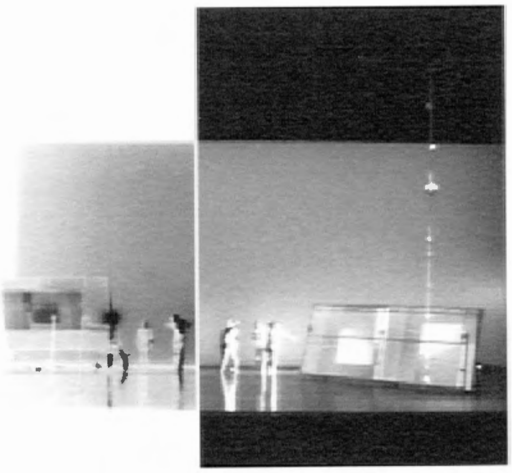
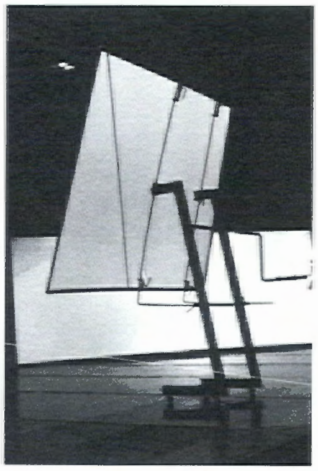
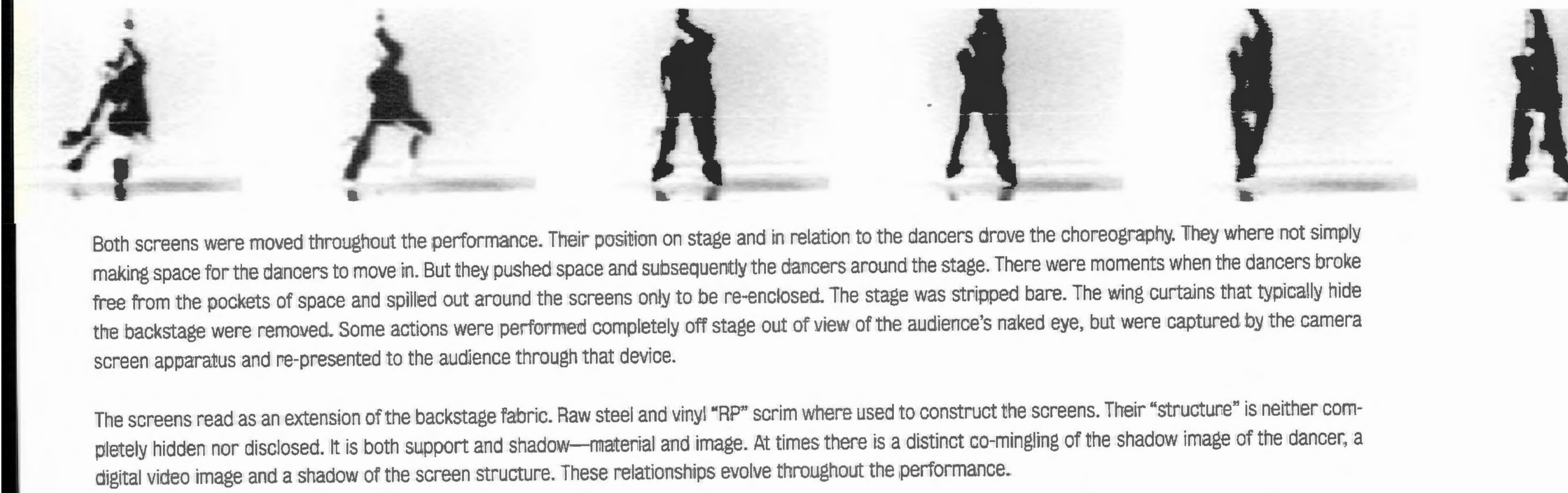


Enfolded Rope was a dance performance that was presented at Cornell University in March of 1998 and again in a revised format at Duke University in August of 1999. This was a collaborative piece that I worked on with choreographer Byron Suber and his cast of dancers. My role in the piece was three-fold. I designed and built the set, which needed to be both movable (on stage) and transportable. In addition I created the digital video images that were projected throughout the performance. I was also present on stage during the performances moving the set and manipulating the projections.

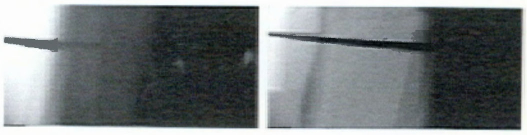


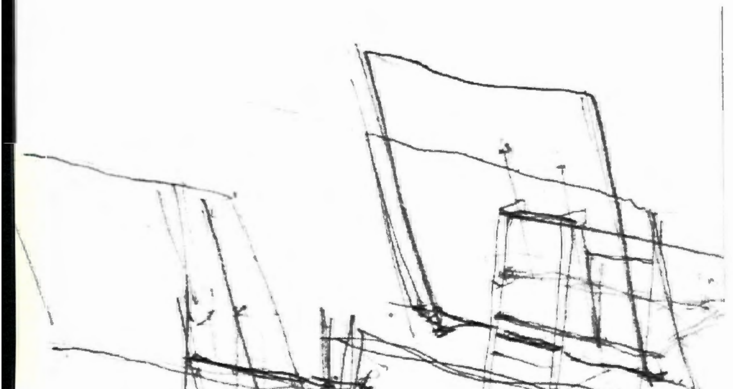
This piece was an investigation into the ways in which computer and digital video technology may transform the canon of live performance as it is presented in the proscenium theater format. In order to manipulate the space of the stage, I fabricated a pair of movable projection screens. A large horizontal screen, that I called the introvert and a smaller vertical screen, the extrovert. The small screen had a camera mounted to its "arm." What this camera recorded was projected onto the small screen in real-time. The large screen has pre-recorded images rear-projected onto it's surface. The effect is a compositing of live performance and live and pre-recorded digital images. This is accomplished in part through the simultaneous recording and projecting of the dancers as they perform against and behind the large screen. The space of the performance and the gap between live and recorded activity is in continuous re-definition.

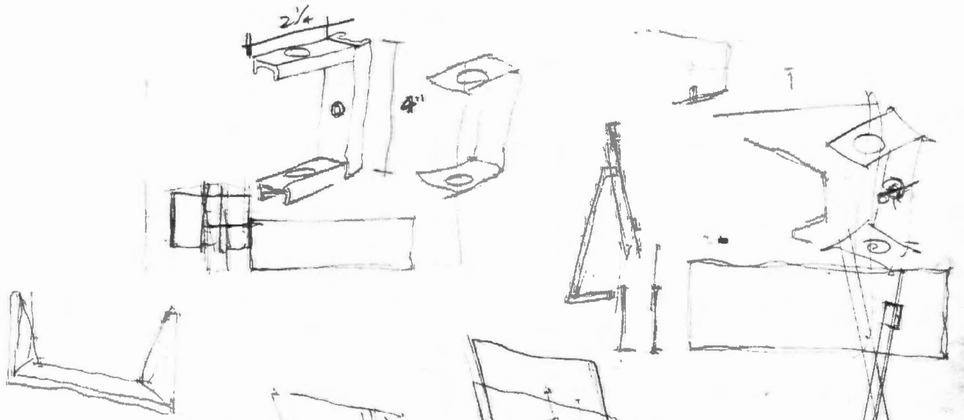


Both screens were moved throughout the performance. Their position on stage and in relation to the dancers drove the choreography. They where not simply making space for the dancers to move in. But they pushed space and subsequently the dancers around the stage. There were moments when the dancers broke free from the pockets of space and spilled out around the screens only to be re-enclosed. The stage was stripped bare. The wing curtains that typically hide the backstage were removed. Some actions were performed completely off stage out of view of the audience's naked eye, but were captured by the camera screen apparatus and re-presented to the audience through that device.

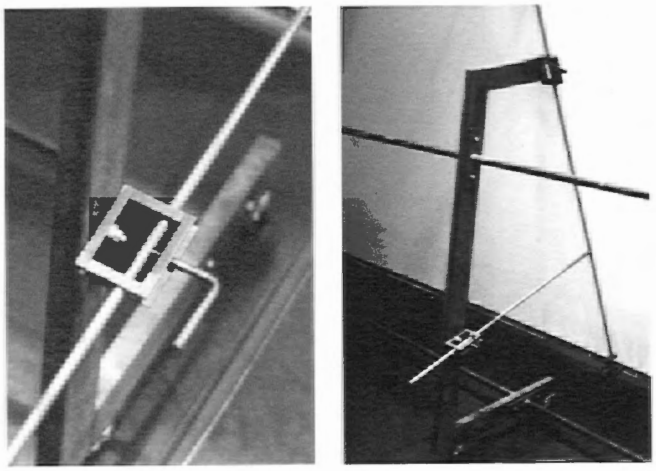
The screens read as an extension of the backstage fabric. Raw steel and vinyl "RP" scrim where used to construct the screens. Their "structure" is neither completely hidden nor disclosed. It is both support and shadow—material and image. At times there is a distinct co-mingling of the shadow image of the dancer, a digital video image and a shadow of the screen structure. These relationships evolve throughout the performance.






2¼
4"
1/16 = 1/8

The process of designing and constructing this piece involved many facets. Initially there were sessions of discussion and sketching with Byron. I went to many dance rehearsals to get a feel for the space and the scale of the movement rather than trying to capture something in the dance that I would later emulate. I know little about dance. I was more concerned with space, scale and environment than particular movements. These would evolve anyway. I wanted to build a space that the dancers would then have to respond to, something that was not at all passive. I constructed several computer simulations that allowed me to gage the size and shape of the screen to the dancer, the proscenium space, and the projections. The simulations proved very important since my time in the actual theater was limited. The theater was in continuous use throughout the season. I also needed to experiment with the actual projectors that I would be using. How bright would they be? How large a projection could I get? How much stage space did I need between the screen and the projector? These were all factors. I did a series of experiments with the projectors in an alternative space, gathered a lot of data and plugged it into my compute model. My working drawings were a translation of the rough computer models and were really a series of hard and soft line sketches. The screens were truly constructed as large models through a process of trial and error. The fact I was building these pieces in a very small and crowded shop may have helped the transportability of the piece. The largest parts of the piece were no larger than 5' x 2'. The whole thing can fit in the back of a pick-up.



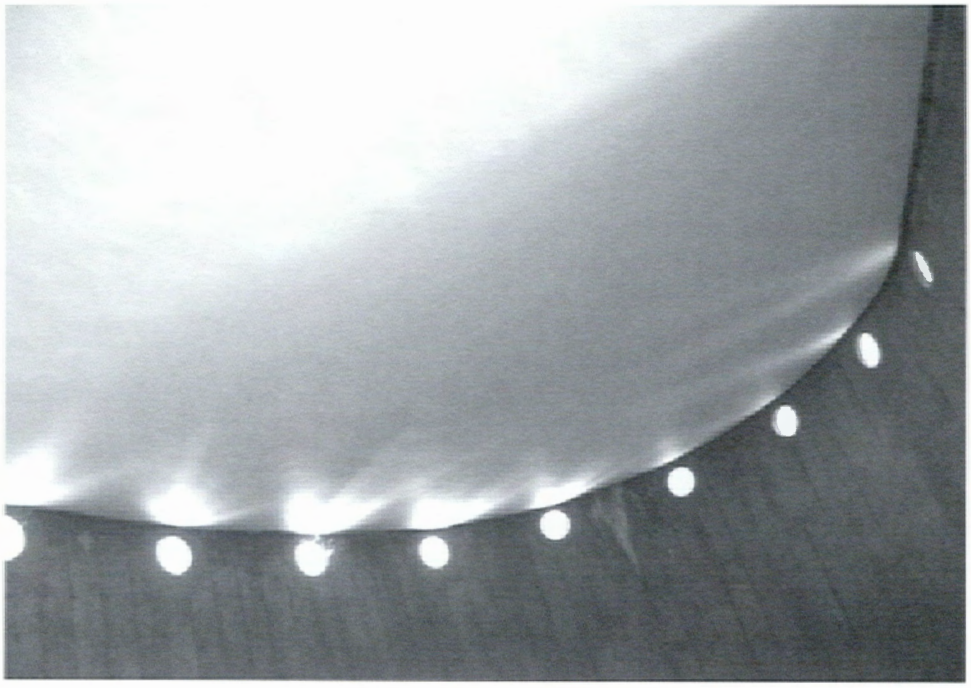
The digital images that I projected were recorded several weeks prior to the first performance in the theater that would host this performance. The dancers were dressed in the costumes that they would be wearing. This was all very important since the recorded images were to suggest "real-time." Because of the horizontal orientation of the large screen two projectors were needed to fill it. Instead of treating the synchronization between the two sources as a problem I saw it as an opportunity to explore the overlapped space between the two projections. At times the content between the two is continuous at other times it is not. This tying and untying of the images evoked the theme of the enfolded rope that Byron was exploring through his choreography. These themes were explored on other levels throughout the piece through the tying an untying of various oppositions: screen space/space of the screen, onstage/offstage and structure/image.

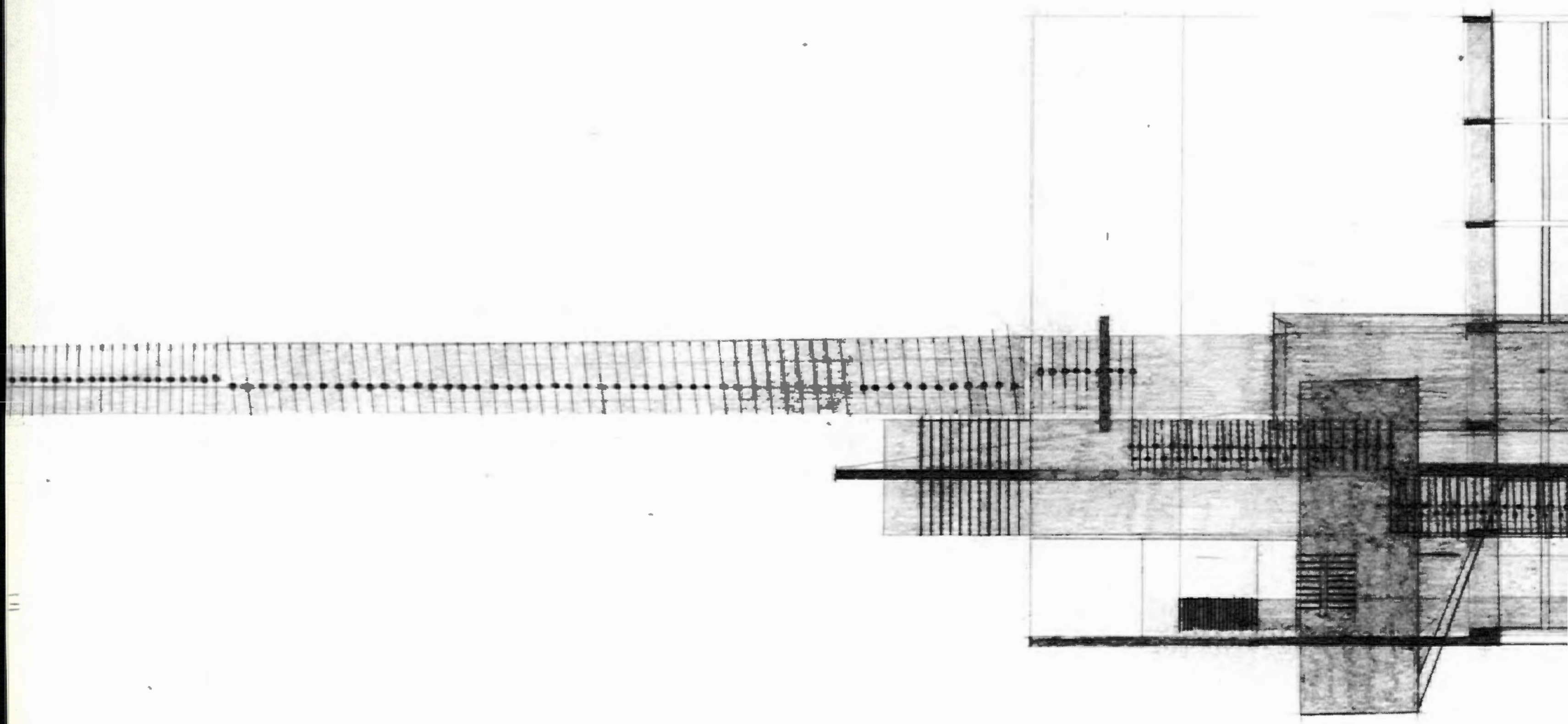
All images courtesy of the author.

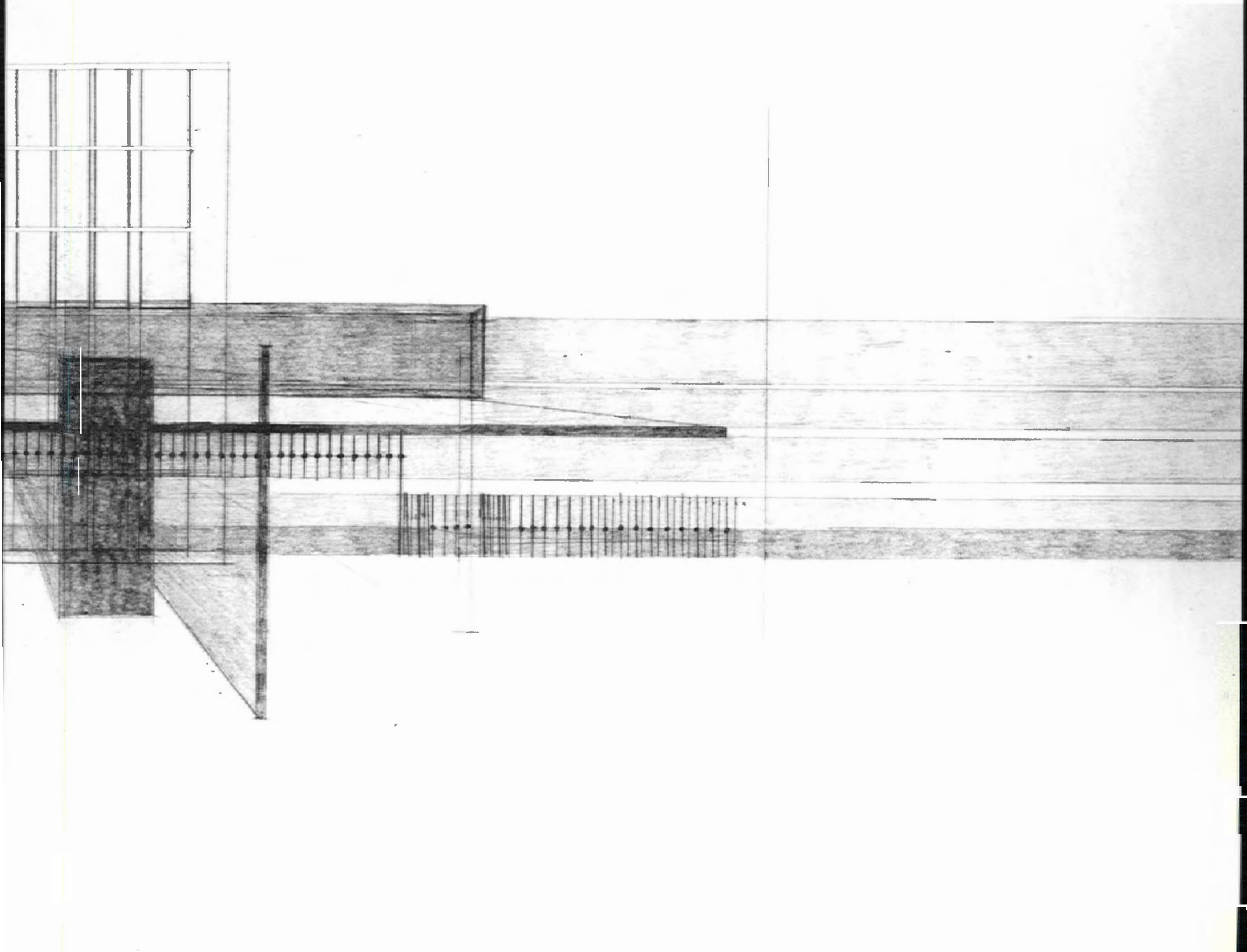
DISCIPLINE & INDEFINABLE SPACE

CRAIG SCOTT

> *Evidently the problem is to cut through the complexities, to attain simplicity. To cut through the chaos of life, to pursue an inspiring dream: not one that remains young, but one that becomes young.*
>
> —*Le Corbusier, Introduction to Oeuvre Complète, Vol. 6*







↑ Kathryn Dobija

"THE SITUATION OF THE BUILDING IN A GARDEN

furnishes a picturesque spectacle of the cloth dyers

in the company of herons, cows, buffalo, and donkeys

Such a panorama was an invitation to attempt

to frame views from each floor

for the benefit of the staff in their daily work, for festive evenings

for night views from the stage of the assembly hall and the roof.

The structure IS STRONGLY DISCIPLINED

oriented according to the prevailing winds

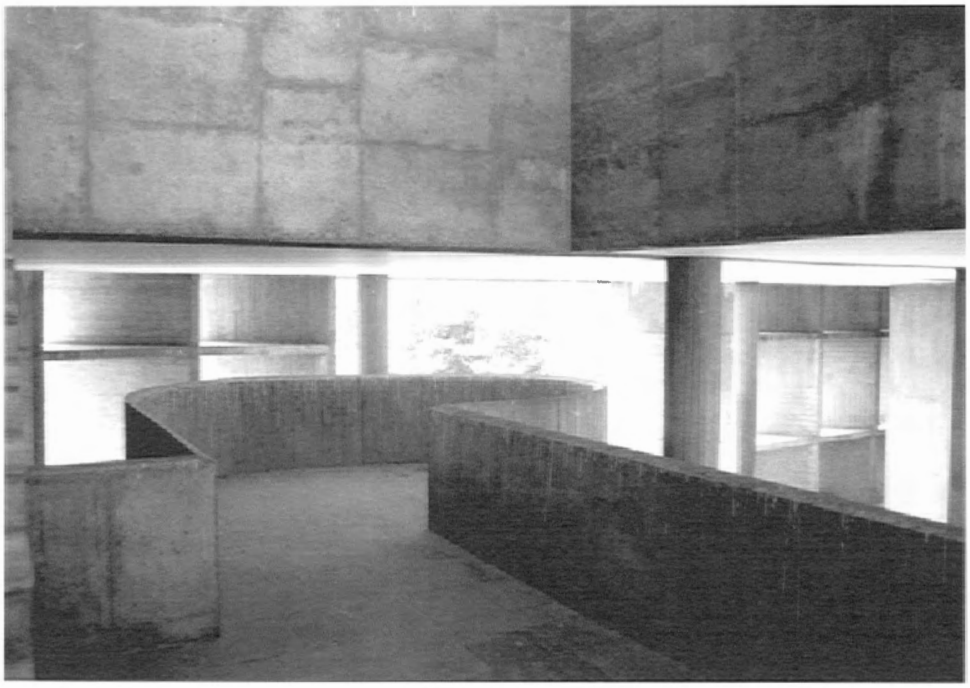
brise-soleil calculated precisely.

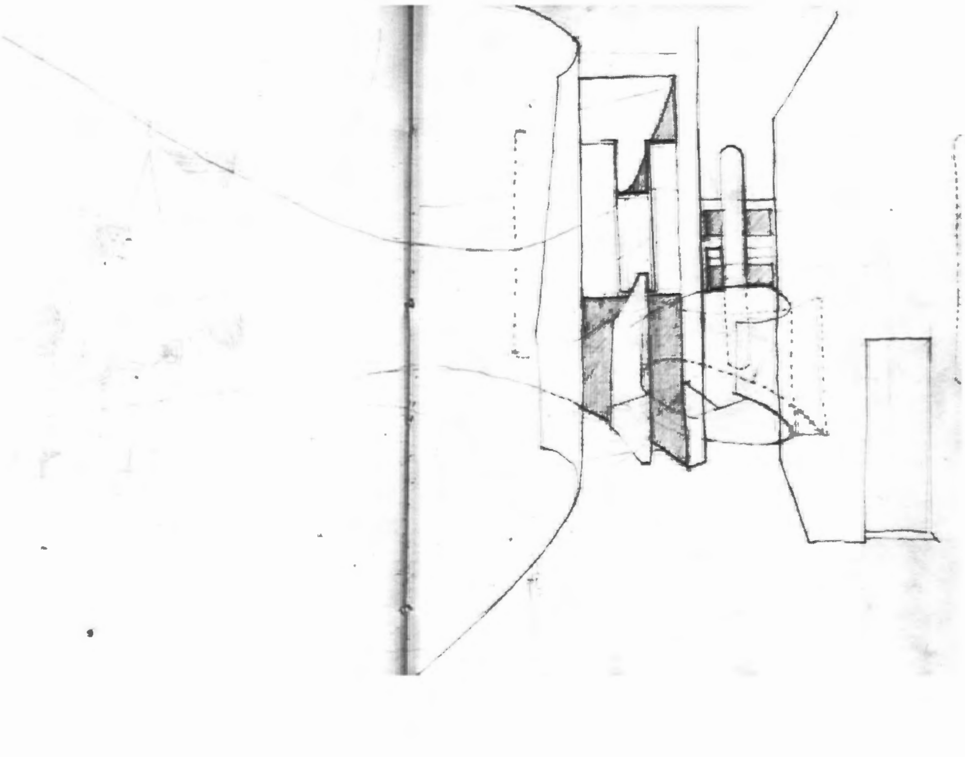
The roof is used together with the bar FOR EVENING ENTERTAINMENT

The assembly hall is paneled in wood.

The photographs were taken before the seats were installed.

The work shown here brings together photographic vignettes and analytical drawings. The photographs are my own, taken on numerous visits and in different lighting conditions. The drawings are selected from analyses by University of Michigan students in the drawing course, *Drawing Between: Architecture and the City*, which I taught in Ahmedabad in India in the Fall of 1999 as Director of the Taubman College India Program. The subject onto/into which this mix of "lenses" was focused is Le Corbusier's Millowner's Association Building (known as the ATMA Headquarters, or Ahmedabad Textile Mills Association), of 1954.





↑ Damien Hines

The hall is INDIRECTLY lighted

THE LONG RAMP provides pedestrian access

in the monsoon season, the autos may park directly against

brise-soleil which extend to the ground

The flooring is Delhi Stone

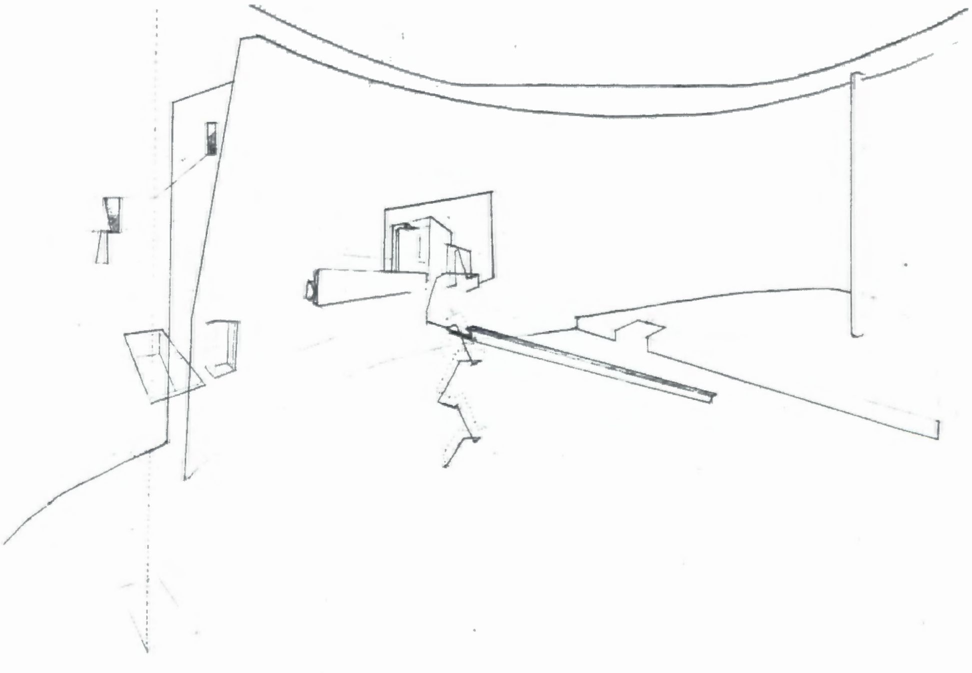
also placed left and right on the walls UP TO THE CEILING,

according to the 'Optimum Modulor' system."

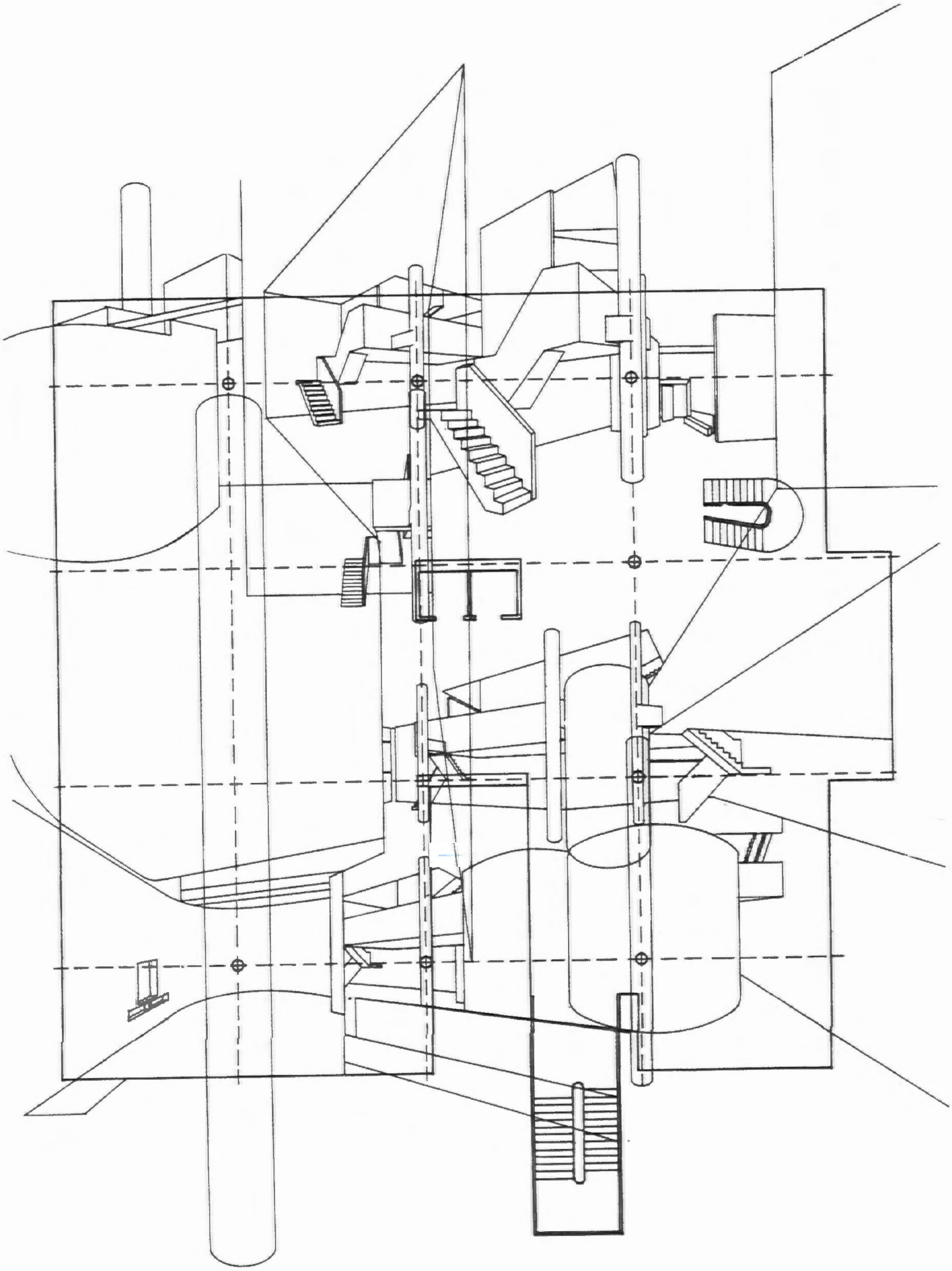
SERVES AS A 'STONE TAPESTRY'"

—Edited quotation from Le Corbusier's project description, Oeuvre Complète, Vol.6

The assignment asked students to construct a drawing hybrid, one which operated in the realms between drawing/gesture and drawing/projection. These hybrids originated in previous analyses of the urban spaces in the old Walled City of Ahmedabad and progressed through travel sketches carried out on a study tour of Chandigarh, Agra, Jaipur and Jodhpur. At these various sites, conditions of void space, space between, spatial inter-relationships, and the body's movement in space were analyzed alongside more subjective spatial/experiential/conceptual readings. These analyses, pursued via an interpretive and questioning mode of drawing, culminated in a performative understanding of operations present in the "rationale" and "discipline" of Le Corbusier's use of his Five Points at the Millowner's Association Building.



↑ Damien Hines



↑ Luay Bahoora

The photographs attempt to complement the drawings as fragmentary interpretations, as well as to supplement the relatively few, but familiar, published images of the Millowner's Association Building—while acknowledging Corbusier's stated mistrust, and strategic use of the camera.

All photographs courtesy of the author.

AN INTERVIEW WITH BALKRISHNA DOSHI—CELEBRATION OF LIFE

APARAJITA BASU

Architecture at present seems like a way of life to you. What was your attitude to architecture when you first started out?

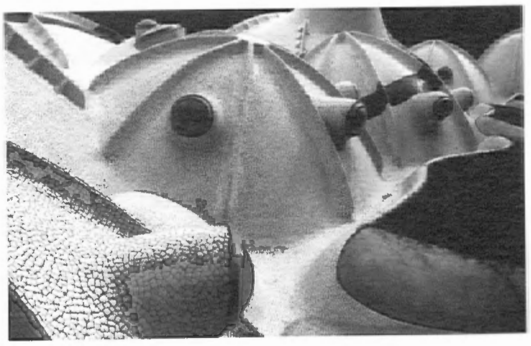
As a student at the J. J. School of Architecture, there was no particular question of discipline. It was like a standard school; there weren't any charettes, juries, or any pressures. In Le Corbusier's office we worked all the time. The key was always near the entrance; we just opened the lock and walked in. We enjoyed work and would stay late and even work weekends. And on occasion we took time off. So discipline had never been a question. But architecture as a way of life and commitment to it was the question. So I think I would distinguish between discipline and commitment. The word discipline implies rigorous and mechanical ways of using your time. Discipline is self-imposed, specifically purpose-oriented, task-oriented, and result-oriented. It is boring. There is an assumption that if you are disciplined you achieve your goals within a certain time limit. In contrast, in process-oriented architecture you have an idea that you follow with your own instincts. Maybe you meander in many ways. But you enjoy the process and explore beyond your goals. Process has no specific goal. Practice in Le Corbusier's office was similar to this. It was like a science laboratory where we experimented and in the process we improved. Ever since, my work has been based on that philosophy.

You have been in the field of architecture for over five decades during which there have been various movements in architecture. Which school of thought do you belong to?

I don't belong to any school of thought. In Le Corbusier's office we constantly evolved. Every time I worked, I discovered. The references were from very ancient times to present day. Creative people do not adhere to any system of classification. I don't think a creative person decides with a preconceived idea in mind which movement he wants to follow. The moment one does that the design process becomes superficial and mechanical. One follows a path that is a beaten track. These are phases that happen. I do what I want to do.

Center for Environment Planning and Technology (CEPT) was a school that you pioneered, masterminded, designed, and built. What were your ideas for an architectural education?

Le Corbusier's office was an institution. After working at his office, I was invited as a visiting faculty at the University of Washington as a Graham Fellow. During this period I discovered that a fresh mind is always a good mind. When you graduate, you think you are an architect. The definition of architecture controls you. Your concepts are formed by the way you are taught. So while designing the school of architecture in Ahmedabad (CEPT), I decided that the program should have no preconceived notions or prejudices. School should become a process. There were references to Bauhaus; there were references to American institutions. For example, when I taught at the University of Pennsylvania in 1960, the jury system, the critiques and the interaction between the faculty and students fascinated me. So it was important for me to create an atmosphere where there would be continuous dialogue between faculty and students. I also discovered that education wasn't a closed box system. Education is to open doors, not one but many. So the idea of the campus and the program was that there should be no doors, windows, or walls. There should be no separation between classrooms. Meeting places



↑↑↑ **Studio at Sangath** Balkrishna Doshi, Ahmedabad 1979-81
↑↑ **Hussain-Doshi Gufa Gallery** Balkrishna Doshi, Ahmedabad 1993
↑ **Hussain-Doshi Gufa Gallery** Balkrishna Doshi, Ahmedabad 1993

should be common to encourage interaction. This was a program that was interconnected and yet flexible. The classrooms and the entrances were made in such a way that you could arrive and depart from the same place and yet you could be alone or in a group. Another discovery was that education didn't happen only in classrooms. The discussions which take place outside the classrooms informally are much more rewarding because they are at a one-to-one level. So I decided that there would be spaces in the school where you could sit down and casually ask questions. So the staircases, the steps, the open spaces, the verandas, the balconies, became the major elements of design.

You have always been closely linked to academics. Why has architectural instruction been so important to you?

I find that I want to grow and I want competition. I prefer to have younger people challenge me. If a student challenges me, I have to work hard to meet that challenge. In the process I am better informed. I remain younger than I would be otherwise. So it is a very selfish motive. Even now, when I go to school, I get excited if I see something interesting.

The Husain-Doshi Gufa seems like an interdisciplinary project where Art, Sculpture, and Architecture all form a symbiotic whole. How would you describe the process you went through?

It was a conscious process, because it was inevitable in this project. But it is a process that I have gone through before. I have always had people advise me about social anthropology, culture, history, religion, and rituals in most of my architectural and planning projects. In the program of CEPT, humanities, engineering, and technology were tied into the design studios. I believe that a multidisciplinary approach is good. In the Gufa project, M.F. Husain, an artist and a friend wanted me to design a gallery. His requirement was that he didn't want any straight lines. We also wanted it to be underground. I wanted to challenge the traditional notions of architecture—that architecture must have foundations, straight walls, and flat roofs. So I designed a structure in which there was no foundation but a continuous surface. We made surface tension structures similar to soap bubbles. We discussed using brick as a building material and finally decided on ferro-cement—a material and technology that I wasn't familiar with. It would not have been possible without the collaboration of my other colleagues; the tribals who helped construct the Gufa, engineers, architects, and artists. As a result, the building turned out to be very different. I think this building involved a process of learning every time I went to the site. It was a demonstration of life, because for me life is not about structure. Life is about discovery. Life is about enchantment. Life is about celebration. The process of design becomes more dynamic when you question what you do and continually modify it. Discipline will take you to known areas; process will take you to unknown areas. That's why, perhaps one can talk about it in a slightly different way, its not just multidisciplinary work that is an issue. Coming back to your first question, it is the process that one goes through in life that is important.

Information technology is developing at a very fast pace. Is that affecting your process of design?

I think so. I work like a sponge, and I work like an ignorant fool. I find that if I work like a sponge, I absorb information and if I work like an ignorant fool, my mind is open to ideas. When we first got the photocopy machine, I discovered that I could transform images by enlarging or reducing them. That's how I made the miniatures. Computers fascinate me because I can learn from this medium. Through the internet I can get information from other parts of the world. You learn to question your moves. So the more information you get the more unknown areas you can tread.

You just mentioned miniatures. . . you have developed a unique form of representation, one that is inspired by the Mughal miniature paintings. Why does that form of representation take priority over other forms?

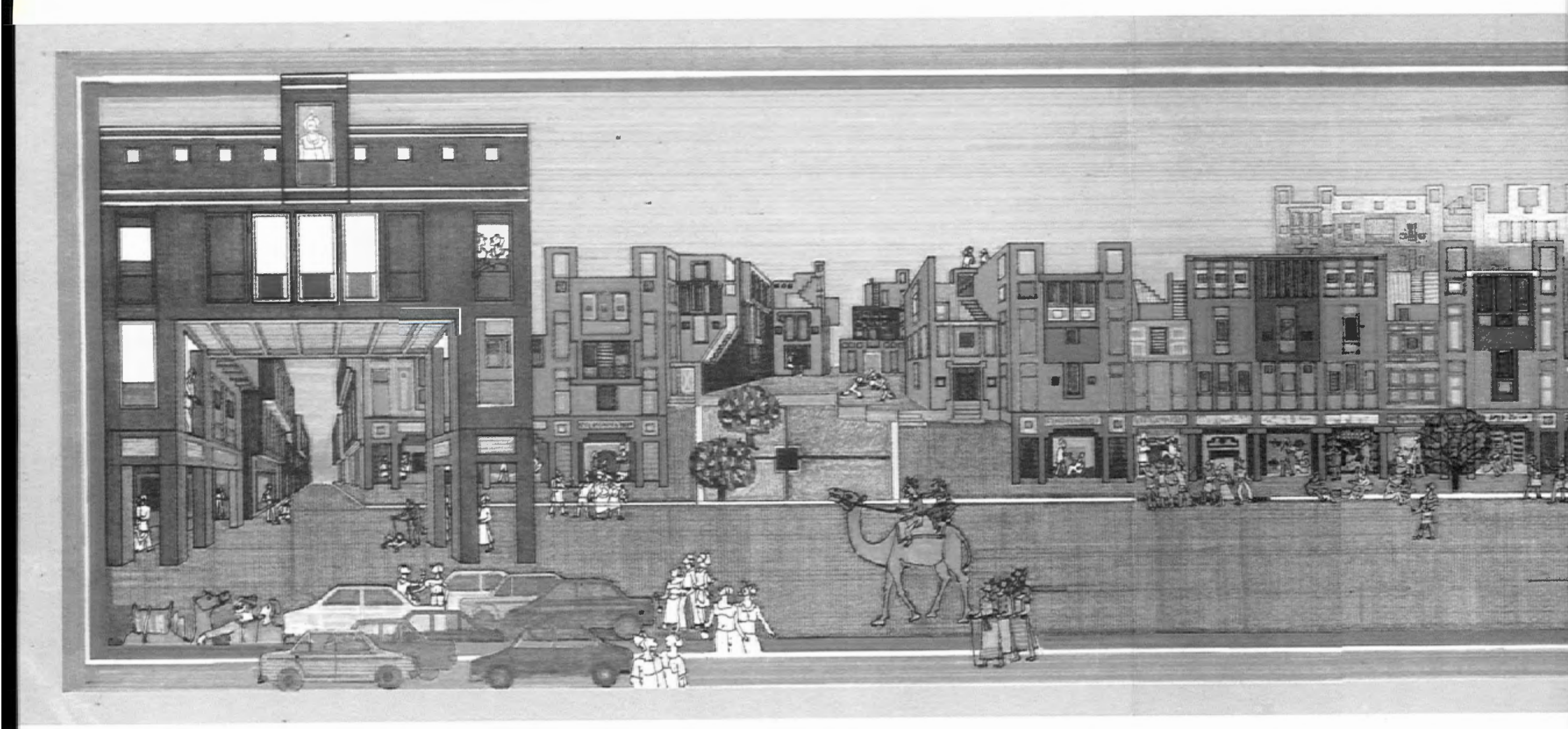
Adele Santos from the University of Pennsylvania asked me to do an exhibition in Philadelphia. I realized that I wasn't as well equipped as them. I wanted to develop something unique. It was a question of re-discovering something that others aren't familiar with. One must do what one is capable of. This form of representation was a discovery because while using the silk screen technique, I learnt about the different layers in the building. Plans, axonometrics, and elevations are composed in one drawing. It tells a story that perspectives can't do. The problem I dealt with was—how could one communicate more by combining several aspects of design in one drawing?

How do you trace your movements and development within the discipline of architecture - in theory and in practice?

I work intuitively. I try to discover from situations, circumstances, land, client, and the realities in my country. Programs change, finances are short, climate predominates, energy has to be conserved, maintenance costs have to be minimized. . . these are the realities in India that dictate my design. Traditional designs as well as contemporary ones have influenced my design, as have rituals, associations, and symbols. There are innumerable things that one learns over time. So the situations in India and the life that I have lived have greatly influenced my work. I always ask myself: What would I have done if I had no points of reference? I do look at new developments and they affect me. My travels abroad make me more aware of changes in the world. Frequent exposure to the outside world, meeting people, attending seminars have given me a big canvas to work on. But my own culture fascinates me. It is important for me to do work that has its roots here. This has been the basis for my growth rather than imitation and applique.

You practice meditation. Is that a form of discipline for you?

I don't always have time for meditation. But whenever I do meditate, I enjoy it. That is what has sustained me all these years. So it is my life. But I am not very particular about practicing meditation regularly. One must make an effort and it should be effortless. Life has to be full of effort but effortless.



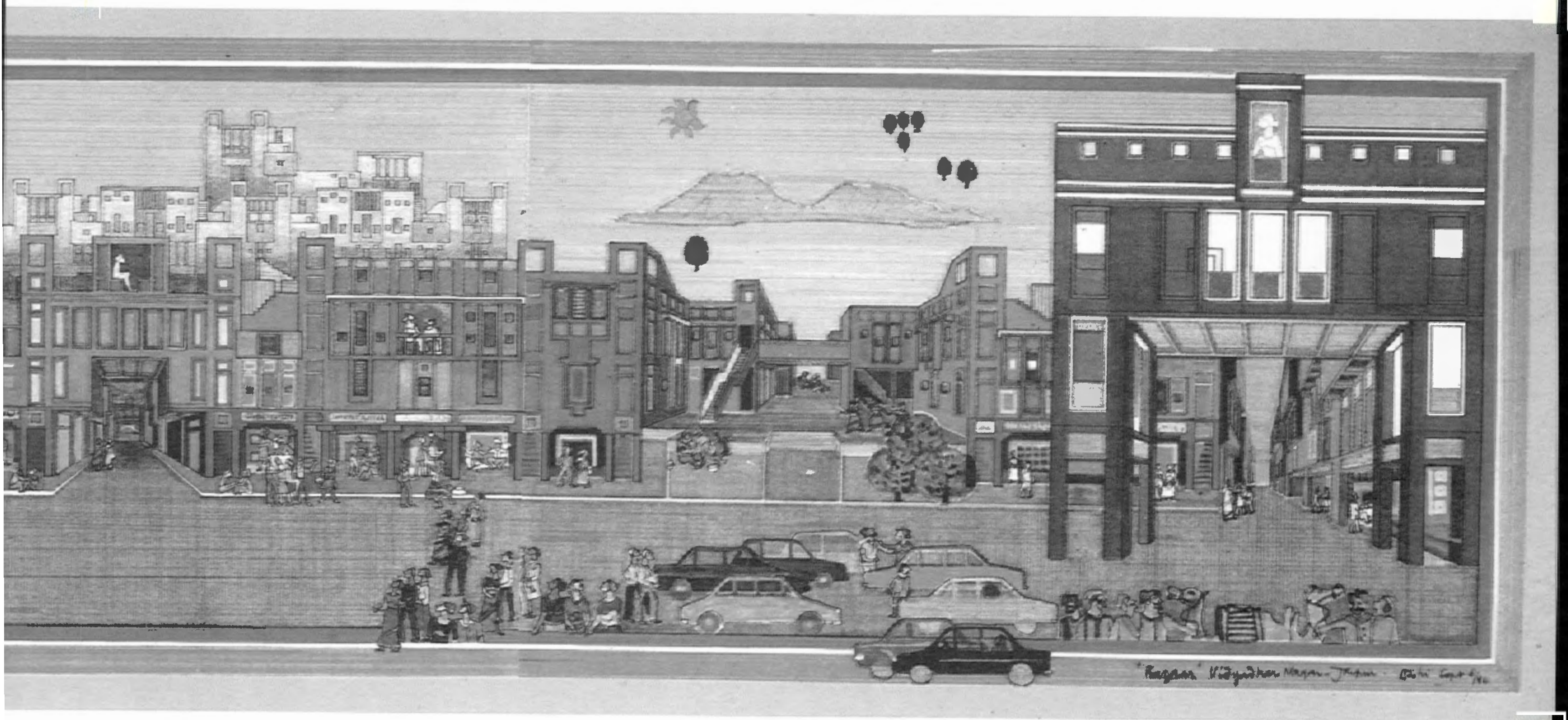
How would you define architecture?

Celebration. Architecture is a celebration of life. Life is not worth experiencing if one does not celebrate.

Where do you think architecture is headed? What is your vision for the 21st Century?

More freedom, more questioning, and along with it a lot more associations. One will have to go back to the past. The more one moves, the more one wants to go home. I think the more exposure you get the more centered you become. In terms of architecture there will be a lot of discovery of our ancient heritage because we shall also be talking about the global world. One will say, 'discipline is good but no discipline is also good, fundamentalism is not necessarily good and democracy is also not necessarily good.' The questions raised due to greater exposure to the world will create a greater dynamic balance than has existed.

Aparajita Basu interviewed Balkrishna Doshi at Sangath, Ahmedabad, February 11, 2000. Sangath was designed by Doshi in 1981 and has housed his practice since. Ms. Basu was an intern in his office in 1993.



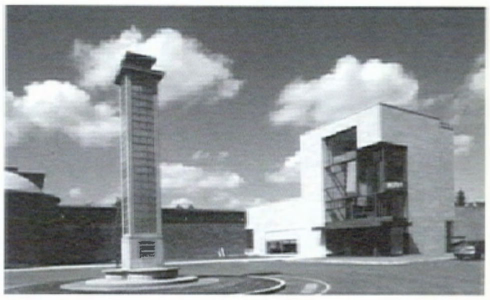
↑ **Miniature Painting** Balkrishna Doshi

DESCRIPTION THROUGH CONSTRUCTION

STEVEN HOLL'S INSTITUTE OF SCIENCE ADDITION AT CRANBROOK

LAURA LEENHOUTS, TERESA KANGELARIS, JAKE SPRUIT III, AND GINA BROWN

Eliel Saarinen was the architect of the Cranbrook Educational Community until his death in 1950. When Cranbrook needed to make further improvements in the late 1980s, Dr. Lillian Bauder, then Cranbrook's President, sought to extend the tradition of architecturally significant work on campus. In particular, she encouraged an approach in which new work would be more sympathetic to the site. She also invited architects to re-introduce the notion of craft and innovation in the construction process. A list of these invited architects includes Peter Rose, Tod Williams and Billie Tsien, Rafael Moneo, and Steven Holl. The Institute of Science, Eliel Saarinen's most austere building on campus, was completed in 1933 and in the early 1990s, Steven Holl was invited to design a new addition to the Institute.



↑ Cranbrook Institute of Science Entrance and Addition

Precedent and the Cranbrook Campus

The axis is an important element in the organization of the campus at Cranbrook and this can be detected in the figure ground study. Elements are not placed symmetrically about the axis, as in a classical Beaux-Arts composition, and consequently one's perspective is constantly challenged. Sculpture and nature are both integrated as significant elements and in many cases the axes do not terminate at a single point of focus. In the case of the Art Museum and Library, the axis established by the Triton Reflecting Pools is visually open at both ends. At the main entry to the two facilities, one finds Carl Milles's Orpheus Fountain and peristyle arcade, while the other end of the axis is terminated by the visually permeable Nichol's Gate.

In addition to an investigation of the overall plan of Cranbrook, the Art Museum and Library were used as case studies for Holl's addition referencing the type of patterning used by Saarinen. While it can be argued that Holl, prior to this project had been interested in the idea of the figured fragment, it is clear that the precedent also exists within the campus. The elements that make up the patterns of these figured fragments can stand alone.

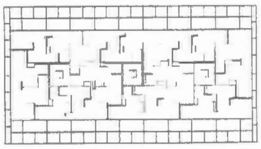
Like his axes they are fully three-dimensional. Lines are inscribed onto surfaces or push their way out of and wrap around them: around all four sides of a pedestal, along different levels of flooring, and even to the ceiling above. Because of their placement and thickness, they become further animated when interacting with sunlight.

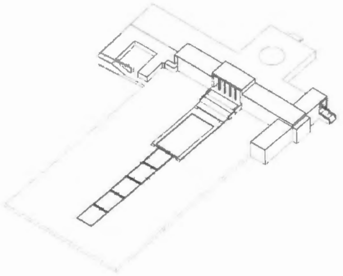
Ground Plane and Structure

The light lab, Holl's most nature-interactive device, is the public entrance to the Institute of Science. Holl places elements within the space to envelop the visitor, extending pattern into three dimensions. Similar to Saarinen, the implementation of placed elements engages the space, rather than accentuating it as mere detail.

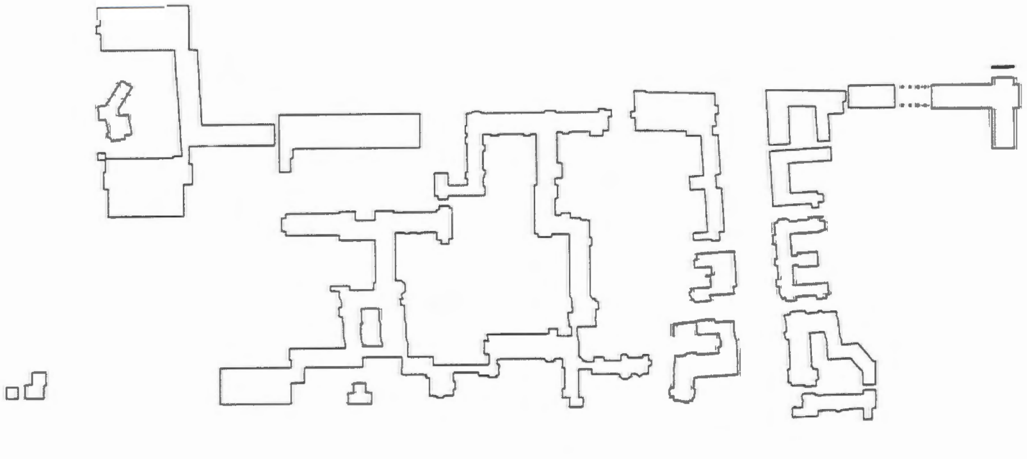
Holl maintains his use of the figured fragment throughout the design details for the new addition to the Institute. Construction elements are layered to develop and strengthen the figured fragment as a project concept and it is evident in the analysis of the excavation, the building's concrete base and footings, and the steel structure.

For example, the new addition to the Institute of Science interlocks with the existing building to form a new series of interior and exterior spaces. Since the interior and exterior are now continuous, it is necessary to sculpt the ground plane around the addition in order to formally articulate what Steven Holl has called the "strange attractor."





↑↑ Diagram Figured Fragment
↑ Cranbrook Art Museum and Library



↑ Cranbrook Campus

The term "strange attractor" was derived by Holl from chaos theory and suggests that systems such as molecules and weather never repeat but form continuous albeit random patterns. Holl uses the "strange attractor" to generate both form and circulation in his building. At the Institute of Science the figure of the plan created four basic conditions that tie the continuous movement within the building to the continuous movement of the ground outside. These conditions include: below ground, at ground, on ground, and above ground. There are four specific moments in the building that manipulate the ground plane to create these conditions. The Story of Water is a condition "below ground," where the ceiling is also a reflecting pool which casts moving shadows indoors. In the courtyard, the reflecting pool is at ground level. A slanting window in the lower exhibition hall reveals the condition of "at ground" since the slant of the lower sill moves in line with the downward slope of the earth. The courtyard itself represents "on ground" where the path leads the visitor through the exterior exhibits while continuously changing sectional elevation height. And, the cantilevered end, the second location where the two buildings touch, is an obvious example of "above ground."

The drawing of the concrete base is a result of inverting the excavation drawing. This gives a positive relationship to the existing building and the thickness of the base emerges. The Gideon stone wall and the passage of water extend out from the concrete base into the courtyard and carve out another figured fragment. There is an understanding of both lightness and heaviness as the base reaches out into the courtyard holding and revealing the earth.

The reading of the massing of the foundation walls and footings begins to change from a concrete base to a more specific spatial sequence while continuously articulating the movement of the "strange attractor." The heights and thickness of the walls indicate a sequence of spaces in the new building where specific details begin to express themselves. For example, the back wall slopes down with the grade and thickens as it turns the corner. The wall carrying the glass hallway also slopes upwards as it rises to the second level. The footings of the cantilevered end section give notice to the position, size, and weight of the future piece.

The steel diagram begins to reveal more of the complexity of the new building. With the steel members, a new layer of understanding can be made beyond pure spatial diagrams. By displaying their direction, length, and sizing, Holl makes the steel members important in the overall design. At some moments, the design intentionally reveals the structure in order to show the importance and function of the members at that particular location. For example, the view from the window, which overlooks the courtyard, is interrupted by a slanting steel angle, revealing to the visitor the absence of the ground as support. One can also see the additional steel members in the light lab, glass hallway, and suspended hall—a move that underlines the structural and design complexity in the making of those spaces.

Internal Workings and Building Services

The methods of fitting the support services into the addition only hint at the overall complexity of the entire building. By removing the services from the primary spaces, more space within the addition can be devoted to museum use and greater flexibility is provided. Keeping the support services hidden also allows the geometric sparseness of the building to be seen with greater clarity.

The simplicity of the interior spaces and the lack of visible vents, ducts, and mechanical services, demands careful planning. The central wall core running through the new addition allows for all of the major support services of the building to be consolidated into a small, vertical space. The central core also provides the structure for the courtyard wall of the addition, yet is internalized within the building by the addition of the glazed ramped stair. Visitors encounter and continuously circulate around this service cavity without recognizing its width or the important function it incorporates into the entire building.

All of the services originate at the lower level and take advantage of building components for their distribution. A cutaway section of the cavity reveals not only primary structure, but also air distribution and return, electrical conduit, and sprinkler feeds. In conventional construction, these services are distributed in the space between the ceiling and upper floor. In Holl's design hollow core concrete planks form the structure. They are exposed at both the floor and the ceiling and the conduit and conditioned air are distributed horizontally within these hollow slabs. The building thus remains volumetrically compact and closely related to the height of the original Institute of Science. The width of the addition never exceeds twenty-five feet and as a consequence, the electrical and air supply runs are limited. As a result, the mechanical ductwork fits precisely within the two foot wide cavity while smaller feeder ducts fit within the nine inches of the hollow core of the floor. Electrical boxes, sprinkler heads, and air diffusers are all located in the cores of the floor slab to provide an even distribution of services throughout both levels of the exhibition halls.

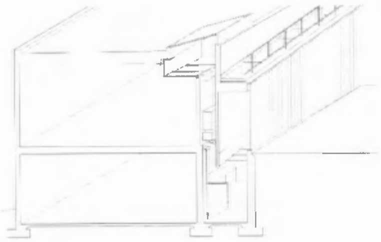
The air distribution is not limited to the floor slabs. Other methods of air distribution have also been devised to use existing building elements. In the front reception hall, a space which is not adjacent to the cavity wall and consequently where floor ducting was not an option, furniture doubles as a distribution element. The design of the reception desk includes a front plenum running along the inside perforated face of the desk to allow for venting. Also, two sets of benches at opposite ends of the reception area also have air ducting designed into them. These ducts run underneath the bench seat and allow air to vent through perforated panels into the reception area.

The return air system has also been incorporated into the cavity wall. Small gaps between the ceiling and the top of the wall allow sufficient return air to pass from the exhibition spaces into the cavity wall. The cavity wall itself acts as a return air plenum so air filters in through the wall and back down to the basement where it is exhausted or reconditioned. On the main level the gap is incorporated into the skylight and is inconspicuous. Since the cavity wall, and thus the air plenum, is on the interior of the building, the shortest path to the outside for exhausted air is into the courtyard. The courtyard is another carefully planned space, which highlights the three phases of water: liquid in the reflecting pool, ice in the House of Ice and steam in the House of Vapor. The air used in the House of Vapor is the exhausted air from inside the building. Not only does this preclude the need to manufacture forced air specifically for the House of Vapor, but it allows the exhausted air from the inside of the building to be released by the most direct route.

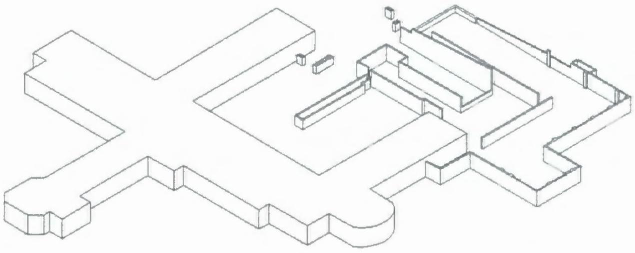
Light Lab, Figured Fragments and Phenomenology

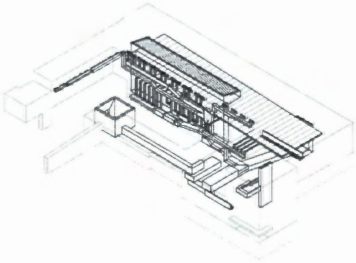
The Institute of Science is the study of the phenomena of science brought to life. Holl's building not only houses exhibits on science, but it is also an instrument designed to study scientific phenomena: the "strange attractor"; water's three states; and the separation and refraction of light into different wavelengths. Holl uses the "strange attractor" as a model for movement through the building and consequently it is possible to move through the new building multiple times without taking the same path. He portrays water in its three states in the House of Vapor, Ice, and the Story of Water Passage. In the light lab, he has created a giant prism. The lab consists of several different types of glass arranged in a complex steel framework that refracts the low sunlight, separating the beams into a spectrum of colors and diffusions. The pristine interior of the light lab is a backdrop for displaying the effects of the unusual glass. Visitors are bathed in the filtered rays of the light lab's prismatic fenestration. A precedent for the light lab can be seen in Saarinen's glass block tower at the entrance and functions as a link between past and present.

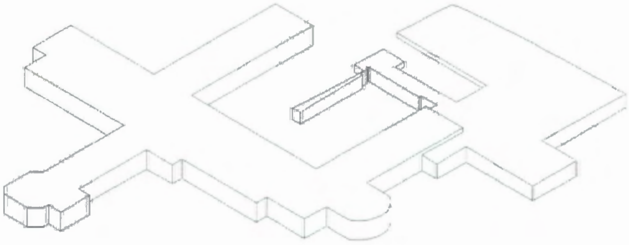
Holl's manipulation of the light lab framework and glass creates a Mondrian-like effect, and movement within the composition itself. He builds three dimensionally what Mondrian painted on a two dimensional canvas. The balance and depth created by Mondrian through the placement of the lines and shapes in the overall composition are reflected in Holl's choices in the framework. The dynamic movement of the structure is created by the arrangement of the rigid steel frame and fragile glass. Depth is produced in the composition by the steel and glass either tilting back or on an angle.

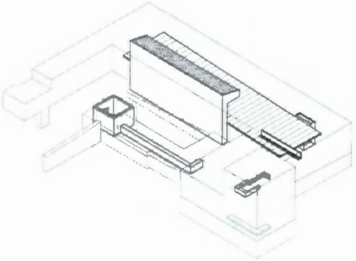


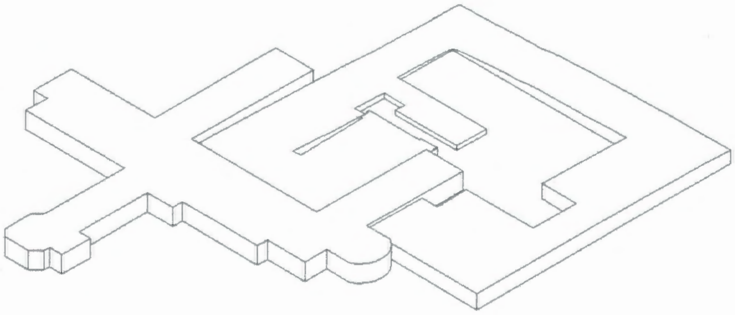
↑ Cutaway Section

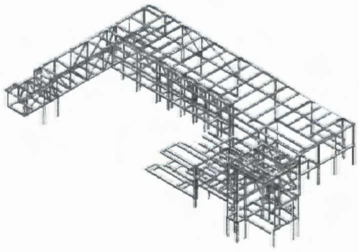






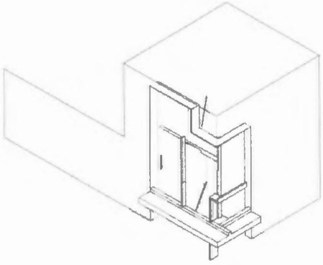


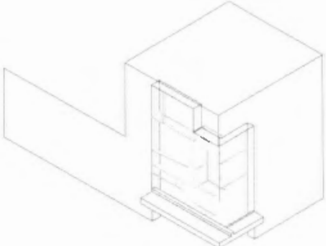


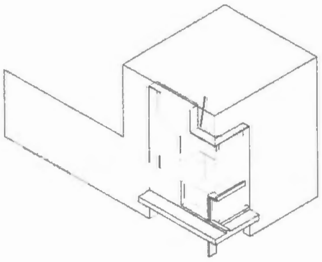


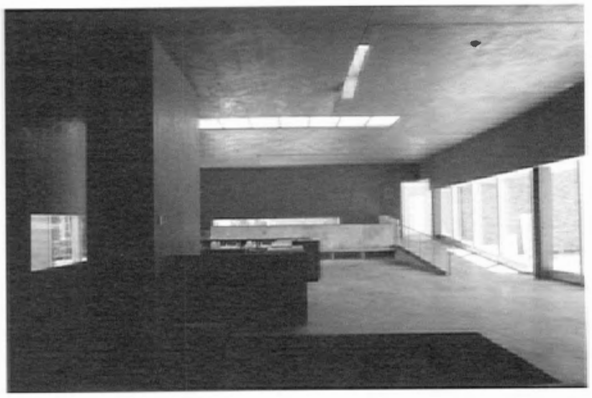
↑↑↑ Foundation Wall
↑↑ Base
↑ Ground

↑↑↑ HVAC System
↑↑ Air Element Diagram
↑ Steel Framing
Cranbroook Science Institute Addition









↑↑ Drawing 1 **Light Lab Study**
↑ **Light Lab**

↑↑ 2 **Light Lab Study**
↑ **Gallery**

↑↑ 3 **Light Lab Study**
↑ **Entrance Foyer**

The carving out of the corner of the light lab dematerializes the seemingly solid entrance while the massive stone tower encases the delicate void of the light lab, capturing and displaying intangible light. This manipulation of the solid/void relationship continues throughout the building. Many of the outside corners of the building are also eroded by the placement of windows.

The building is made up of interlocking planes that wrap three dimensionally around surfaces to form the spaces. The finished stone which wraps over the framework of the light lab, also interlocks with the concrete block and the control joint along the rear of the building, again defining the form of the figured fragment. The simplicity of the finished form is belied by the complexity of the relationship of the planes as they interlock and bend. Inside, planes seen on the ceiling define light slots and joints. The walls wrap up to the ceiling, and define windows and material joints. The central wall folds over the roof to form the skylight, the main figure slicing through the hall. The main exhibition hall is a giant ramp which bends upward to the north end of the building.

The addition to the Institute of Science opened in the fall of 1998. The addition, at first glance, is an obvious contrast to Saarinen's original building. However, Holl's response to the challenge of building within the architectural ideals of the Cranbrook campus led to an appropriate complement not only to the Institute of Science but to ideals of Eliel Saarinen and his vision for the campus.

Design Team: Steven Holl Architects, New York City: Steven Holl (principal), Chris McVoy (project architect), Hideaki Arizumi, Pablo Castro-Estevez, Janet Cross, Yoh Hanaoka, Brad Kelley, Jan Kinsbergen, Justin Korhammer, Anna Muller, Tomoaki Tanaka

Engineer: Ove Arup & Partners

Consultants: Edmund Hollander Design (landscape), Cranbrook Architecture Studio (exhibits), James Carpenter Design, R.A. Heintges Consultants, L'Observatoire, Dr. Gerald Palevsky, Dan Hoffman, Alfred Zollinger

General Contractor: O'Neal Construction

This study is a culmination of an independent study directed by Dan Hoffman which focused on the construction process and detailing of the Cranbrook Institute of Science designed by Steven Holl.

We would like to thank Balthazar Korab for his generosity and the use of his photographs of the Institute of Science and Cranbrook.

INDISCIPLINE: AN ARCHITECTURAL DILEMMA

ELÂ ÇIL + FERNANDO LARA

Introduction

There is a fictitious dilemma in architectural theory. This dilemma is marked by a polar argument between the duality of "formalist" and "functionalist" ideologies in architecture. This essay is an attempt to discuss the reasons for the emergence of this dilemma, which, we believe, are due to the desperate need to define architecture as an autonomous discipline. We call it the "canyon" attitude. Opposing that, we speculate on the possibilities of approaching architecture as an indisciplined[1] practice, one that is cross-fertilized by other fields in what we label a "delta" attitude. This leads us to investigate the nature of the architectural discipline, or indiscipline.

We can forgive a man for making a useful thing as long as he does not admire it. The only excuse for making a useless thing is that one admires it immensely. All art is quite useless.

—Oscar Wilde, Preface to The Picture of Dorian Gray

This essay can be divided roughly into three parts. The first part is a review of functionalist theory in architecture and discusses the ideology of functionalism. The second part of this essay attempts to relate the idea of function and the disciplinary structuring of architecture by analyzing works of Aldo Rossi and Bernard Tschumi as the backdrop for discussion of architectural discipline. Art is chosen as a battlefield to negotiate on the concept of "purpose" distinct from the idea of "function" in the third part. Art is usually misconceived within the general discussion of aesthetics and beauty. However, we attempt to ponder its truth-value as purposeful and argue that art is not solely the aesthetization of reality. This discussion may expose the thin line between the "purposeful" and "purposeless."

Functionalism and Discipline in Architecture

Any theory should be considered in relation to its context, as every idea is a product of its time. Two thoughts can be acknowledged as the main underpinnings of functionalism: pragmatic and ethical views. They are interwoven in the idea of functionalism related to the need of the masses. Functionalism assumes that these needs can be fulfilled by architecture and it is the architect's responsibility to undertake this assignment. The ethical standpoint not only emerges from the duty to fulfill the material and practical needs, which a project entails, but also with the architect's acknowledgement and conscious attempt to position him/herself within the profession. Such a position responds to a particular set of needs considering that both—the architect and the profession—are effective political and cultural operations. It is possible to assert that with the introduction of technological modernization in the early 20th century, architecture's avoidance of industrial advances would not only signify a resistance to progress, but may in the end, be labeled unethical.[2]

In such a context ornament becomes "a mere decaying and poisonous organic vestige."[3] It is meaningless. Adolf Loos states that "[Ornament] is a crime against the national economy that it should result in a waste of human labor, money, and material. Time cannot make good this damage."[4] Loos continues: "Individual man is incapable of creating form; therefore, so is the architect. The architect, however, attempts the impossible again and again—and always in vain. Form, or ornament, is the result of the unconscious cooperation of men belonging to a whole cultural sphere. Everything else is art. Art is the self-imposed will of the genius. God gave him his mission."[5] Hence, architecture shifts from the semi-sublime profession into a disciplined profession that should be serving the masses.

A quest for the ethical foundations of functionalism is involved in discussing the value of use, beauty, form, content, and ornament. In the history of functionalist ideas, it is possible to see that aesthetics is closely entwined within the idea of usefulness. This perspective can be best summarized by Bruno Taut's motto, "What functions well, looks good."[6] In his *Origins of Functionalist Theory* of 1957, Edward De Zurko states that although functionalist approaches (independent from aesthetic theories) stress the importance of utility and purposefulness, their perspective should not be regarded as an absolute denial of beauty, but rather as *"a refusal of a conscious search for beauty."*[7] For example, Louis Sullivan searched for the unity of form and function in the natural, organic objects; Le Corbusier searched to fit function into form in industrial objects.

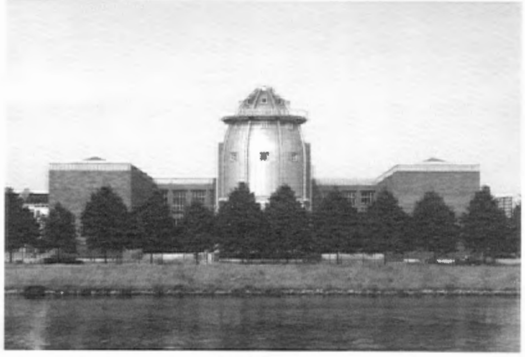
On the other hand, it is possible to assert that this approach, which was seeking a way out of the "pastiche" and the "ornament," recast its opposition in a new formulation: formalism. Adorno's emphasis on the dialectical relationship of the purposive and the purpose-free arts shows that when one attempts to leave one side completely, one finds that s/he actually posits him/herself in the center of what s/he is opposed to. He states that, "The absolute rejection of style becomes itself a style."[8]

In order to approach the dialectics of modernity, an exploration of Loos's theoretical position is fundamental. In Loos, one discovers the conflicting binds of tradition and modernity, the legitimization of handicraft only if it supports a context, and a rationalist who defines architecture with the most inner feelings—all of which reflect the contradictory nature of modernity.[9] Loos states that, "Only a very small part of architecture belongs to art: the grave and the monument. Everything else, everything that serves a purpose is to be excluded from the realm of art."[10]

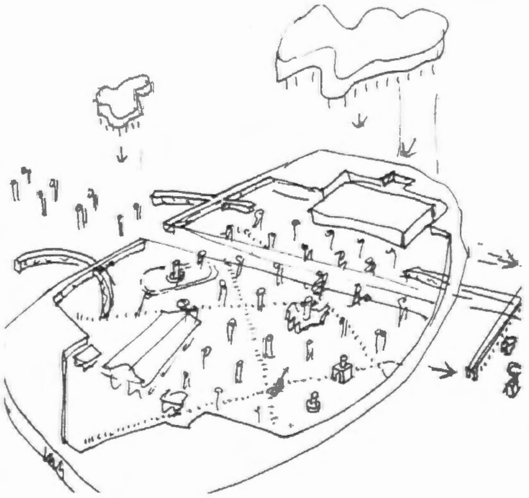
Does that mean that art does not have a purpose? We will try to elaborate on this question later. Before that we focus and compare two attitudes that fit into the discussion of function.

Two Architects: The Disciplined and the Indisciplined

Related to our metaphor of architecture as a river, we perceive two different attitudes towards the discipline of architecture. One aims at defining its margins with the highest possible banks, using the full strength of its deep waters. It also aims at taking advantage of the loud roar caused by the friction between the architectural water and the borders it shares with other disciplines. We label this attitude "canyon," and believe that among the late 20th-century architects, Aldo Rossi is the one that best fits this metaphor.



The other attitude aims at spreading or dissipating the architectural waters throughout as much surface as possible, interacting with diverse terrain defined by other disciplines. This "delta" strategy takes advantage of the large area covered, not from its depth. It is silent, calm and extremely fertile, although it is difficult to define where the architectural waters end and where land begins. We believe that Bernard Tschumi represents this "attitude," all the way from his roots with the Situationists, through Parc de La Villette, and the National Library of France competition project.



↑↑ **Bonnefanten Museum** *Aldo Rossi, Maastricht 1994*
↑ **Parc de la Villette** *Bernard Tschumi, Paris 1984-90*

Rossi and the Strategy of the Canyon: Disciplined

Rossi is an architect imprisoned in his own language, or, in our terms, in his own discipline. In his introduction to Loos's collected essays, *Spoken into the Void,* he explains the reason for being captured in a frozen language, "The end of the world here is also the end of a world without meaning, where the great architecture of immutable meanings carries with it a sort of paralysis of creativity and the nonrecognition of any progress of reason."[11] Following the path of Loos, Rossi used historical architectonic elements combined with formed abstracted from the vernacular, in the broadest sense.[12] Using such generality to communicate with the collective memory, he reaches a level of archaism that is "no longer vulnerable to technological or social interference, it stands frozen in a surreal timelessness."[13] While their respective forms differ, Tschumi's Parc de La Villette and nearly all of Rossi projects employ the same method of "uncannily similar forms for radically different programs."[14] The reason for this can best be summarized by Rossi's own words. In *Architecture of the City,* he states:

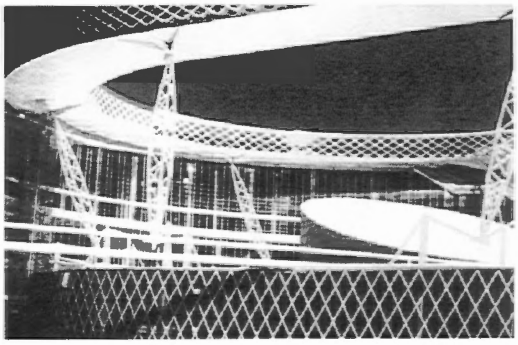
> One is struck by the multiplicity of functions that a building of this type can contain over time and how these functions are entirely independent of the form. At the same time, it is precisely the form that impresses us; we live it and experience it, and in turn it structures the city.[15]

Rossi was in search of a permanent reality that in some way manages to elude the flow of time: such an architecture was, for Rossi, rational because of its continuity in time. When judged against the forms of Antiquity, Modernism for Rossi, was an irrational aberration or form of expressionism. He attributed special importance to monuments and constructed his typology around them. The criticism we may bring to this idea is not that every building has been monumentalized but rather that the potential, which may emerge from making monuments ordinary, has been ignored. This suggestion should not be confused with a repudiation of myths; it is instead a call for the dissemination of spirituality into the ordinary, similar to Heidegger's recollection of a time when poetry was not the sublime language, but instead everyday language was poetry.

Tschumi and the Strategy of the Delta: Indisciplined

Tschumi, fully aware of the problem of function in architecture and therefore its presence as a cornerstone of the discipline, realizes that it remains an unsettled issue. He says, "For in comparison to science or philosophy, architecture rarely questions its foundations."[16] Tschumi uses what can be called in Adorno's terms "negative description," which is to define something by "*what it is not*" or by "*what it could not be.*"[17] Tschumi accepts the artificial unification of function and form and in so doing, recognizes the potential for shock that coexisting oppositions create. He names this "disjunction." As it is apparent in his paraphrasing of Orson Welles, "I don't like architecture, I like making architecture";[18] his designs are about architecture.

He cross-programs, that is, he analyzes the organization of space, movement, and function (event) in order to establish a free condition which aims to redefine the discipline whose end result disrupts our expectations of experience. Like the Constructivists before him, Tschumi isolates program into form—a stair or running track is given a contained, identifiable form which is then collaged in a confrontational manner with other contained, identifiable programs such as a library reading room, thus destabilizing our experiences of both—and consolidates these conditions to produce mixed programmatic results. He refers to it as "the disjunctive strategy used both in the transcripts and at La Villette, in which facts never quite connect, and relations of conflict are carefully maintained, rejecting synthesis or totality."[19] For Tschumi, exposing side by side oppositions is a solution to the dilemma. In this way, Tschumi's interests give the building freedom to stand at the limits of architecture and thus benefit from experiences other disciplines can offer.



† **National Library of France Competition** Bernard Tschumi, Paris 1989

In his project for the National Library of France, the effect of shock is more apparent. Two totally different activities, a running track for athletes and a library, are brought together to dismantle the conventional privileges of function. Designed nearly seven years later than La Villette, the National Library is influenced by the metropolitan experience—where shocking events are side by side, or where churches turn into nightclubs. The language Tschumi applied in both projects is the same impression of the *Konstructivism*, which is related to his pursuit of avoiding the idea of fixed functional relationships.

Function of Art

Art has two façades covering the human being, while one facade faces the inner world; the other faces the outer world. In a way art fits into the thin gap between the objective and subjective consciousness. Although both of these facades seem to function in opposition to each other, actually, "the inner universe includes and completes the outer structure within which, paradoxically, it is contained."[20] While the latter de-synthesizes the outside world, everything that surrounds us, the former acts to unify the inner world. So, this two-sided construct whose parts seem to be in opposition, is, in fact, a synthesis in which each part complements the other. Thus, art becomes the rediscovery of the world around us, which can then only be revealed when we look inside ourselves. Going back to our metaphor, art uses the power of the canyon to achieve the fertility of the delta. Inherently a very disciplined and conscious way of achieving the indisciplined unconsciousness. Likewise, while our inner world is recognized by looking outside ourselves, art serves as a unification platform for the self, it becomes a source of disenchantment with the world around us.

We hope to approach the truth and enact this hope through facts more than through phenomena. Phenomena are the things that we seek to relate to facts or to turn into facts via their consistency with nature. Facts are generic (universal), and art is the only reality that does not necessarily justify itself with the facts, and hence intends to resist a generic presence. By doing that, art tends to resist being disciplined. Art is consistent with its own nature. In this sense art is a part of truth and hence a knowledge "which is to be understood not simply as a contemplative description of what exists, but as an imaginative and active striving towards what it *is not yet*."[21]

It was Adorno who pointed to the potential danger of what is asserted here: Art's dependence on its self-evidence and its emancipation power may become a condition for blindness—the blindness that appears by reification, by interpretation, and by alienation. But to overcome the potential blindness, an assigned social function as an elucidation would also be a fake constitution. We have to make peace with the artworks' "emphatic separation from the empirical world, their other. They bear witness that that world itself should be other than it is; they are the unconscious schemata of that world's transformation."[22] To think that art is an experience of truth causes us to question architecture as an experience of truth as well. With a small digression, this question can best be addressed by inquiring into the concepts of *truth*, *experience*, and *knowledge*.

The concept of truth is not an attempt to determine the "truth" of architecture in order to establish a set of normative rules. According to Mark Linder, this adaptation from other disciplines is a needless struggle as it relies on the "philosophical" formulations that involve the "problem" of reference with which it endeavors to verify its correspondence with "reality."[23] Although it may seem indirect, the verification by reality sits at the core of architectural theory, equal to the same position it occupies in epistemology. "Truth" and "reality" are the most risky words in any discussion of theory. Recognizing the immense landscape of such a discussion we need proceed with caution. The concept of "truth" is inseparable from an idea of a created structure, an edifice of thought, which depends on its inner consistency. It is by its very nature, *disciplined*. "Reality" is the idea of a natural structure, which does not necessarily depend on human consciousness to be experienced. It resists attempts to be disciplined; it is *indisciplined*.

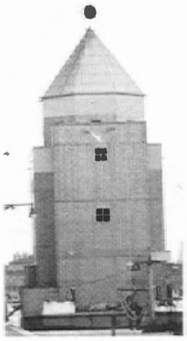
In functionalism, the unity of reality and truth are distracted because of an idea that has its roots in the idealism of Hegel, in which building and architecture are conceived as two different things. This attitude is evident in the likes of Nikolaus Pevsner who claimed that "a bicycle shed is a building and the Lincoln cathedral is a piece of architecture."[24] The danger of this idea lies in its potential to turn any discussion either into a polemic of style or into efforts to privilege of function. This was a reason for the functionalist architects attempts to gird themselves with a mantle of function—to prevent the disciplining of architectural thought—because it is the only thought that seemed as the most objective and "real."

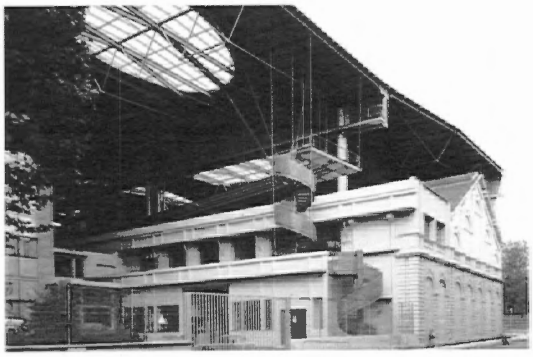
What is interesting in Tschumi's theory is the attempt to emancipate architecture from its burdens. Those burdens are ones which were acquired voluntarily by the functionalists to make architecture as unshakable as possible. Tschumi is suggesting giving away all these burdens, to unload the structure of architecture and to strip the its edifice until we do not recognize it anymore. For Tschumi, it is the experience from the inside out that completes the edifice. Unlike Tschumi, Rossi is not interested in this challenge. For him, the only discipline left is time. Rossi presents the endurance of architecture and attempts to anchor the edifice *in* time. While Tschumi is reformulates the concept of function, Rossi refuses the legitimization of function to produce architecture to such an extreme that, according to him, there is no reason to transform this dilemma into another ideology. To this end, architecture is not emancipated from its burdens but excavated from below; it is located in Antiquity. In this sense, we cannot talk about a building from inside out, the way one experiences Tschumi's architecture. We are left alone with the unbearable existence of timelessness. Interesting though that this anchor that is manifested in Rossi's buildings and projects, instead of grounding one in a place (meaning) in history, become a cruel mirror of time, of the painful realization, that everything vanishes.

Adorno states that "if art [architecture] were to free itself from the once perceived illusion of duration, were to internalize its own transience in sympathy with the ephemeral life, it would approximate an idea of truth conceived not as something abstractly enduring but in consciousness of its temporal essence." Tschumi makes peace with the illusion of duration, whereas Rossi is rooting for manifesting it. Tschumi consolidates *relation* of events: the desire for experience, the possibility of situations. Rossi consolidates what he believes has the stronger chance to endure and travel through time: the *form* of events, the tangibles. Rossi's conscious choice is actually an attempt to negate the transformation of matter. Another illusion that reinforces the dilemma is the idea of autonomy, the concept of architecture's self-sufficiency. Autonomy is a constructed belief, an illusion perhaps. Not only because, "everything is in relation to everything else," but due to the ontology of being and its stratified nature. Since human beings are a stratified unity, a material and organismic existence integrated with consciousness, at the same time a rational and spiritual being;[25] it becomes hard to separate what is natural and what is cultural.[26] An animal path in the jungle is the unintended consequence of a simple need: to drink water. That path may be widened and improved by use. Things like languages or cities are more than an animal path, they are products that bridge "purpose and use" with the "by-products of these actions." Even though these by-products might not be planned or intended, and there was perhaps no need for them before they came into existence, they may create a new need, or a new set of aims.[27] Out of their nature they create a culture.

We can point out that the dilemma arises when one tries to define a discipline by reducing its stratified existence to only one of the strata. We can only start to think about the autonomy of architecture if we accept the existence of these strata, of which each layer exists dependent upon the other. Functionalism and much idealism alike ignored the stratified body of things. Functionalism was a challenge to the heterogeneous character of the matter. The construction of the functionalist ideology was aimed at overcoming this heterogeneity, not by constructing a stratified edifice out of the "real" and the "true," but by a deceptive uniformity of the two.

A longer version of this essay was written for the History-Theory Area Seminar in the Doctoral Program in Architecture at the University of Michigan in Winter Semester, 1999.





↑↑ **Teatro del Mondo** Aldo Rossi, Venice 1979
↑↑ **Monument to the Partisans of the Resistance** Aldo Rossi, Segrate 1965
↑ **Le Fresnoy Media Center** Bernard Tschumi, Tourcoing 1991-95

1. As noted in Webster's Dictionary, we use the word **discipline** as both: 1) "a field of study" and 2) "orderly or prescribed conduct or patter of behavior; a rule or system of rules governing conduct or activity." From the same source, we use the word **indiscipline** as "lack of discipline or not subject or capable of being disciplined."

2. Kenneth Frampton, *Modern Architecture, A Critical History*, 3rd ed., (London: Thames and Hudson Ltd., 1992), pp. 29-40.

3. Theodor Adorno, "Functionalism Today," in *Rethinking Architecture, a Reader in Cultural Theory*, Neil Leach ed., (New York: Routledge, 1997), pp. 6-19.

4. Adolf Loos, "Ornament and Crime," in *Programs and Manifestoes*, Ulrich Conrads ed., (Cambridge, MA: MIT Press, 1975 [1964]), pp. 19-24.

5. Adolf Loos, *Santliche Scriften* I, Franz Gluck ed., (Vienna/Munich, 1962), p. 314.

6. Bruno Taut, *Modern Architecture* (London: The Studio, 1929).

7. Edward R. De Zurko, *Origins of Functionalist Theory* (New York: Columbia University Press, 1957), pp. 3-14.

8. Adorno, "Functionalism Today," p. 10.

9. "When we find a hill in the woods, six feet long and three feet wide, shoveled up into the form of a pyramid, we become serious, and something inside us says: Somebody is buried here. That is architecture." Adolf Loos, "Architecture," in *Raumplan Versus Plan Libre,* Max Risselada ed., (Delft: Delft University Press, 1988).

10. Stanislaus von Moos, "Le Corbusier and Loos," in *Raumplan Versus Plan Libre,* Max Risselada ed., (Delft: Delft University Press, 1988), p. 24.

11. Aldo Rossi, "Introduction," in *Spoken into the Void, Collected Essays 1897-1900* (Cambridge, MA: MIT Press, 1982).

12. Frampton, p. 294.

13. Allan Colquhoun, "Rational Architecture," in *Theorizing a New Agenda for Architecture Theory 1965-1995,* Kate Nesbitt ed., (New York: Princeton Architectural Press, 1996), p. 346.

14. Ibid.

15. Aldo Rossi, *Architecture of the City* (Cambridge, MA: MIT Press, 1997), p. 29.

16. Bernard Tschumi, *Architecture and Disjunction* (Cambridge, MA: MIT Press, 1998), p. 210.

17. Leach, p. 5.

18. Tschumi, p. 210.

19. Ibid.

20. J. H. Wheelock, *What's Poetry?* (New York: Charles Scribner's Sons, 1963).

21. S. Jarvis, *Adorno, A Critical Introduction* (New York: Routledge, 1998), p. 8.

22. Theodor Adorno, *Aesthetic Theory* (Minneapolis: University of Minneapolis Press, 1997), p. 177.

23. Mark Linder, "Architectural Theory Is No Discipline," in *Strategies in Architectural Thinking,* John Whiteman ed., (Cambridge, MA: MIT Press, 1992), pp. 166-179.

24. Nikolaus Pevsner, *An Outline of European Architecture* (New York: Charles Scribner's Sons, 1948).

25. W. H. Werkmeister, *Nicolai Hartmann's New Ontology* (Gainesville, FL: The Florida State University Press, 1990), p. 33.

26. Adorno, *Aesthetic Theory.*

27. Karl Popper, "Knowledge: Subjective versus Objective," in *Popper Selections,* David Miller ed., (Princeton, NJ: Princeton University Press, 1985), pp. 58-78.

DISCIPLINE POST–PUNISH: ARCHITECTURE AND ITS DOUBLE

SUNIL BALD

Someone said to Socrates that a certain man had grown no better in his travels. "I should think not," he said. "He took himself along with him."
—Montaigne

Graduate Studio
Fall 1999

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Li-San Hsieh
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Joong Hoon Kim
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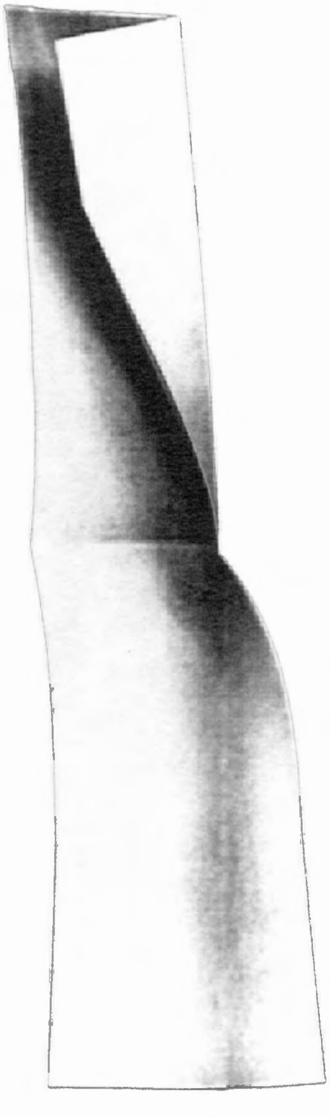
Double Beings / Double Selves

Socrates implies one of the assumed truths of our existence—that throughout life, we will always be accompanied by ourselves. This aphorism reaches its extreme in the American individualism evidenced by the exhortation,"The only person I can really count on is myself." But what if one cannot count on oneself? Is this possible and can there exist a schism between *being* and *self* to the point that when, put in the same room, the two might just not get along? If that room was small, cage-like, and isolated to the point that the *being* could not avoid staring the *self* in the eye, which would come out more affected by the experience? Which would blink first?

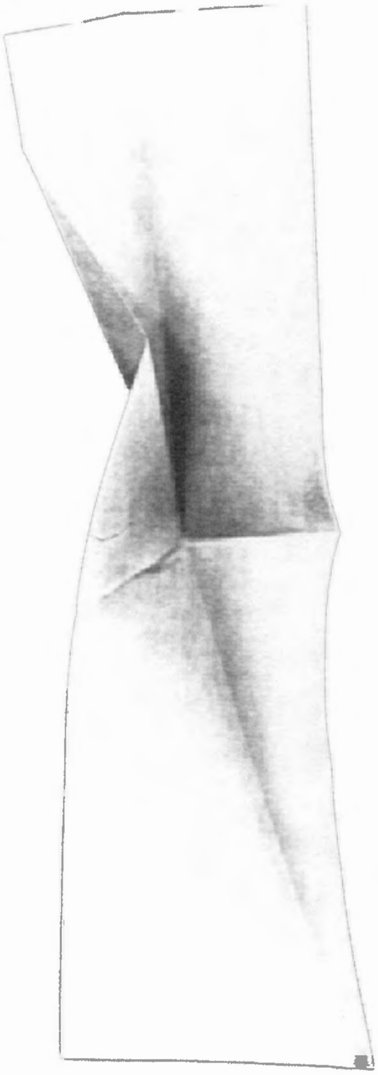
Architecture and its recent discourses into subjectivity have operated on the assumption that the subject, as something that both constructs and is constructed by space, is an indivisible, localizable entity. Consequent spatial anxiety results from the disjunction that exists between space and "being in space." However, if *self always accompanies being*, can architecture accommodate the further strained relationships that this doubling implies? Or, do we have to attach a multiplier to architecture, to find its double?



Perhaps we should first identify our cast of characters by distinguishing the *being* from the *self*. For Heidegger, *being* acquired an essentialist connotation as it was situated between the experience of space and thought. As mediator, *being* incorporated both wold and psyche to form a singular sense of wholeness that transcended position. However, when one considers *discipline*, *being* relies on position. One's position is established as *being* within architecture or without architecture—a prisoner in a prison, an invalid in a hospital, a queen inside a castle, a commoner outside a castle, etc. While some architectures are more disciplinarian than others (i.e. prisons, schools, military academies, etc.), all architecture employs the discipline of categorization on *beings* inhabiting it. And, as one moves between these categories, the *being* shifts to accommodate them—once a prisoner escapes, he or she becomes a fugitive.

> *I was constantly watching myself, my secret self, as dependent on my actions as me own personality, sleeping in that bed, behind that door which faced me as I sat at the head of the table. It was very much like being mad, only it was worse because one was aware of it.*
> *—Joseph Conrad, The Secret Sharer*

In Joseph Conrad's short story of 1910, a young ship's captain rescues a fugitive double from the sea and hides him in his cabin. As he moves from his command above deck to the company of his harbored stowaway below, his self records the stress between these two states of being and is eventually strengthened by his doubling. While the being is continually re-positioned, the self is positioned to negotiate these continual dislocations and elastically absorb and utilize the schizophrenia of being.



↔↑ **Doubling Path 1 and 2** Amy Brietzke

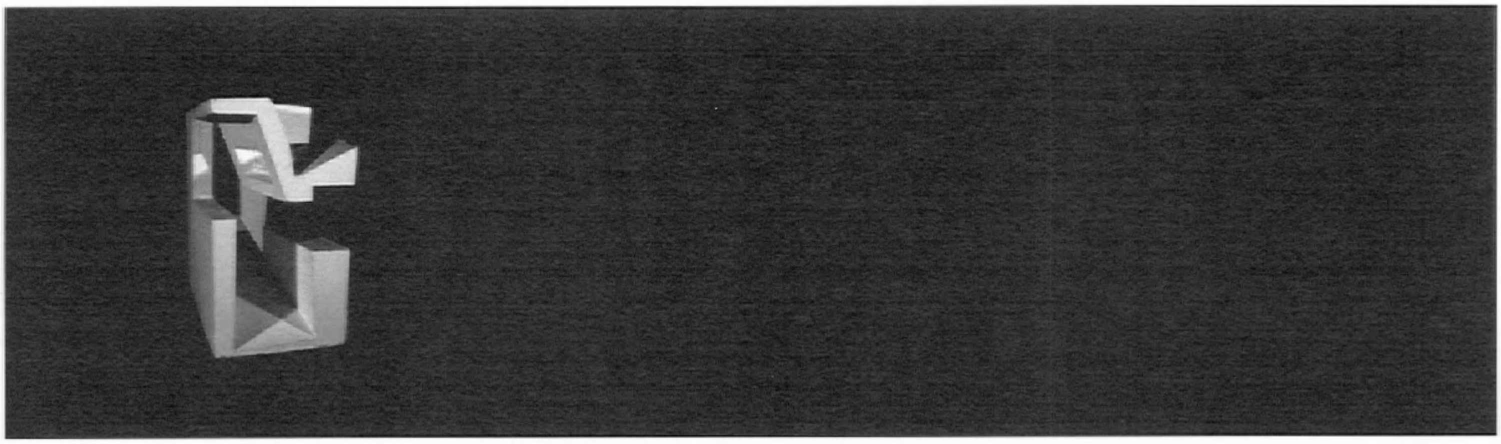
Like Conrad's character, perhaps one can find the productive potential within the schizophrenic and within the stresses and strains that the *self* registers between more than one state of being. Perhaps one can find an architecture that does not pretend to be *complete* in its strict disciplining of *being*. Instead, might an architecture that is both multiplied and incomplete enable the *self* to stare down the *being* without eyes watering?

In Between and Halfway

It is still a question of twin phenomenon; a question of making the in-between places where they can be encountered, readily mitigating psychic strain. What is direly needed is a dimensional change both in our way of thinking and working which will allow the quantitative nature of each separate polarity to be encompassed and mitigated by the qualitative nature of all twin phenomenon combined: the medicine of reciprocity.

—Aldo Van Eyck, The Devaluation of Abstract Antonyms

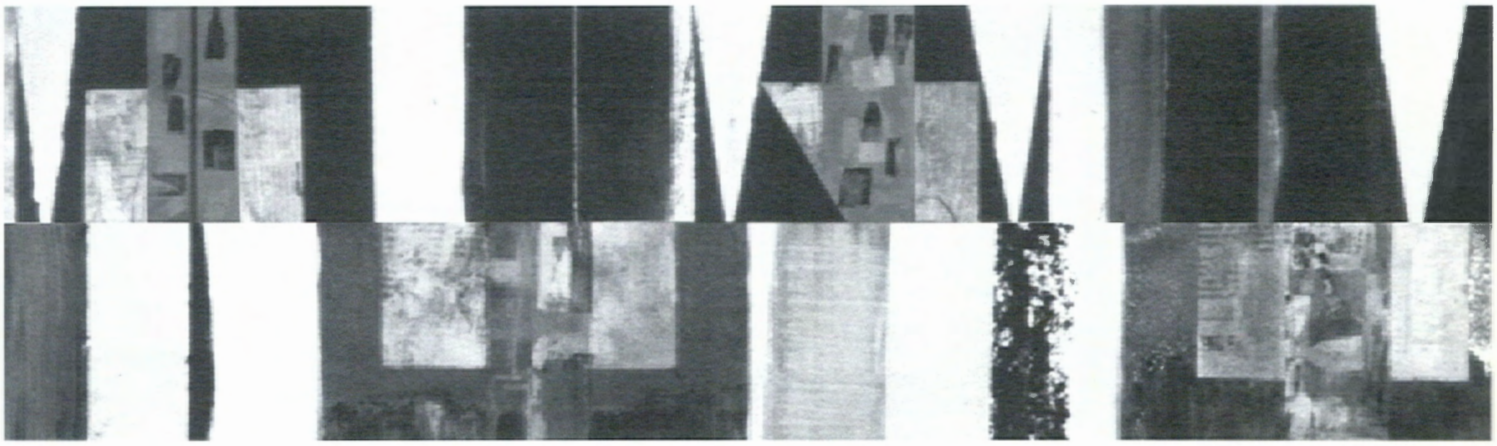
For the sake of simplicity, let us consider the number two. While already beaten to death in binary categories and binary codes, it does provide the opportunity of being *in-between* rather then solely here or there. Localizations can occur not as a state of containment (in, out, etc.), but as a stage of motion. To be *halfway* is simultaneously ambiguous and precise, acknowledging multiplicity while recording relativity.



↑ **In Between Space** Aaron Vermeulen

The Halfway House was originally a sort of gentleman's inn that provided temporary accommodation for someone in transit. In the 1960s it became institutionalized as an *uninstitutional* phase of rehabilitation, a temporal zone of decompression as one's being moved from the realm of deviance to that of normalcy. The Halfway House is a somewhat contradictory concept, in that it provides a simulated domicile for a transient occupant leaving one architectural state and preparing to cope with another. For example, one might be coming to the house from a situation of homelessness (the nomadic), addiction (the bound), or imprisoned (the contained), while moving towards work (the productive) and home (the reproductive). As such, *being* becomes destabilized as a category as one "is" between realms, between architecturalizations of identification.

The subject in-limbo has the opportunity critique the architecture that disciplines *beings*, through an examination of how they are registered on the surface of the *self*. These architectures of discipline occur on both sides of the halfway house; for example, the domestic is arguably as structured as prison. The in-between space of the halfway house is actually able to simulate aspects of the environments that lie on either side of it. While acting as an institution, it mimics a domestic structure, attempts to incorporate work, and tests the nomadic desires of its occupants. Therefore, the Halfway House is both no-place, and in simulation, everyplace.



↑ Detail **Halfway House Elevation Drawing** Jay Gorman

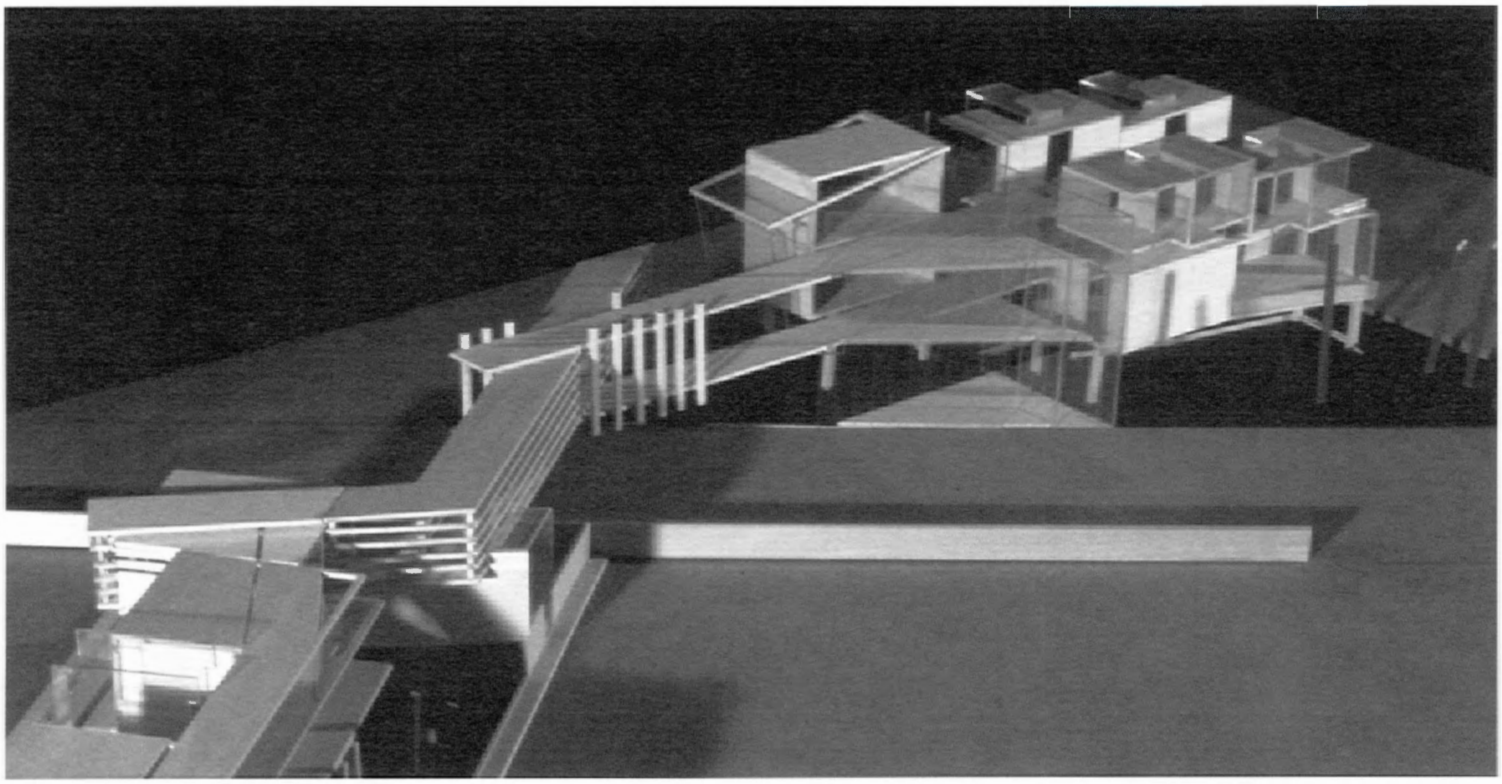
Those from Homi Bhabha to Bernard Tschumi have argued for an in-between space as a point of escape to plot revolution against the antagonistic containers that define *being*. However, there is always the danger that once these spaces become institutionalized, they become localizable, and in turn, formulate their own disciplining methodologies. The power of the in-between is not to consolidate, but to look for the doubling, the schizophrenic, and the elastic nature of *self* that confounds localization and escapes the disciplining of *Place* that architecture imposes. It is problematic to try to understand the in-between by architecturalizing it: rather, one might try to understand the controls of architecturalizations by *being* in-between them.

2 x 1 = 1 / 2 Architecture and the Double

Purpose

This semester we will explore the meaning of the "double" in relation to architectural form, architectural program, architectural process, and architectural subject. "Double" actually has the potential to hold "multiple" meanings, and we will work together to develop individual interpretations of this theme. However, the goal is to incorporate the four categories—form, program, process, and subject in these explorations. How can form and structures that are remote establish or deny affinity? How can broad programmatic categories such as private/public be confused, intermingled and self-reflective? How can working on two be a more productive process than working on one? How is subjectivity inherently schizophrenic?

The stated "program" is a half-way house. However, this will act more as a foil for an exploration rather than as a required outline for square footage and specific activities. "Half-way" describes more a state of being between two points, and it will be up to students to bring



↑ **Halfway House x 2** Jae Hoon Joung

specificity to this state of being. Therefore, the scales of concern and exploration will be developed independently within the general concerns. The ultimate goal is to destabilize the presumption that architectural form, program, process, and subject are unitary and singular.

PROBLEM 1

Stress is the action on a body of any system of balanced forces whereby strain or deformation results.

You are given two 1/2" thick planes (material, your choice) of approximately 100 square inches each. They are to be separated by a surface, what will be called the registration surface. Through exploring the potential of stress to provide stabilty, you are to structure a balanced relation between the planes that will simultaneously allow them to perpendicularly stand on end, without adhesives or fasteners, with relation to the registration surface. You should try to minimize your use of store-bought fasteners and adhesives in general.

FINAL REQUIREMENTS: Full scale construction that "registers" strain/deformation.
Scaled drawings that "represent" forces in your construction

Public and Private: DR. JEKYLL AND MR. HYDE
PROBLEM 3

Investigate two specific activities, one that you would associate with a private realm or a private self and the other that you would associate with a public realm or a public self. Use each of your "briefs" as a strategic outline that suggests method and motive in relating two entities. Now, speculate and document how the actions, motions, meanings, spaces, etc. of one activity might register/relate to/reflect/encompass/oppose/morph/mimic(choose a verb) the other.

Communicate your ideas in a two dimensional space of 20"x30". You are encouraged to be inventive in your use of media, but be precise conceptually and graphically. Again, stick to the specific and avoid generalities. Also try to avoid written explanations.

Halfway House Divided by Two
PROBLEM 4

The Halfway House was developed in the 1960s as an in-between space for those leaving an institutionalized realm and preparing to re-enter society as "productive" individuals. This precarious psychological, physical, and economic condition has been "housed" within a realm that also exists in limbo between the domestic and the institutional. Within this environment, the intention is to become re-acquainted with oneself as both a singular and communal being.

The role of architecture in such a situation might be described as both mediator and surrogate. As mediator, the halfway house exploits the state of in-betweenness to re-acclimate the individual with the world, while providing a protective haven. As surrogate, the halfway house can act as a multiple simulator that addresses the many forces—the domestic, the social, the cultural, the workplace, the city—that comprise one's identity.

In this project you are to explore the possibility of architecture to rehabilitate self. Central to this rehabilitation is the reconciliation of the multiple beings that exist within all of us.

You should assume that your clients have left an institutional realm and are preparing to re-enter and resume a "normative" societal role. You need not specify from where they have come, though you may assume that a condition that the social body has deemed "deviant" led to their institutionalized state. You have been given two sites from the attached lot map. Your project should address both the sites in a manner for you to determine. The attached square footages are to serve as a general guide to help you organize relationships. Use them to help you and not to constrain you.

> The registration surface acts in three ways:

1. To separate the planes.
2. To provide both a common inhabitable surface for the planes.
3. To provide a tableau that will register the strain and/or deformation in your construction.

The materiality, form, and composition of the registration surface is up to you. However, there are three requirements:

1. Its size-proportion should be related to the size of the plywood pieces.
2. It should have an identifiable "front and back," or "top and bottom."

These orientations should force you to consider what is hidden and what is revealed about the forces and elements of your construction.

3. You should think about how the registration surface sits in relation to a wall or floor.

BIOGRAPHIES

Sunil Bald received a B.A. in Biology from the University of California at Santa Cruz and a M.Arch from Columbia University. From 1994 to 1995, he was a Fulbright Fellow in Brazil. He is presently an Adjunct Assistant Professor at the Taubman College and has also taught at Cornell University. Sunil is also an adjunct assistant professor at Columbia University. As a partner in studioSUMO he has exhibited work in the 1999 *Global Architecture Houses* issue and exhibit in Tokyo and in the Young Architects Forum and Exhibition at the Architectural League in New York which was reinstalled in the National Building Museum in Washington D.C. in 2000.

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Brian Carter is an architect and the Chair of the Architecture Program at the University of Michigan. Prior to taking up the chair he worked in practice with Arup in London. He was the author of the book on Frank Lloyd Wright's buildings for Johnson Wax which was published by Phaidon Press in 1998 and the curator of the exhibition "Eero Saarinen: Between Earth and Sky."

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