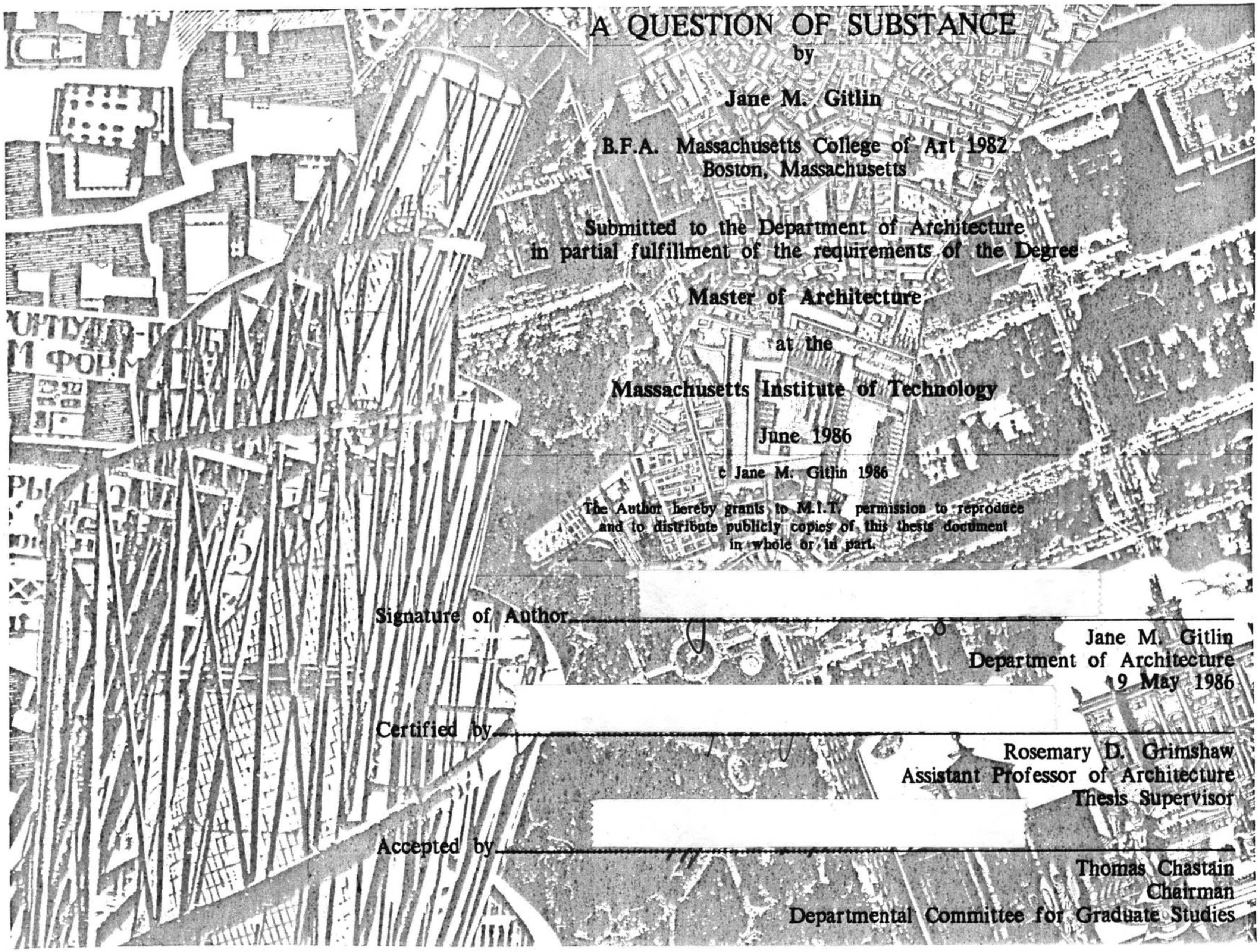

A QUESTION OF SUBSTANCE

by

Jane M. Gitlin

B.F.A. Massachusetts College of Art 1982
Boston, Massachusetts

Submitted to the Department of Architecture
in partial fulfillment of the requirements of the Degree

Master of Architecture

at the

Massachusetts Institute of Technology

June 1986

c Jane M. Gitlin 1986

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A QUESTION OF SUBSTANCE

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Jane M. Gitlin

Submitted to the Department of Architecture on 9 May 1986
in partial fulfillment of the requirements for the Degree of
Master of Architecture

Abstract

During the week of January 27th to February 2nd, 1986 a design symposium was held in the Department of Architecture at Massachusetts Institute of Technology. This symposium, entitled "An Architecture of Substance" was wholly student initiated, organized, and executed. The symposium was organized around an evening lecture series and a student design workshop led by visiting educators. Participants included internationally known architects, historians, and teachers, as well as students of 20 schools from North America, Europe, and Japan.

This thesis is the compiled and edited documentation of that symposium. Included are the edited and annotated lectures of eight speakers, the work of seven design studios, and excerpts from additional discussions. This thesis, however, will not limit itself to a straightforward sequential narrative of the events of the week, but attempts to portray through photographs and commentary the "event" of the event beyond its calendric limits.

The purpose of this thesis is to record a remarkable week that represented the diversity of current architectural thought and practice. This thesis is effectively an epilogue to a speculative inquiry into the making of architecture.

Thesis Supervisor: Rosemary D. Grimshaw

Title: Assistant Professor of Architecture

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Maurice Smith: Lecture 101

William Hubbard: Studio 149

Wolfgang Prix: Lecture 155

Howard Davis: Studio 204

John Whiteman: Lecture 211

Zaha Hadid: Studio 290

Zaha Hadid: Lecture 297

Stanley Saitowitz: Studio 318

Eric Moss: Lecture 325

Carmen Corneil: Studio 364

Kurt Forster: Lecture 373

Michael Hays: Studio 410

Fumihiko Maki: Lecture 417

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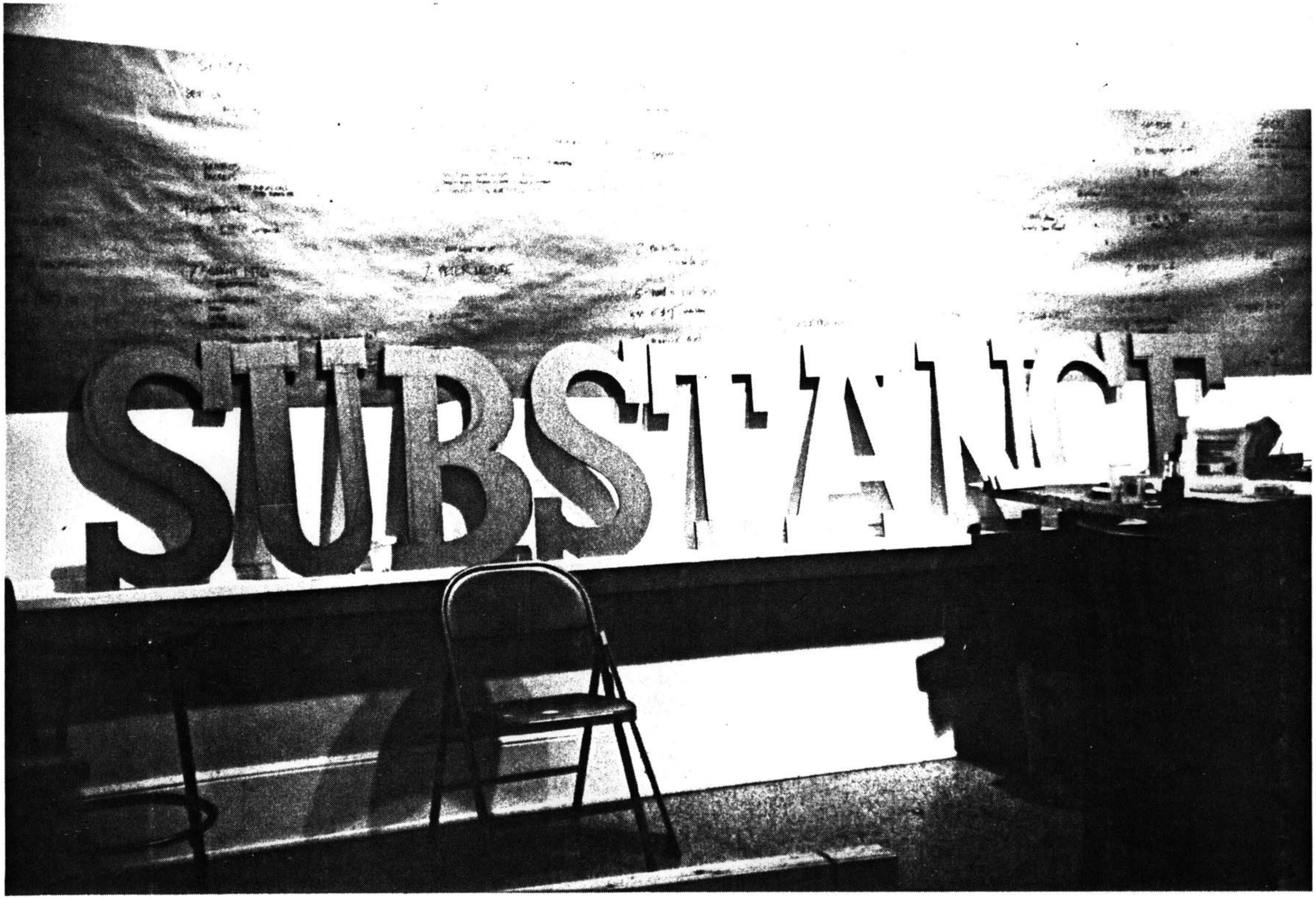


INTRODUCTION

1

INTRODUCTION

1.1 PURPOSE

The ambition of the old Babel builders was well directed for this world: there are but two strong conquerors of the forgetfullness of men, Poetry and Architecture; and the latterin some sort includes the former, and is mightier in its reality; it is well to have, not only what men have thought and felt, but what their hands have handled, and their strength wrought, and their eyes beheld, all the days of their life.

Ruskin, John; The Lamp of Memory; The Seven Lamps of Architecture; Farrar, Straus and Giroux; New York; 1981.

During the week of January 27th through February 2nd, 1986, a design symposium was held in the Department of Architecture at MIT. The purpose of this thesis is to record a remarkable week that represented the diversity of current architectural thought and practice. This thesis is effectively an epilogue to a speculative inquiry into the making of architecture.

One feels obliged to justify the purpose for such a documentation. The reasons for doing so are several: First, although the lectures and discussions were videotaped, and student work was photographed, these records still remain discreet artifacts. This thesis is in one sense a narrative to accompany the historical record of fact.

Second, these same tapes and photos do not in any way include the atmosphere of an intensive week of dialogue, spirit, and purpose of the symposium. They are merely the tangible and public product of many weeks of preparation. This thesis, although a by-product, is an attempt to recapture and record the making of the symposium, and the intent in which it was formulated.

Third, such an endeavor as this week long symposium was organized and orchestrated in such a way as to allow for the unexpected to happen. One can plan and schedule specific events, but the outcome of the symposium encompassed more than planned events. The personalities of those who participated: students, organizers, lecturers, and

teachers, contributed an integral part of the event. Some background for the tangible artifacts is useful for understanding first why these people participated, and also from what context they presented from. Also, if one believes that architecture is a social art, then the element of human dynamics in the exchange of information is as essential as the information itself.

Finally, the discussion of architectural thought is an ongoing process. Primary references, such as lectures and timely discussions are culturally significant and necessary for criticism and future elaboration. This thesis is thus a tool for further speculations into an **Architecture of Substance.**

Article 1. The concept of an historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or an historic event. This applies not only to great works of art, but also to more modest works of the past which have acquired cultural significance with the passing of time.

from the so called "Venice Charter", The Second International Congress of Architects and Technicians of Historic Monuments, which met in Venice from May 25th to 31st 1964.

1.2 APPROACH

This thesis will not limit itself to a straightforward sequential narrative of the symposium, but will recall the simultaneous character and atmosphere of the week long event. One hopes to paint as complete a picture as possible even if it sacrifices academics to anecdote.

A purely archival transcript is useful in that it records without bias, however it leaves illustrations and annotations to be formulated by the individual reader.

A severe example of pure documentary is Alison Smithson's compilation of the Team Ten papers. It is introduced as a *reproduction of the original texts to provide a trustworthy document containing this important source of evidence...* The facsimiles of original, coffee stained letters, although fascinating as artifacts, are left unexplained by Smithson.

Smithson, ed. The Emergence of Team 10 out of C.I.A.M.; p. 1

A similar approach, as historically accurate as possible, is Rizzoli's *Charlottesville*

Tapes. This volume includes the edited transcripts of a conference held at the University of Virginia in 1983. A brief introduction reveals the intent of the conference, but other than the transcripts themselves, and some identifying photographs of participants and their work, there is virtually nothing about the *event* of the event.

It appears to be true, however, that the motivation for this particular conference, and others, comes out of the mutual desires of presentation and publication. Indeed, in the case of the *Charlottesville Tapes,* creating published documents was the overriding purpose of the conference, as the event only permitted a very limited audience. The publication was the purpose and the product.

In the case of **An Architecture of Substance** it was the *event* itself that was the main purpose. Therefore, this thesis concentrates on that event. The format of this work will attempt to indicate the simultaneity of events. The thesis is organized into sections which collectively describe the symposium, and particularly focus on various aspects of it.

1.3 FORMAT

As the purpose of this thesis is to portray the "event" of the symposium as much as possible, section 5.5 *The Symposium: Studios and Annotated Lectures* is arranged by interspersing the work of the studios between the sequences of lecture transcriptions. Photos and the commentary gleaned from the Saturday afternoon panel discussion and the Sunday final review and jury are interwoven within the two parallel Symposium organizing events.

The comments from the panel are identified by speaker and date. The comments from the final review and jury are identified by speaker, date, and are in italics.

The initial idea was to ask a number of internationally known architects, who were to be invited to the tenth anniversary celebration of the Institute for Architecture and Urban Studies (IAUS), to get together beforehand for a discreet, in-house "show-and-tell", the proceedings later to be published as the first issue of a new kind of journal --"Architects on Architecture". This idea not only provided a good incentive to get people to come to the IAUS birthday party (architects will go anywhere to talk about their work), but was also a familiar Peter Eisenman trademark, the architectural "twofer", or how to use the Architectural Event to generate both publicity (in this case, the anti-publicity to be derived from "open secrecy") and a provocative publishing opportunity. Clearly a good, clean idea from an American impresario... of the kind that had put the Institute on the map.

Charlottesville Tapes, p.6

Interview of Symposium Committee

by Peter Batchelor on 16 February 1986 attended by: Mary Meagher, Paul Lukez, Leigh Olson Snow, Jane Gitlin, Louise Hara.

PB: This is a straight news piece.

MM: It better well be.

PB: I can bend it a lot of ways.

LOS: We can bend YOU a lot of ways.

PB: I can make it sound like anything I want to, no matter what you say to me...

MM: Exactly –the power of the press!

PB: ...so be relaxed and it will be positive. All of the other, the other piece I did with the student reactions was very positive. But it can't all be positive, so you also have to say negative things...

MM: Oh, no.

PB: ...which, and I usually take the negative and build it up a little, but then slash it down with positive stuff. But you need that tension, at least that's what I read in my journalism book. Otherwise its very boring...

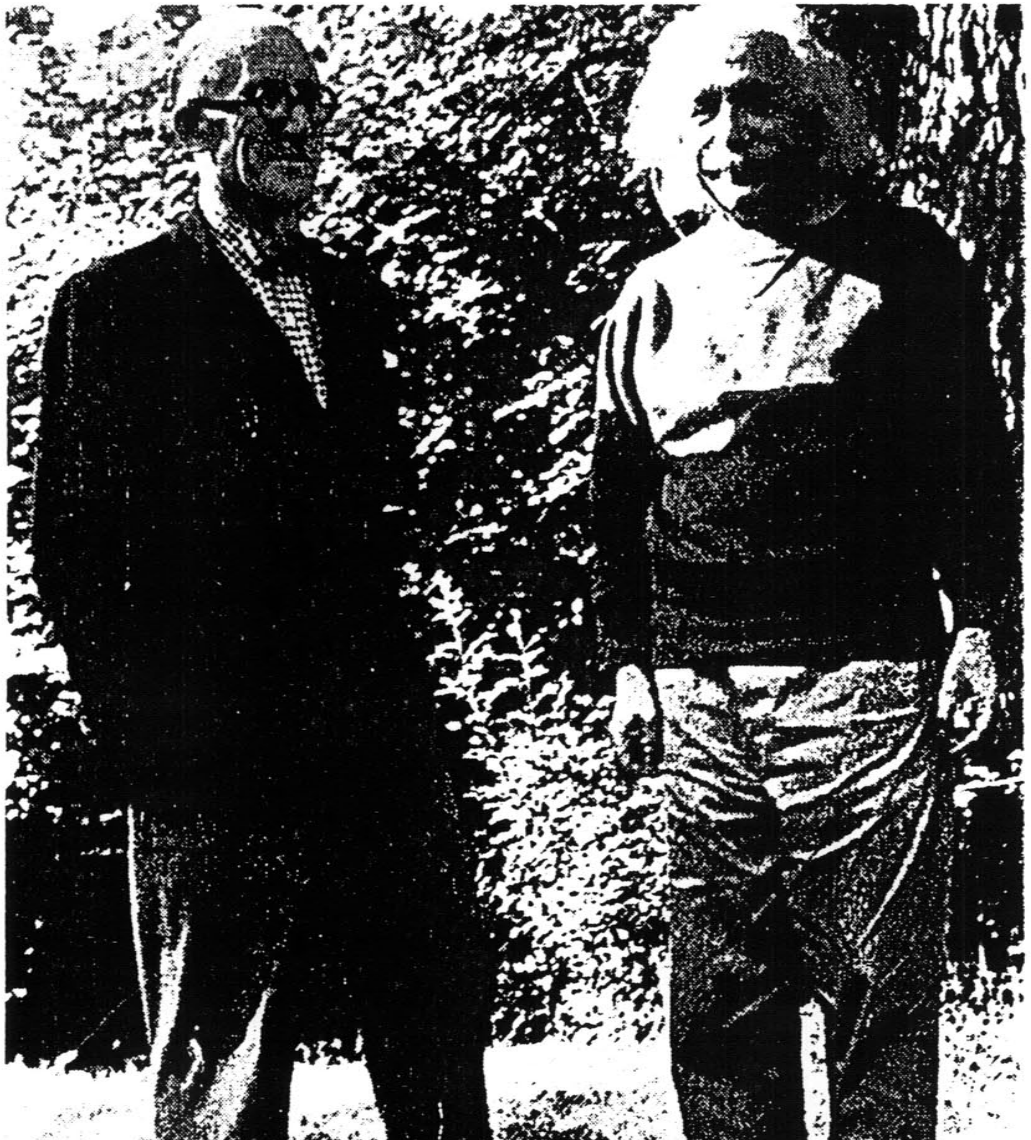
LH: Can we have this on tape too?

Portions of the interview of the Symposium Committee (19 February 86) by Peter Batchelor are coded by the speaker's initials: Peter Batchelor (in italics) PB, Jane Gitlin (JG), Louise Hara (LH), Paul Lukez (PL), Mary Meagher (MM), and Leigh Olson Snow (LOS).

A student questionnaire was mailed out to participants subsequent to the symposium. Excerpts are inserted within the studio sections and students are identified by initials.

A monument is the oldest and most original sense is a human creation, erected for the specific purpose of keeping single human deeds or events (or a combination thereof) alive in the minds of future generations. Monuments can be either artistic or literary, depending on whether the event to be remembered is brought to the viewer's consciousness by means of the visual arts or with the help of inscriptions.

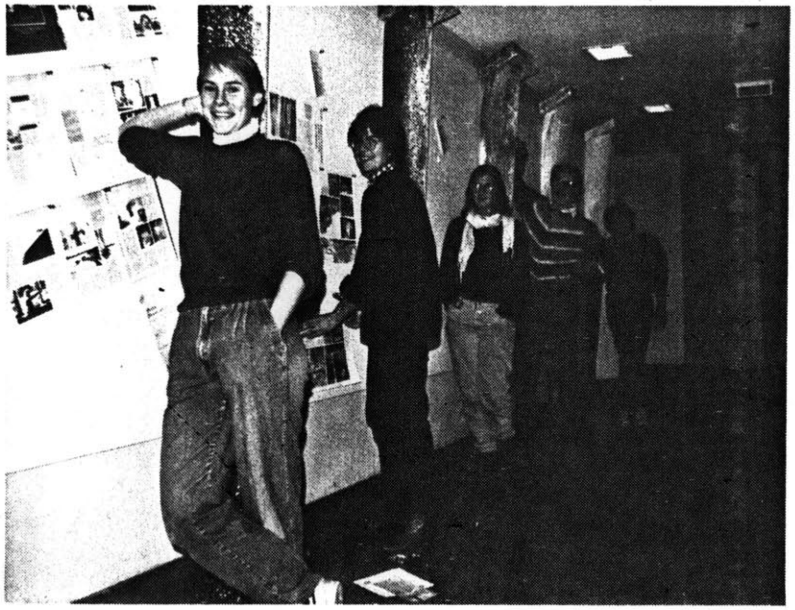
Riegl, Alois; The Modern Cult of Monuments: Its Character and Its Origin; Oppositions 25; Fall, 1982.



IDEA

2

2.1 PORTIONS FROM INTERVIEW



PB: OK, so why don't we start with what you expected it to be, and what happened?

JG: At least a year ago we started meeting, in the wake of all the discussion going on in the department. You know that, right?

PB: No. Talk about that, people who weren't here will want to know. We need that.

JG: There was a period in the department, in the student body last year, that, we were all a little bit disgruntled about the atmosphere in the department...

PB: Why were you disgruntled?

JG: Well, Peter, its not important–

PB: Yes it is!

JG: That's past history.

MM: Janie, tell him for Christ's sake!

JG: Do you remember the petition that was up last Christmas?

PB: Yeah.

JG: It was basically that we were in the doldrums. That we perceived the administration and the staff as ineffective, the faculty as being lazy, a not very nice word, and the MIT position on education as being vague. So, that resulted in this petition which was received with a lot of support.

PB: Can I stop you for a second. Does anyone else want to comment about what the petition was?

MM: Well. Peter, it's more appropriate that you read that, because basically it was that there was no...people were complaining because the school didn't seem to...there didn't seem to be diversity in the school, they were complaining because there seemed to be no way to communicate with the outside architectural community, they complained because there seemed to be no criteria to judge whether or not studios...

PB: So for that feeling, you guys got together?

JG: No it wasn't directly from that. That sort of set the backround for us to take matters into our own hands.

LOS: Well what it started was the Student Forum, where we met like every week or two weeks, and the purpose, or one of the directions of this Forum was to produce proposals. Positive action that might do something about the problems that we saw. And it was designed so that the symposium was one of those proposals. One that got carried through. So it started...

PB: What did you do after you wrote this proposal?

??: Well at the Forum it was presented as, yeah its a good idea, but then it left the Forum setting and we just started having meetings.

MM: There were lots of proposals at the Forum: proposals to produce booklets, there were proposals to record studios...It wasn't a proposal, but it seems an interesting coincidence that the M.Arch Committee was formed at the same time that the Student Forum was started.

LOS: And actually, the procedure became that our proposals went to the M.Arch Committee...

MM: So anyway, the whole thing was Paul's idea. Paul thought it would be great to have a conference of some sort...

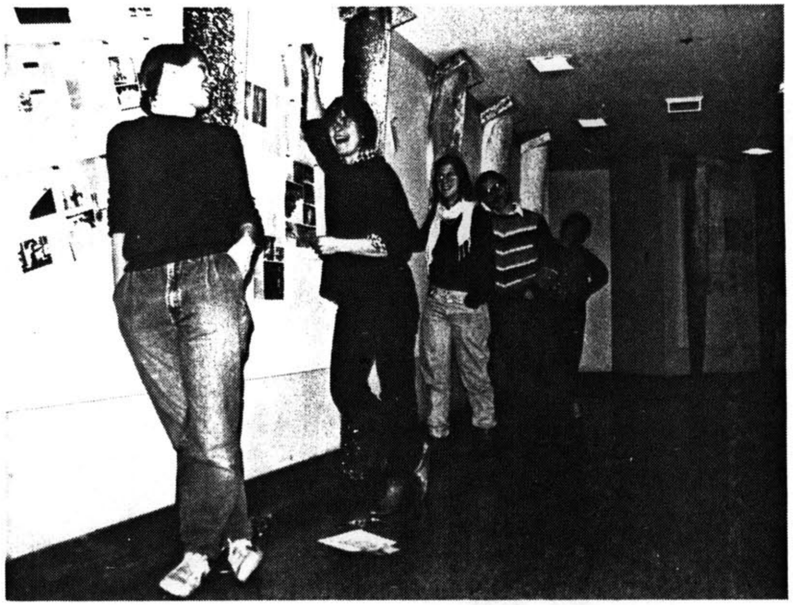
MM: So things sort of, we started talking about the symposium at the very beginning of January–

PB: January of last year? (1985)

MM: Yeah, and so, but it really was Paul's idea. I remember at that first meeting thinking...we went through several groups...all sorts of people were in and out... So we went through several stages of various and lengthy pages and in one of the early things we describe it as a "circus", and so it was called in the office the "circus", "Oh, you're with the circus!" And then maybe like in May we got a much more clear thing written. Jack, somewhat unfortunately, sent this lengthy one around to everybody, saying "Look what the students want to do." It was incredibly poorly written and all sorts of stuff. But then there was another one, in May–

JG: Let me give you the titles: The first proposal was called "Humanism, Architecture and Technology". The next one was called "Whither Architecture". The next one was called "The Sense of Place in a Post-Industrialist Society".

MM: When people want to laugh at our title now, just think of what they could have had! And then, I think, the one in May was finally "An Architecture of Substance". I remember sitting there with Paul when Paul coined that phrase. And so we brought that to Jack and we walked in there and Jack said that he thought this was a great thing...



MM: When was it, that we sat, remember we sat here, like three nights in a row?

PL: June or July.

LH: Early June.

PL: Yeah, that was a struggle. And I think it was a finely written thing. But in the end, you know, we didn't say that much. Like one guy said, "I'd be a fool not to agree with this." And he was somebody who had a totally different position than I did.

MM: We were stating some positions, but they were, anybody could like them in a way.

2.2 MANIFESTO

AN ARCHITECTURE OF SUBSTANCE

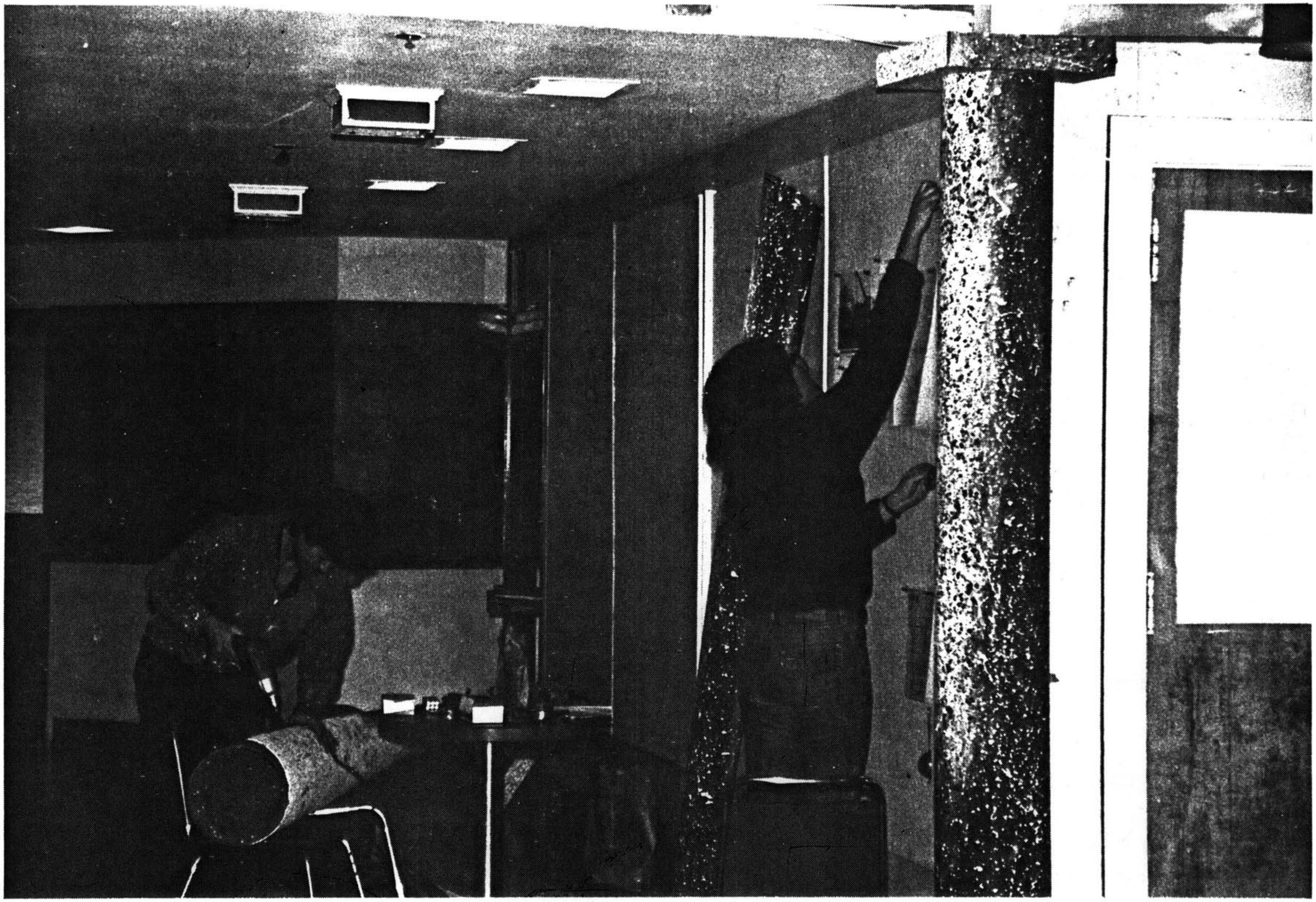
We are students of architecture somewhat lost in the maelstrom of current architectural thought and practice. We see about us a vast array of architectural viewpoints and styles. While it is delightful to witness such diversity, it is also a bit scary, when amid the play of some of the fanciful images and forms, the material presence of architecture seems almost to disappear.

We believe architecture, in its creation and in its presence, to be both an art form, the materialization of ideas, and a social construct, the expression or invocation of political, social and cultural realities. We believe the making of architecture to be a constant dialogue between these two realms; to deny one is to place the other one in imbalance and subject architecture to potential arbitrariness on the one hand or sociological determinism on the other. In an age of technological ephemera, we believe in the physicality of architecture, both in its material presence and in its provision for human activity. We recognize the symbolic power of architectural form, but we believe the power of such communication lies less in an arcane axposition of history than the everyday invocation of it.

We recognize the power of history and the elements of our experience which seem eternal, yet we must also address the changes in our daily lives brought about by technology. Processes of communication and social exchange have been transformed by technological innovation, and with them, the very nature of work, play, community and city life. Such changes impinge on the material form of the buildings we create and inhabit.

The architectural community has not seriously confronted the impact of technology nor the remarkable opportunity it presents. We must acknowledge such innovation, not merely as the products of technical wizardry, but in the light of social structures and processes they facilitate. In this light, our understanding of history and tradition must go beyond mere display of historical or familiar forms. It becomes a guiding force in the discovery of new forms or of new meanings in traditional forms, not only of buildings, but the activities they support. At this critical juncture, the very presence of architecture as well as the role of the architect lie in question.

We find ourselves frustrated that these concers are insubstantially addressed in most discussions of architecture. We propose then a symposium, whose purpose is an open and thorough examination of architecture particularly in this evershifting technological age. This week of events entitled: An Architecture of Substance", includes a series of lectures specifically addressing the issue of architecture of substance, as well as presentations, a design charrette, workshops, and discussions. The spirit of this program of events lies in the definition of symposium: "any meeting or social gathering at which ideas are freely exchanged."



MECHANICS

3

LOS: It was a huge undertaking.

MM: It was enormous. It was a tremendous amount of work.

LH: And we totally disrupted the entire school.

PB: What did you screw up?

MM: We took over the office for the last two weeks.

LOS: And for a month before that they were getting phone calls.

JG: And it was right at their peak time too.

MM: You can't believe the amount of work we did. I mean, you just can't believe it. And that people like Louise and Paul were doing it for free. I figured out I was doing it for two dollars an hour. These guys were doing it for free, I mean that's ridiculous. That's crazy...

MECHANICS

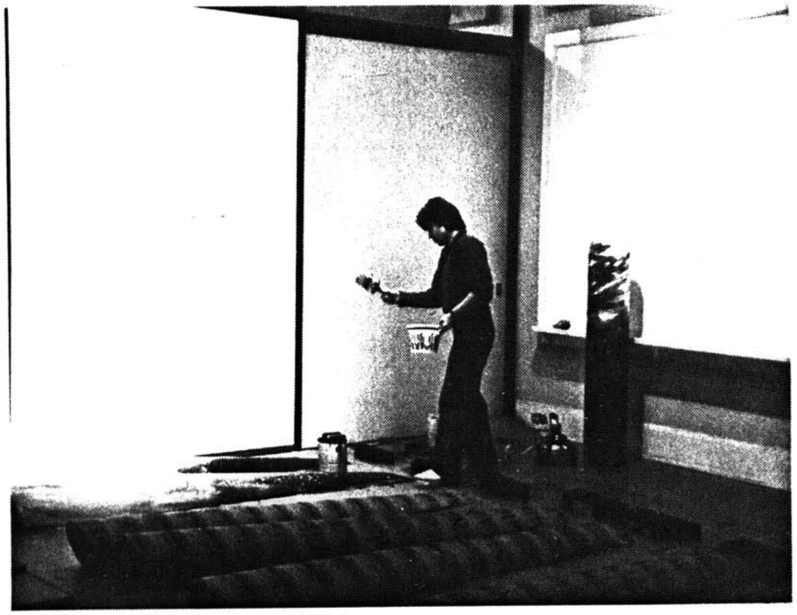
The mechanics of creation have their pragmatic elements. The organizers were uniquely fortunate in that each brought many skills as mundane as the ability to type, and as diverse as knowing silkscreen technique. It is important to stress that although there was an abundance of emotional and financial support from the administration and the Institute, all the actual work was performed by half a dozen students.

3.1 INVITATIONS

By August 1985, letters of invitation to guest lecturers and guest studio leaders had gone out. Included in that package were the Statement of Purpose (the "manifesto"), and a formal letter signed by the Symposium Committee. As positive responses were received, the scheduling of lecturers during that week of 27 January to 2 February occured. Several dozen of these letters made their way around the world. It was encouraging to note that even those that could not attend offered a vote of confidence in the endeavor. Although, as someone told Paul Lukez, "I'd be a fool not to agree with this."

The criteria for inclusion were based not so much on stylistic idiosyncracies of work, but rather in an attempt to gather a diverse group of forward looking designers, critics, and teachers.

The second great wave of invitations were those to architectural schools. About thirty letters were mailed to both American and foreign schools. In the end, there were 19



or 20 participating schools. Each school was asked to send two graduate students, chosen at the discretion of their departments' administration.

Recent MIT alumni were also invited to participate in the workshop, although the committee realized that there were financial and logistic handicaps for them. In the end, there was one alumna in the workshop, although many attended the lectures.

3.2 FUNDING

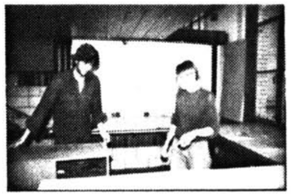
The Symposium Committee prepared a preliminary estimated budget for the Department of Architecture which was met and supported by the administration. Additional sources of funding came through the MIT Council for the Arts, Paul Gray, and the Dean's Office. As of this date, a grant from the Graham Foundation is still pending.

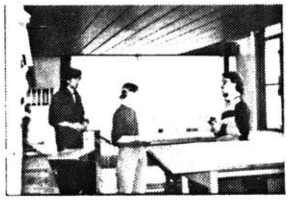
Donations from local architectural and development firms were also solicited. As was requested by the Dean's office, offices (with one exception) of MIT faculty were specifically not included in the solicitation effort. Although two MIT affiliated firms did make generous contributions.

Students participating from visiting schools other than Harvard's GSD or the Boston Architectural Center were charged a tuition fee of $200 per student.

3.3 PUBLICITY

The evening lecture series was the public side of the symposium, and effort was made





AN ARCHITECTURE OF SUBSTANCE

From January 27 through February 2 students of the Department of Architecture will present a public lecture series in connection with a design symposium entitled "An Architecture of Substance." Invited speakers include Kurt Forster, Zaha Hadid, Hans Hollein, Rem Koolhaas, Fumihiko Maki, Eric Moss, Peter Prangnell, and John Whiteman. Lectures are scheduled for Monday through Friday of that week and for Sunday; on Saturday there will be a full panel discussion. Presentations are free and open to the public. For information about times and room numbers, call 253-7791.

Also scheduled is a five-day charrette involving students from MIT and other schools. The problem assigned will be the design of a community cultural and educational center providing community access to interactive communications technologies. The final review will take place in room 9-150 on Sunday, February 2. A few places in the charrette were open at press time; for information, call 253-7791.

An Architecture of Substance Symposium — Department of Architecture, MIT, 77 Mass Ave., Cambridge. Telephone 253-7791. Jan. 27 through Feb. 2. Free. Programs 7 p.m. unless otherwise noted. Speakers: Jan. 27, Bartos Theater, Building E-15 with Peter Brangnell. Jan. 28, Room 9-150 with Maurice Smith. Jan. 29, Room 10-250 with Wolf Prix of Coop Himmelblau of Vienna. Jan. 30, Room 10-250 with Zaha Hadid. Feb. 1, Room 10-250 with Eric Owne Moss at 10 a.m. and Kurt Forster at 11:30 a.m. Panel discussion on "An Architecture of Substance" at 2 p.m. Feb. 2, 5 p.m., Room 10-250, with Fumihiko Maki.

to advertise the series. Several architecture journalists and magazines were contacted and invited to send a representative to MIT. Unfortunately, there was not a great deal of response from that at the time, although subsequent to the symposium, there has been a bit more notice. Coincidentally, the A.I.A. Journal is currently writing an article on the MIT Department of Architecture.

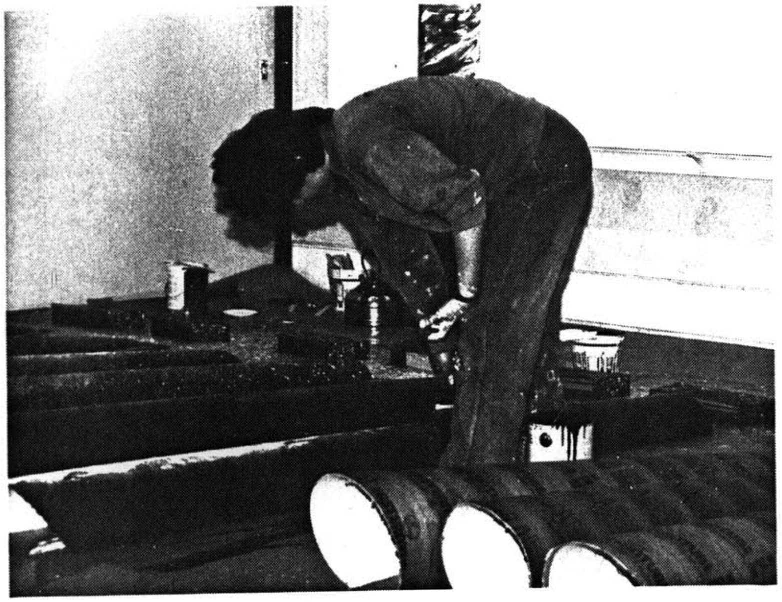
A great deal of effort also went into designing and making several hundred multi-color silkscreened posters. They were so successful that they were all stolen off the walls of MIT as fast as they went up.

A second, slicker, brochure/poster was designed in early January. The production of this brochure was delayed until the final schedules of speakers and lecture halls were confirmed. 3000 of these brochures were printed, and 1000 are still available through the Departmnent of Architecture.

3.4 LOGISTICS

In addition to the mundane yet necessary tasks of envelope stuffing, a great deal of time was spent in the logistical aspects of the symposium. As Nancy Jones said, "You've got to pick up these people at the airport!" Several members of the Symposium Committee went to the airport more times than they would like to recall.

There was also some amount of coordination required between the audio visual technician, and the audio video. One lecture required a video recorder and operator, four separate slide projectors, three operators, a film projector, and one harried symposium member calling the cues with the help of cue sheets and hands labeled right and left with a ball point pen. Other lectures required locating two identical



PB: How many doughnuts were eaten?

Co; Twenty eight dozen.

outdated slide projectors, a laser pointer which was always about to blind someone, and jack rigging additional projection screens with the help of automatically raising blackboards. (Technology was always a concern of the Committee.)

Peter Prangnell once remarked that the Architecture Department at MIT couldn't have an event unless food was involved. Throughout the week, there was ample proof of this. No fewer than 28 dozen doughnuts were consumed in three days, along with delicious cuisine by a local caterer.

One early requirement for participation by MIT students was that they host a visiting student for the duration of the week. The glamorous task of one committee member was to pair up locals and visitors, and mail out sets of letters with each other's addresses and other information on them. Guest lecturers and studio instructors were lodged in a nearby hotel.

3.5 ORGANIZATION

As in the original intention of the symposium organizers, there were two levels of participation in the symposium. These two parallel and ongoing events were always a strong organizing format for the symposium. The first, the evening lecture series, was attended by students, alumni and many members of the Boston architectural community. It was satisfying to note that each lecture played to a capacity crowd. Lectures were scheduled nightly at 7 pm, Monday through Friday. Saturday and Sunday were full days of lectures, a panel discussion, and a public review of student work.

The second level of participation in the symposium was the student workshop taught

by visiting studio leaders invited from schools across North America. These studio leaders took time from their teaching positions at other universities to participate.

Students were given a preference for studios after the one day sketch problem. There were six to ten students per studio, and five out of the seven studios had MIT students acting as hosts/assistants for the visting instructors. Studios met informally throughout the day, beginning on Tuesday of the week.

Additionally, studio instructors were asked to present their work and to lead informal discussions during lunchtimes. Students responded enthusiastically to these talks and presentations as it gave them the chance to see the work of the other studio instructors.

The schedule of events was, indeed, tightly packed. This was due to the desire to include as much as possible in a limited time, and also to stimulate a high intensity of production and exchange of ideas.

LH: Sunday night we stood there and stared at each other going "They're all here, what are we going to do?"

MM: On Sunday, suddenly, names became faces, and it was like; and all I had been thinking about was the lectures, and having four hundred people be in the room or twelve. And that was the other fear, right? That no one would show up. And then when the students all showed up, it was like "Oh my God, there's this whole other part to this thing, isn't there?"

LH: It didn't matter, they kind of took care of themselves.

PL:Yeah, I'm glad of that.

PERSONALITIES

4

4.1 PORTIONS FROM INTERVIEW

PL:Tuesday was great...Here's these people talking about what you've been writing about, and all their discussions were going in ways you never expected, and in ways in which you did expect.

PB: You were saying, Tuesday you went in on some of the discussions? In the studio?

PL: When people started to meet as groups, even Tuesday some people met, and they were talking, they were reacting to our program. They were reacting to the contents of the symposium. They were reacting to each other! And to hear that discussion, was great!

PB: Because?

PL: First of all, you saw MIT people talking to other students about different issues, and you just saw people talking about issues that YOU wanted them to talk about. People taking positions, people realizing these issues in ways which you never thought of before. Because, we were engineering this whole theater, in a sense, and to see how it reacted...

MM: Yeah. And it was sort of amazing too, to see how much, how well, those studio people just sort of took, you know, walked in and took over their job. In a way that's part of why we didn't have to deal...

LH: Getting them there, getting them together. And I think the fact that all these people came from so far away...they wanted to be together, and they wanted to work, and they wanted to talk.

JG: And by Saturday night, I was at studio late at night, it was their last night, as they were putting all their stuff together; and people were saying "We don't want to go home, we want to stay here!"

MM: You asked about disappointments, and probably for me the one disappointment is that there were not as many MIT people involved as originally planned. We chose 26,27. More people than we thought we could even accomodate. We chose 26 people from MIT, 13 people from Harvard, and seven people from the BAC. All seven people people from the BAC showed up, ten or eleven of the 13 from Harvard, and at MIT it dropped down from being 26 to 13. All the S.M.Arch's people just like, left us...

LH: And the Harvard people were having a hard enough time to stay as it was 'cause it was during their registration.

MM: ...that was a real disappointment.

PL: And especially, after we made up that sign saying that this was a real thing, and a committment.

LOS: There were a lot of people who never signed up because they knew it was right before their thesis, or it was right at the end. They were just not interested in putting the time in.

PL: But then I also heard that some S.M.Archs people dropped out because Hans Hollein wasn't coming. And it would be interesting to find out from other students why they didn't come. Because, if they didn't come because, I don't know, because they, I can't imagine what the reasons are, but it is a statement about MIT. I mean, what type of students are we bringing in here?

PB: That's interesting, what you're saying Paul, that it represents the MIT designers.

LOS: Well I think it represents something about attitude and just incredibly low morale and a high rate of burnout at MIT. I talked to several people that just said, "I just can't muster up the energy" after, you know, an exhausting semester and right before another exhausting semester. To them, it just, it didn't really represent fellow students getting together and wanting to get this high energy thing. It was like, another committment associated with school and design and all this stuff.

JG: But you know, if this whole thing had been somewhere else everybody would have wanted to be there. It was only because it was happening in their own house that we lost them.

LOS: Right. I think that made the difference.

PL: Some faculty suggested that we should have done it right in the middle of the semester. Because then we would have had guaranteed, the whole atmosphere would have been totally different. The intensity, the students there.

MM: And maybe we were at fault, because we were, we found working as a small group to be more efficient, and we had so much work to do. And maybe we didn't make it as public. I mean, it started out in a very public realm, in the sense that it did start out in those student forums. The fact that, again, not that many students went to the student forums is one thing too. But maybe...

PL: I think some of the best conversations actually happened on Sunday morning between some of the MIT faculty and other invited guests. And the students. And because finally the students had gotten their hands on the problem, knew the issues, knew each other, and there were just some great discussions. And I'd never seen some of the MIT faculty shouting. But they really brought out their point of view clearly, and clearer than they had, perhaps, in the semester of discussions in their studios.

MM: And they came too. A couple of them came out of sickbeds.

PL: And there is something to be said about what such an environment creates when you take people who are, perhaps not necessarily sharing your own view of the world, and you put them next to somebody else.

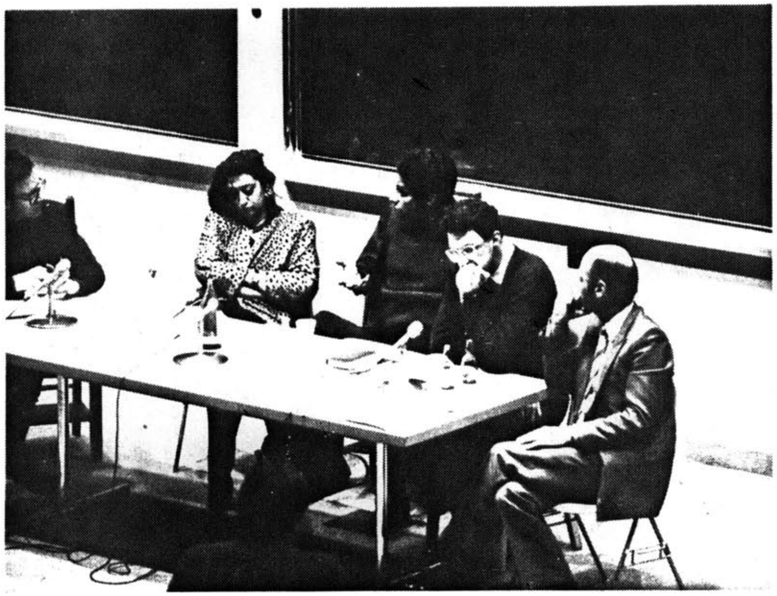
PB: Talking to the students, it seemed, their strongest point was that they got to meet other students. And to see other points of view. Which is sort of specific: That's how to design. But it didn't really relate, or did it, to "An Architecture of Substance"? What was in your mind the underlying message? Was it a political message, a social message, and did it succeed, and what was going on there?

MM: I think that was the number one thing we were trying to do. To encourage that kind of communication.

LH: We wanted the exchange.

PB: Well, if you wanted a design forum, why did...?

MM: We did. A design symposium.



PL: But the substance also says, look, let's cut out the crap, and let's shut all our personal ideology that we carry, for whatever reasons...and let's look at what's essential to ourselves. And it essentially established a platform upon which all the discussion could take place... I think the title was a commentary on what is happening in the greater architectural world.

LH: One of the biggest discussions that we had going through some of the planning in June and July was who to get. And what order to put them in, how to get the discussion going based on these people...so we started with a list of about forty people–

MM: No, we had twenty names. We didn't have that many. And they ranged from Aldo van Eyck and some typical MIT heroes to Coop Himmelblau, and Rem Koolhaas, and Zaha Hadid.

PL: Basically there were a lot of left fielders.

PB: Eric Moss?

MM: Eric Moss? Well, what was funny that Eric Moss came...We had wanted him to teach a studio, and he couldn't teach a studio, but he called us up and said that he'd really like to come...so we scheduled a lecture, because Paul had seen his stuff, and was impressed with "Edwin Moses" –he kept calling him "Edwin Moses", we kept expecting this guy to do the high hurdle.

PB: You were thinking about the lectures and how to work them together, what were you trying to say; this is a formalist, and this is a something else, or...?

LH: We didn't want to catagorize them as much as we wanted to show the variations–

MM: A diversity.

LH: –diversity, in working styles, in dialogue that they were carrying on within their own...

PB: So you had no intention of promoting the MIT philosophy?

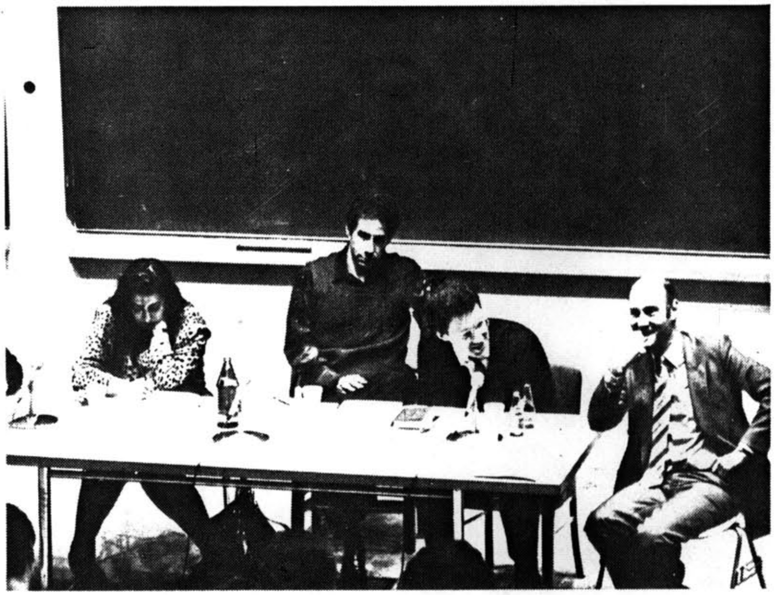
MM:No, although we had no intention of denying it.

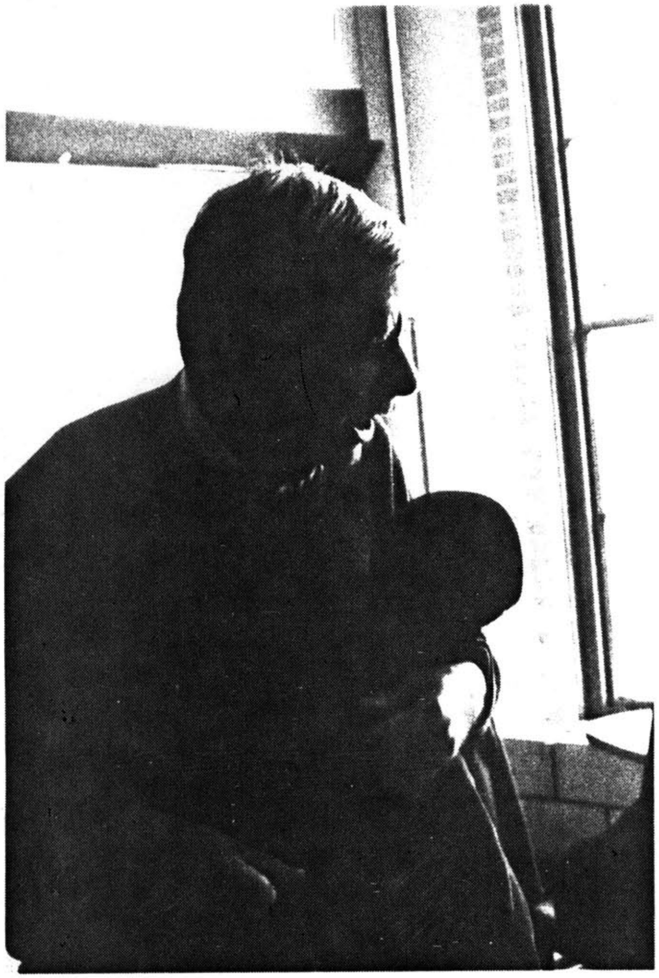
LH: Although in some sense we did just that by introducing Peter and Maurice as our first speakers. And then, with that basis, then we introduced the people who were more varying "strains", or whatever.

MM: But I don't think we intentionally positioned...

JG: Lots of the visitors could only come toward the end of the week, so that's just how it happened.

MM: ...Some of it was circumstantial, but some of it was, I mean, it wasn't so much a philosophy, well it was a philosophy–





JG: It was show business.

MM: But it was also like who would be good? We knew that Peter would be a good opening lecture, and then we wanted somebody–

PB: Did he?

MM: Yeah! And then we wanted somebody pretty solid, we wanted a practitioner. It went more from theoretical people to practitioners...

PL: So we had catagories, basically.

LH: But Maurice wasn't thought of as a practitioner so much as a theory about building...

MM: Whereas Peter's was–

LH: ...whereas Peter's was a philosophical...

JG: Cultural.

LH: ...cultural viewpoint, and Maurice was pure form. So that was balancing some of the ideals of culture and what you pool your information from, and then taking it, and how do you really observe it and work with it. Those were our two opening lectures that we wanted to fit in the time span when students were working on their own.

MM: And then Whiteman, we wanted to sort of establish some philosophical questions. And then we wanted people at the end that were speculative.

PL: I think Coop Himmelblau was one of the highlights of the week.

JG: He took everybody by surprise.

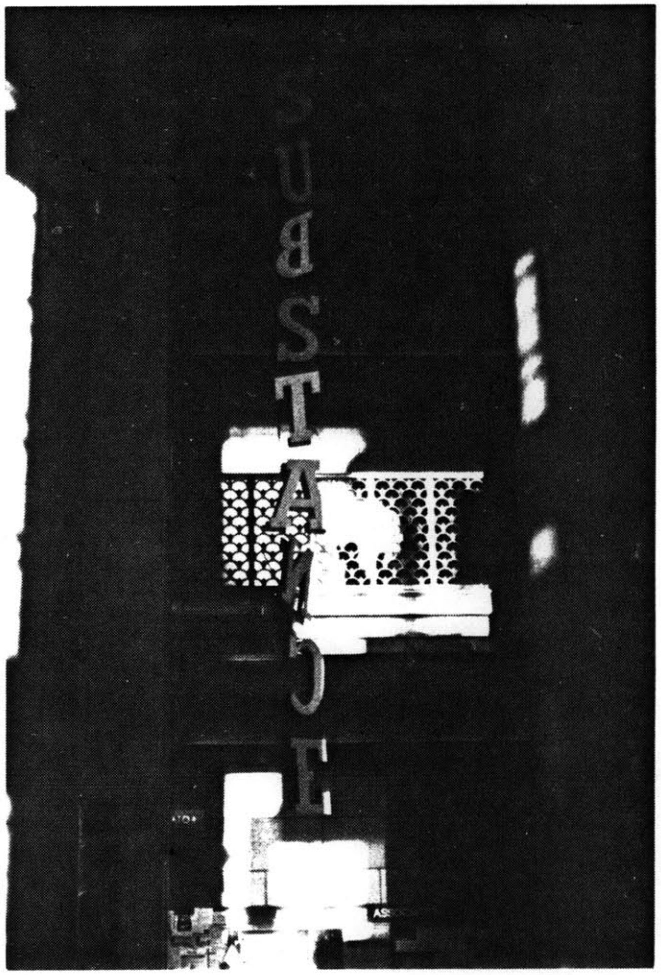
PL: His work had soul.

LH: He gave the most emotional outpouring during his talk than anyone else.

MM: He drinks champagne before his thng, and he WASN'T stoned out of his mind.

JG: He was listening to "Brown Sugar".

MM: ...and then suddenly people just went "God, architecture can be a lot of different things, can't it?"



PL: If you looked at the whole week, and it helped me in terms of thinking what an architecture of substance is. You've got to have the Whiteman part, you've got to have the reflective aspects. You've got to have the the part which gives you an understanding of form, and seeing some rational way of dealing with that, and you've got to have the soul part. There's got to be the belief. And if you just have those things by themselves you're going to have dead architecture.

4.2 PARTICIPANTS IN THE SYMPOSIUM

(and names appearing in the text)

MIT FACULTY

JOHN DE MONCHAUX	Dean School of Architecture and Planning
JOHN R. MYER	Head Department of Architecture
WILLIAM PORTER	Architect Professor of Architecture and Planning
MAURICE K. SMITH	Architect Professor of Architecture

GUEST LECTURERS AND STUDIO INSTRUCTORS

CARMEN CORNEIL
Architect
Assoc. Professor of Architecture
University of Toronto

ELIN CORNEIL
Architect
Assoc. Professor of Architecture
University of Toronto

HOWARD DAVIS
Architect
Asst. Professor of Architecture
University of Texas at Austin

KURT FORSTER
Director
Getty Center for the History
of Art and the Humanities
Santa Monica, California

ZAHA HADID
Architect
Professor of Architecture
The Architectural Association, London

K. MICHAEL HAYS
Architect
Assoc. Professor of Design
Rhode Island School of Design

WILLIAM HUBBARD
Architect
Professor of Architecture
UCLA

FUMIHIKO MAKI
Architect
Head, Department of Architecture
Tokyo University

ERIC MOSS
Architect
Professor of Architecture
Southern California Inst. of Architecture

PETER PRANGNELL
Architect
Professor of Architecture
University of Toronto

WOLFGANG PRIX
Architect
Coop Himmelblau
Vienna, Austria

STANLEY SAITOWITZ
Architect
Assoc. Professor of Architecture
U.C. Berkeley

JOHN WHITEMAN
Architect
Associate Professor of Urban Design
Harvard Graduate School of Design

STUDENT PARTICIPANTS

Ricardo Accorsi, RISD

Juan Antonio Alurralde, Harvard

Rick Ames, MIT

Peter Batchelor, MIT

Philip Beesley, U. of Toronto

Peter Bentel, Harvard

Richard Berg, MIT

Jamie Bill, MIT

Michael Bischoff, Harvard

Christopher Blake, BAC

Sam Brooke, Syracuse U.

Niccolo Casewit, MIT

Ti Nan Chi, Yale U.

Geraldine Comerford, MIT

Michael Cullinen, Harvard

Eric Foulke, Harvard

Yuko Fukami, Washington U.

Edgardo Goldberger, Temple U.

Esther Haas, Abt für Architektur, Zürich

Shirrine Hamadeh, Rice U.

Belén Hermida Rodríguez, Wellesley

Veronika Hoegger, Abt für Architektur, Zürich

Dave Hudacek, U. of Washington

Alicia Imperiale, Pratt U.

Greta Jones, MIT

David Judson, Harvard

James Kalsbeek, U. of Cincinatti

Louis Keene, MIT

Patricia Kelly, U. of Texas, Austin

Vanja Knocke, Kungliga Tekniska Hogskolan, Stockholm

Tim Koelle, BAC

Debbie Sue Kropf, U.C. Berkeley

Mindy Lehrman, MIT '82

Sang Liu, Carnegie Mellon

Beth Mahar, BAC

John Margolis, UC Berkeley

Michael Mason, U. of Florida

Jesse Miguel, MIT

Toru Mitani, U. of Tokyo

Takehiko Nagakura, U. of Tokyo

Mario Novella, Harvard

Victor Olgyay, MIT

Lynelle Oseroff, Temple U.

Dave Paolella, BAC

Thomas Pratt, U. of Toronto

Ken Radtkey, MIT

Elizabeth Ranieri, RISD

William Roslansky, MIT

Nick Rossouw, U. of Washington

Agus Rusli, Harvard

Robin Severns, Harvard

Jonathan Smith, BAC

Richard Sommer, Harvard

Wendy Stambler, Harvard

Gordon Stockoe, U. of Toronto

Karen Swett, MIT

Michael Tavel, NYC

Tim Thurman, BAC

Erik von Matern, Kungliga Tekniska Hogskolan, Stockholm

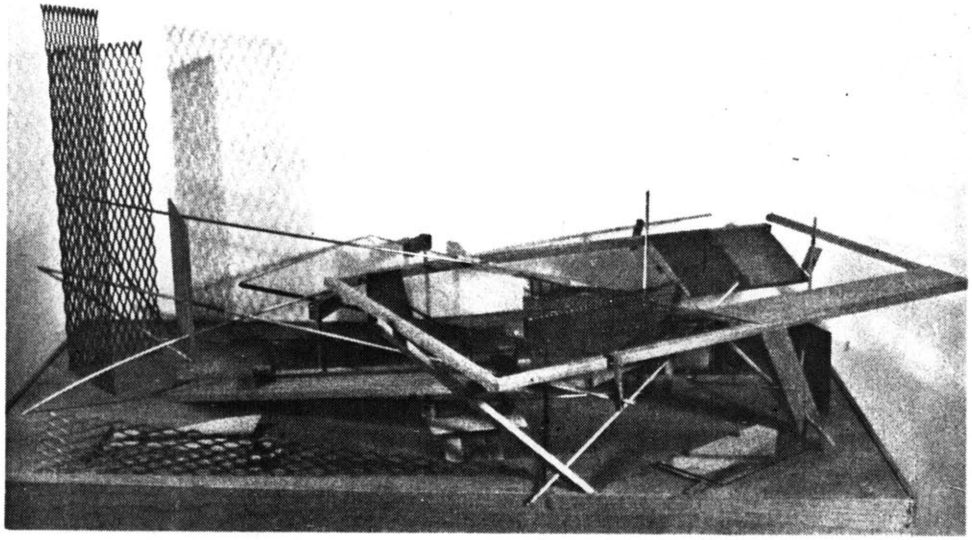
Terry Welker, U. of Cincinatti

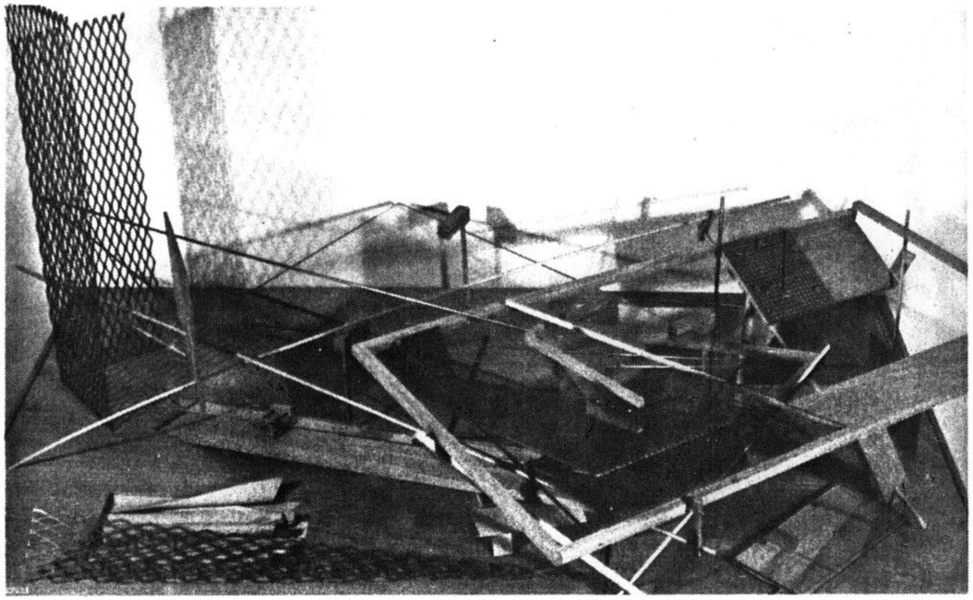
Robert Wertheimer, Pratt U.

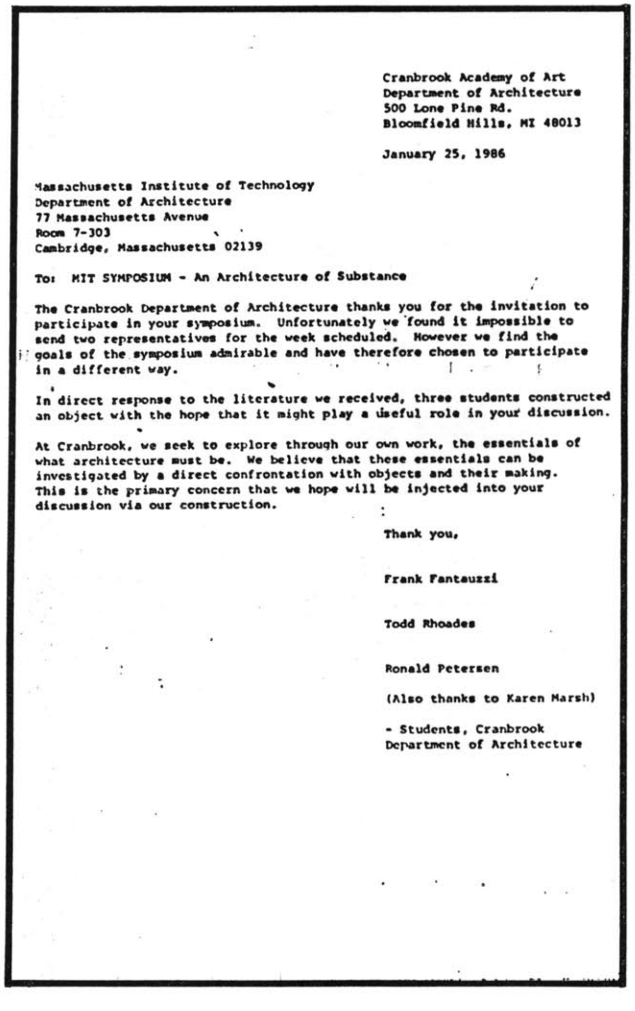
Gay Willert, U. of Florida

Christopher Young, BAC

4.3 CRANBROOK ACADEMY CONTRIBUTION







Cranbrook Academy of Art
Department of Architecture
500 Lone Pine Rd.
Bloomfield Hills, MI 48013

January 25, 1986

Massachusetts Institute of Technology
Department of Architecture
77 Massachusetts Avenue
Room 7-303
Cambridge, Massachusetts 02139

To: MIT SYMPOSIUM - An Architecture of Substance

The Cranbrook Department of Architecture thanks you for the invitation to participate in your symposium. Unfortunately we found it impossible to send two representatives for the week scheduled. However we find the goals of the symposium admirable and have therefore chosen to participate in a different way.

In direct response to the literature we received, three students constructed an object with the hope that it might play a useful role in your discussion.

At Cranbrook, we seek to explore through our own work, the essentials of what architecture must be. We believe that these essentials can be investigated by a direct confrontation with objects and their making. This is the primary concern that we hope will be injected into your discussion via our construction.

Thank you,

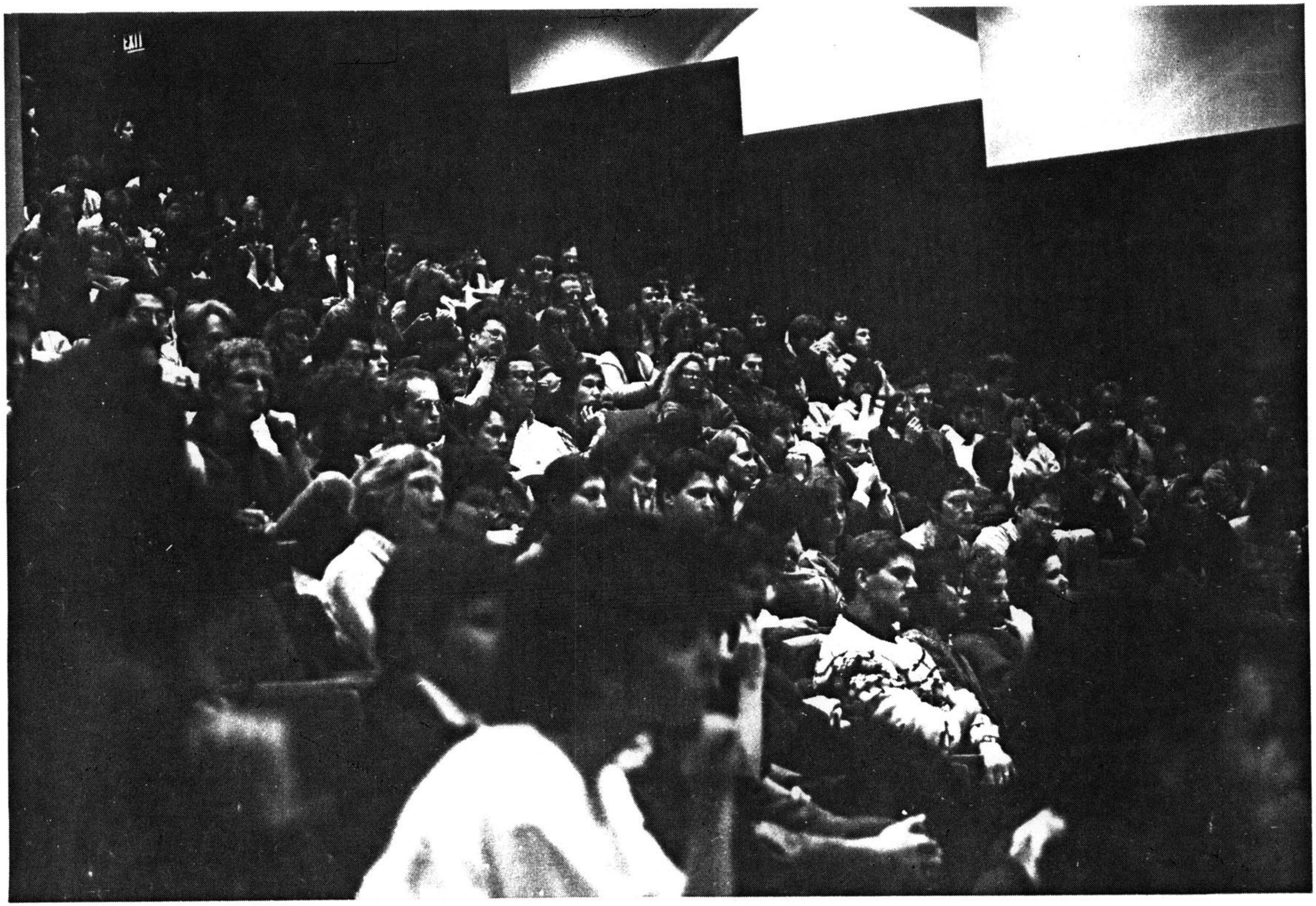
Frank Fantauzzi

Todd Rhoades

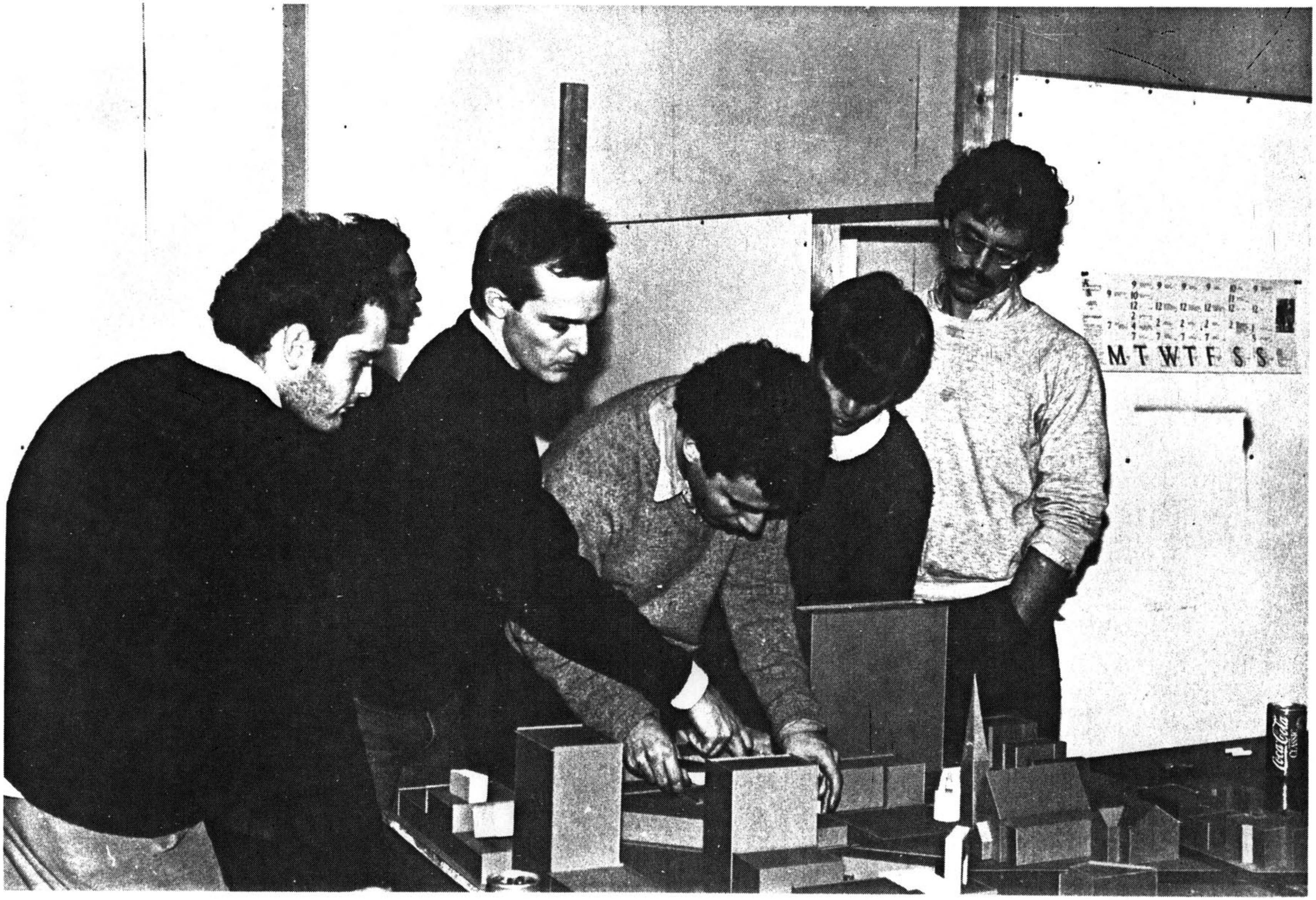
Ronald Petersen

(Also thanks to Karen Marsh)

- Students, Cranbrook
Department of Architecture



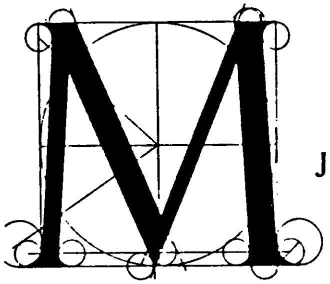
CONTENT


M T W T F S S
Coca-Cola Classic

5

9 Introduction to one-day charrette and site visit.
7-439

7 Lecture:
Peter Prangnell
Bartos Theatre
AMT, Bldg. E-15



JAN
27

9 Exhibition and discussion of one-day charrette.
7-439

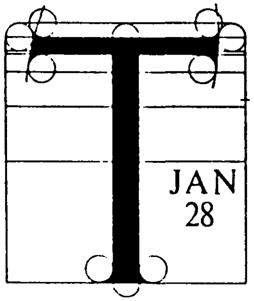
10 Review of one-day charrette.
7-439

12 Lunch
7-404

2 Introduction to workshop
7-439

4 Tour of Arts, Media & Technology Building
Lobby, Bldg. E-15

7 Lecture:
Maurice Smith
9-150



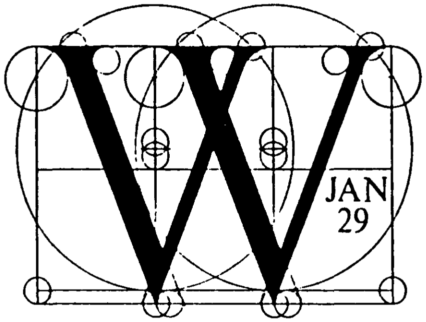
JAN
28

9 Workshop:
Design Studio

12 Lunch with informal discussion and presentation with workshop leaders.
7-439

2 Workshop:
Design Studio

7 Lecture:
Wolf Prix of
Coop Himmelblau
10-250



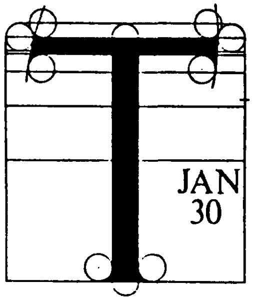
JAN
29

9 Workshop:
Design Studio

12 Lunch with informal discussion and presentation with workshop leaders.
7-439

2 Workshop:
Design Studio

7 Lecture:
John Whiteman
9-150



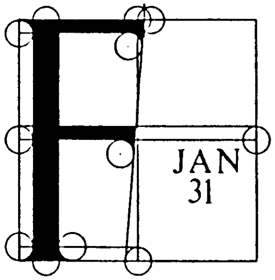
JAN
30

9 Workshop:
Design Studio

12 Lunch with
informal discussion
and presentation with
workshop leaders.
7-439

2 Workshop:
Design Studio

7 Lecture:
Zaha Hadid
10-250



JAN
31

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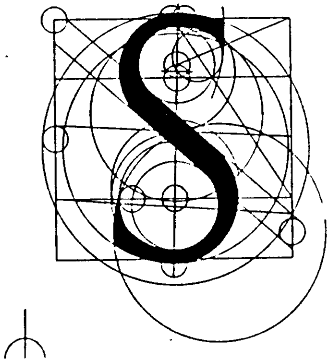
10 Lecture:
Eric Moss
10-250

11 Lecture:
Kurt Forster
10-250

12 Break for lunch

2 Forum:
Panel Discussion of
An Architecture of
Substance: Eric Moss,
John Whiteman, Zaha
Hadid, and others,
moderated by Kurt
Forster
10-250



FEB
1

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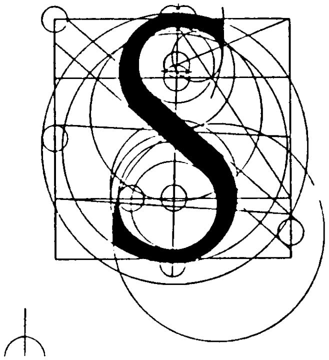
9 Workshop review with
Fumihiko Maki and
others
7-439 & 7-431

12 Lunch
7-404

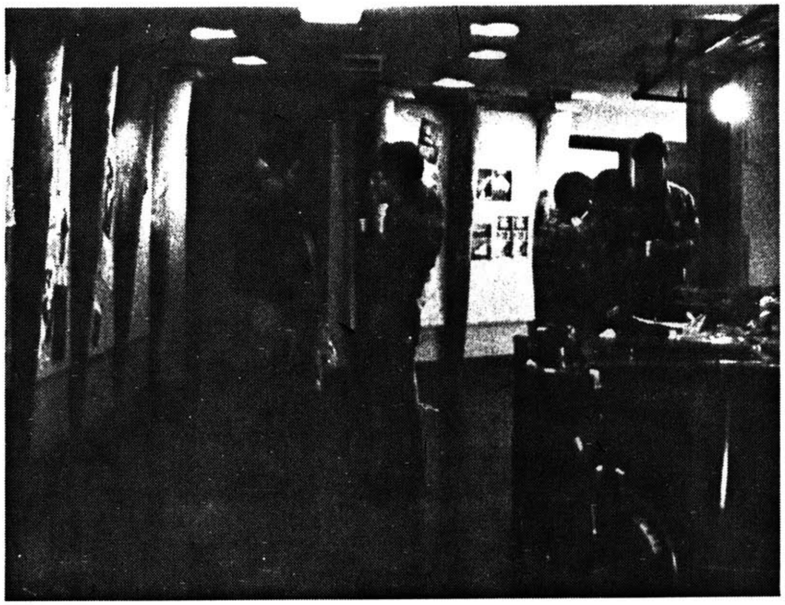
1 Jury Review
10-250

5 Closing Lecture:
Fumihiko Maki
10-250



FEB
2

5.1 INTRODUCTION TO DESIGN WORKSHOP



63 students representing 21 schools began their week at MIT at a registration and reception gathering, Sunday evening, 26 January, in the architecture department coffee house. Polaroid pictures were taken and displayed through the week as part of the fourth floor exhibition designed and constructed by Kim Sammis.

Monday morning, 27 January, the students were introduced to the one day sketch problem. This was designed as an opportunity to become familiar with Central Square, with Cambridge, and each other. It was also a chance to individually explore some ideas of architecture as information. The studio leaders had not yet arrived at MIT yet, so students produced this work without aid or interference from instructors. Each student was given a 30" by 40" white board to use in any way (or not at all) with any medium. Several students decided to work in pairs. (see examples following pages) Comments from some students at the time indicated that Peter Prangnell's lecture that evening inspired them to "go to work" that night.

5.2 ONE DAY CHARRETTE NEWSSTAND

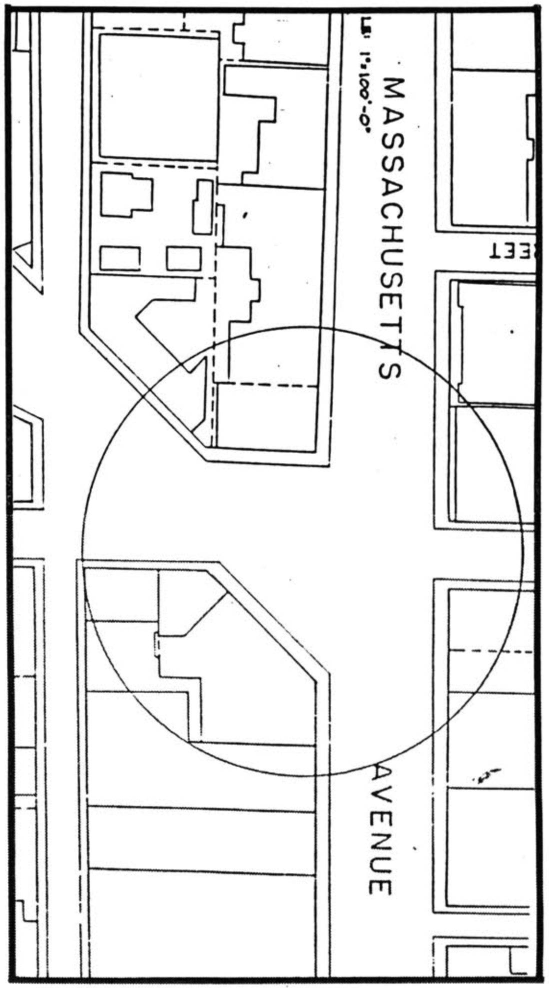
Due to the construction for the subway, the newstand currently located at the southern corner of Mass. Ave. and Western Ave., will be torn down. Your job is to design a replacement to be located somewhere in the environs known as Central Square. (See accompanying map.)

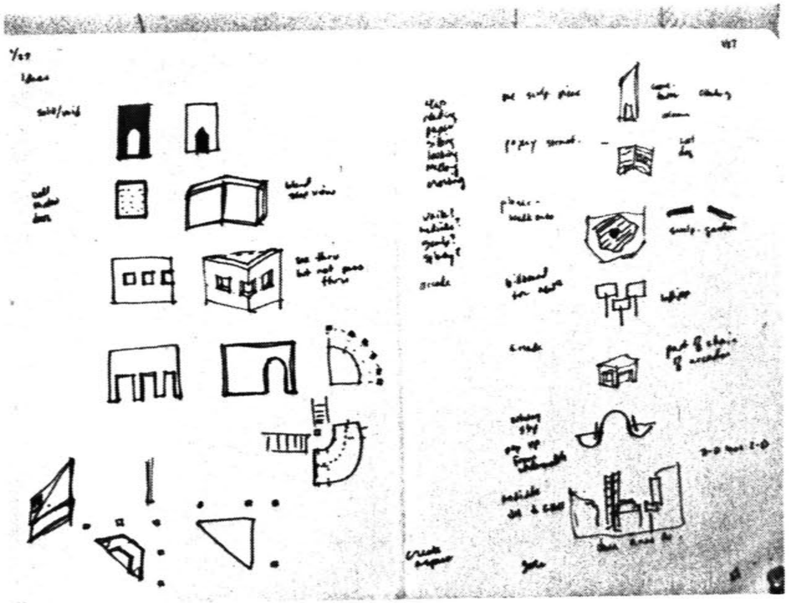
You will be given a 30" by 40" piece of mat board.

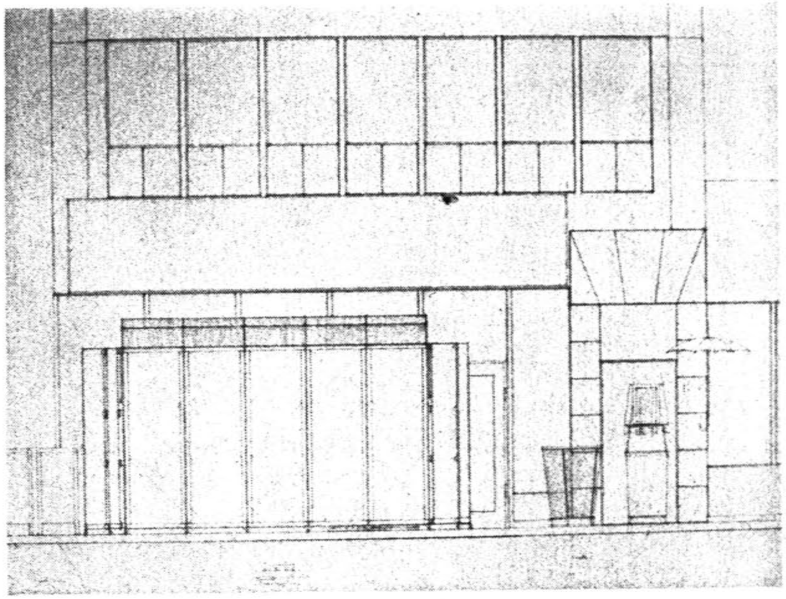
Presentation can be no larger than 30" by 40".

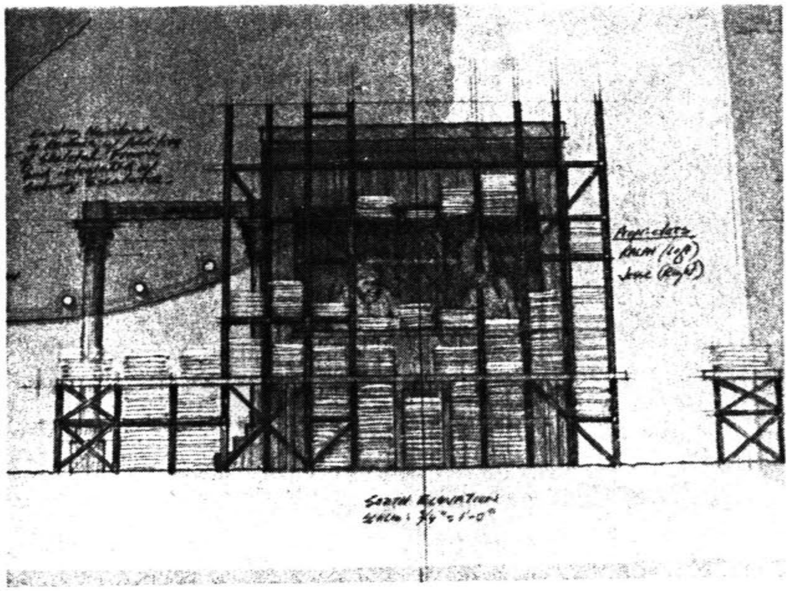
Please have your work pinned up by 9 am Tuesday, January 28.

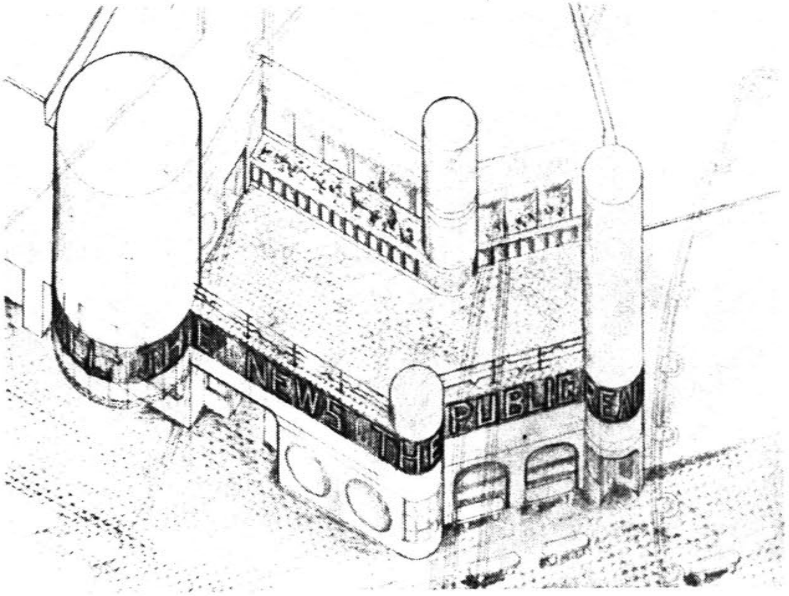
Remember this is an exploration, by no means a competition.








South Elevation
Scale: 3/4" = 1'-0"


THE NEWS THE PUBLIC REA

WHAT ISSUES DID YOU PURSUE IN THE FIRST DAY PROJECT?

The issues I pursued were primarily directed towards bringing together a large desperate collection of architectural elements. -JM

The thirty second moment of buying a newspaper. -TM

randomness and fun in architecture, a biological approach in architecture, architecture as human being, the tradition since Vetruvius -TNC

The relationship of information to the average person -RS

Siting, scale, object-form, use -BM

...an appliance, alluding to the fact that it is a generic and reproducible machine that performs a perfunctory service. -JAA

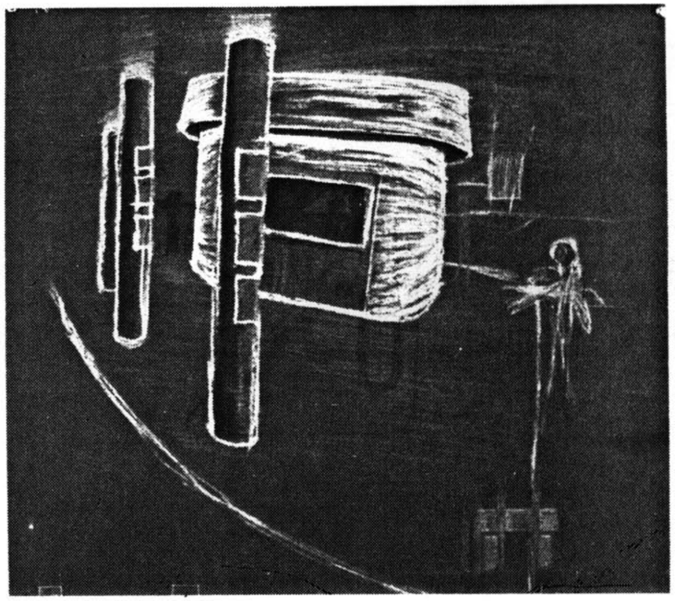
Impact of design and architecture on a social setting or structure, and the appropriateness of this. -RA

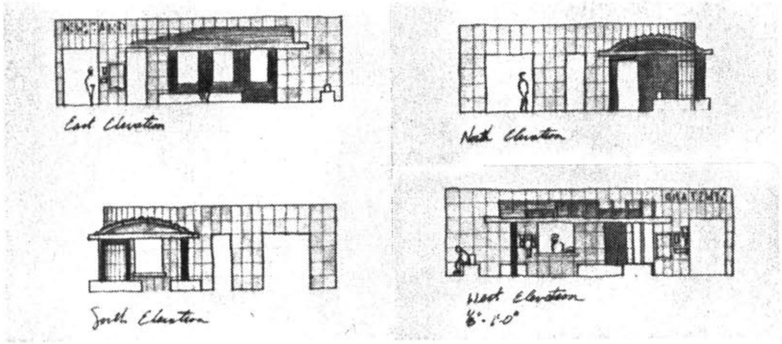
News as advertising for news. -RB

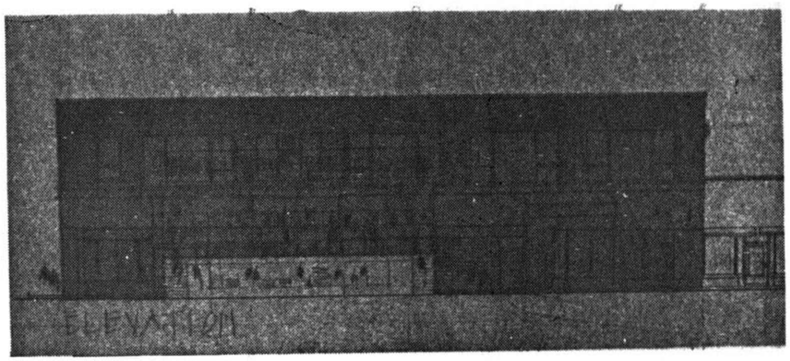
To give the corner a spectral identity as the "News Corner." -YF

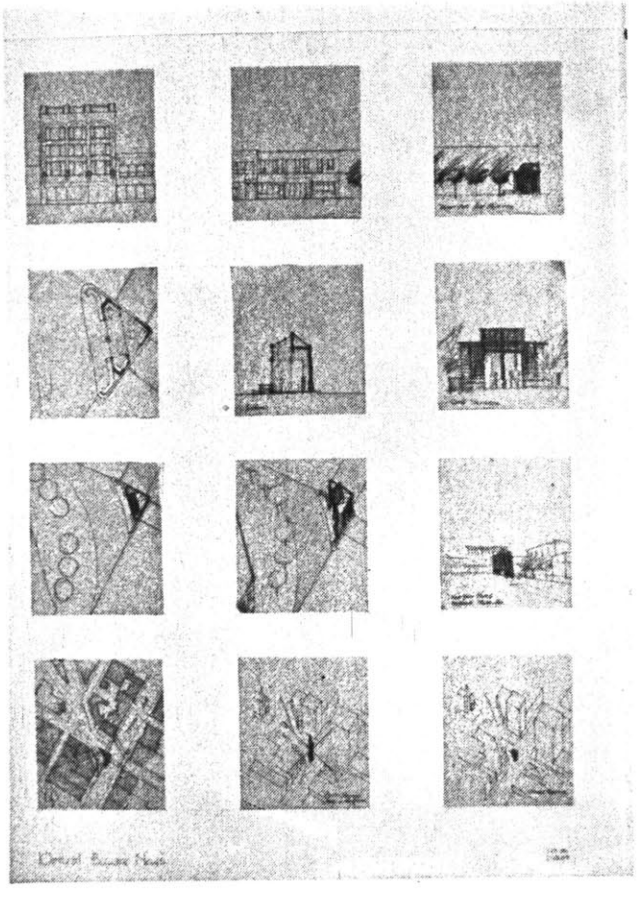
News for the newsworthy. An attempt to close the loop of production and consumption by taking the site and making it also a site where news could be made. -PB

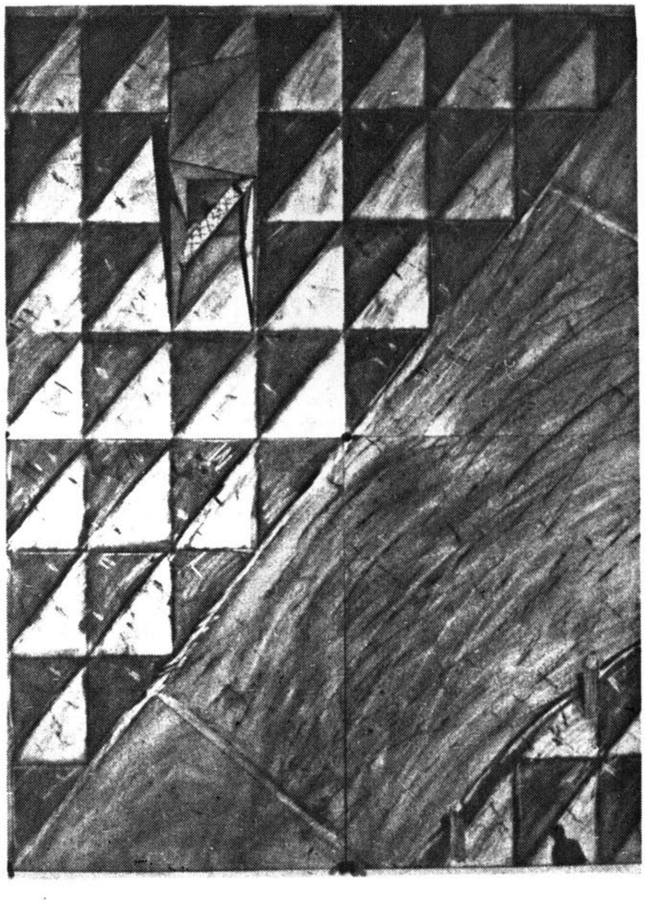
Dilemma in wanting to make a landmark in Central Square and not having enough program to do it. -WR

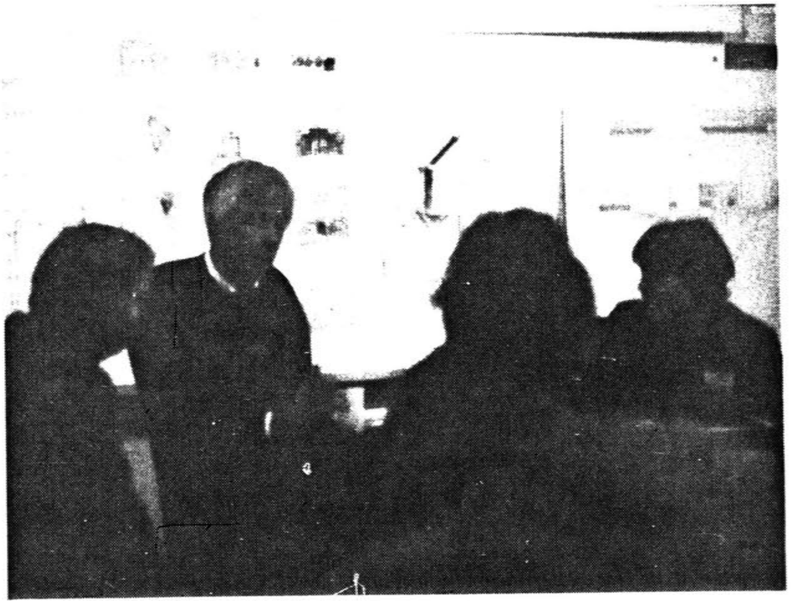



East Elevation
North Elevation
South Elevation
West Elevation
1/8" = 1'-0"


ELEVATION


Detroit Buses Hub



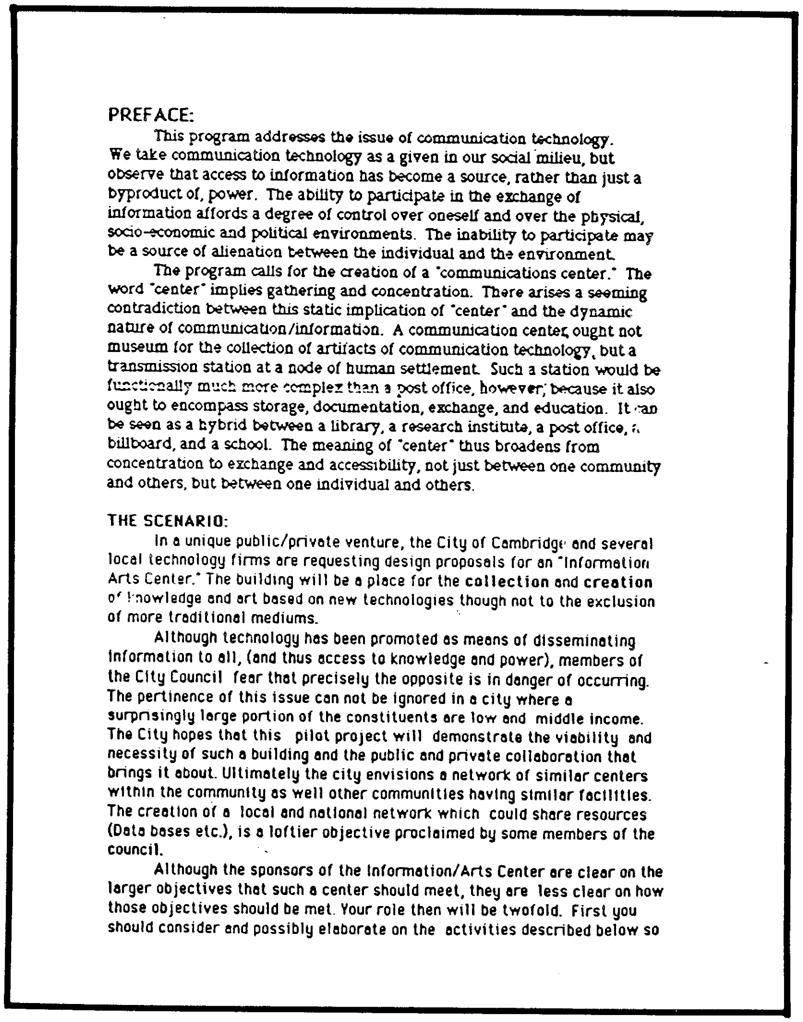


5.3 THE WORKSHOP PROGRAM

On Tuesday afternoon, a presentation was given by fellows in the Arts Media Technology Building (a.k.a. E-15, Wiesner Building), on experimental video techniques of architectural information storage, computer graphics, and other new forms of information technology. The purpose for this presentation was to introduce the types of work and equipment that would occur in the program of the design workshop: an Information Arts Center. The AMT building itself was one model for the program, stressing that it was to be a public, municipal facility.

The program was distributed that afternoon to the students and the workshop instructors formally introduced. Students were given their studio preference, and with some minor modifications there were about six to ten students per studio.

The committee recognized immediately that to fully design a building in three days based on this enormous program was overwhelming and virtually impossible. Therefore students were informed that the range of activities was indeed, "No means intended to be finite, instead they act as starting blocks for your imaginations." The program was meant to be interpreted and adjusted. It was also entirely up to the studio leaders to conduct their studios in whatever they wished. Again, the intention was not to come up with a finished "product" for the final review, rather "We see this exercise as a vehicle for discussion."



PREFACE:

This program addresses the issue of communication technology. We take communication technology as a given in our social milieu, but observe that access to information has become a source, rather than just a byproduct of, power. The ability to participate in the exchange of information affords a degree of control over oneself and over the physical, socio-economic and political environments. The inability to participate may be a source of alienation between the individual and the environment.

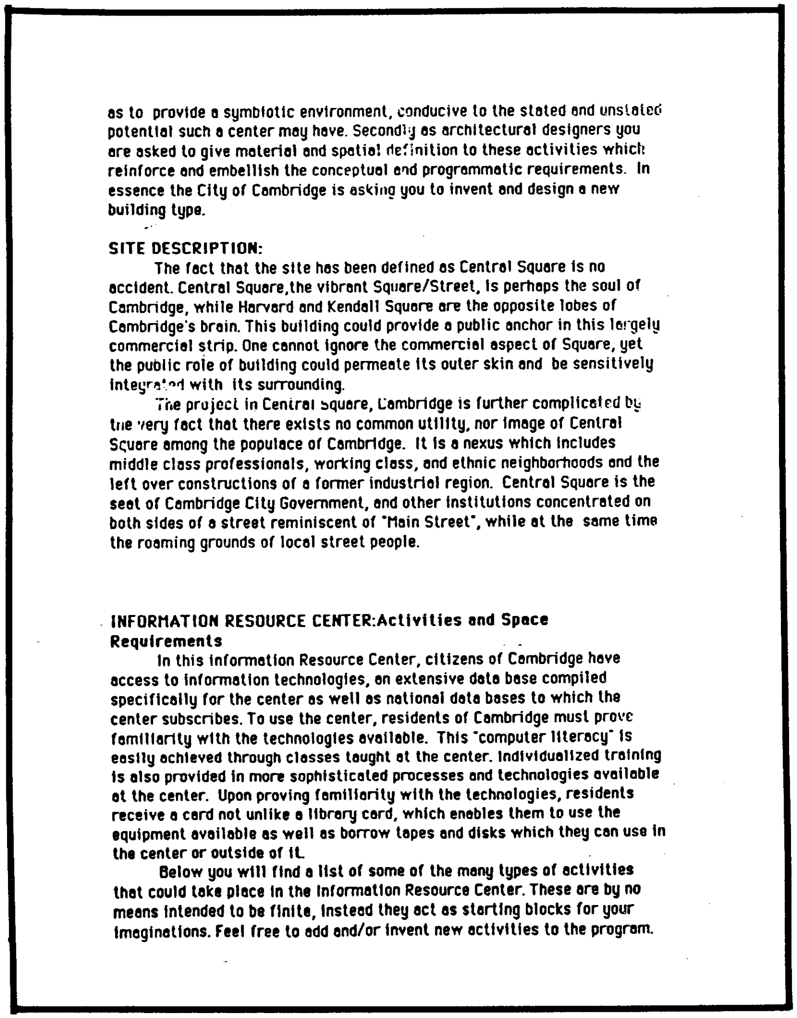
The program calls for the creation of a "communications center." The word "center" implies gathering and concentration. There arises a seeming contradiction between this static implication of "center" and the dynamic nature of communication/information. A communication center ought not museum for the collection of artifacts of communication technology, but a transmission station at a node of human settlement. Such a station would be functionally much more complex than a post office, however, because it also ought to encompass storage, documentation, exchange, and education. It can be seen as a hybrid between a library, a research institute, a post office, a billboard, and a school. The meaning of "center" thus broadens from concentration to exchange and accessibility, not just between one community and others, but between one individual and others.

THE SCENARIO:

In a unique public/private venture, the City of Cambridge and several local technology firms are requesting design proposals for an "Information Arts Center." The building will be a place for the **collection** and **creation** of knowledge and art based on new technologies though not to the exclusion of more traditional mediums.

Although technology has been promoted as means of disseminating information to all, (and thus access to knowledge and power), members of the City Council fear that precisely the opposite is in danger of occurring. The pertinence of this issue can not be ignored in a city where a surprisingly large portion of the constituents are low and middle income. The City hopes that this pilot project will demonstrate the viability and necessity of such a building and the public and private collaboration that brings it about. Ultimately the city envisions a network of similar centers within the community as well other communities having similar facilities. The creation of a local and national network which could share resources (Data bases etc.), is a loftier objective proclaimed by some members of the council.

Although the sponsors of the Information/Arts Center are clear on the larger objectives that such a center should meet, they are less clear on how those objectives should be met. Your role then will be twofold. First you should consider and possibly elaborate on the activities described below so



as to provide a symbiotic environment, conducive to the stated and unstated potential such a center may have. Secondly as architectural designers you are asked to give material and spatial definition to these activities which reinforce and embellish the conceptual and programmatic requirements. In essence the City of Cambridge is asking you to invent and design a new building type.

SITE DESCRIPTION:

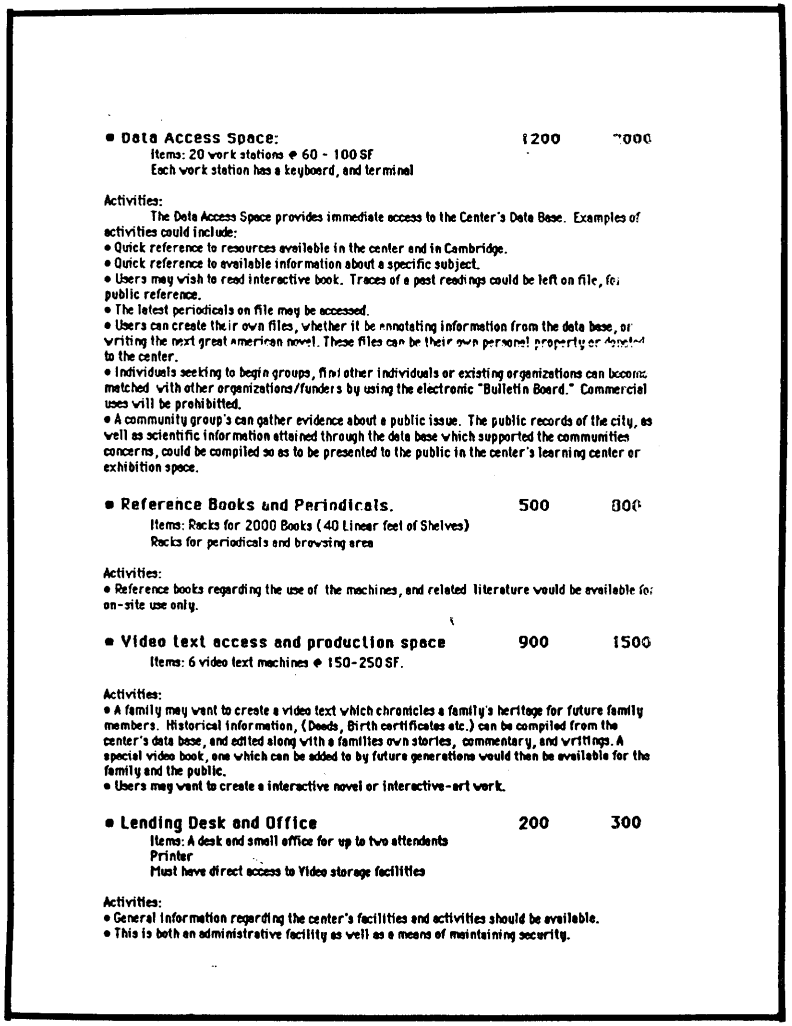
The fact that the site has been defined as Central Square is no accident. Central Square,the vibrant Square/Street, is perhaps the soul of Cambridge, while Harvard and Kendall Square are the opposite lobes of Cambridge's brain. This building could provide a public anchor in this largely commercial strip. One cannot ignore the commercial aspect of Square, yet the public role of building could permeate its outer skin and be sensitively integrated with its surrounding.

The project in Central Square, Cambridge is further complicated by the very fact that there exists no common utility, nor image of Central Square among the populace of Cambridge. It is a nexus which includes middle class professionals, working class, and ethnic neighborhoods and the left over constructions of a former industrial region. Central Square is the seat of Cambridge City Government, and other institutions concentrated on both sides of a street reminiscent of "Main Street", while at the same time the roaming grounds of local street people.

INFORMATION RESOURCE CENTER:Activities and Space Requirements

In this Information Resource Center, citizens of Cambridge have access to information technologies, an extensive data base compiled specifically for the center as well as national data bases to which the center subscribes. To use the center, residents of Cambridge must prove familiarity with the technologies available. This "computer literacy" is easily achieved through classes taught at the center. Individualized training is also provided in more sophisticated processes and technologies available at the center. Upon proving familiarity with the technologies, residents receive a card not unlike a library card, which enables them to use the equipment available as well as borrow tapes and disks which they can use in the center or outside of it.

Below you will find a list of some of the many types of activities that could take place in the Information Resource Center. These are by no means intended to be finite, instead they act as starting blocks for your imaginations. Feel free to add and/or invent new activities to the program.



• Data Access Space: 1200 2000

Items: 20 work stations @ 60 - 100 SF
Each work station has a keyboard, and terminal

Activities:

The Data Access Space provides immediate access to the Center's Data Base. Examples of activities could include:

- Quick reference to resources available in the center and in Cambridge.
- Quick reference to available information about a specific subject.
- Users may wish to read interactive book. Traces of a past readings could be left on file, for public reference.
- The latest periodicals on file may be accessed.
- Users can create their own files, whether it be annotating information from the data base, or writing the next great american novel. These files can be their own personal property or donated to the center.
- Individuals seeking to begin groups, find other individuals or existing organizations can become matched with other organizations/funders by using the electronic "Bulletin Board." Commercial uses will be prohibitted.
- A community group's can gather evidence about a public issue. The public records of the city, as well as scientific information attained through the data base which supported the communities concerns, could be compiled so as to be presented to the public in the center's learning center or exhibition space.

• Reference Books and Periodicals. 500 800

Items: Racks for 2000 Books (40 Linear feet of Shelves)
Racks for periodicals and browsing area

Activities:

- Reference books regarding the use of the machines, and related literature would be available for on-site use only.

• Video text access and production space 900 1500

Items: 6 video text machines @ 150-250 SF.

Activities:

- A family may want to create a video text which chronicles a family's heritage for future family members. Historical information, (Deeds, Birth certificates etc.) can be compiled from the center's data base, and edited along with a families own stories, commentary, and writings. A special video book, one which can be added to by future generations would then be available for the family and the public.
- Users may want to create a interactive novel or interactive-art work.

• Lending Desk and Office 200 300

Items: A desk and small office for up to two attendents
Printer
Must have direct access to Video storage facilities

Activities:

- General Information regarding the center's facilities and activities should be available.
- This is both an administrative facility as well as a means of maintaining security.

- If a member wishes to use a video text file, or diskette not directly accessible on file, files can be temporarily borrowed for use in the center and outside of it.
- High quality or draft quality printouts of files can be purchased by members at cost.

- **Video Storage** 1500 2000

  Items: Storage Racks for video disks

Activities:

This space serves as storage for data stored on video texts, conventional PC disks, magnetic tapes. This space should be temperature controlled and be in close proximity to the lending desk and mainframe.

EXHIBITION/ENTRY SPACE

- **Exhibition space for interactive arts** 2000 3000

  Items: Space for temporary exhibitions and limited permanent exhibits.
  Must accommodate public gatherings of up to 200 people and small performances.

Activities:

Besides acting as the public entry to the center, this space should accommodate temporary and some longer term exhibitions. The exhibitions can focus on interactive art, research, and other activities. Small performances sponsored by members and other sponsors could be held in this space. Furthermore, town meetings held with other cities with similar facilities about issues of mutual concern may be held at this center. This could be accomplished by using the center's teleconferencing equipment.

LEARNING CENTER

- **Two Class Rooms** 1000 1600

  Must have several terminals with self teaching tutorials.
  Video presentation facilities

Activities:

- Two staff members will conduct regular classes on the use of equipment at the center.
- Self teaching tutorials can be accessed through the three terminals available in each class room.
- It is also possible for community members to schedule seminars, or for staff members to provide special presentations for children, other groups.

RESEARCH FELLOW CENTER

- **Research offices for research fellows** 1400 1900

  8 Offices @ 150 - 200 SF/Person
  Communal Space/ Kitchen

Activities:

The center has eight research fellowships available to community residents, who are not already affiliated with research or university facilities. The fellowhips are for short terms (up to six months) or long term (one year or more) projects. The fellowship provides unlimited use of equipment, access to the data base, and an office. Limited seed money for grants will be available. Projects can be proposed by any certified community members, and can include a wide range of interests. A panel of community members, and members of the sponsoring industries will judge the projects.

All projects completed at the center are property of the center and accessible to the public.

STAFF FACILITIES

- **Offices/Space for "Information Technologists"** 2100 3100

  8 Text Inputters @ 100-150 SF/Station
  2 Video text editors @ 200 - 400 SF/Station
  Communal Space @ 200 - 300 SF
  Mainframe @ 500 - 800 SF.

Activities:

The city of Cambridge is in the process of transfering a majority of its public records on computer and video text files. Historical information, deeds, birth certificates, information about public officials etc. will be part of these new data files. To accomplish this ambitious activity, the city is restructuring its staff, some of which will be working at this center. The city is also interested in transferring many of the books in the public library to the center on data and video text files.

- Eight staff members will be working on conventional text transferring processes.
- Two staff members will be working on creating and editing video text files. These two staff members will also conduct classes.

UTILITIES / SERVICES 800 1600

Bathrooms @ 100 SF/FL/Gender
Two means of Egress @ 100 SF/FL
Elevator 150 SF.
Mechanical Room @ 200 - 400 SF

PRIVATE GARDEN

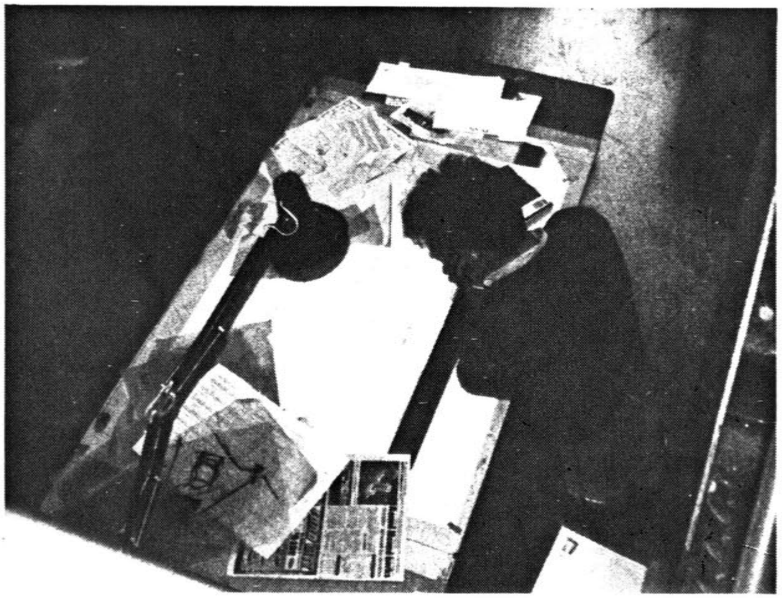
The center's sponsors have requested that a small garden (at any floor level) be provided.

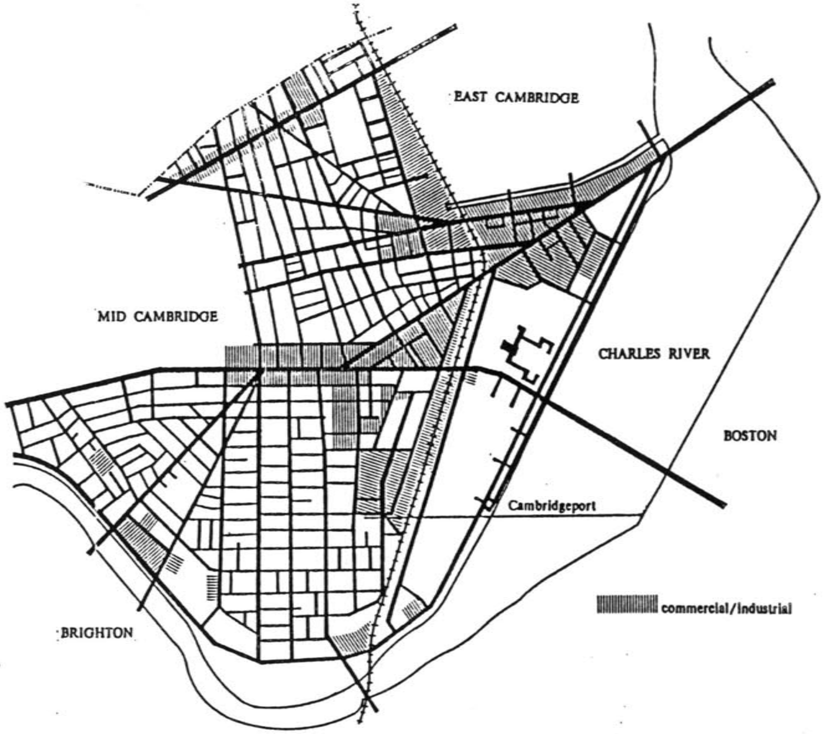
TOTAL AREA REQUIREMENTS 11600 17800

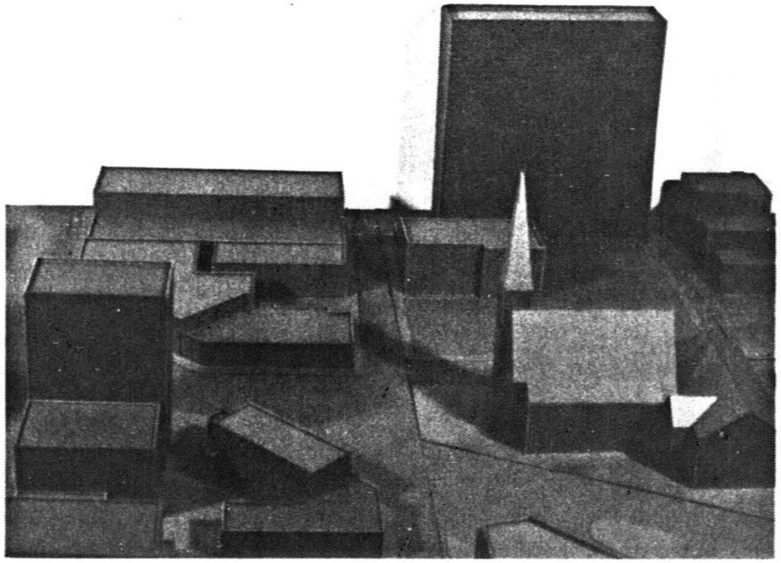
CONSTRAINTS

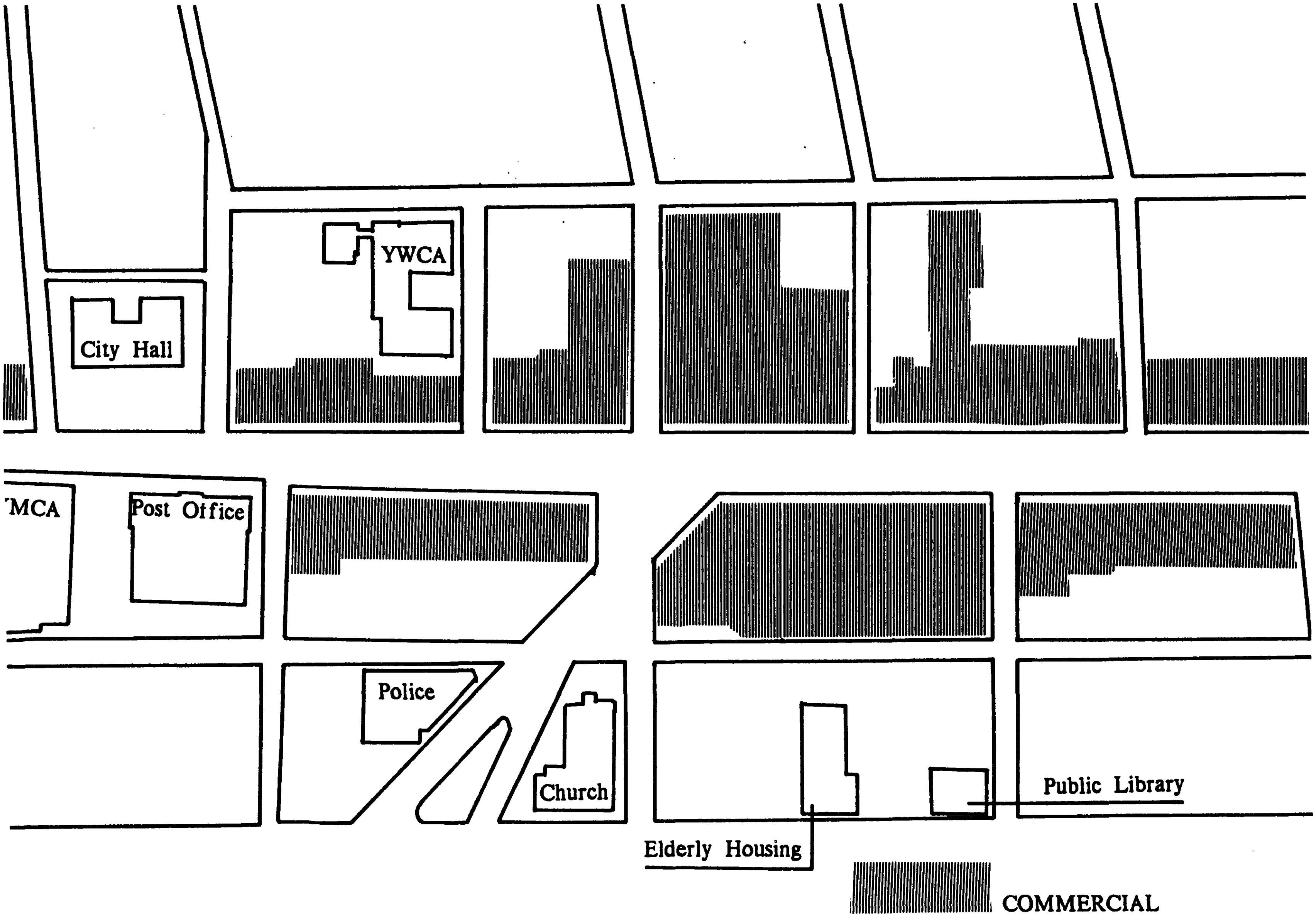
- Choose lot A, B, C, or D
- All Existing or currently proposed traffic and bus routes are to be maintained.
- You may want to limit yourselves to designing one aspect of the building, the building's public face, the workspace, the classrooms, or the exhibtion/entry space. Similiarly, other concepts about form, theory, or substance could be the point of your design. We are not looking for a fully resolved building, instead we see this exercise as a vehicle for discussion.

Note: One Square Meter equals approx. 9.5 SF.

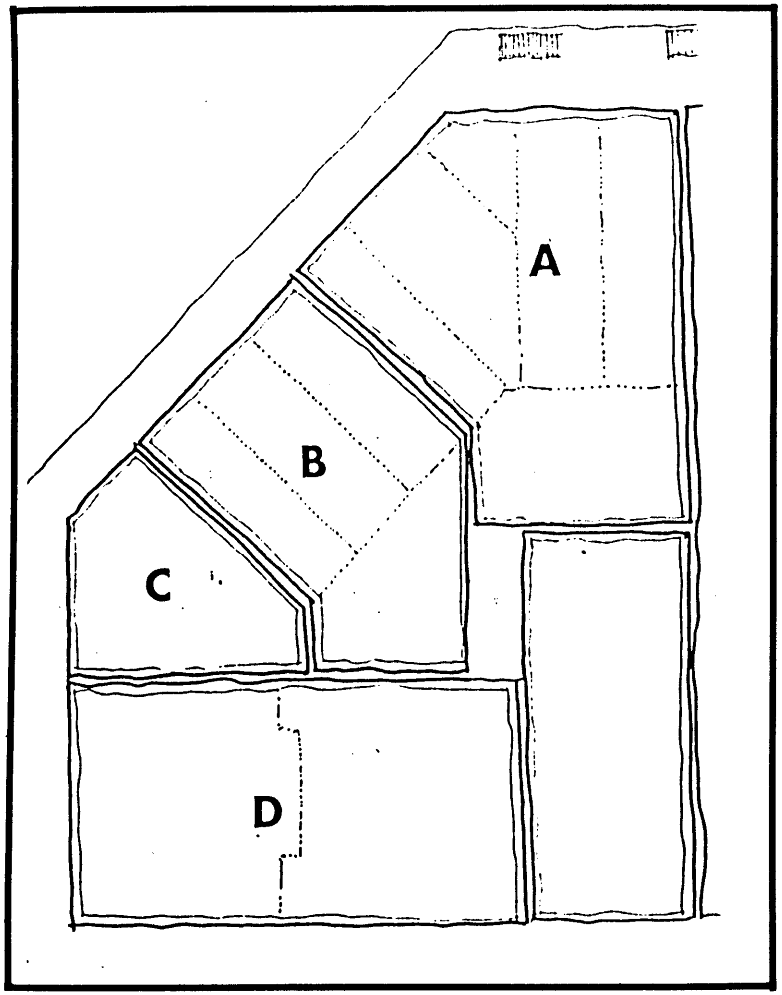


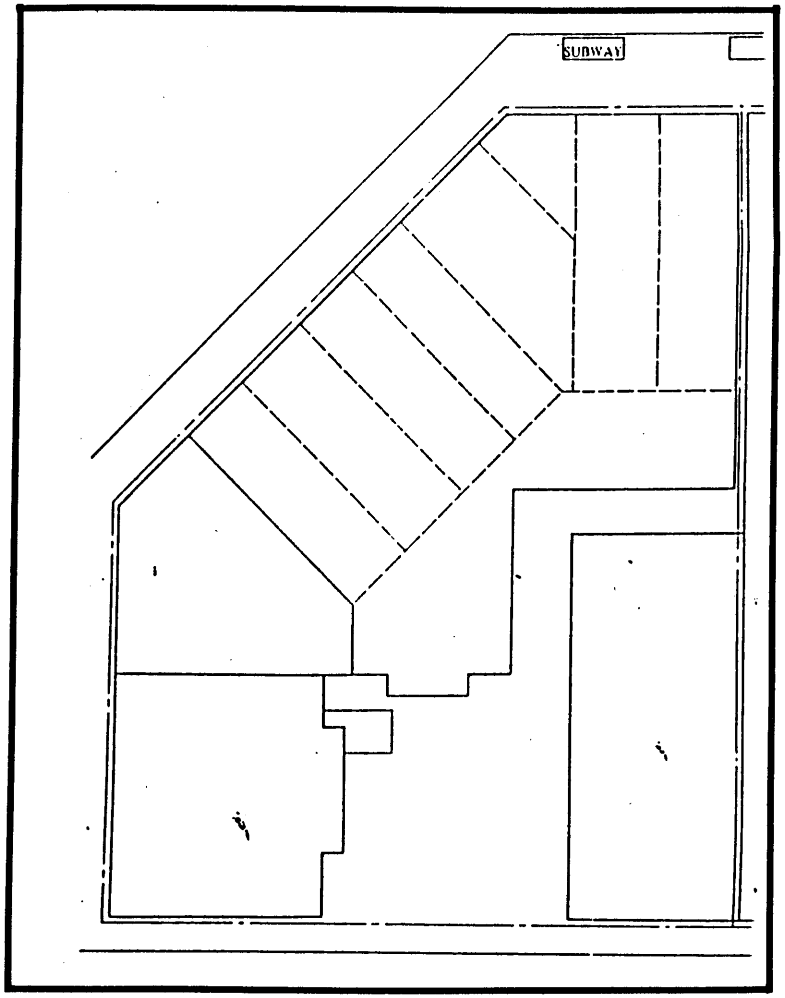

EAST CAMBRIDGE
MID CAMBRIDGE
CHARLES RIVER
BOSTON
Cambridgeport
BRIGHTON
▨ commercial/industrial

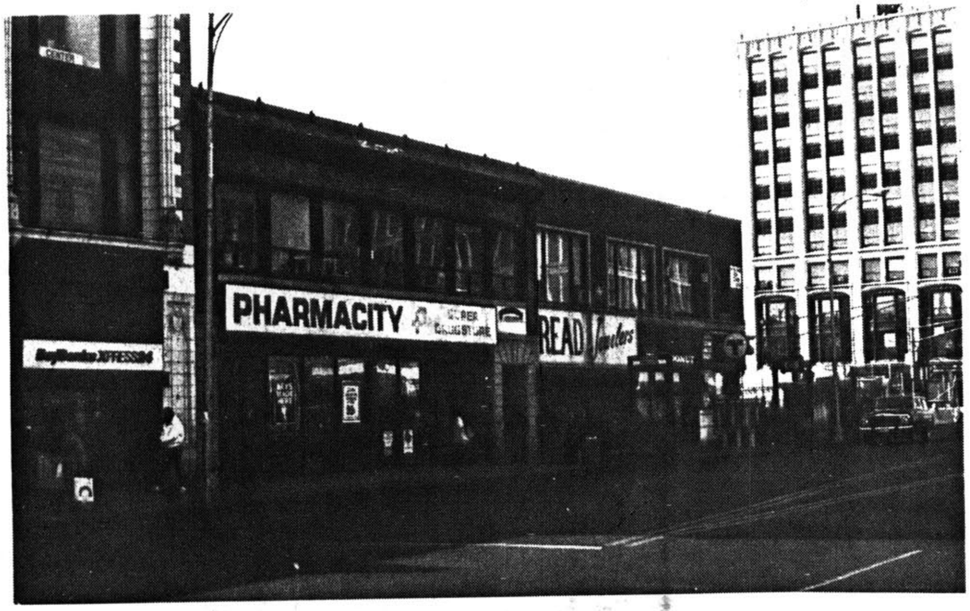


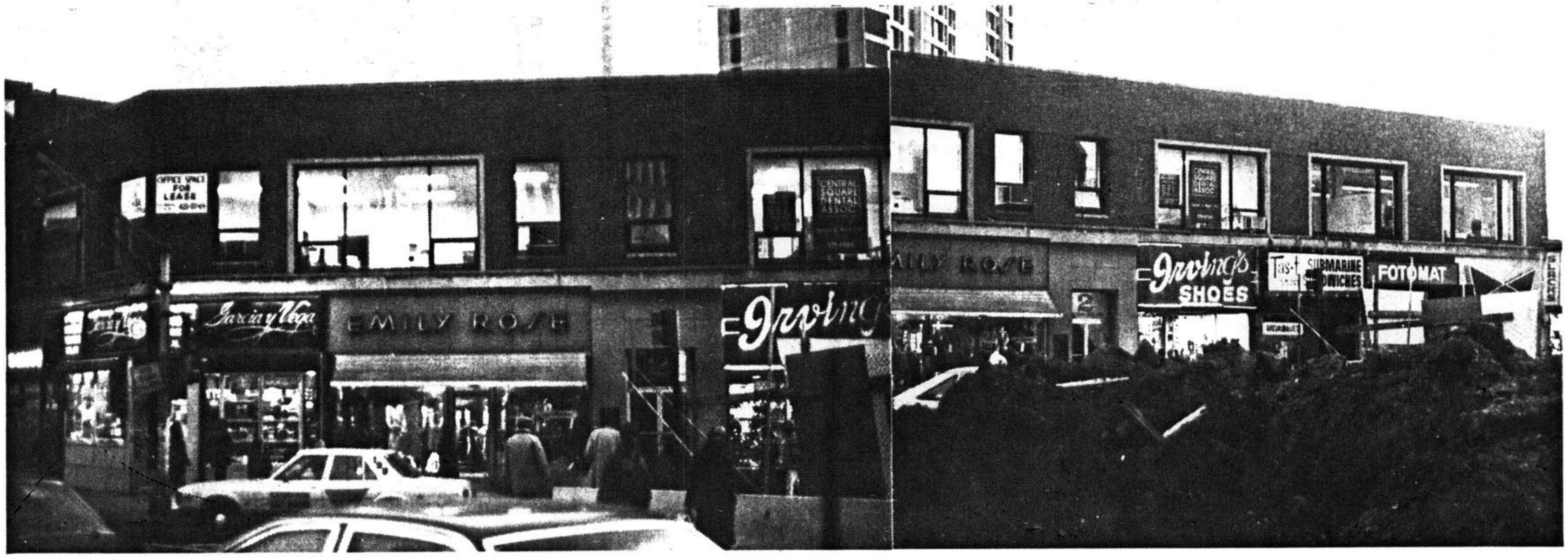

City Hall
YWCA
MCA
Post Office
Police
Church
Public Library
Elderly Housing
▥ COMMERCIAL

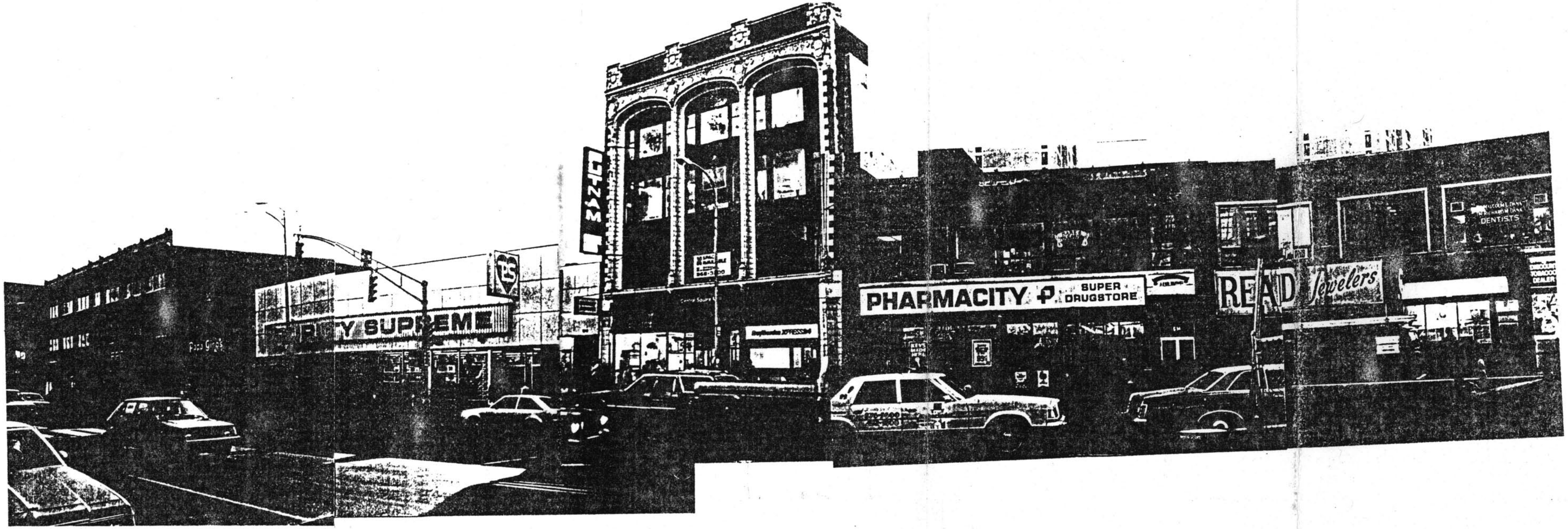
Current Land Use in Central Square District


A
B
C
D


SUBWAY

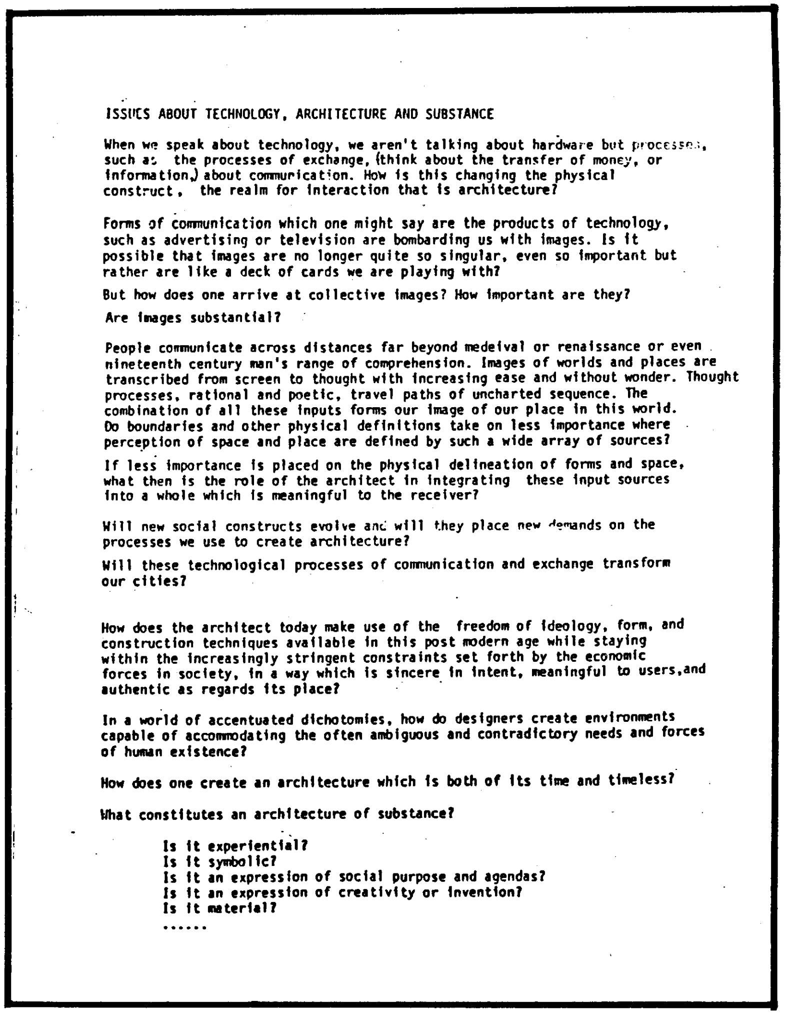

PHARMACITY
READ
Sanders


OFFICE SPACE FOR LEASE
CENTRAL SQUARE DENTAL ASSOC
Garcia y Vega
EMILY ROSE
Irving
Irving's SHOES
SUBMARINE SANDWICHES
FOTOMAT


Papa Gino's
TY SUPREME
PHARMACITY
SUPER DRUGSTORE
READ
Jewelers
DENTISTS

5.4 ISSUES

These two sheets outlining basic issues to be considered in the studios was distributed as a way to generate a common starting point of discussion.



ISSUES ABOUT TECHNOLOGY, ARCHITECTURE AND SUBSTANCE

When we speak about technology, we aren't talking about hardware but processes, such as the processes of exchange, (think about the transfer of money, or information,) about communication. How is this changing the physical construct, the realm for interaction that is architecture?

Forms of communication which one might say are the products of technology, such as advertising or television are bombarding us with images. Is it possible that images are no longer quite so singular, even so important but rather are like a deck of cards we are playing with?

But how does one arrive at collective images? How important are they?

Are images substantial?

People communicate across distances far beyond medeival or renaissance or even nineteenth century man's range of comprehension. Images of worlds and places are transcribed from screen to thought with increasing ease and without wonder. Thought processes, rational and poetic, travel paths of uncharted sequence. The combination of all these inputs forms our image of our place in this world. Do boundaries and other physical definitions take on less importance where perception of space and place are defined by such a wide array of sources?

If less importance is placed on the physical delineation of forms and space, what then is the role of the architect in integrating these input sources into a whole which is meaningful to the receiver?

Will new social constructs evolve and will they place new demands on the processes we use to create architecture?

Will these technological processes of communication and exchange transform our cities?

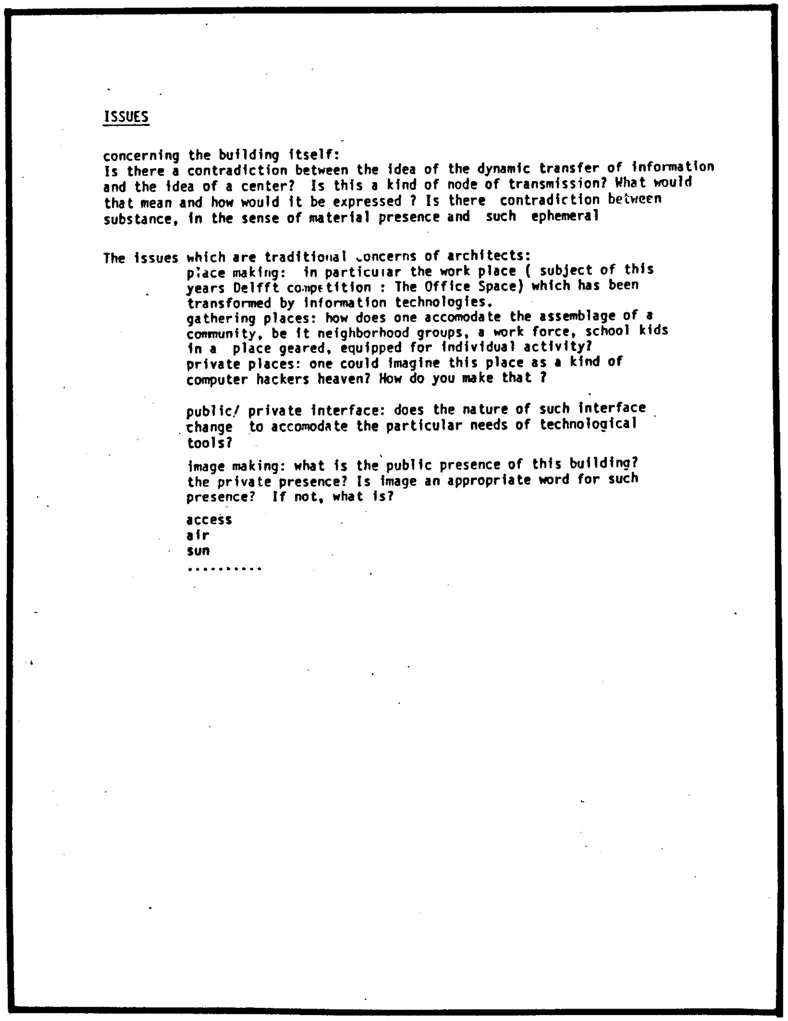
How does the architect today make use of the freedom of ideology, form, and construction techniques available in this post modern age while staying within the increasingly stringent constraints set forth by the economic forces in society, in a way which is sincere in intent, meaningful to users, and authentic as regards its place?

In a world of accentuated dichotomies, how do designers create environments capable of accommodating the often ambiguous and contradictory needs and forces of human existence?

How does one create an architecture which is both of its time and timeless?

What constitutes an architecture of substance?

Is it experiential?
Is it symbolic?
Is it an expression of social purpose and agendas?
Is it an expression of creativity or invention?
Is it material?
......



ISSUES

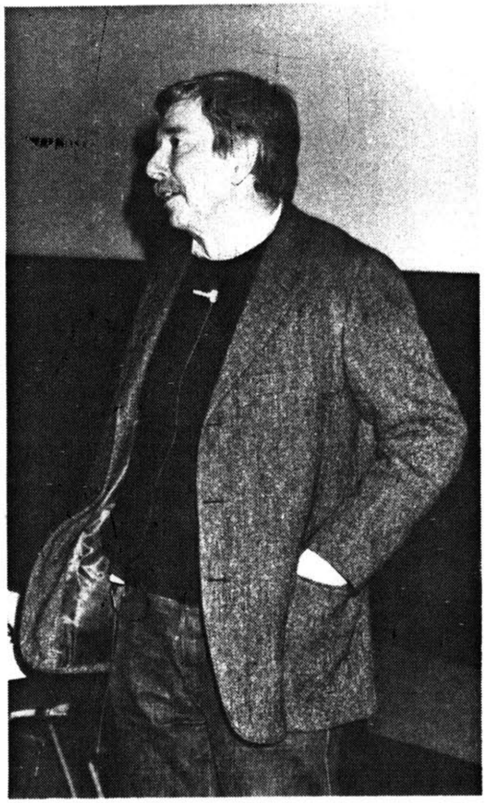
concerning the building itself:
Is there a contradiction between the idea of the dynamic transfer of information and the idea of a center? Is this a kind of node of transmission? What would that mean and how would it be expressed ? Is there contradiction between substance, in the sense of material presence and such ephemeral

The issues which are traditional concerns of architects:
place making: in particular the work place (subject of this years Delfft competition : The Office Space) which has been transformed by information technologies.
gathering places: how does one accomodate the assemblage of a community, be it neighborhood groups, a work force, school kids in a place geared, equipped for individual activity?
private places: one could imagine this place as a kind of computer hackers heaven? How do you make that ?

public/ private interface: does the nature of such interface change to accomodate the particular needs of technological tools?

image making: what is the public presence of this building? the private presence? Is image an appropriate word for such presence? If not, what is?

access
air
sun
....



PETER PRANGNELL

is Professor and former Chairman of the Department of Architecture at the University of Toronto. He has also taught at MIT, Harvard, Berkeley, Washington University, and the Architectural Association. As critic and theorist, his speculations have appeared in several journals, most recently in *Spazio e Societa.* His insights into the modernist sensibility are without parallel.

On Authenticity

AN ARCHITECTURE OF SUBSTANCE

27 Jan. 1986

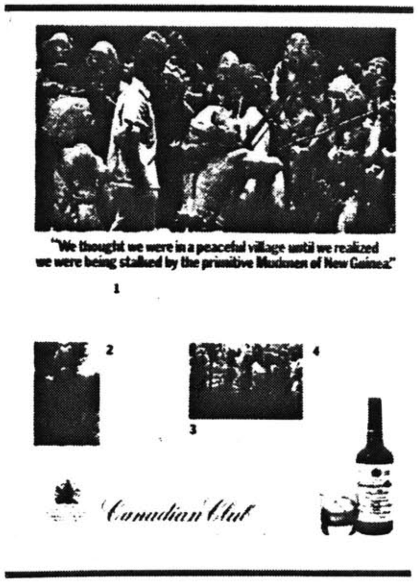
Peter Prangnell
27 January 1986

Introduction by Mary Meagher

Thank you very much. What a pleasure it is to be here! Particularly, understanding that I am the sort of cocktail of this event. Perhaps in that spirit I might even apologize for the somewhat pretentious title of *On Authenticity.* You might decide that it's *Off Authenticity.* I don't know how I got into that. It's like having footnotes. It means you're not quite sure, I think.

What I want to do is to suggest a way of looking at architecture, particularly some of the things that seem to be going on currently. And you might decide that that perhaps is a rather prejudiced view, but that of course is your priviledge to do so.

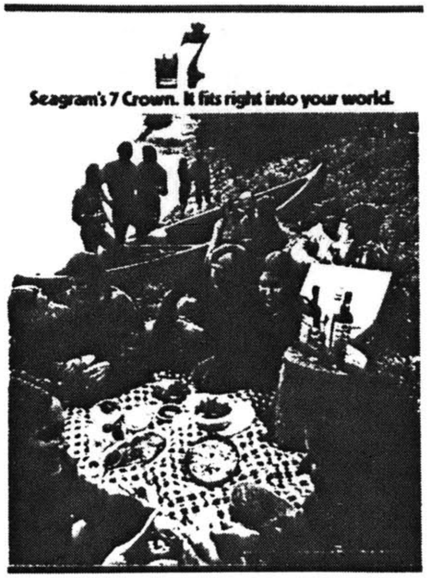
And this was totally an accident, that having gotten the cocktail position that these two pictures were to be first. What I wanted you to think about was one of the sort of dilemmas that whiskey manufacturers might find themselves in when they're marketing a product that is almost indiscernable or undistinguishable from their competitors.



"We thought we were in a peaceful village until we realized we were being stalked by the primitive Mudmen of New Guinea."

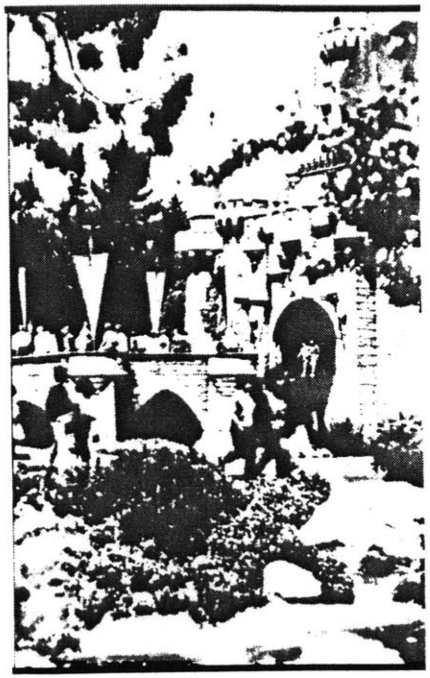
1
2
3
4
Canadian Club

Mud Men



Seagram's 7 Crown. It fits right into your world.

"Clean Livers"



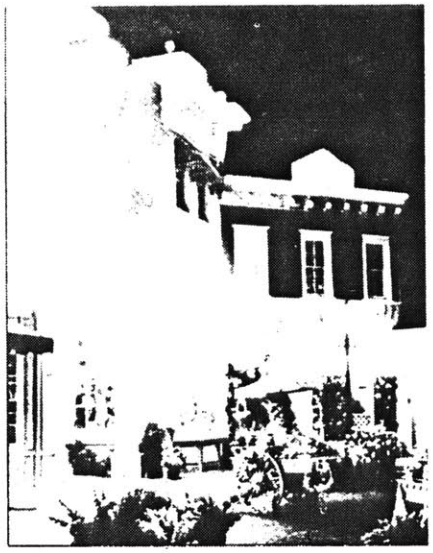
Disneyland

If you, for argument's sake, would admit that one middle priced whiskey is rather like an other, what that gets you into, if you're going to make a go of selling it, is that you start advertising, and in doing so you start appealing to a lot of hidden agendas that have really nothing to do with the issue of whiskey.

So those are two rather up market ads generally appearing in the New Yorker, and you know that quite a good design eye is there. It seems to me that what they are doing is the sort of hidden agendas which you can perhaps understand once one mentions the word *fantasy.* That's an important issue, because what I want to suggest, and the underlying theme of this, is how we might start thinking about buildings so they polarize us less. And what I believe is happening in ads like this, is that by association you might fantasize that you are with the mud men of New Guinea. And then of course you know all the sort of machinery behind, because it's not exactly a candid snapshot, even though they do refer to surprise. On the other hand you might find yourself wanting to associate with a group of clean livers, who perpetually, eternally, smile.

If you take a perfectly everyday situation like whiskey and try and sell it, to distinguish your product from your competitors you have to aim at a section of the market that you think will be responsive. In earlier suggesting that a certain polarization goes on, it is in fact a little devicive. Very devicive. And that seems to me to be one of the problems we have to deal with in thinking about architecture at the moment.

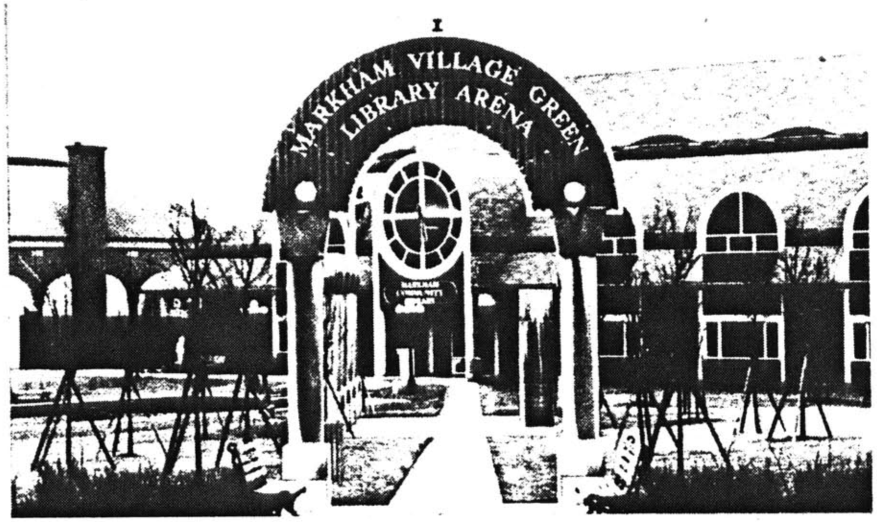
So for example, if you put your money down, your fantasy is assured by such a visit to Disneyland. What that does, it means that if it doesn't quite work out you can be grumpy. You demand your money back. And in that way you become a tourist. Unlike a traveler. You might distinguish the two by declaring that travelers pray for

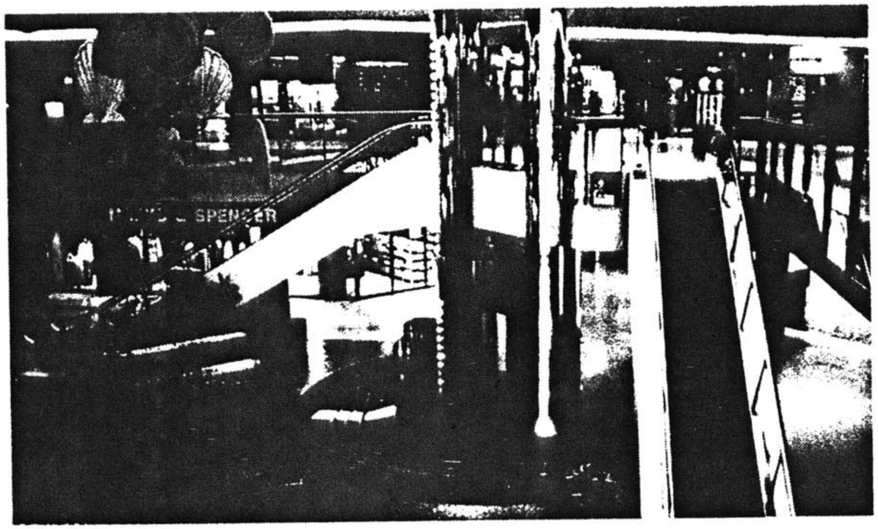


MARKHAM
COMMUNITY
LIBRARY

Disneyland: Flower Sellers

Markham Community Library


MARKHAM VILLAGE GREEN
LIBRARY ARENA



Markham Community Library

Shopping Center

catastrophe to occur so they have a really good travel, whereas tourists dread the whole thing and surround themselves with agents who protect them from catastrophe. That's a serious situation.

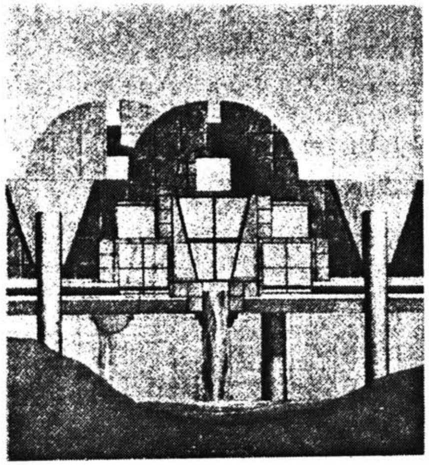
One actually fantasizes to order. And of course that is rather a dangerous thing to do because it generally means that they are pretty conventional fantasies, to say the least, and also they're always hankering for a sentimental or nostalgic position.

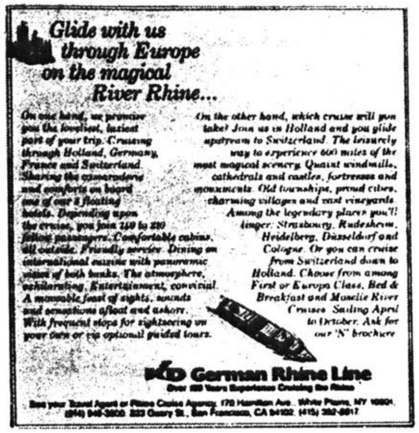
There was a time when flower sellers could answer back. And my understanding is in Disneyland that really isn't allowed. There's a threat of losing one's job if you talk back to the customers.

That represents the sort of cleaner, adorable world that in a way, we sort of hanker for. You can see that transposed into a building like the *Markham Community Library.* What you have to assume is that going to the library is a drag. It's a regular activity, rather like middle priced whiskey. If you think that that's not fun enough, you can add in a component of fun. And that's generally done by making something either too big or too small. Or you play around with time. This thing has an Alice in Wonderland clock which is perhaps referring to the time when public time chimed out on every quarter of the hour. Here you can lose yourself to a good book, and read the clock backwards.

The highest income per capita community in Canada sees itself as adorable! And then all the accoutrements come with it. A band shell a reflecting pool, a war memorial. So you can add in fun, like in the whiskey ads.

Not far removed from this is a shopping center. You start borrowing atmosphere. Now every shopping center will have to have a theme. I'm not suggesting that the theme here was "fairground", but it is amazing that the borrowing of little tungsten





Glide with us through Europe on the magical River Rhine...

On one hand, we promise you the loveliest, laziest part of your trip. Cruising through Holland, Germany, France and Switzerland. Sharing the camaraderie and comforts on board one of our 8 floating hotels. Depending upon the cruise, you join 140 to 180 fellow passengers. Comfortable cabins, all outside. Friendly service. Dining on international cuisine with panoramic views of both banks. The atmosphere, exhilarating. Entertainment, convivial. A moveable feast of sights, sounds and sensations afloat and ashore. With frequent stops for sightseeing on your own or via optional guided tours.

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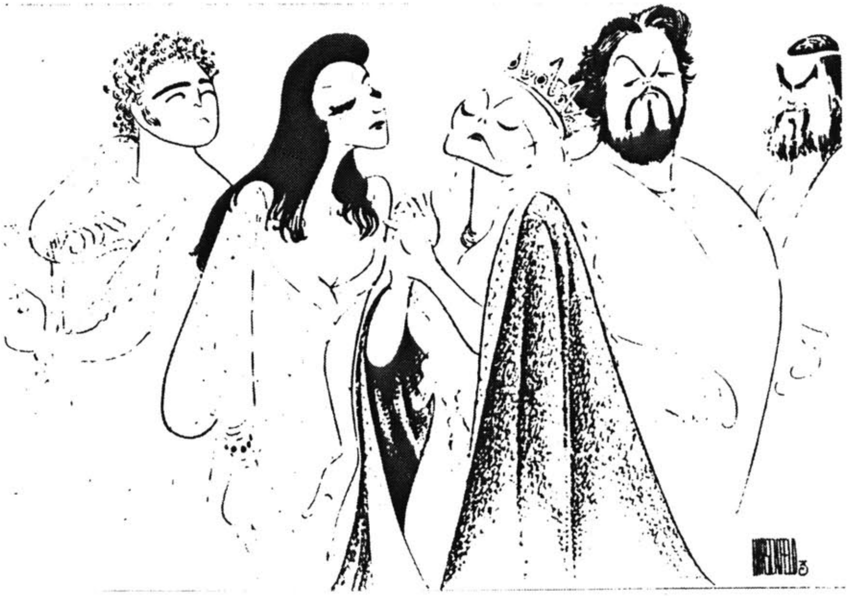
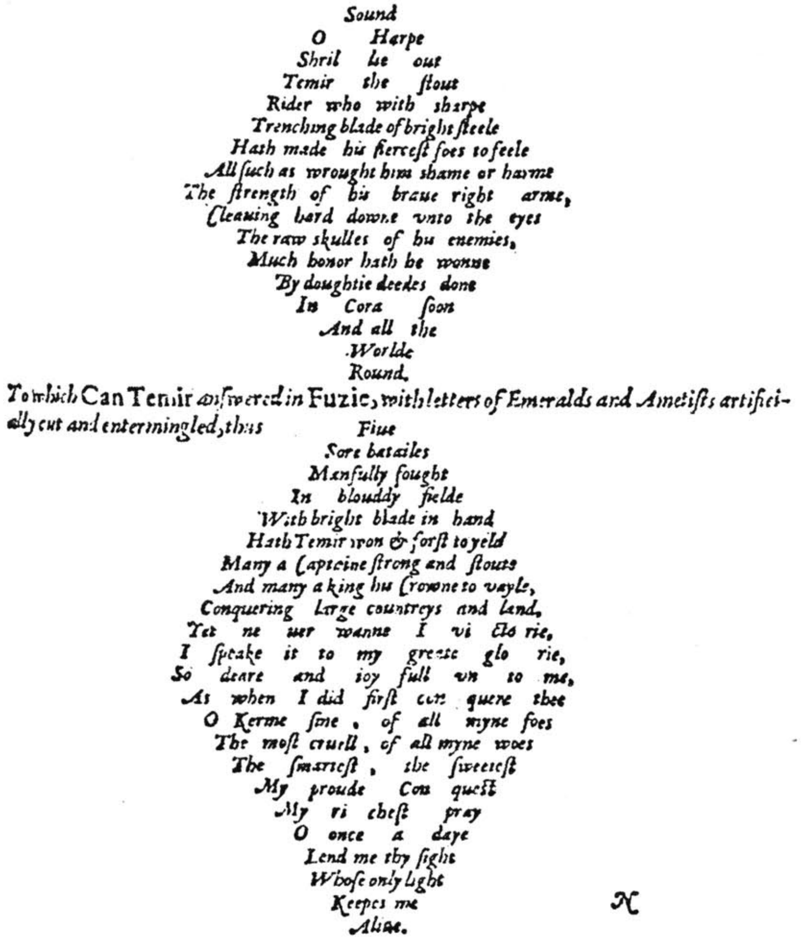


Michael Graves:
Moorehead Fargo Project

Rhine River ad

Hirschfield cartoon



Sound
O Harpe
Shril lie out
Temir the ſtout
Rider who with sharpe
Trenching blade of bright ſteele
Hath made his fierceſt foes to feele
All ſuch as wrought him shame or harme
The ſtrength of his braue right arme,
Cleauing hard downe vnto the eyes
The raw skulles of his enemies,
Much honor hath he wonne
By doughtie deedes done
In Cora ſoon
And all the
Worlde
Round.

To which Can Temir *anſwered in* Fuzie, *with letters of Emeralds and Ametiſts artificially cut and entermingled, thus*

Fiue
Sore batailes
Manfully fought
In blouddy fielde
With bright blade in hand
Hath Temir won & forſt to yeld
Many a Capteine ſtrong and ſtoute
And many a king his Crowne to vayle,
Conquering large countreys and land,
Yet ne uer wanne I vi ctorie,
I ſpeake it to my greate glo rie,
So deare and ioy full vn to me,
As when I did firſt con quere thee
O Kerme ſine, of all myne foes
The moſt cruell, of all myne woes
The ſmarteſt, the ſweeteſt
My proude Con queſt
My ri cheſt pray
O once a daye
Lend me thy ſight
Whoſe only light
Keepes me
Aliue.

N

lights and shiny surfaces could be a kind of fantasy image for commerce. It seems to me that the risk of a fairground: the hustlers, shysters, and rides, is inappropriate in a shopping center simply because it does not allow for the free-for-all that one imagines is part of the life in a fairground. But it is allowing you to get a tiny thrill as you buy a pair of shoes.

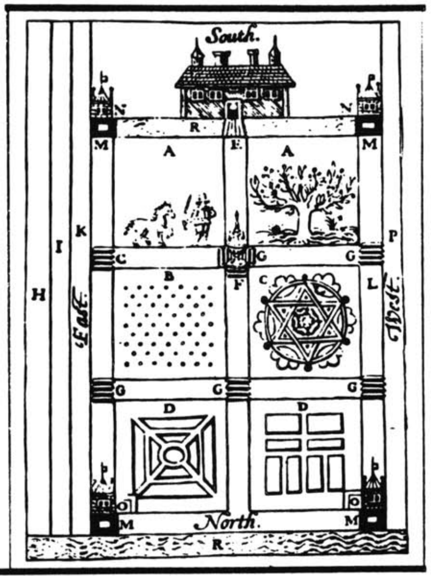
"Fun", you equate with children, with innocence, with noddy. This add-on is *learning.* What it seems to me to be flaunting is learning of a particular sort. Charlie Jencks talks about at length, decoding it. He has a thing in AD where he takes several columns to explain all the references. His final line is to admit that it will go over the heads of the citizens of Moorehead and Fargo. And that it does indeed require an architectural historian to understand the directness of the references, and for those of us outside of the order, we will get a sort of shadow of it. "Penumbra" he says. I think that that's particularly snobby.

Two general points might be made concerning their (references) *efficacy and relation to the architecture we are discussing: as a precise set of meanings their significance would be lost to the citizens of Fargo and Moorehead. The codes are too esoteric, the meanings too private to Graves and architectural scholars to communicate the depth of reference intended... Secondly however, and in contradiction to this privacy of meaning, there is a general penumbra of historic meaning which would, I believe, be perceived.* -Jencks, p.598

The reason that I think it's snobby is that it's derived from an activity of division. Some people get it, some don't. The beginnings of that are in an ad from the New Yorker, where presumably, all the readers of the New Yorker understand that the white river between the two areas of text stands for the Rhine. And that's the sort of trick that graphic design is built upon.

You might imagine that every Sunday people in New York are driven crazy finding the "Ninas". That's the sort of activity that is competitive in a sense, if you can imagine that some poor people in New York are not getting them.

The first Elizabethan age in England got off on *conceits* and *devices.* And the thing about them is exactly the point that I'm trying to make. A really good conceit was constructed so that a few people would get it, but not everybody. And it was terrible if nobody got it, because then you just felt foolish. That's the rub. And also



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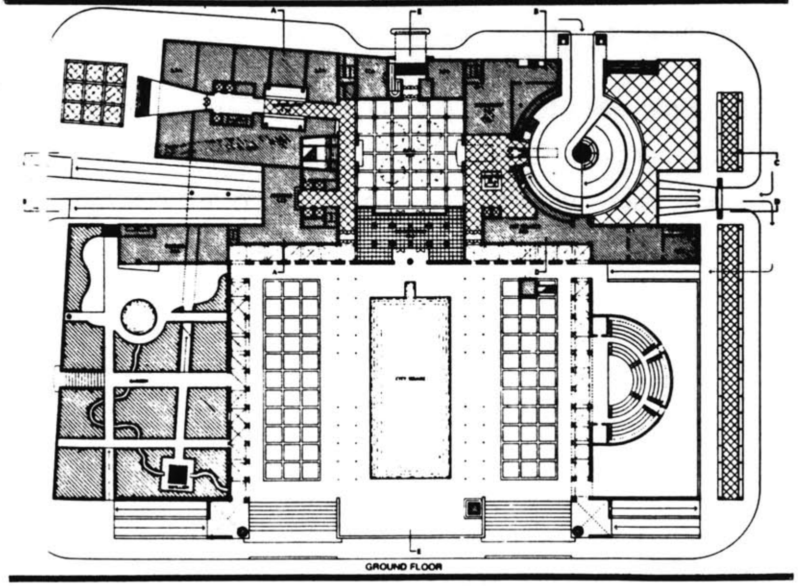


GROUND FLOOR

symbols

Jones and Kirkland: Mississauga City Hall it was no good whatsoever if everybody got it, because at that point you were not distinguishing yourself.

You can now translate that idea into the use of symbols. We probably would like to think that symbols are universal. But then you have to remember that there are a number of secret symbols. The trouble with symbols is that they have to stand alone. It's impossible to ask a symbol to lend something of itself to its neighbor. Therefore it is inevitable that you will get something like a checkerboard or gridded formation, because the gridded formation sets up the place for each emblem or symbol, and isolates them quite neatly.

It seems to me that this is the *antithesis* of creative work. Its importance is absolutely in each component piece being distinguishable from its neighbor, having its own little message, and if you would lay into that the idea that I was suggesting, that its message will be available to some, not necessarily to all.

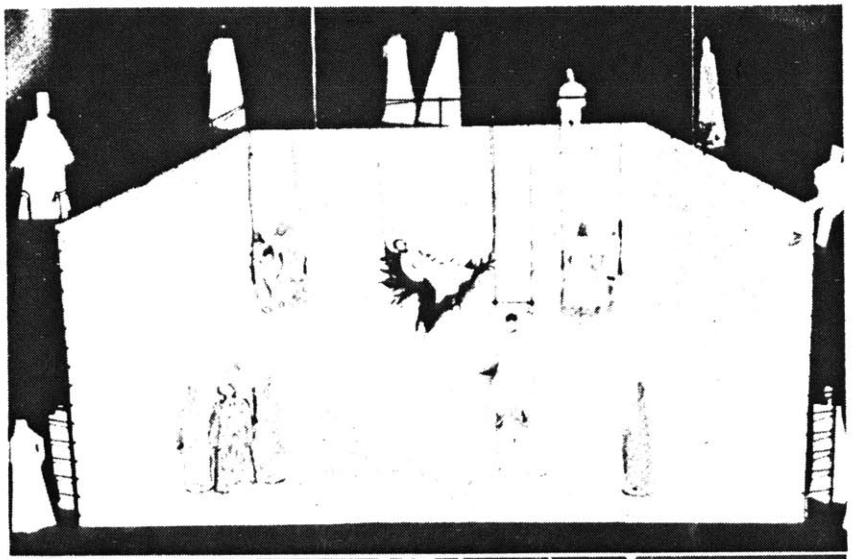
When that is translated into a plan like that, what you can see is the same organization. It is a fluke that it divides so neatly into this grid, but what you can see is that there are component pieces like chess pieces standing within their demarcated space. The architects have been rather generous in their speculations about referencing. The council chamber is referenced to silos in the agricultural landscape of Ontario. The pyramidal building is a nod to the Victorian legislature building.

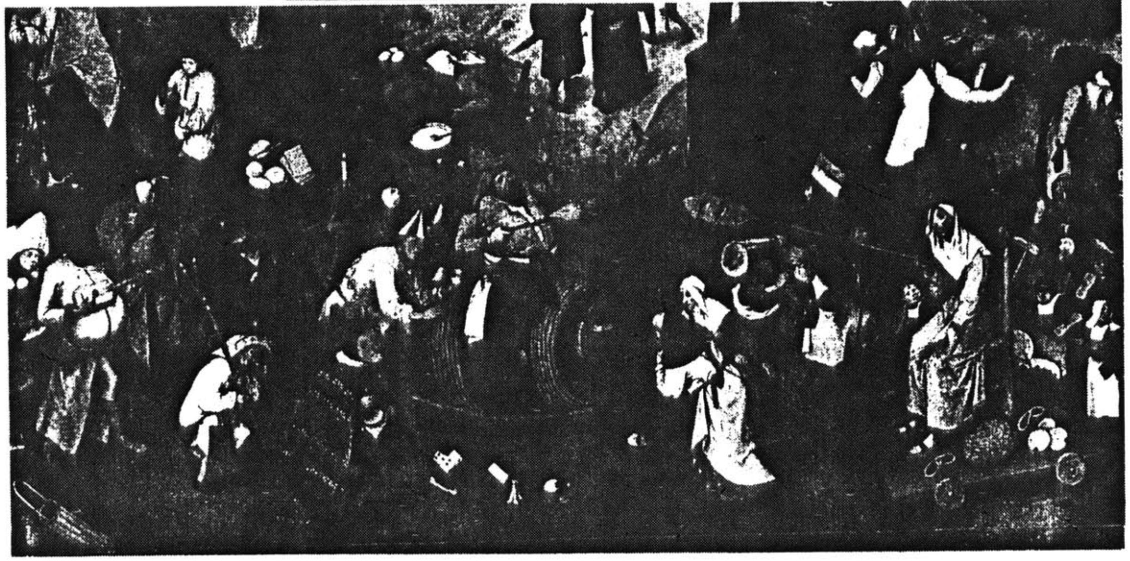
What it seems to me that what it's doing is parading some learning, some book work, and hasn't come anywhere near getting to the root of what a city hall might be in this day and age.

And then you might see what its true activity is actually like, which is a dollhouse. If you understand the idea of finding compartments for symbols, that each symbol is a

There remains another characteristic of the Elizabethans which colored their whole life and insinuated itself into everything they wrote or made: that is their fascinated and unremitting pursuit of what they called the 'conceit', or 'invention" or above all the'device'.

The pursuit of the device led inevitably to the pursuit of variety: one of the essentials of a device was that it should provoke amazement, and it could not achieve this if it was too familiar. Girouard, Mark; **Robert Smythson and the Elizabethan Country House**





Peter Brook's Midsummer Night's Dream stage set

Breugel: detail

discreet thing, cannot be violated, that is exactly the work of dollhouses. Where at the end of the day after arranging all the furniture you feel deliciously tired and not a single new thought has gone through your head!

In my view, the most spectacular stage set that I've seen in action is Peter Brook's *Midsummer Night's Dream.* The thing that's so beautiful about it is that there is some work for you to do. The thing I think about the symbols is ultimately club work: you're either in or you're out, and you understand where everything is coming from, what the hidden agenda is, who's proving what to whom. And the thing that's rather nice about this, is that the actors who are sort of off duty are with you still. They stand around on this scaffold-like construction that forms the framing or the bracing for the three wall surfaces and the floor.

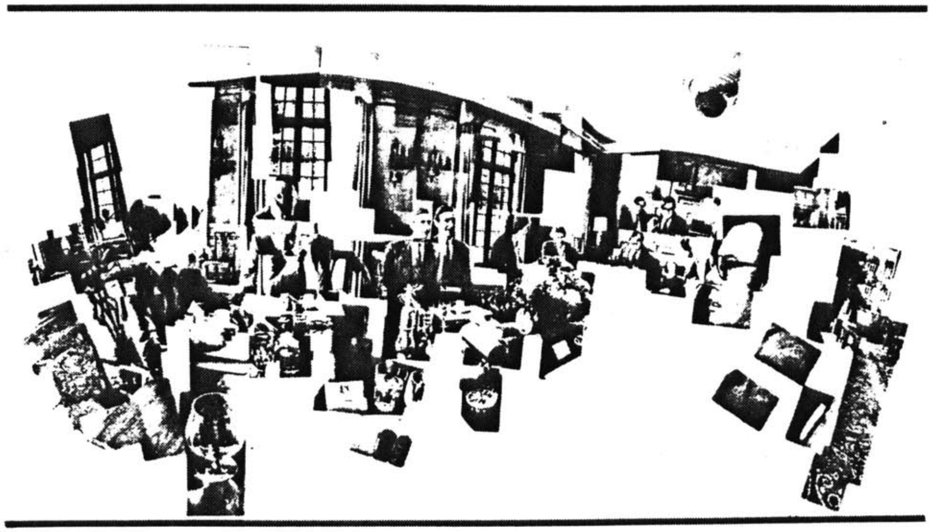
If you take this detail from a Breughal painting of a theatre set up in a street or a marketplace, what you can understand from it straight away, is that there is a lot of competition for your attention.

There used to be a sort of joke that we would all become sedentary. All our jobs seem to be sitting down jobs, so then we go off to those exercise parlors. The next part of that might be that our necks won't work.

The reason that these things are very beautiful is that everything is mixed up. The actors and the audience are mixed up together. You actually have to turn around.

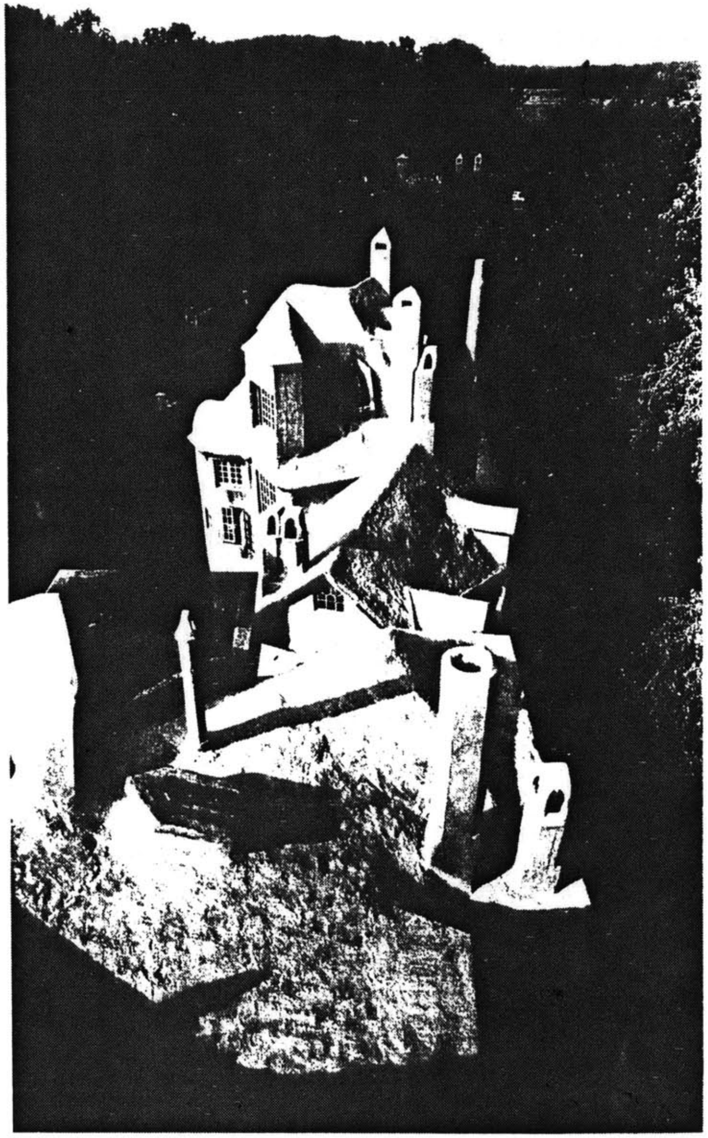
We have this situation. These people hardly ever turn their heads. It's like you at the moment. And what I'm trying to suggest is the polarization that has occured is represented exactly as we take movies. And then it becomes ironic.

That still is from *Man with a Movie Camera,* perhaps the most fabulous movie there



Dziga Vertov: "Man with a Movie Camera"

David Hockney: "Lunch at the British Embassy"



Mercer House: Fonthill

is that will show you how to use your eyes. For the first time you see the world through a camera and the camera is put into astonishing positions. It's not often that you lie down on the bed of a railroad and the train roars over you.

The thing that was so exhilarating about that movie, was the enthusiasm of using a camera, making it look backwards, forwards, upwards, downwards, every way you can think of, yet its tragedy is that you are locked into seeing it in this way. That is the polarization that I set out to talk about.

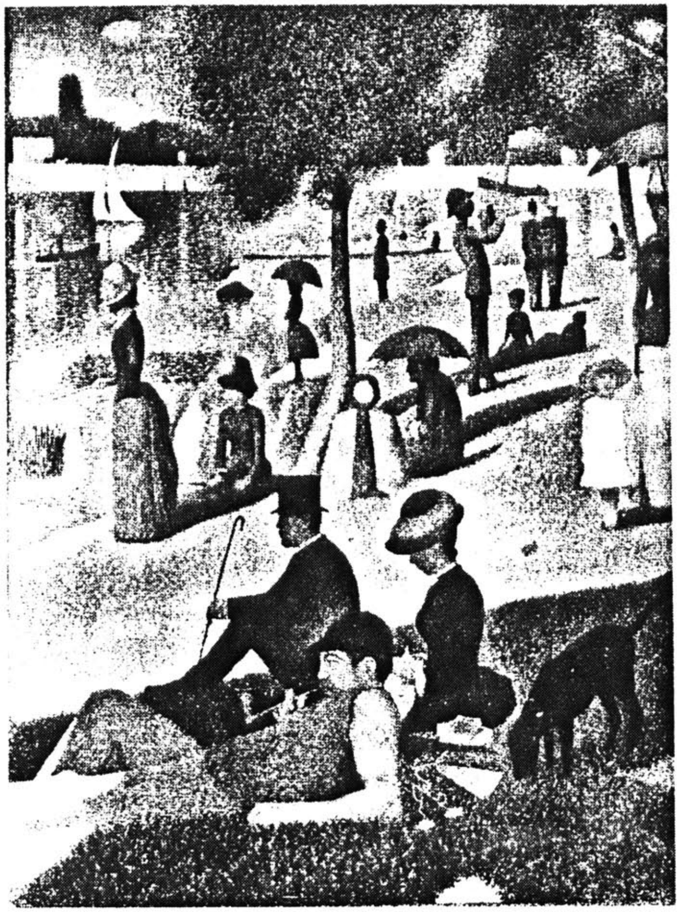
It's very sad that now, rather as tourists, we allow cameras to do our work for us. And of course the fall out from that is that they draw plans and elevations.

One of the more astonishing things that's come along lately are the David Hockney collages. For the first time photography gets out of that polarized viewer/viewed situation and allows time to work and produces these things. After all we are all children of cubism.

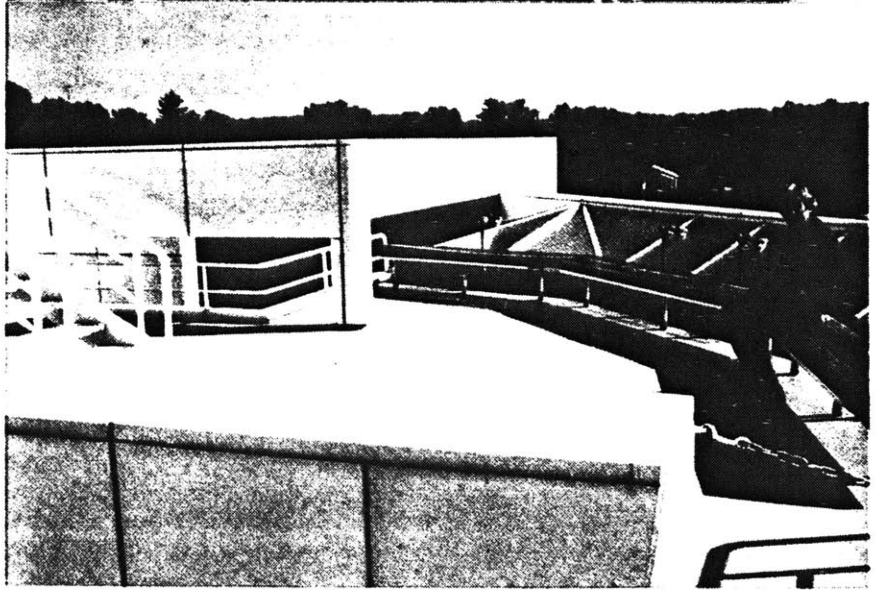
If you can understand the pleasure that can be had from moving in time, it might slightly change the way that one thinks about building. What one's trying to do then is reduce the elements that cause the polarization that we get. You can perhaps understand it in looking at this, the Mercer *House at Fonthill.* What's so exciting about it is that apart from the sort of random arrangements of things that you move through, is the sort of density of overlapping ideas.

I can imagine nothing more boring than walking through a single idea, like the Pantheon.

The reason why this painting by Seurat is of consequence is it's the first time that relationships are uncertain. Where it shows up is in this detail. When you look at



detail from "La Grand Jatte"



Le Corbusier: Zurich Pavillion

Richard Meier: Athenaeum, New Harmony

those three people, you're at something of a loss to know which man the woman belongs to. And you might even go further than that and feel it's somewhat surprising that on a Sunday afternoon somebody is out in a tee shirt. Maybe things are not quite what they appear to be, and of course that's the cutting edge if you are trading in symbols, references, emblems, devices, and conceits.

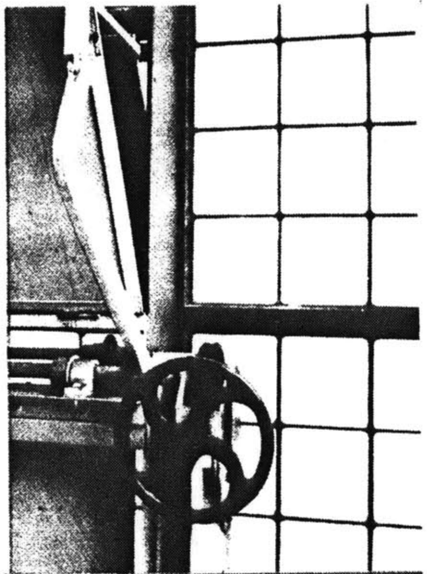
Having stuck myself with the title of *On Authenticity* I thought it would behoove me to actually mention that the way things are actually made are of great consequence.

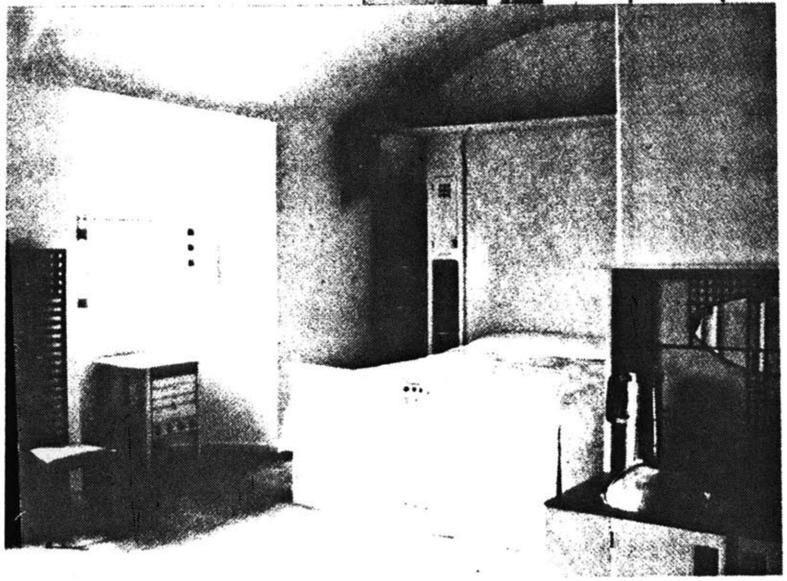
Showing how something's made is part of the idea of believing that you don't have to sugarcoat a pill to get somebody to go to a library. You just believe that going to the library is a perfectly regular, proper thing to do, and there is no reason why it should be made into fun or into a sort of dictionary of references.

One of the poetic, is the *Zurich Pavillion.* You might understand its poetry is by making a comparison with Richard Meier's *Athenaeum* in New Harmony. Meier has a tin ear. The comparison of these two roof top things started by thinking where you would rather have tea. And believe that this is made for doing those things, whereas this is simply the collection of those standard elements that are part of the kit of pieces that Meier generally parades. Like beams and columns that have gotten loose, skylights that are flooding a wall with light downstairs, and that this provides the back to a bench inviting you to sit down.

That simply isn't good enough. Because it doesn't grow out of the idea that authentic experience is what we have to look for, what we're seeking. And it's very difficult to describe that because perhaps we're not so used to being part of it anymore.

If you're used to the shopping centers or those libraries, or advertising, you actually will not have such a sharp ear for authentic experience. The way it's attained is





Pierre Chareau: Maison de Verre

Charles Rennie Mackintosh: Hill House

allowing something rather akin to a jungle coming back. So that we can twist our necks as much as we dare to and believe that a built world is surrounding us. Cezanne said it: *The world is not just in front of you.*

"Why do we divide up the world? Is it our egoism which is reflected?" -Cezanne p. 57
Biederman:

Another authentic building is the Chareau *Maison de Verre,* because it represents an invitation for you to participate in its workings. Your mind working with sensual things. The apparatus that adjusts the louvers, just for a moment turning the winch you might actually in your fantasy, *fly.* It connects you to the skies. And that is the proper way of deploying fantasy or one's imagination.

A library should be the most patient thing in the world. A book might not go off the shelf for a hundred years, that's the price that one should properly pay. Whereas, now, libraries measure their success by the number of books that go through a turnstile. That's wrong!

A thing has to be decently made and the definition of decent is that it is matter of factly made, so that the information is there, is available.

The Mackintosh *Hill House* confirms the idea that one operates in time, in three dimensional space, and that you can actually crick your neck in this buiding. Little pieces of colored glass occasionally catch the corner of your eye. And that's the way architects might deal with the topic of authentic experience. That is understanding the animal, so to speak, that the neck twists and that one is occasionally surprised. The hidden agenda seems to me to be more acceptable than I think it is in advertising.

These little shocks that stimulate the eye, or the fingers or whatever, it's perfectly possible that it happens occasionally in the world. Of course van Eyck will always declare that the gift of making building is like that other gift, the gift of language,

Aldo van Eyck: Amsterdam Orphanage

and that we all use language rather better than reasonably well, and there's no earthly reason why we couldn't apply some of the same talent to making buildings.

Van Eyck's thresholds in the orphanage suggest that the process of entering a place could evoke associations that are perhaps not codified. Codified in the sense that symbols are, or the emblems are, but rather that you trust, using van Eyck's phrase, that sort of gift, in this case building not language, and that the evocations are true. The beauty of that step in my mind, is that it reminds us of things that we forgot.

I have something to read to you. It makes me sound a bit honkey, but I can't avoid that, but I think it's significant and it might be useful given the theme of this thing. It's from Proust and you can't beat that:

Remembrance of Things Past,
Marcel Proust, vol VII, p.248

"Our vanity, our passions, our spirit of imitation, our abstract intelligence, our habits, have long been at work, and it is the task of a work of art to undo this work. Making us travel back in the direction from which we have come to the depths where what has really existed lies unknown within us. And surely this was the most tempting prospect, this task of recreating one's true life, of rejuvenating one's impressions. But it required courage of many kinds, including courage of one's emotions. For above all, it meant that the abrigation of one's belief in the objectivity of what one had oneself elaborated. So that now, instead of soothing oneself for the hundredth time with the words, "She was very dear." One would have to transpose the phrase, so that it read "I experienced pleasure when I kissed her."

Okay, thank you very much.

Questions

Q: Since the topic is authenticity, you used the term yourself, of course, "language" as a means of communication and various types of codification; it seems to me that "formal" and the Michael Graves code are simply two different codes, that the processes are the same, that we have symbols that represent. The process of codification, of language, of communication is really the same. It could almost be that you simply like what your codes talk about better than what his codes talk about.

PP: Yes that's why I apologize for using the word *authenticity,* because it seems to me that you might color it by suggesting authenticity equals good, inauthenticity equals bad and that sort of thing. But the homework that I did do was look up a definition. And the definition of it is "worthy of belief". That's all I can say about it.

Q: That really isn't an answer, because you use the example of the steamship with these big, magnificent rivets, but in fact, along that note, far better than any rivet ever is the art of weld. The process has been an improvement through time?

PP: No. It's just a different construction technique, that's all. But you can learn as much from a weld as you can from a rivet.

Q: And as much from a Michael Graves building as a--

PP: No! I think you have to knock them from time to time. Sometimes they don't ring true. This room, I don't think rings true. There isn't a single thing in here that you can see--

Bartos Theatre, Wiesner Building (E15)

Q: Isn't experiential a personal experience? What rings true is learned.

PP: Of course! That's the tragedy of Disneyland, that you can believe in it until you've been to a real one.

Q: Disneyland is a real Disneyland. It's significant for other reasons. Equally authentic, just not--

PP: Well, I simply don't agree with you, that's all. I think there's a thing where it –it's a lot to do with power. If you want to retain power, you withhold information. And I think that one could actually consider buildings to be a mine of information. And I get suspicious when perhaps the most significant piece of that mine of information, like how it stands up, is withheld. And that's why I have a lot of difficulty with the Richard Meier thing, because on the surface it looks as if you can see how it stands up, but it's too clever by far.

Q: Can I ask one final example, and I appreciate your answer. In terms of this, and our enlightenment of what they are derived from, being the ship, or the products of engineering and the new mechinization.

PP: Right.

Q: So ultimately, a Meier or even this building is closer to what the ultimate mechanization right now is. We put taillights on cars with no screwheads showing, or anything--

PP: Pay to get them fixed.

Q: No, they are also more efficient, more streamlined, you don't break off the things on the nut heads, so the technology is--

PP: Well, I don't know, you see what the "technology" is. Because it seems to me it's a lot to do with how much you can pay, where you are, and what your ambition is. But I honestly don't know what the "technology" is. It seems to me it's a lot of people, and a lot of mud, starting out with those sorts of clothes that we sort of imitate, and that seems to me that being in the mud, then, probably has as much ring of technology as the image of this building. And I don't know where the memory of that mud might be. I would wonder whether it's not possible that it couldn't be retained a little bit. And that's when you might get to the point of believing that going down into the basement is not quite like going off to smoke on that roof. And in that bulding it's not. It's amazing. I mean the concrete tank of the basement only rises as trunks through the stairs and that ramp. Everything else is metal, sort of hovering on it. Over that, is that big umbrella. And the sensation of being in the basement is so unlike being on the roof that you think it's working. That's memory, it's not lobotomized. These bloody buildings are lobotomized!

When Peter Prangnell said on the last day that he sensed euphoria he was right on the mark. Group projects usually make me feel like everyone is taking turns at pulling one another's teeth out. But the four of us thrown together by some happenstance experienced a vital creative experience. -N.R.

PETER PRANGNELL (2 Feb)

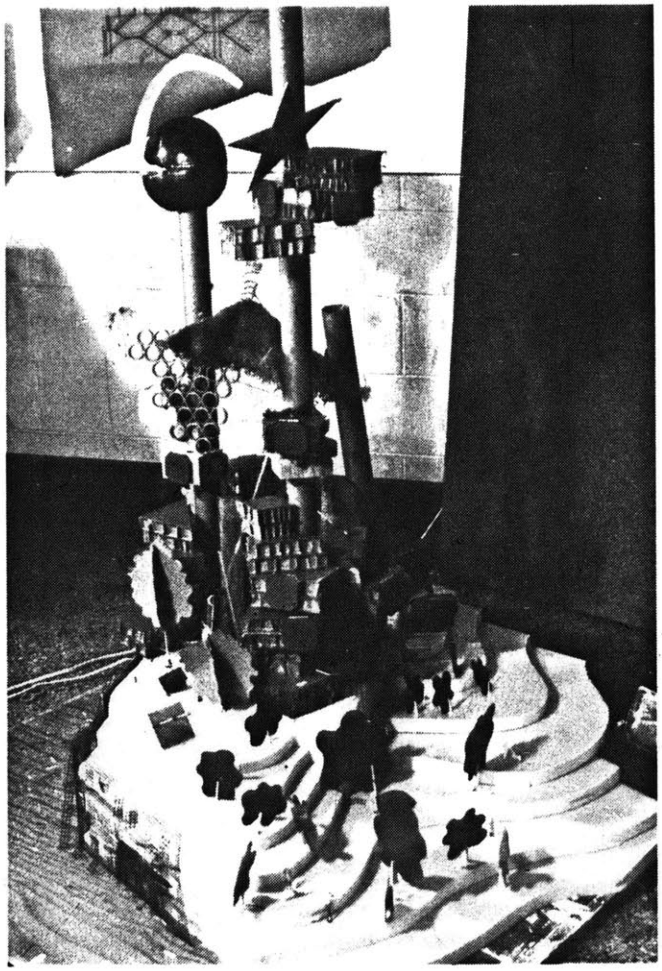
I think I've been typecast as anecdotal, I'm not sure. But all I can say is that on Thursday morning, which seems like about a month ago, I thought I smelled euphoria. So I decided to go away!

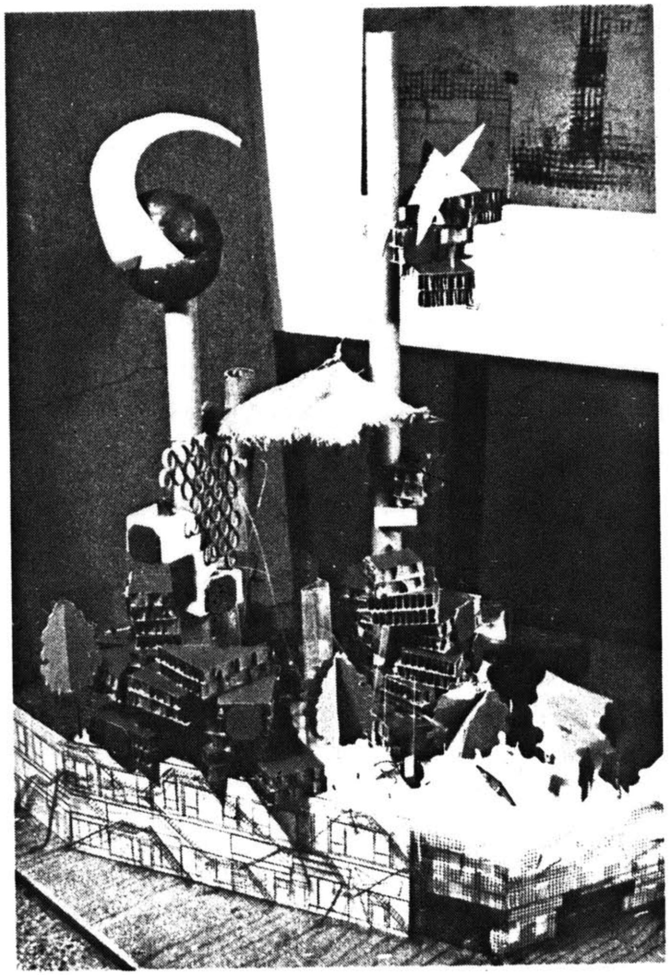
I started with an Oscar Wilde thing and I think I can finish with it, which was it seemed to me as he was talking then of ignorance, he said, "Touch it. It's like a delicate fruit. Touch it and the bloom is gone." So I thought that I could just follow my senses then actually. I think it's disasterous of me to say any more about our group, if they have anything to say, they should.

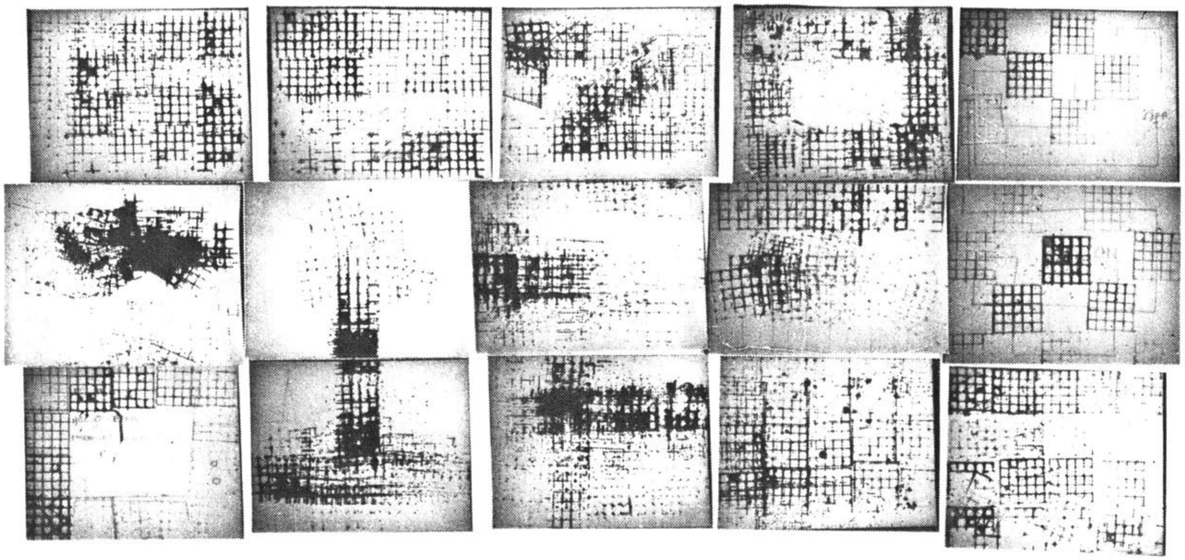
I think that school is an odious institution, and I think that this week has been pretty euphoric. So I would like to thank you. I don't know what you're going to do now, but as far as I'm concerned, I would like to go home.

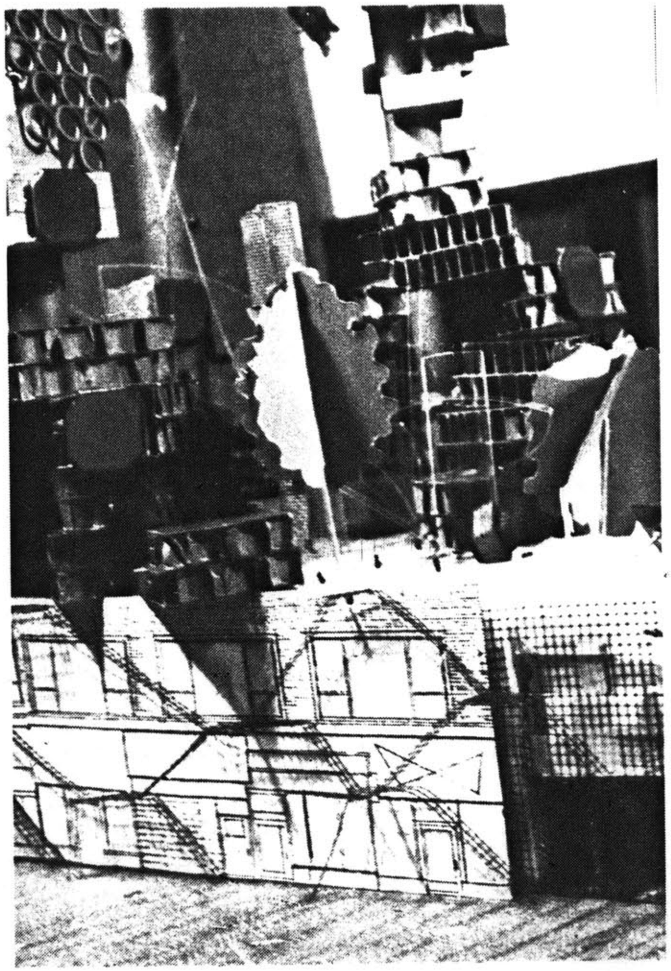
PRANGNELL STUDIO

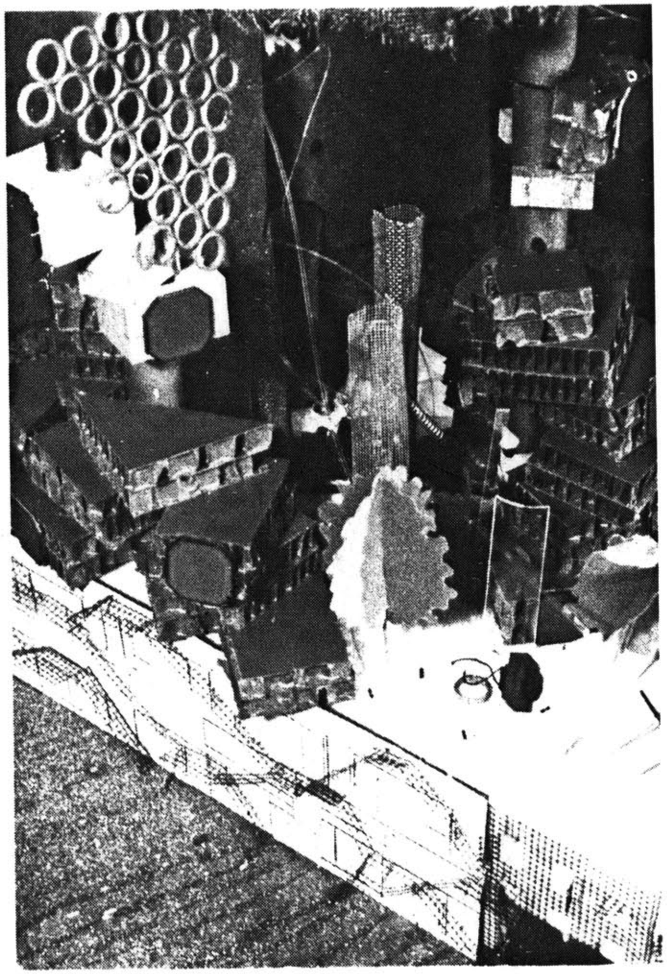
Peter Prangnell is Professor and former Chairman of the Department of Architecture at the University of Toronto. He has also taught at MIT, Harvard, Berkeley, Washington University, and the Architectural Association. As critic and theorist, his speculations have appeared in several journals, most recently in *Spazio e Societa.* His insights into the modernist sensibility are without parallel.

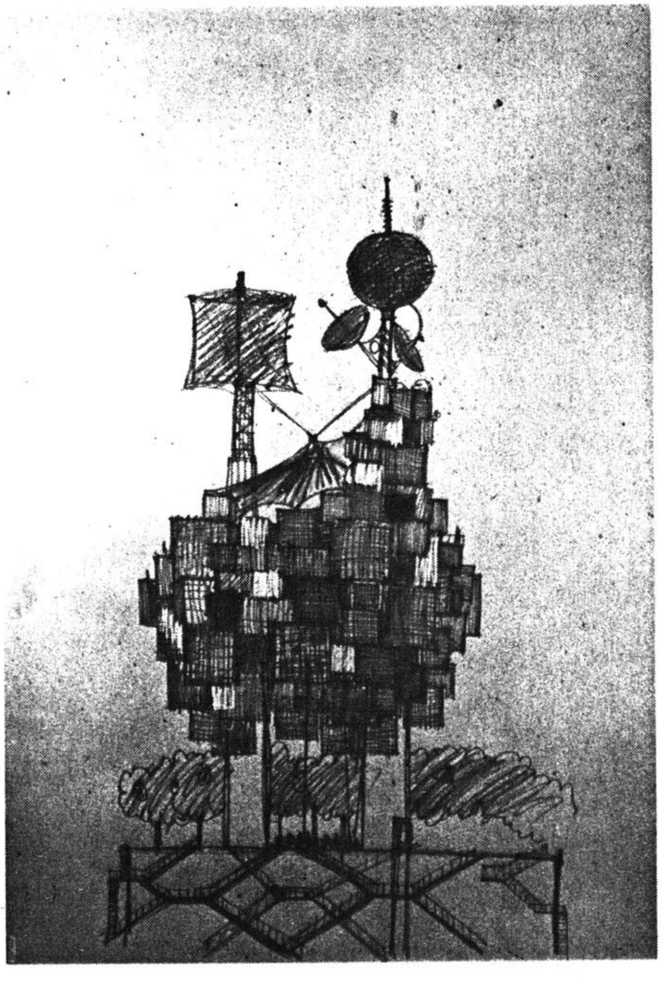


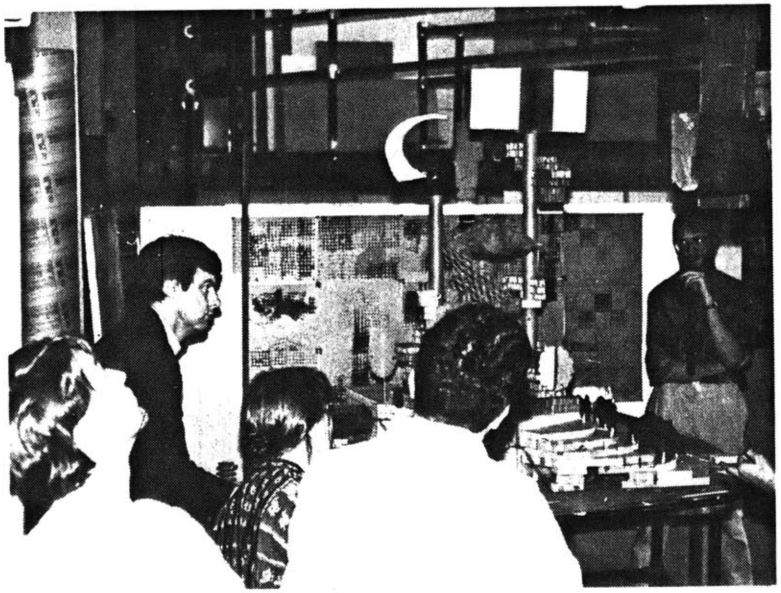


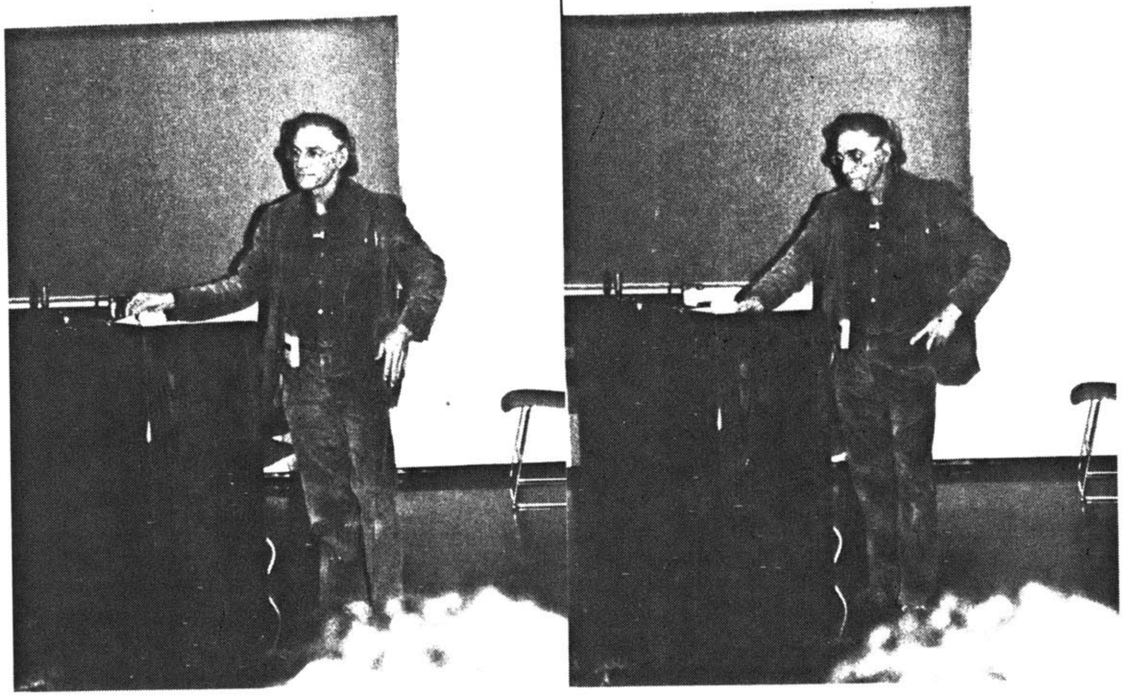












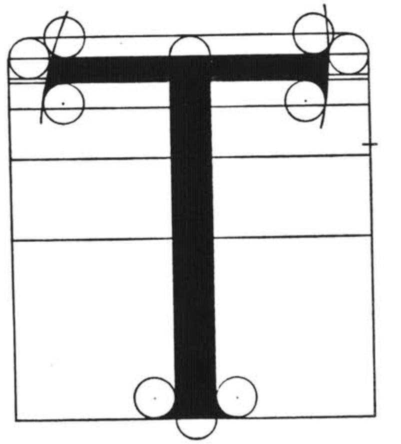
MAURICE SMITH

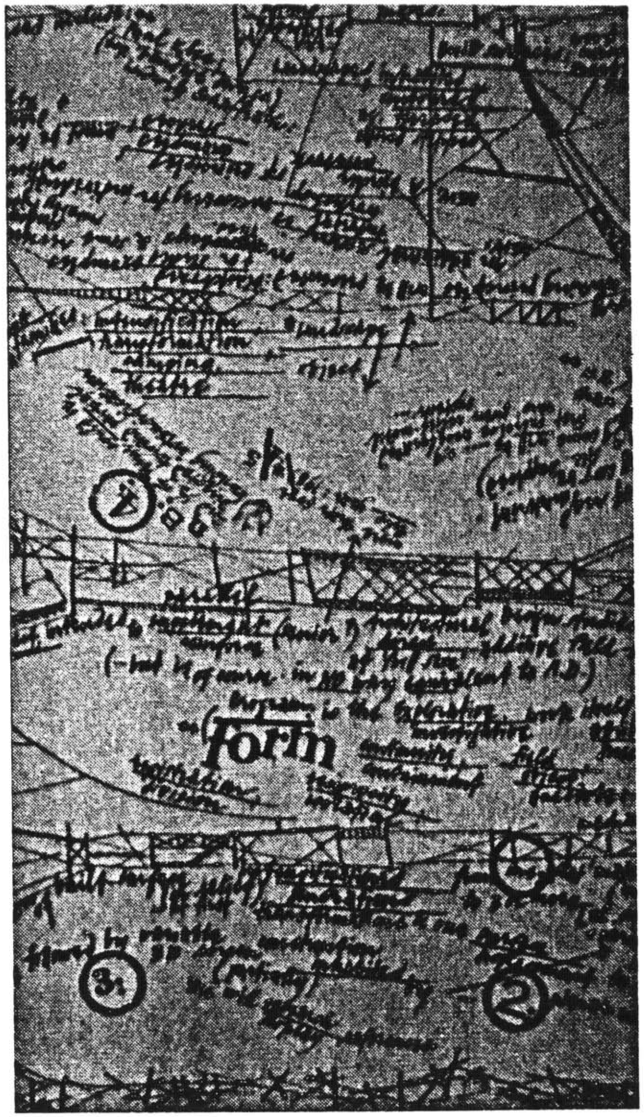
is Professor of Architecture at MIT. An extraordinary theoretician and teacher, he explores the parallels and continuities among natural and man made forms and has developed theoretical systems to enable the architect to question, measure and transform those patterns. His ideas are perhaps best exemplified in his own richly complex but delightfully comfortable home, which has been continuously transformed and intensified by 20 years of exploration in form generation.

Field-Form Stabilities

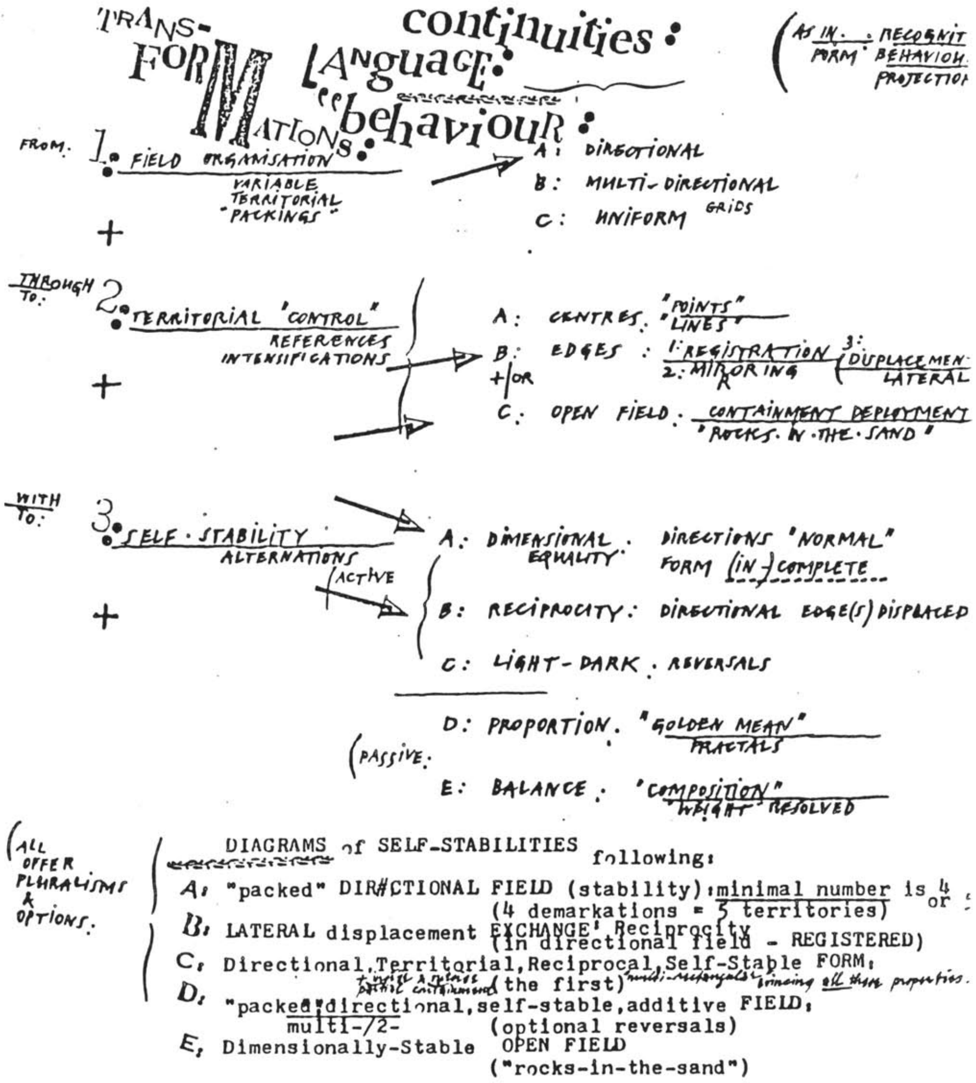
AN ARCHITECTURE OF SUBSTANCE

28 Jan. 1986





Built Collage



TRANS-FORMATIONS: LANGUAGE: continuities: "behaviour:

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FROM. 1. FIELD ORGANISATION
VARIABLE TERRITORIAL "PACKINGS"
A: DIRECTIONAL
B: MULTI-DIRECTIONAL
C: UNIFORM GRIDS

+

THROUGH TO: 2. TERRITORIAL 'CONTROL"
REFERENCES INTENSIFICATIONS
A: CENTRES. "POINTS" 'LINES'
B: EDGES: 1: REGISTRATION 2: MIRRORING 3: DISPLACEMEN LATERAL
+/OR
C: OPEN FIELD. CONTAINMENT DEPLOYMENT 'ROCKS. IN. THE. SAND"

+

WITH TO: 3. SELF. STABILITY
ALTERNATIONS
(ACTIVE
A: DIMENSIONAL EQUALITY. DIRECTIONS 'NORMAL" FORM (IN-) COMPLETE
B: RECIPROCITY: DIRECTIONAL EDGE(S) DISPLACED
C: LIGHT-DARK. REVERSALS

(PASSIVE:
D: PROPORTION. "GOLDEN MEAN" FRACTALS
E: BALANCE. 'COMPOSITION" 'WEIGHT' RESOLVED

+

(ALL OFFER PLURALISMS & OPTIONS:

DIAGRAMS of SELF-STABILITIES following:

A: "packed" DIR#CTIONAL FIELD (stability): minimal number is 4 or 5 (4 demarkations = 5 territories)

B: LATERAL displacement EXCHANGE' Reciprocity (in directional field - REGISTERED)

C: Directional, Territorial, Reciprocal, Self-Stable FORM: multi-rectangular: bringing all these properties. (the first) tinsiel & release partial containment

D: "packed" directional, self-stable, additive FIELD: multi-/2- (optional reversals)

E: Dimensionally-Stable OPEN FIELD ("rocks-in-the-sand")

Form Language

Maurice Smith
28 January 1986

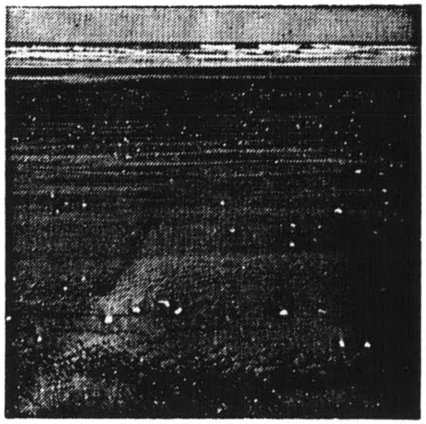
Introduction by Leigh Olson Snow

Thank you and greetings.

There was a guy on the Letterman show last night who was in strong voice, and I hope I don't have to do that.

The instructions I have for this evening were to limit the time. They didn't seem to care much about what else happened, but Louise said, "An hour, maybe an hour and a half." So that means that all we can do is exclude something like twenty of the weekly presentations that I've been doing in the two form seminars that I've run for the last few years. I call one of them **"Form Language"** and the other one is called **"Built Collage".**

And I'm not allowed to talk about anything that I'm not showing, so I'm already breaking the rules. In order to tack through the form language clearly, one would have to follow this little sheet and this little sheet, and what we're going to be able to do is to describe some aspects of three of the field organization systems, refer only to territorial organizational systems, and spend a little bit longer on some aspects



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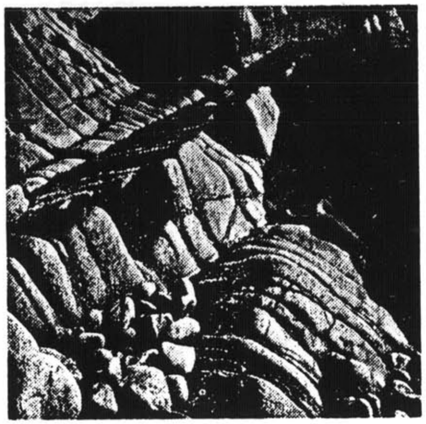


Landscapes

of self stability in association with directional field.

Self stabilities are defined as *alternations.* And as we get into the slides --this is not a lecture, this is a presentation of some physical definitions and I prefer to think of physical definitions as being factual and not subject to interpretation. So the anecdotal business that can be built around interpretation seems to me something that should follow a clear understanding of what physical systems are.

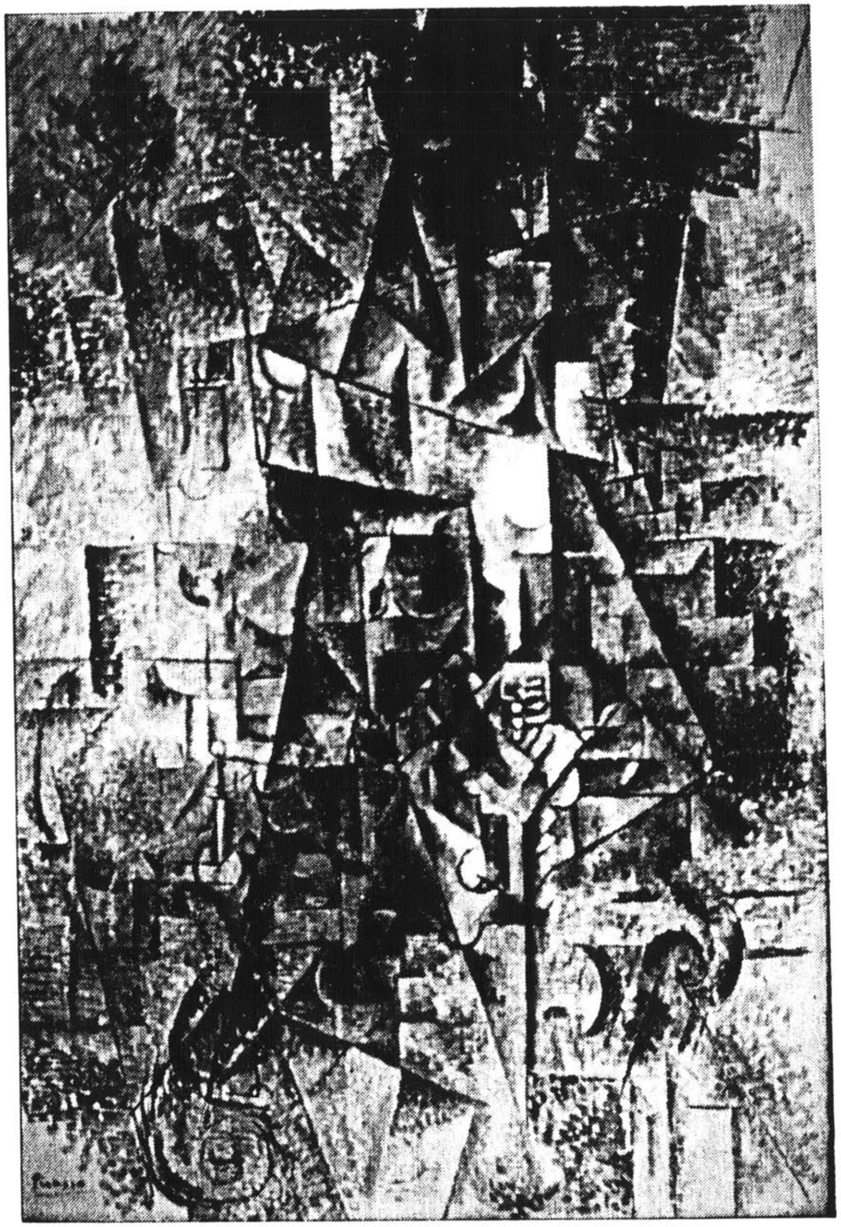
All right. There's probably no real reason why I can't start. What makes this light work?

Mr. Palomar now tries to limit his field of observation; if he bears in mind a square zone of, say, ten meters of shore by ten meters of sea, he can carry out an inventory of all the wave movements that are repeated with varying frequency within a given time interval. The hard thing is to fix the boundaries of this zone, because if, for example, he considers as the side furthest from him the outstanding line of the advancing wave, as this line approaches him and rises it hides from his eyes everything behind it, and thus the space under examination is overturned and at the same time crushed.[1]

The first is an extremely open field. It's a built field, and the opposite of the built field is the centrist organic organization, which of course is the death symbol. So we won't spend much time talking about centrist organization.

The proper size for organic form is organic size, and that means the size of people, and if you get much bigger than that you're in trouble. You're at least in processional mode and there's not a great deal of correlation between the processional mode and pluralism.

[1] Calvino, **Mr. Palomar**, p.6



Landscape

Landscape Intensification

Picasso

So these could have been any other group of landscape slides, but Mr. Palomar/Calvino would have the same problems in controlling, or framing if you like, these things. Framing is a term. It's not exactly associative. Not the kind of thing that one looks forward to having done to oneself.

(One of the local radio guys is expecting to be framed. He's trying to repeal the seat belt law. He's convinced the cops are after him.)

Here's a little bit of landscape intensification. I'm not allowed to talk about that. I'm not allowed to talk about landscape intensification nor transformation nor camping, although there will be occasional slides.

Those are ultimate landscape intensification, and of course at the small size. Again, they're not closed form at all. They are field organizations.

Various form families are represented: continuous surfaces, planars. Of continuous surfaces, probably two kinds: really single continuous surface as well as crystalline form and lineal form that may define planes and may not.

Start the next group.

If you see a bottle in this painting, it's a real bottle. It doesn't represent anything but a bottle. The landscape as a topic or as a site for existence is generally, I hope, still acknowledged to be reasonable. And you may be able to see that the field-like landscape that exists outside the building is associated with the framed landscape that is inside.

So the frame is a container which excludes what is inside from outside as use form. In the paintings the landscapes were part of continuities that existed outside themselves. The frame, as such, was of course one of the major topics of the

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Gertrude Stein bunch. She says,

I have thought a great deal about all this and I'm still thinking about it. I have passionately hoped that some picture would remain out of its frame. I think it can. Even while it does not, even while it remains there.

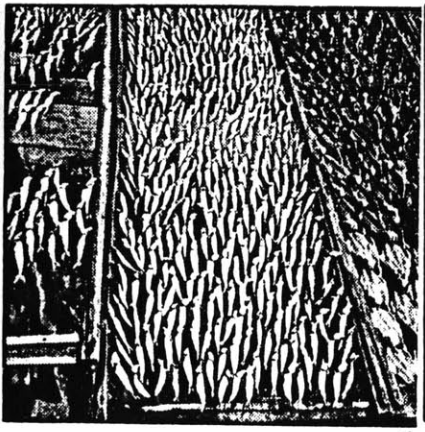
A painting is painted as a painting, as an oil painting, existing as an oil painting. It may be in or it may be out of its frame, but an oil painting. And as a real bother, always will have a tendency to go back to its frame even if it has never been out of it.[2]

The alternations are representative of many of the form families that we don't have time to go into. What you will see is a series of either similarities or reversals. There are self stabilities of dark and light. There are alternatiions. There are reciprocities here. The screen has now become a directional form. The light which was the larger environment is now the access. The light is the form of the containment. The light is contained. The light is reversed.[3]

The rock is habitable in the same system. The dark is the site for the white from inside the building and the other is the inside of the same town, the street in the same town. So that the light which was only appearing in the landscape was the total form of the containment on the inside of the town.. The street itself was light.[4]

The storage buildings[5] are now a three dimensional version of the openings, and they are deployed in much the same way. There's an open field distribution. There's registration involved. Again now the light is both below and above the virtual containments. The containments are on one side apparently solid.

So reversals don't change in this way of ordering. They don't change the meaning of the form. So it's not a figure/ground system. It's a figure/figure system.



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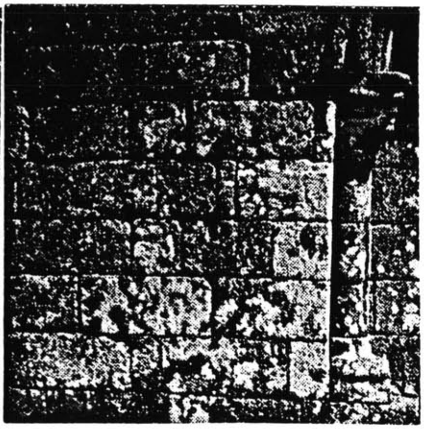

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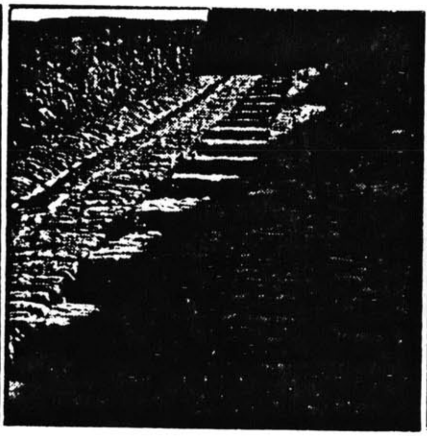

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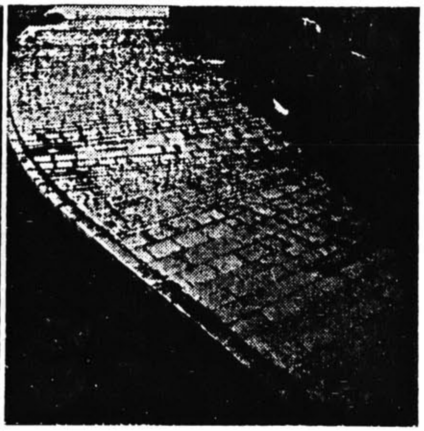


We've earned our way perhaps to the beginning of the recognition of packed systems. And I, for the sake of simplicity, would have you recognize only three major packing systems: the uniform packing, an omni directional packing, and the directional packing. And these are all field systems.

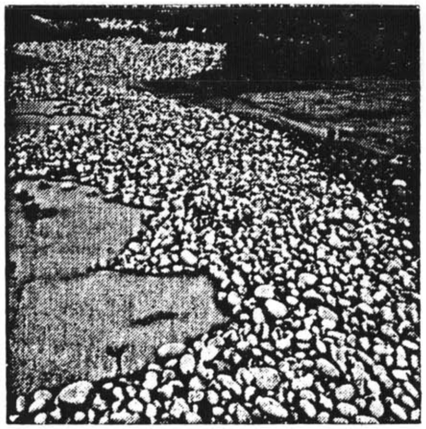
Begin now with what are actually 1-C. This is, in the form language recognition of field organization, relatively uniform packing.[6] The rocks are somewhat different sizes, but the system is a uniform one.[7] The system of packing doesn't vary with the material, so again, use is not a factor.

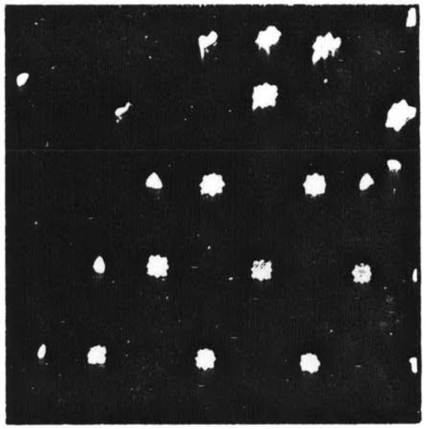
And Peter last night said, "Proust can't be beaten." Well I'm not interested in beating Proust but I'd rather take my information from Black Elk:

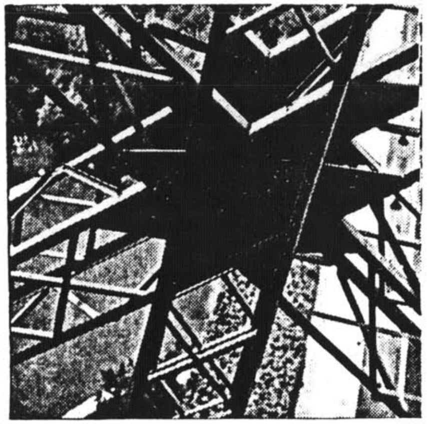
Black Elk assumes that all things have a use. That is the condition of his respect for all things. But he does not know what all their uses are. And because he does not value them for their uses only, he is free to value them for their own sake. The six Grandfathers have placed in this world many things. All of which should be happy. Every little thing is sent for something and in that thing there should be happiness and the power to make happy.

Given, that as the materials change, therefore the systems change. You get different kinds of packing so that that image is certainly double directional as are these. But the uniformity is within what are often variable systems. The less the variation, the less habitable the architecture gets.[8] In this one, the wall is as uniform as you can get given varied sizes of material and various deployments for use. And the stairs were as uniform as they could be, moving up the hillside as they did.[9]

So these last two are particularly double directional. Although within the zone of intensity of each of them they are, again, uniform at an intermediate size. Or at the







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brick size. At the weaving of the brick size or at the intermediate size.

I'm supposed to be ringing a bell at the end of each of these series.

ring ring ring

That's the third bell. The first two bells were spatial bells.

The next lot are continuing the two way or omni directional virtual packing. As you can see, one is achieved by a density of similar, partial and almost complete hexagonal completions. On the left, the three directions are inhabited differently.[10] The planar intersticies are in no way formally different from the open intersticies.

The two directions, or part of a three directional continuity is now flattened down. It's still related to the other.

The horizontal and the vertical and of course the horizontals and the verticals are different. Different lives. Different behaviors and different uses. But the organizational system is still not changing.

In this, if you start to look you'll see a lot of dimensional similarities. And you'll say, that's because it's a sliding door. Here's a window, does that slide across there? I think not. You'll find that the dimension is the same.[11]

If you look around you'll see a number of similar systems. Once you understand that this dimension across here is probably this one, and so on. Once you understand that self stability is dependent on alternations of direction, you'll see many versions of that.

Those are packed fields.

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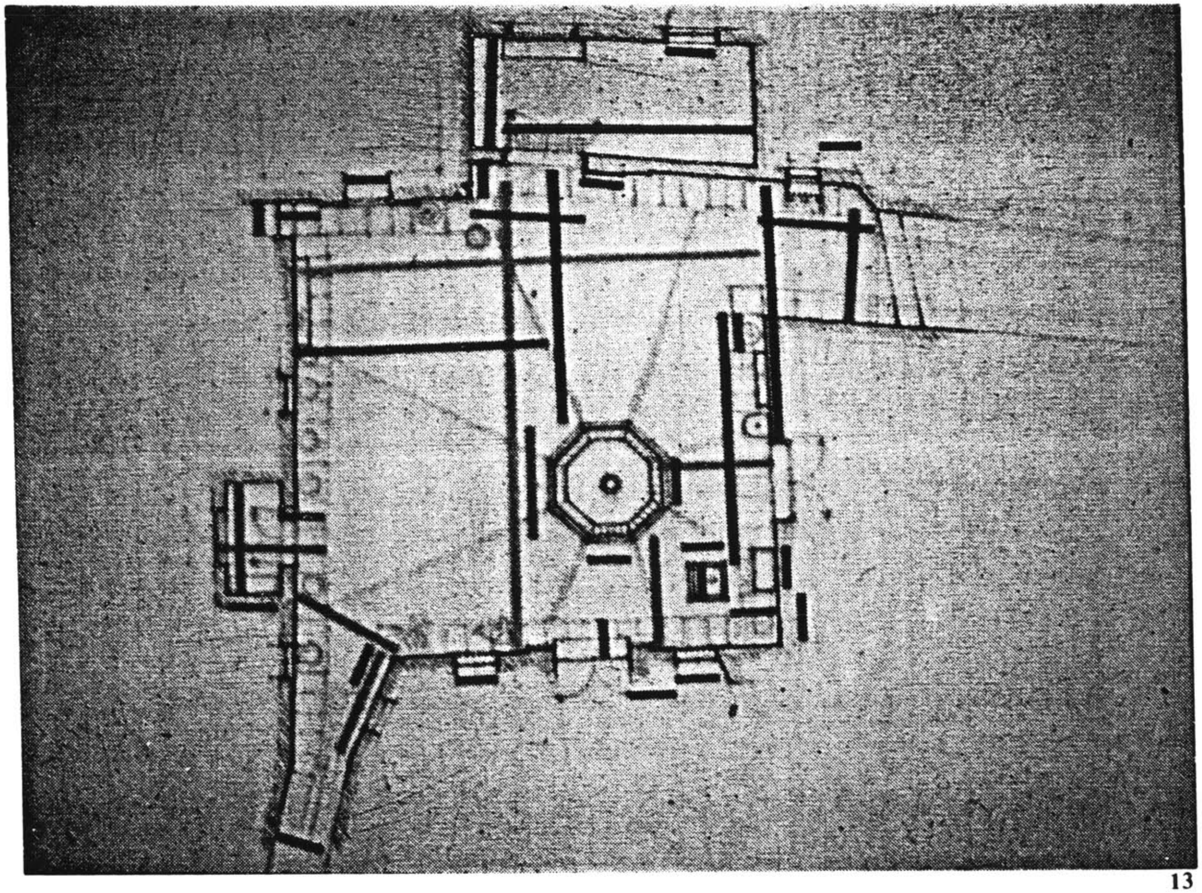

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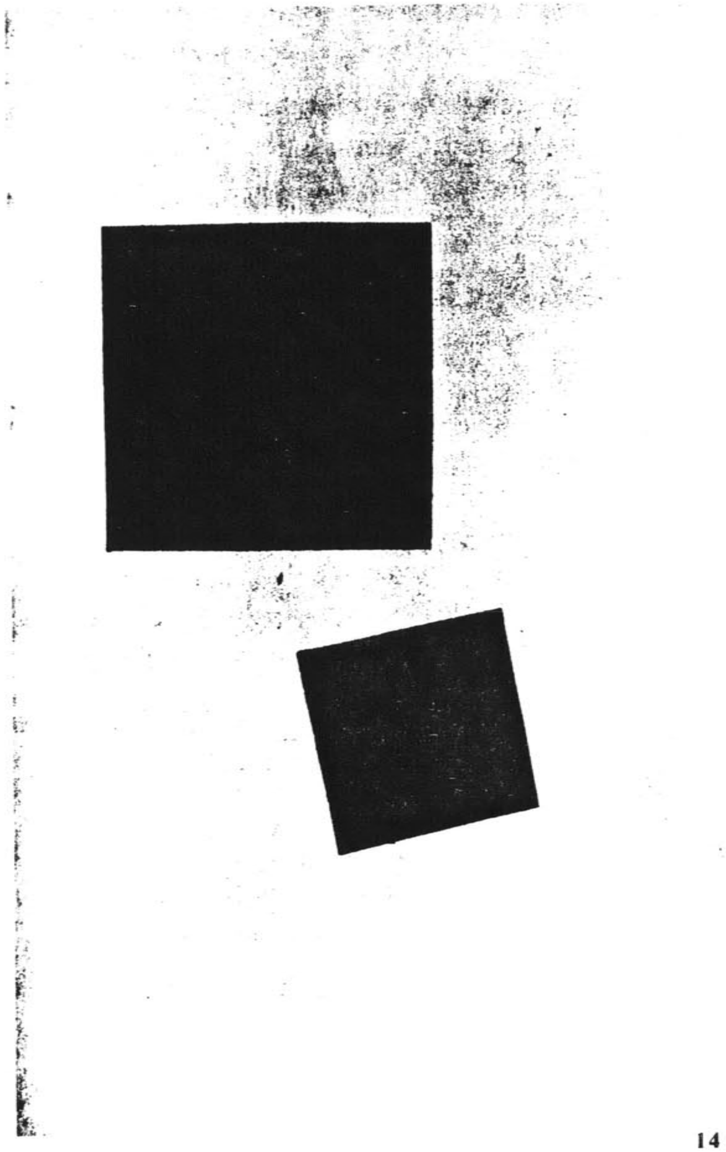
From this we can go into an actual self stable architectural territory. A courtyard in Spain someplace. So this is Cordoba.[12] The dimensional stabilities here are probably clearer from the top of the room, than they are from down here. There's a little mounting cube down here that is its own dimension from the wall. It's also about the same size as this thing which is also displaced from the edge by its own size. The tree is painted, of course, the height of its displacement from the wall. That dimension is the same as the painted height of the tree. So it's a very stable territory.

Now if you look, the same business is here. The fountain is displaced from the edge of the courtyard by its own dimension. And the tapes here show you the story.[13] The dimensional self stability is an aspect of the formal self stability of the literal square. At least literal dimensionally.

The dimensional repetitions we find, again, like the form reversals, like the light/dark reversals, like all the other alternation systems, don't care what the uses are. They are of course use generated, but generated only as a person size use, a two animal size use, or a person doing something or carrying something, or two or three people sitting down. All the usual ranges of dimension. What you find is that the dimensions are usually phenomenonally accurate.

So the small dimension here is also the displacement from the door. It's the solid from the corner to the opening. It's the depth in here and so on. This includes the stone that is framing, if you like, this square. The fountain dimension is also the dimension of the exit into the narrow street, as it is this one, and it's the width of the house lobby.

That's representative of dimensional self stability.



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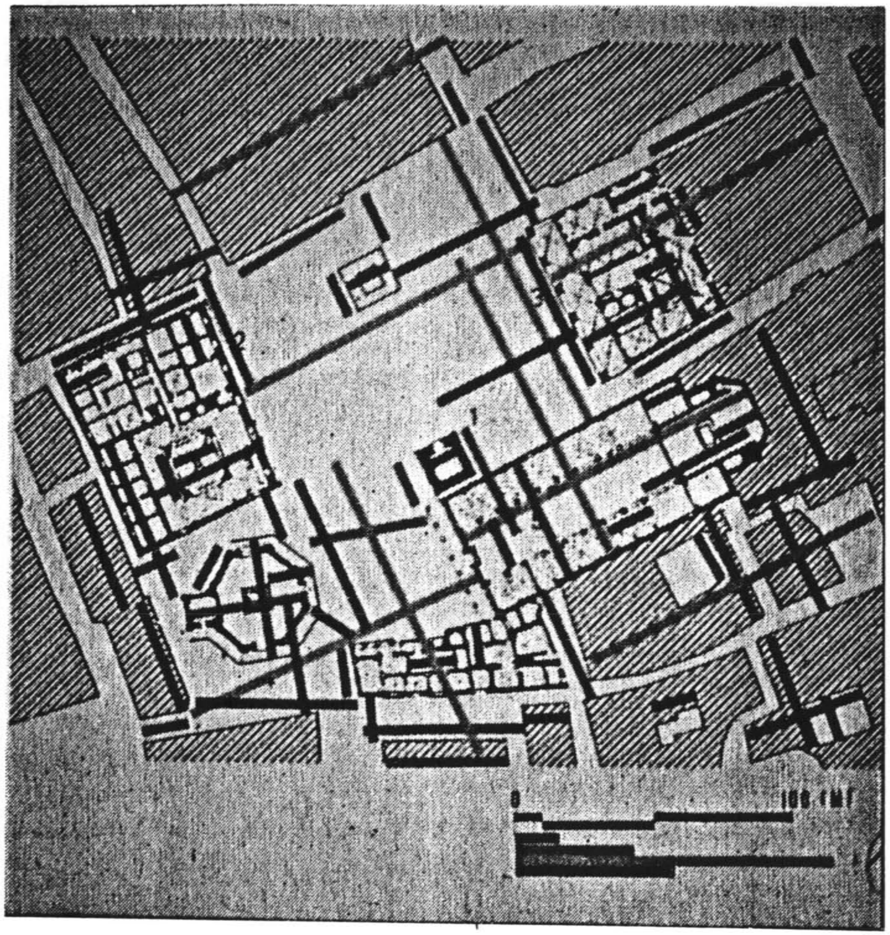

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Now old Fiddlesticks,[14] in deploying these things, of course, was doing exactly the same thing. He was deploying self stabilities. So that this dimension is that dimension. This square is its own dimension away from this edge. So these things are not pushed around until they they look right; they are pushed around, deployed until they are built in the same way that the square is constructed.

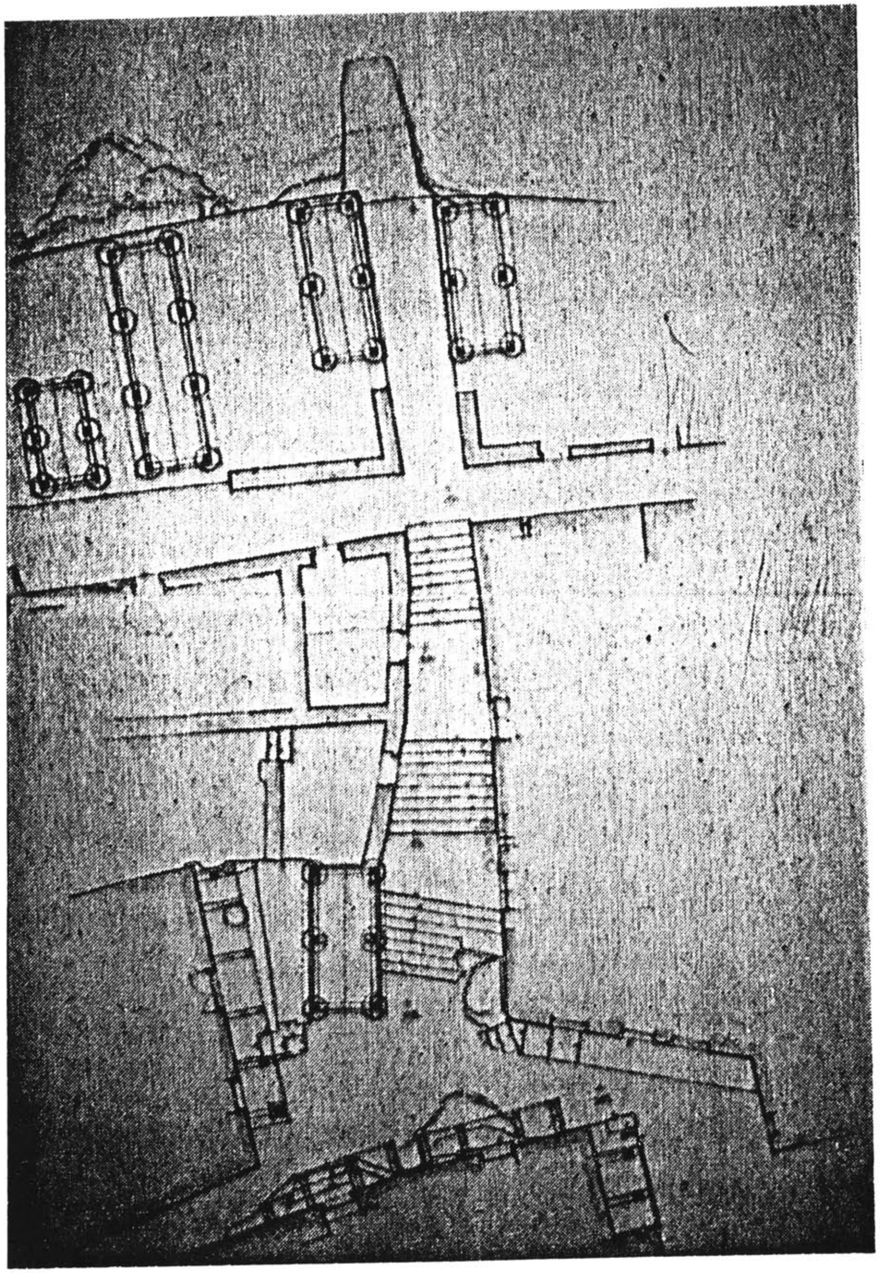
Here's a much later "designed" courtyard[15] that follows the same system as the small square. The length of this building is all there outside in the open space. This is the equivalent of the fountain, which is its own dimension off the church. The smallest dimension that is taped here is the dimension of the Campanile.

So again, the four or five dimensions are phenomenonally, accurately, dispersed as a field order. And when you go to these places, you don't necessarily see this as a geometric containment because it isn't. So the accuracy is an accuracy of dimension and it's an alternating dimension. These are working both ways.

In this place you find the same thing. The building that you see there, as we move to this position and look that way, we are seeing out to the A_______. So here comes the directional field of O_______. When you're in this territory, we find the same thing, the same dimensional alternation that was in the more finite square earlier.

This dimension, from here to there, is precisely the same as this dimension. The O_______ is displaced from this adjoining building by its own dimension, and of course, is the same as that.

One of my distinguished colleagues claims that this is subdivision. I do not for a minute believe that. Because, this dimension of the stairs, is this one, is this one, and so on. If it were simply a matter of subdivision there would be many more lineal edge controls. And this is a field organization which doesn't have them. So we find that this self stability, which is again, diagrammed here is part of the system that



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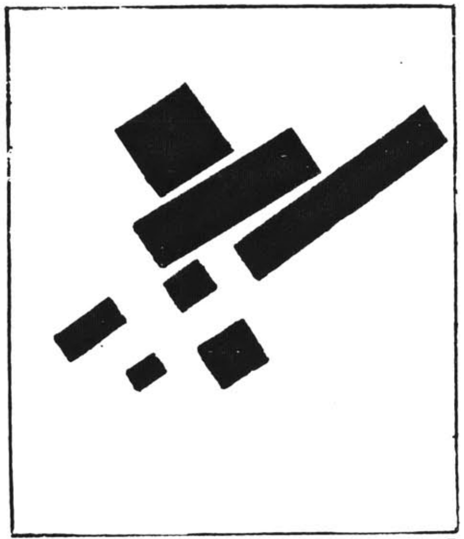

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Kasimir Malevich

continues even when the controlling inhabitation is directional.

So in the general directional field, this is the edge of the water, here comes a dimensional self stabilizing system that is giving us the opportunity to stop and go at the same time. So we have the option at any given time of staying in this space or of moving down these great processional stairs,[16] that part of which one flight of the three, are actually in this space.

The numbers of definitions come in here again, and we'll mention them a little bit when we move on to the next thing. There are in this little zone one, two, three, four, zones. Four territories of horizontal. That's enough to make a field. The minimal number of demarcations that you need to understand a dimensional system or field is something like four. With four demarcations you get five territories. That's minimum. So of course once the system is set up it can go on.

This place is very memorable. I don't think it's imageable. I think it's subject to the same kind of labeling problems that we were faced with last night.

There's old Fiddlesticks again.[17] He's moving now into the directional field. So these guys are somewhat like these. And you'll find the same kind of dimensional understanding. This dimension here will be the same as this one. And so on...

OK. So we've established that two directions, and alternating dimensions in alternating directions are the basis of self stability. Now, the next kind of self stability is the directional field. Now the direction becomes stable when there's enough demarcation to give us the choice of associating with whichever part of the field we happen to be interested in. And we're going to see now some directional fields. *ring ring ring*

On the left is some built sea.[18] So now you see the same thing. Here's a demarcation,

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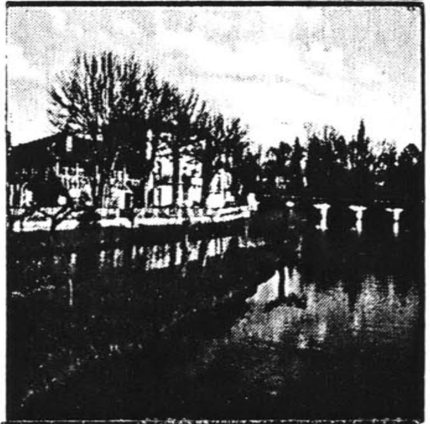

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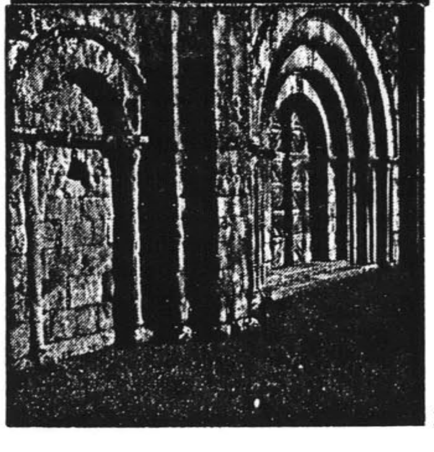

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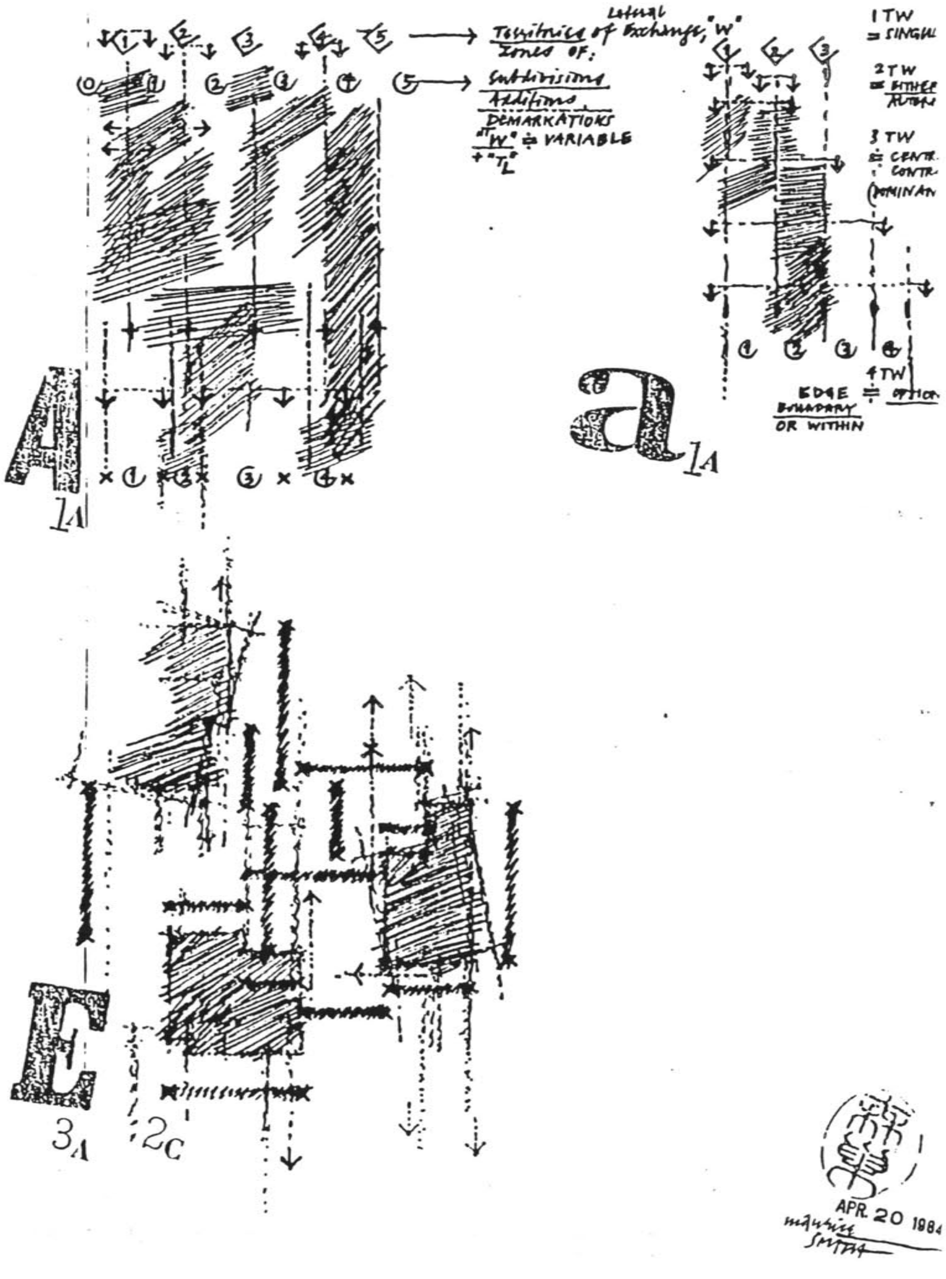
1 2 3 4 5
Lateral
Territories of Exchange, "W"
Zones of:
0 1 2 3 4 5
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DEMARKATIONS
"W" ÷ VARIABLE
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2 TW
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APR. 20 1984
Maurice Smith

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here's another one, here's another one. One, two, three, four, and you know that there's going to be more out there. So, the reason that the citizens will stand and stare at this like Mr. Palomar, is that you have a constantly changing directional field.

Here in the rock again are enough demarcations to make this into a field. Here on the floor, guess how many? Four, plus two makes six.[19]

The zone of exchange, as you can see from these diagrams,[20] you can assume that the actual line of demarcation is a barrier or a zone of exchange. So it is either between the demarcations or it's on either side of the demarcations. It's the same diagram.

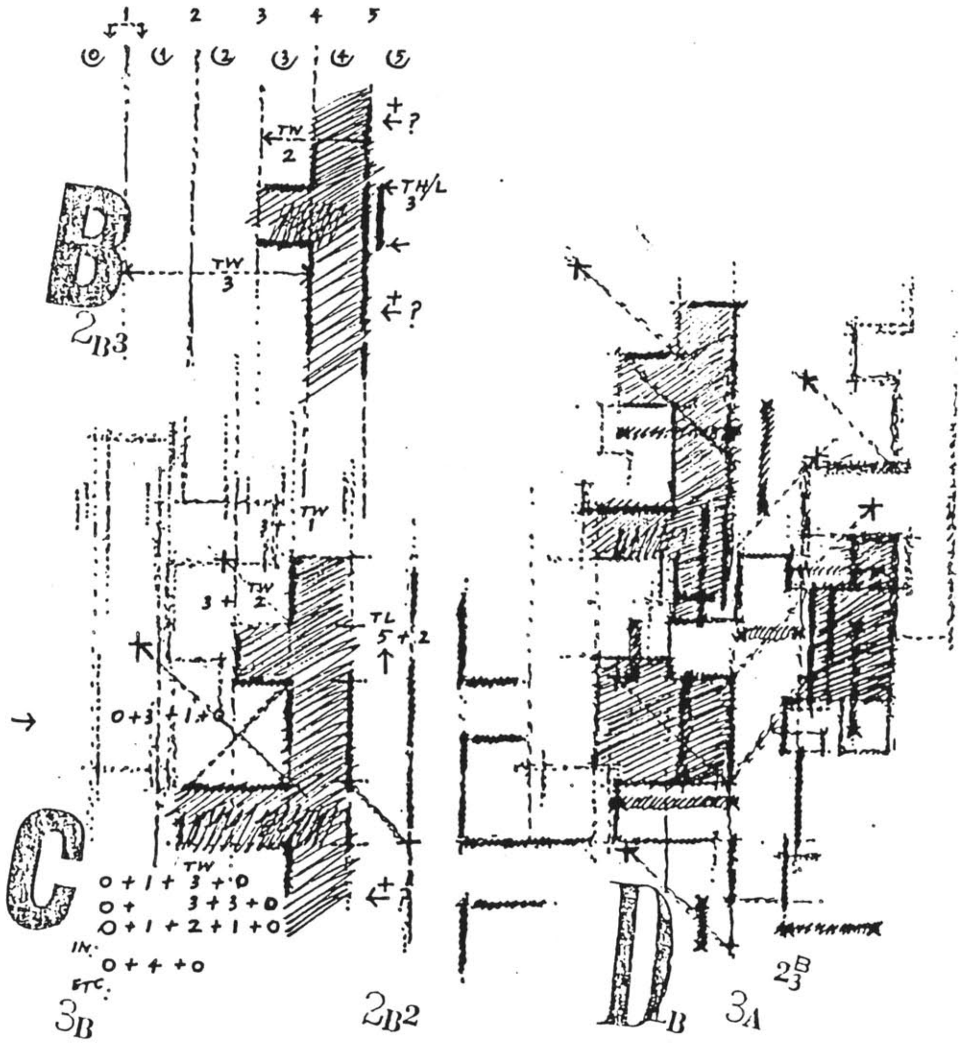
Given this understanding of the directional field, it's important that we be able to go and stop in the directional field in the same way that we could go and stop in the dimensional self stability.

So this is the beginning of the moving from one zone into the next. And that's diagram **B.** So here are the demarcations and the directional zone is exchanging with the next. These diagrams, of course, are relatively uniform. These are diagrams. These are not formal studies.

So here again, if you want to count them, there's at least two zones of the same material. They're alternating. There's water, grass, water, land, water, land, and so on. Again four or five zones of demarcation even here.[21]

The system doesn't care whether it is horizontal or vertical. The use cares but the form doesn't.[22]

There's also registration, of course, to be found in almost all these actual places. Registration is an aspect of territotial systems and those are what we're not allowed to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TW 2
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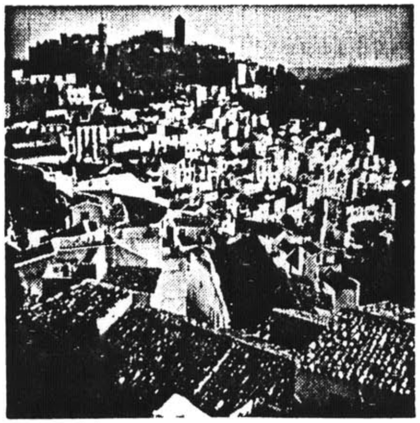

Cordoba

talk about.

Here in Cordoba[23] is very much the four or five demarcations, in this case they are even dimensionally similar. So it's clear that as in the first little square, the dimensions and the uses are not one to one solved. Here the registration is on the edge of the A______ and you'll find that the general zone is the territory that one builds within and without. So it's an edge control system, which is what registration is.

The other edge systems are mirroring, and of course, displacement. You can regard these diagrams as displacement, that is, you get to make this definition from this zone by displacing this much of that. So that just moves out to there. So these are all displacements and the dimension of the lateral displacement is a method of describing the form.

The same behavior occurs at different sizes. The use is different, of course, at different sizes, the material is different, but again, the system is similar.

What we did by exchanging here from one zone to the next was beginning to make some internal self stability. This, if you like, is like the square. Again, the hatched stuff is not necessarily inside or outside, because in the figure/figure system we don't care.

The problem with this, of course, is that although there's internal self stability, there's no external self stability. So this is a form that has direction, internal stability, but no external stability. So we have to do this a second time before we earn a lateral or an external self stability. Now that we've defined three sides of a virtual rectangle or parallel ________, we've got a majority. Remember two thirds is the exchange point. Two thirds is a landslide victory, so that's enough.

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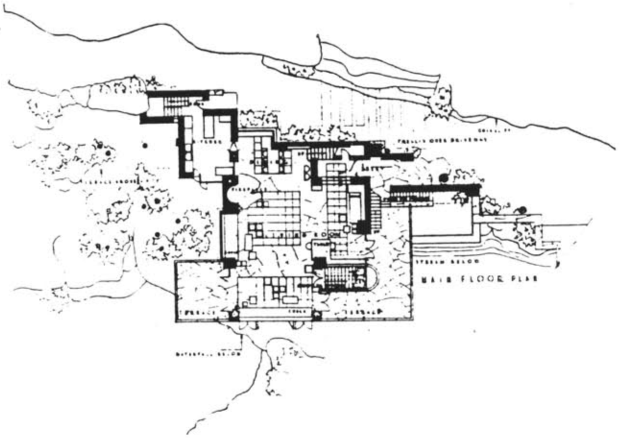
TRELLIS OVER DRIVEWAY
LIVING ROOM
STREAM BELOW
MAIN FLOOR PLAN
TERRACE
TERRACE
WATERFALL BELOW

25

So now we have internal stability and external stability. This form, which we call pi. That's P I not P I E. What happens as this system multiplies, we have direction. We have internal self stability. We have external stability. And we can multiply that form. This is the first form that has those attributes. And so this is the first self stabile form. Territorially.

The square, the cube, the cylinder, all those things that you thought were self stabile, of course, are territorially very UNstable. They're controlled only from the inside which means that they can't possibly be associative environmental definitions. They're punctuations and containments that can be in the world, of course, but they themselves are only internal.

We can multiply that form, we can pack the form, we can repeat it, and so on. And then we can reverse so that the territory that is here, that is the beginning of the square, can become the alternate to the form itself. So we can build up a field of directional self stabilities, or pi forms.

So what we've done now is to earn pi. And again, you can see the dimensional self stabilities that are operating in both ways here. So we go A B C over here, and D, and E would be a field only of these kinds of definitions and even they are not controlled by their edges, so this is a field organization of relatively dimensionally self stable forms. And so we've gone from a total directional packed field to a system of containments that are dispersed in an open field. So we've gone from a directional field to an open field. The open field is the rocks in the sand.[24]

Now we've earned pi. And we have now just a few examples of pi. Here's little pi. This is a guy who really understood pi.[25] He never talked about because he didn't want anybody to understand what his actual systems were. But within pi, of course, are the

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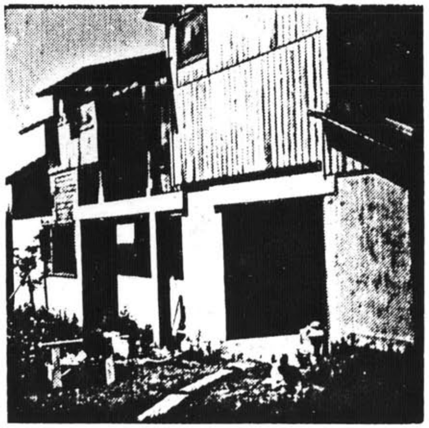

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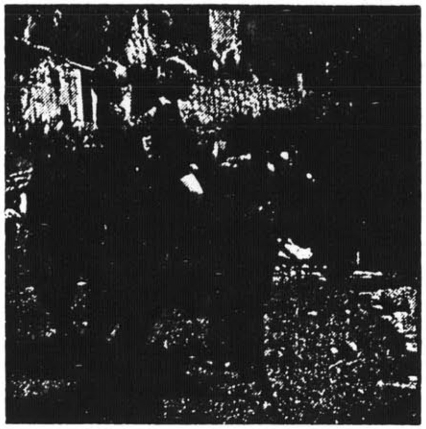

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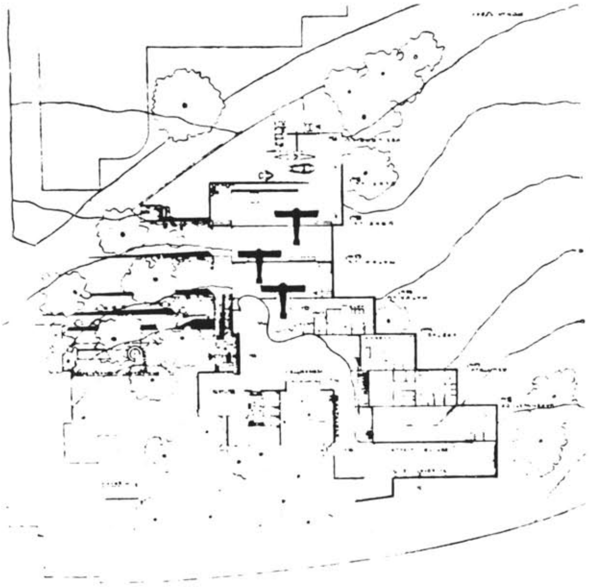

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Alvar Aalto: Finnish Pavillion

distributions of the field self stabilities. And you will find very few lineal edge controls in this thing. Here's pi.

Pi is also an earned step. This is an earned step.[26] It's not an agricultural step, it's an earned step. So in order to move further away from the direction of the field you first come back to the field and then go out again. And that's what's going on here.

Here's pi in a domestic setting.[27] This a house by the first student I had at MIT in 1958.

And here's pi of course upside down the other way.[28] This is the zone of registration, not down here. And these citizens are setting up a lateral pi.

So now that you know about pi you will see it everywhere.

Now this is a thing of some interest. The best work of the citizens who worked long enough to be not counted with the present fruit salad of nits that are working were aware of the same systems. Here is Aalto, here is a pi. So these are back to back pis that are open to the landscape. So here are the courtyards.

Pi is not determined by Mr. C________'s name. And this place of course is similarly a pair of back to back pis that work this way. This is a detail of the larger form which is pi. Part of the pi here is the open landscape.[28]
So these people that one would, if one didn't think very hard, would think they had a totally different formal consciousness, turned out to have understood some of the same grammar. And of course the behavior works at lots of different sizes.

Size and behavior are not in contradiction. The pi and the exchange are part of a lateral displacement system.

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So you'll see pi in the continuity of the glazing here.[29] So again, this is correct. The continuity is up. Because this is light. And light is out there so that's where the association is. So the light is moving down.

Now if you look at the growth, the development of any of these towns, you will see pi being generated. So pi is the general, generic form that provides partial enclosure and the directional field itself. So it's the basis of most of the urban forms that we know. You can see that developing in the outlying small pieces that are being put together.

Now this is an actual rock and that's a sketch of that rock with the dimensions.[30] This is an actual scale drawing of that rock. So here again is pi. So pi is the mandatory aspect of exchange that you might loosely call interlocking, but that's a rotten word.

OK, so that's pi.

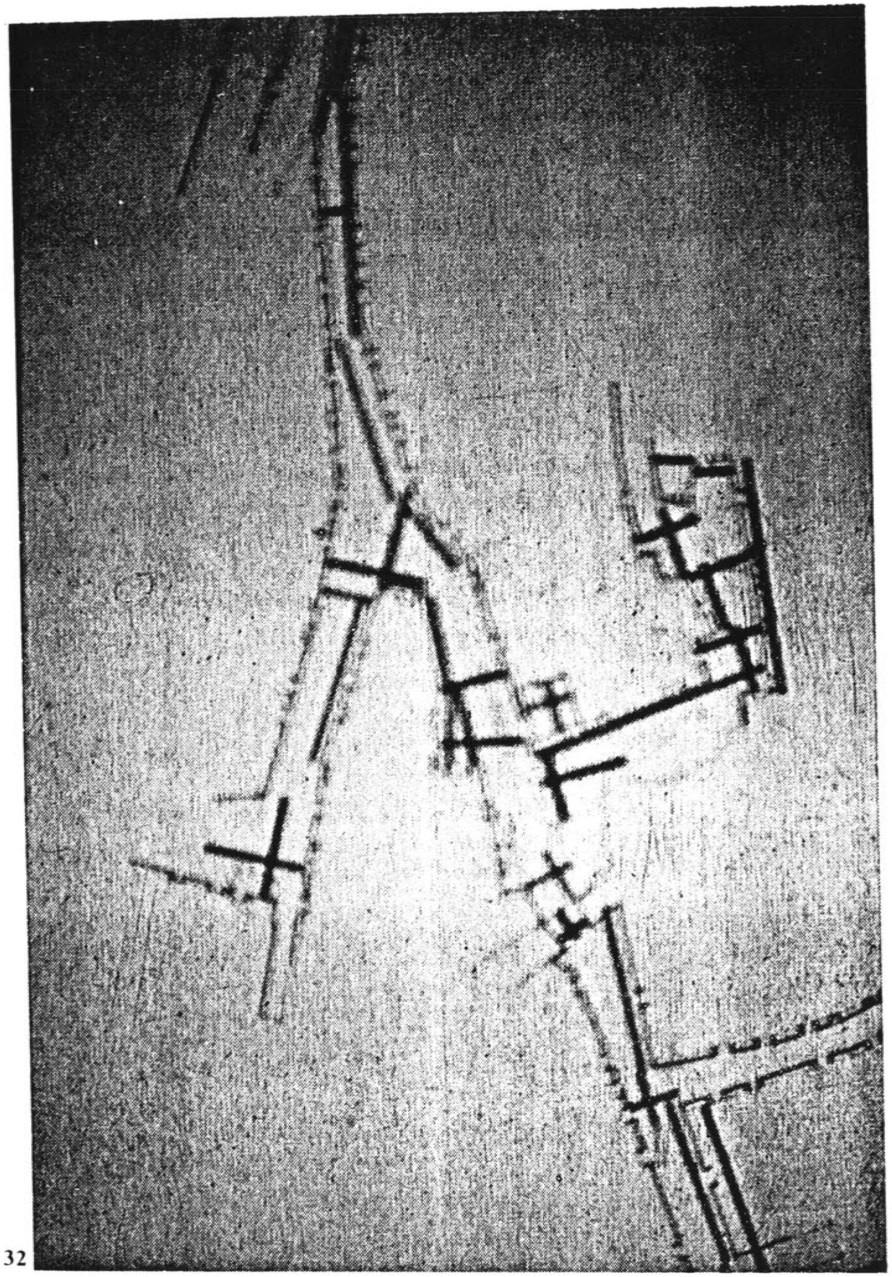
ring ring ring

Now you're ready to recognize pi. You're ready to recognize directional field. You're ready to recognize dimensional self stability.

Now this is the kind of place that we'll know, some of us for a while. There's both a landscape intensification, the landscape transformation, the directional field, the self stability, that is, all of the forms, there's even mirroring --the form of the hill here is not unlike the form of the town itself.[31]

So there is obvious alternation from the walls to the roofs . I had a very hard time finding theories of lineal edge control, so we know that while the directional field is still a very much imposed directional field, it is dimensionally very built.

31



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Now here's a directional street. In these kinds of towns we know that we have landscape intensification when the access system is not only directional but it's all primary. This is all primary access. So there are no completions, there are no blocks. Every street, every way goes somewhere.[32]

The whole town forms just one street. So when you stand back and survey the whole town you just don't see a combination of virtual crossroads and virtual fields.

Now, dimensionally, you will find that although it is very, very directional, you still find two or three dimensions that are working in most places in both directions, and are setting up partial territorial self stabilities. So that at the ________ size, or at the room size as you move along, we have partial self stabilities, and when we get to the virtual end, it does go on there.

You can very clearly see the same dimensions in other places. Same dimensions are somewhat serial because at the larger size, there's no territory that's room size.

This is just a larger version of the larger ______________. Here's a slightly more accurate drawing. Now here comes the dimensional system. What you might think if you were dealing with a sort of a chancey dramatic dribbling kind of system, turns out to be a phenomenally accurate system. And the small dimension, the dimension of the stairs, the small room, the entry, and so on, is within two or three inches, constant through the entire town. As is the next slide.

Here comes the rough rock which is actually this rock. We are looking into this corner, and that rock is that corner. So even with this rough rock we find that the general dimension, this one, is absolutely consistent inside as well as outside. The true yellow rather than the spatial yellow is also exactly the same.

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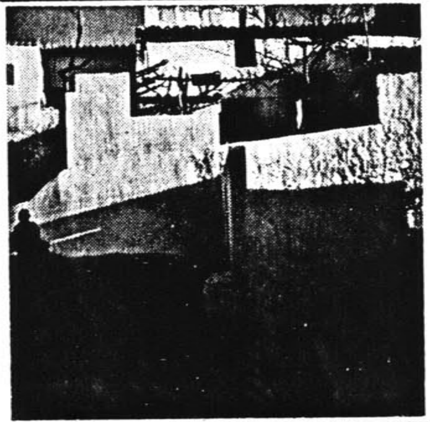

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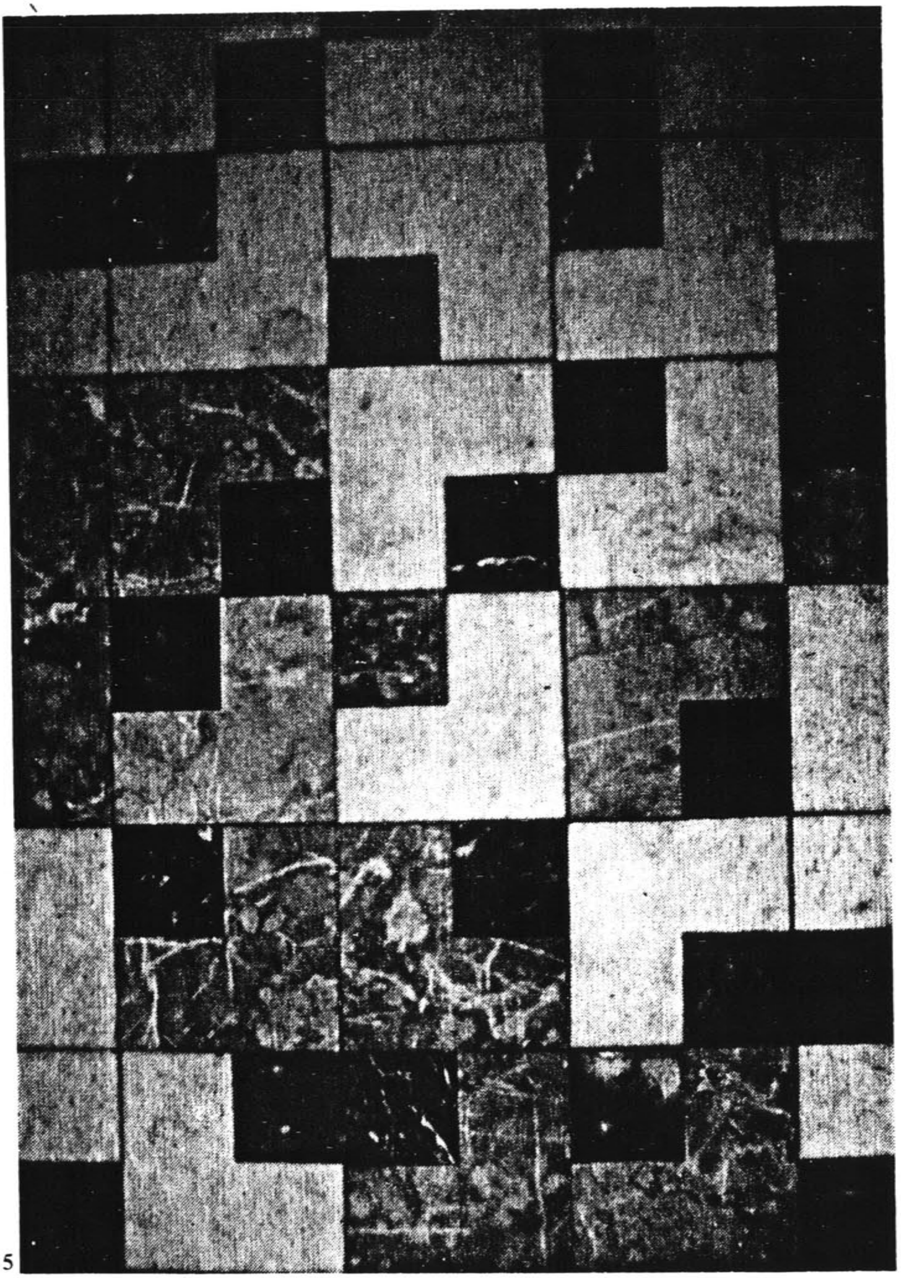

Now these two places, in another town, in another country, have the same system.[33] The exchange between the external rooms in here makes the street part of the extended privacy. Or the reverse, the extended privacy of the house on the street conserves the inside privacy.

So just as these on the right become the internal privacy ________ belongs to the street. So the hard line of privacy is very clear. The next zones, private or semi private or semi public or public, are depending on the use.[34] So if the use changes, if the use is multiple, then the use is __________.

ring ring ring

Now that we've learned pi, we've seen reciprocities all over the place. This is the direction reaching down. Mirrors. If you go this way here comes the street. Dimensionally, the room size is the street size.

The continuous open space, if you like, is not unlike the calligraphy, or the geometric packing of the continuous pattern.[35] Very much the rocks in the sand in the open field in association with the continuous edge.

The dark and light reverse. The rocks in the sand are the roofs. In any one of these things you can find them behaving the same way. What these guys are doing, I believe, is to redefine the light as continuity. I don't think they were breaking things up. Not intentionally a lineal operation at all.

What they were doing is this: Here we can find continuity through all these forms. This is the predominant attribute of these continuous light organizations.

What old __________ was doing is exactly the same. What Kepes was doing in some early work was very similar.

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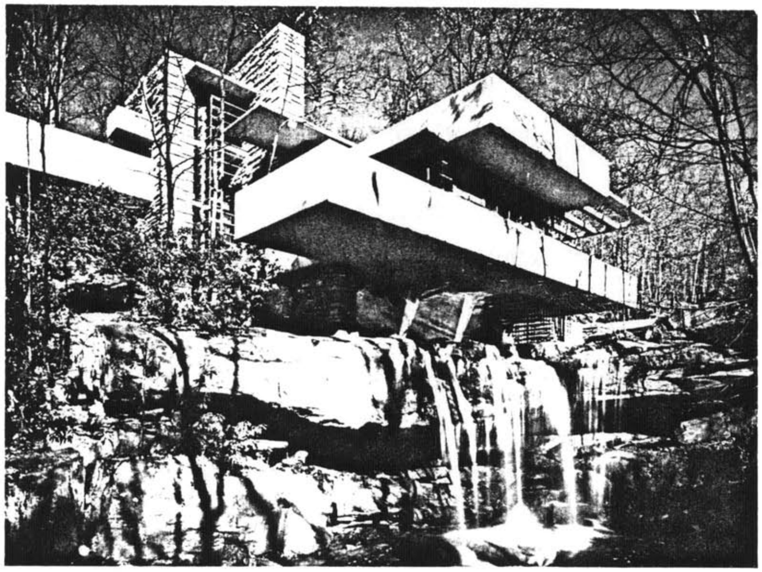


Frank LLoyd Wright: Falling Water

What you'll find is that the organizational systems, the formal systems, are not really subject to short term fashion. It may have some intrinsic qualities and interests that survive a lot of years of fashion and ________. So it doesn't matter that __________ was once the __________.

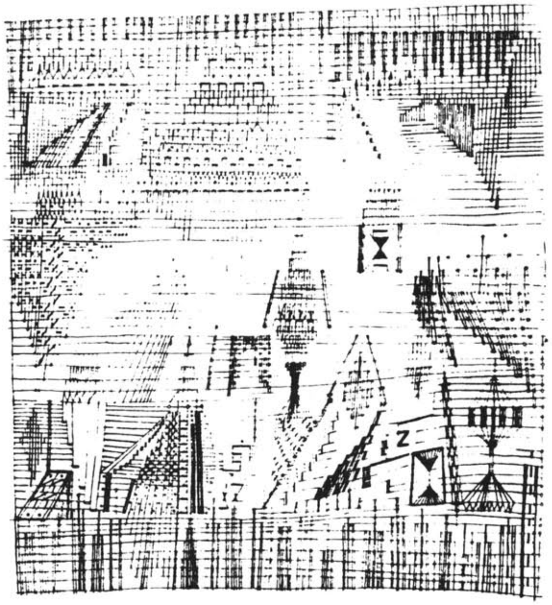
Now, in architecture then, the same thing that is being built here is essentially continuous light.[36] It's certainly not windows in the extreme, so it's related to the lineal definition in the landscape. Again here, both the _________ and the light is potentially continuous.

There are a few other things that happened in the last hundred years that are very much a part of our inheritance and one of them of course is the end of s_______ load bearing. Load bearing in the form. So the continuous surface as a form to which loads are going to be pyramided is gone. By this time the horizontal is winning.[37]

The horizontal wins as a representation of use. The people tend to move horizontally rather than vertically. So any time you see a building in which the vertical controls, you know that it can't possibly be for people.

So the territory that is made here is part of tectonics; is that the beam, the horizontal what have you, is now strong enough so that the corner, or the light that is around the form,but it does not know that. The building is for people, the people are inside and they know that the outside of the building is continuous light. So there has to be continuous light in the building if we're not to have a whole ______wise and general ___________ery.

This was well established by the twenties. You can see how not only understanding that leads to drivel about the cantilever and so on, but the important thing, which is



Paul Klee: Air-Tsu-Dni

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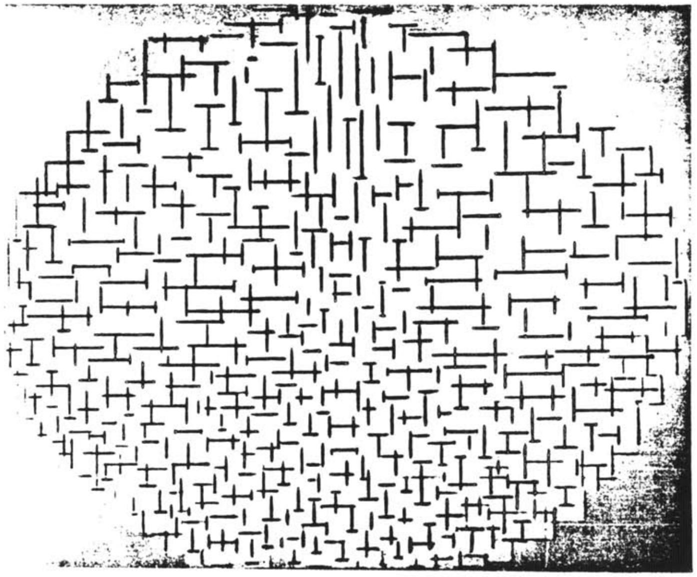

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Piet Mondrian: Pier and Ocean

the horizontal plane, has nothing to do with the prairie. It has to do with the people moving in space. And so this is part of the territory here, which is open. So again it's the alternation, open, solid, open, solid, and the solid is open color so it's open, open, open, and this is all part of it.[38]

And of course this is exactly the same formal system. If the system is understood, there are phenomenal options. This is light, dark, light, dark. So it's a continuous relationship between all these two p________.

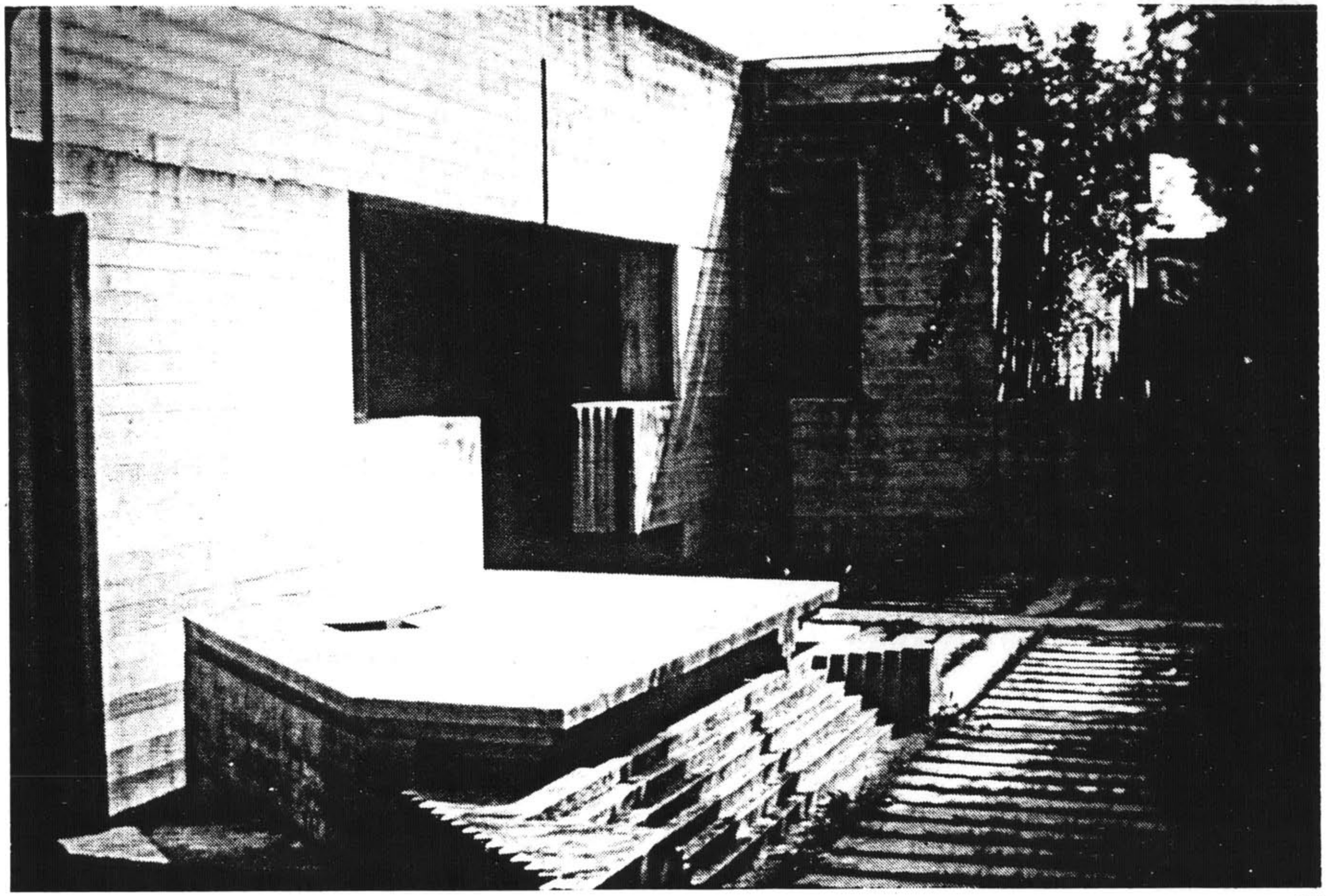
Now the second thing that we've inherited is the option of the form of the building being made by differing actions. So each action makes a different territory than the previous action. And that's one of the things that's going on in this place. The actual zone of the closure is really quite deep, if you know the building. The zone of the closure is established in part by the structure.

(I'm not allowed to talk about the big four C's: continuity, containment, completion, and collage.)

This is both completion and collage. No one of these of systems makes anything like a complete wall.

So each system is adding something that the previous one did not. Despite this peculiar insistence on the square or the cube as we had at the beginning, it is possible to take the model systems into the realm of options sufficiently far. The original reference is not particularly important. In this system, in which poor old Piet[39] spent his whole life wondering which way was up, he could never figure it out. So he covered absolutely no ______________. He spent his life in phenomenal distress.

In this building the direction does survive,[40] both as access and the closure. And the territory that we build, here again is the acknowledgement of the space, the structural



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space of the light at the edge, there is continuous light around here. Here's the light below. So that light is really the structure, and it's not m________. So it's an elevated partial containment, not a m________. There haven't been any m_________ since old what's his name, ________ smashed the atom. Old R________ and all those other people who figured out things about electrons and things that go whiz in the night.

So here's the continuity of light, structural light. Here's virtual light. This is virtual, there is a continuity from the light through here, and through this.

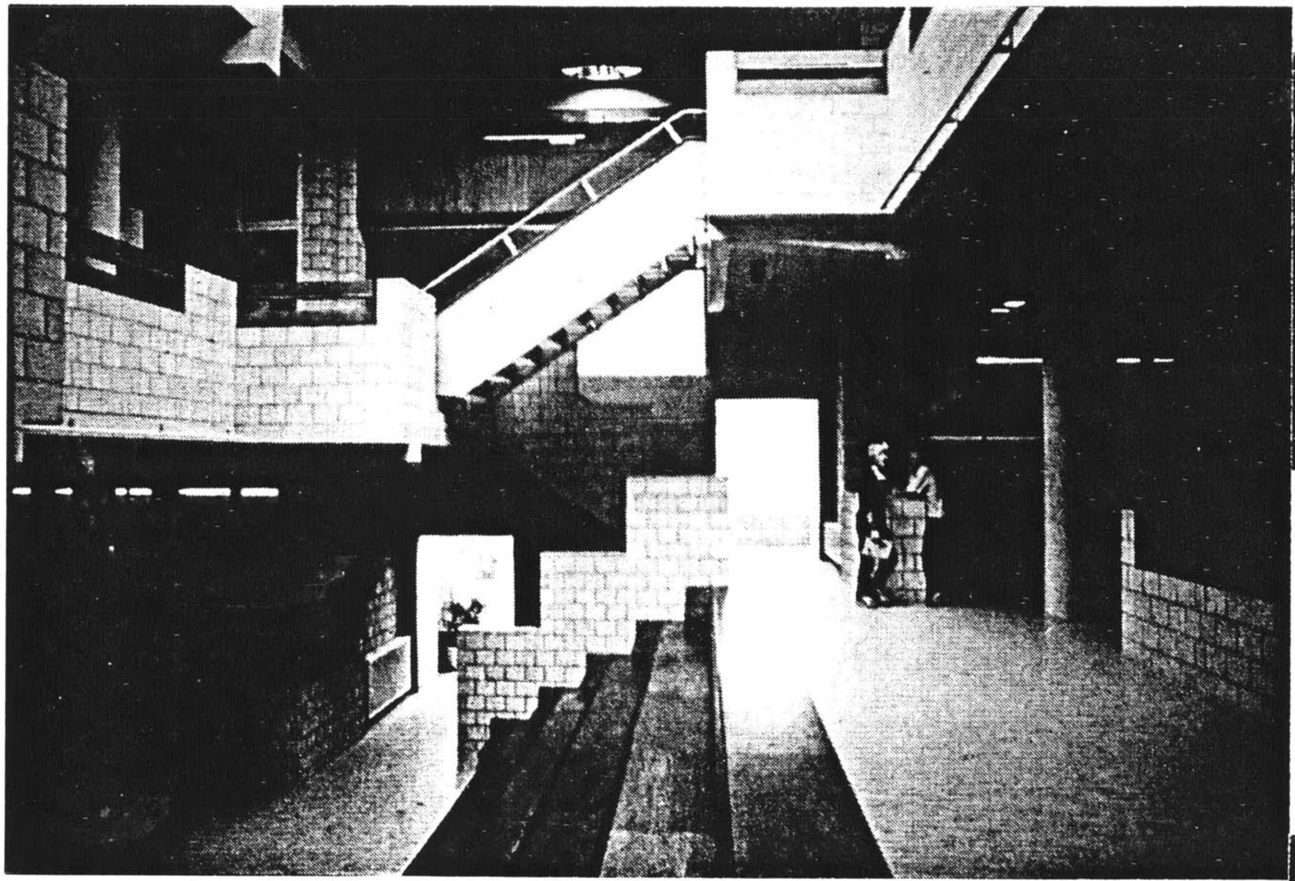
Here's the building in the landscape. The directional field is very much built. Here's the screen that provides the light at the inhabitation. Here's the slack.

So in an additive field the pieces don't need to define lines, they can be assembled to make them. And again, what's out here is virtual space.

One of the things that's happening here is that the alternations are --one of the alternations that is being determined here has some of it. The territories that are here are an enormous earned step.

An agricultural step or terrace is like this. It's not architectural. It's not territorial.
____________________________ So here's the
_______________________________________. Now the space here is of course, again,
the space now at the top. ____________ _________ __________ ________ This is
_________________________. _____ _______ _____ room size____ ___ __ ______
most of the light.

So what is really the joint is just the reverse of that. It's the virtual light. Here's the building that's built around the containment and of course these are deployed against the containment. They're deployed here in the proper fashion as either open field



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definitions or else part of the __________ field. Observe a number of demarcations: one, two, three, four, five, six.

Here's the earned step. Here's ________________ the stairs are now in real space.[41]......

You've seen these slides many many times. I did mention earlier that the rediscovery of the garden wall was another thing that happened. It happened during this century, because now that the horizontal wins, the garden wall can occur and reoccur in various pi forms. So that you find that the inherited, so called indigenous architecture, and __________ architecture by reasonable people, share many attributes in common.

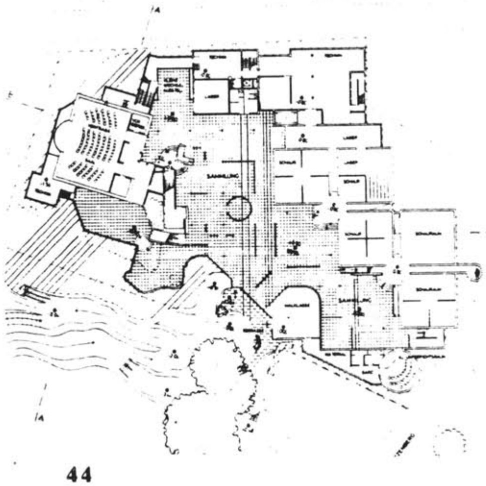
ring ring ring

You're almost done....

Just a quick reminder of the open field system which I didn't really to get to tell you about. This is the classic open field: the rocks in the sand.[42] And up here, is a different kind of definition, but the same system. And these are the tinies out there drilling holes through the sea.

I guess Peter and I see different things in the New Yorker. This is a ________ drawing of a ____________ illustrating a ______ North Sea installation.[43] So here are the rocks: one, two, three, four of them. If the horizontal really wins, if you take several platforms, they're altogether from here down to here, three or four hundred feet.

And they're not called platforms, they're called rigs. Here's a huge, huge ___________ that contains ___________, and some that are actually habitable. They



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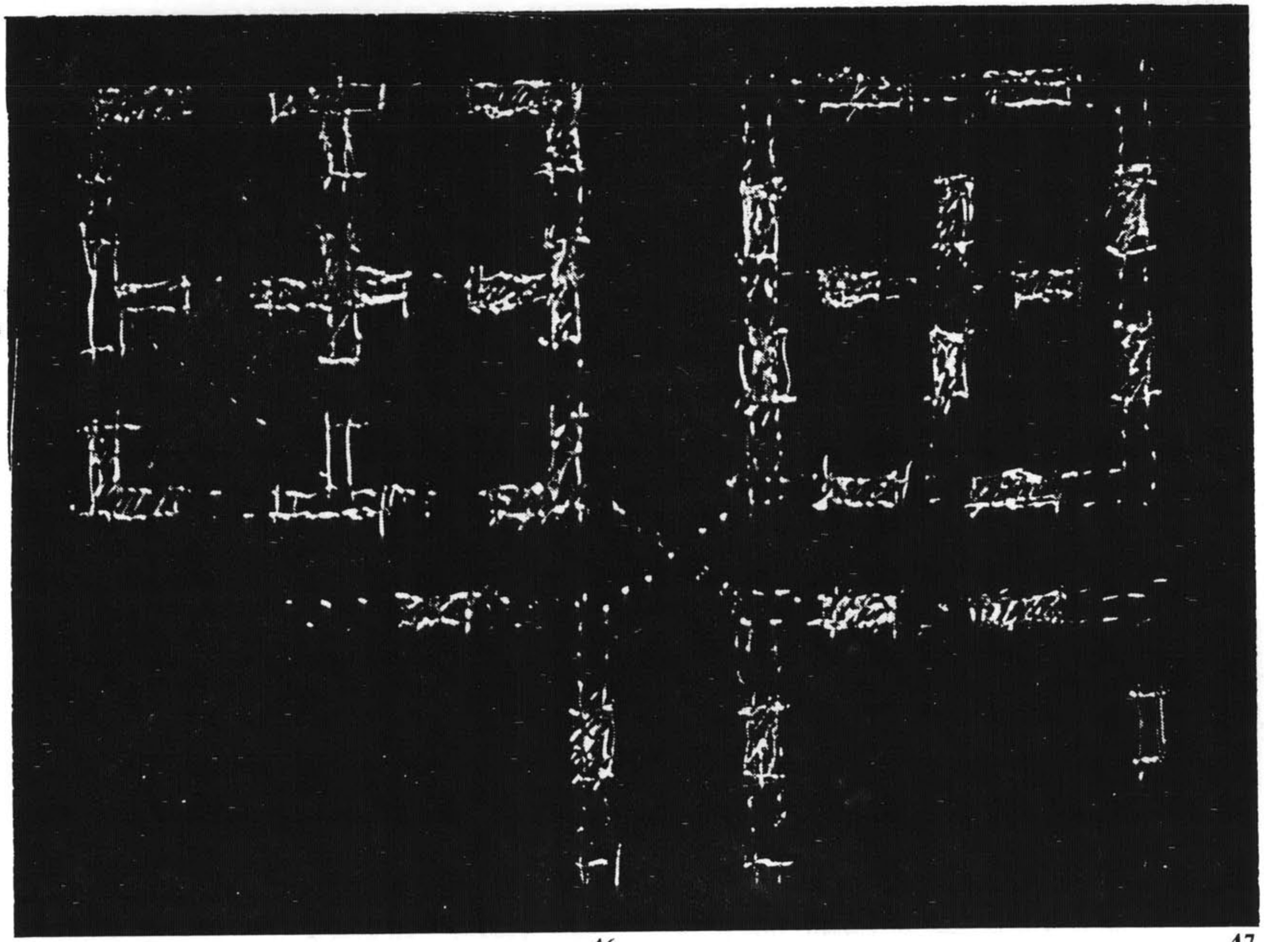

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Hans Hollein: *Stadtliches Museum Abteiberg, Monchengladbach* alternate. This is still pi. Here's the orthogonal. It's still pi.

So there's multiple pi virtually. ________ __________ __________. So that the zone of reference is in space. This is a very _____ __________. So it's not that it's just an industrial form, it's inhabitable.

And down here, you have two or three diagrams.

This is Mercer's thing that we have seen before. Now you know that this is a rock in the sand organization. An open field organization. With the public space, the slack or the sand, that could be anything. This could be larger, it could bigger, it could come around here, and so on. So this is the slack and these are the containments. Classic rocks in the sand.

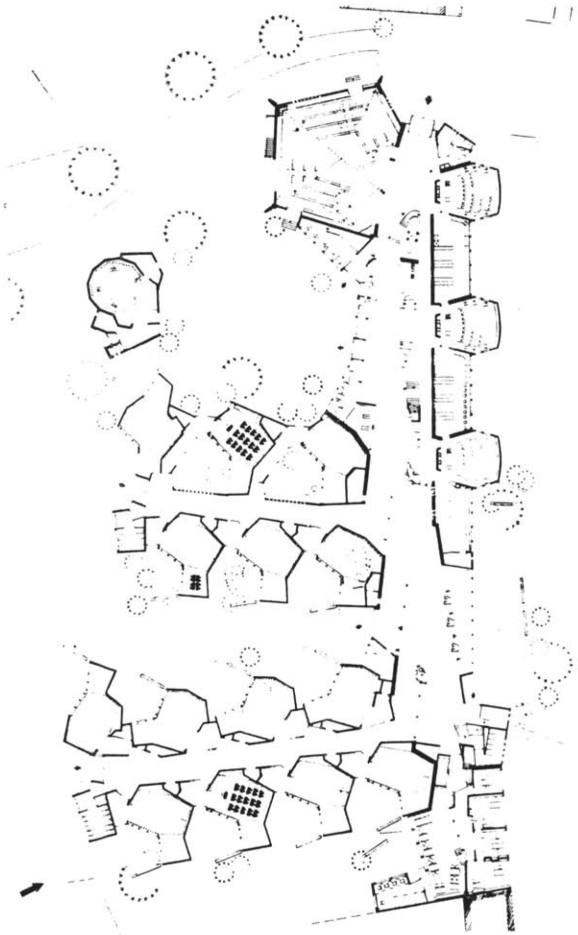
And this is another inheritance of this century. (We have one of the world's leading Scharoun experts in this room.) This is not Scharoun yet, but you can see it. What's positive about this bloody place is that same quality. Here's the containment, here is the containment, and here is the slack. These are the rocks in the sand.

This is Hollein's version of Germanic repetition.[44] But observe pi. Observe multiple pi. So the landscape is moving here. Here's the total reciprocity as in diagram C. Here's the lateral reciprocity with back to back pis.

So it's a combination of the rocks in the sand and the _______.

(Louise said I could only make two points.)

Essentially, we have a directional field, self stability, pi, open field, and so on. So the other one is that m_________ is actually gone. So what you see in the support systems is that where there would be concentration ______ ________ ____ ________



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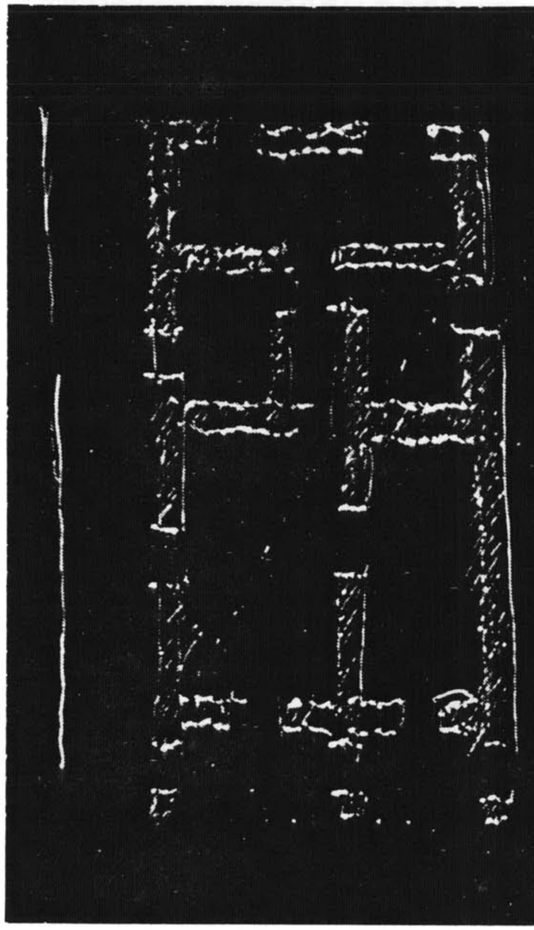

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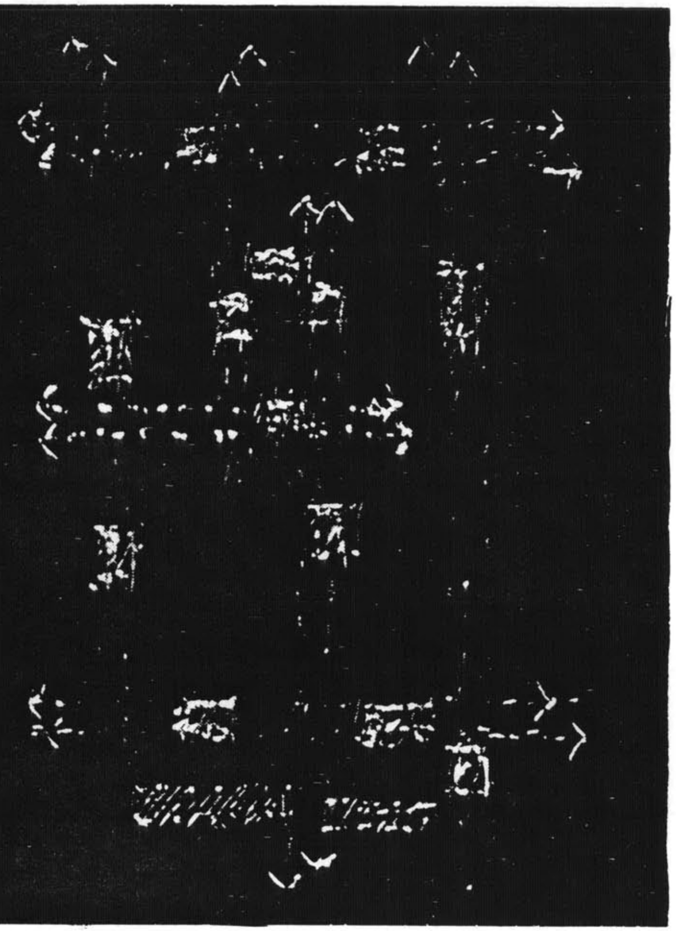

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Hans Scharoun: Geschwister-Scholl-Gymnasium

______ _______ very often _____________ small scale buildings.

We also find it here. If you want to make a line of forced analysis you'd be very likely to be drawing arrows that came down here. Now where that happens, of course, is in the open field. So pi allows us to ______________[45]

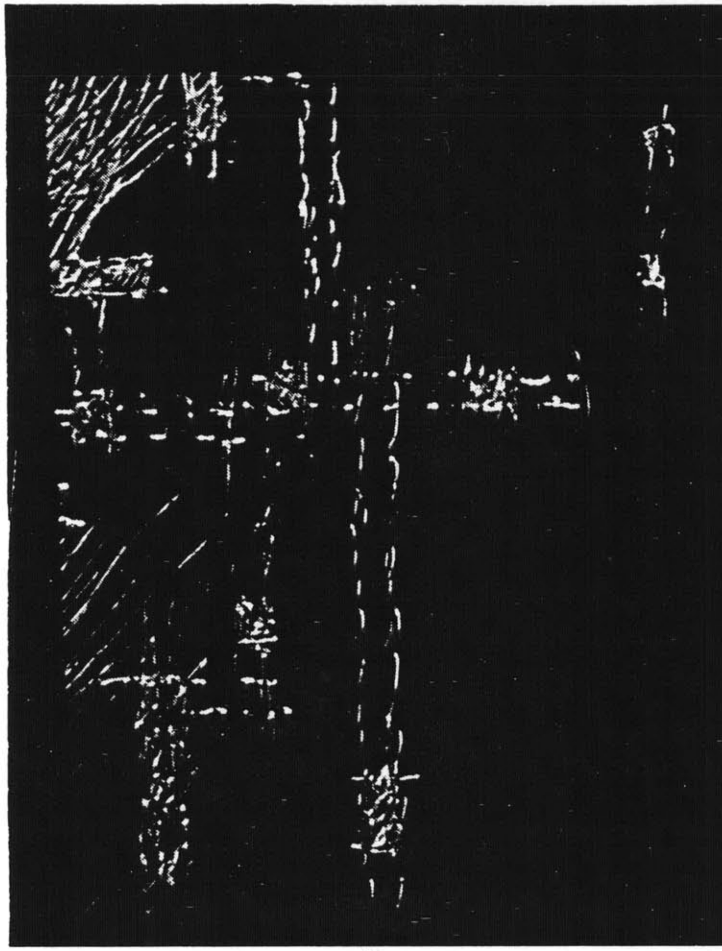
This is now the equivalent of ____________ walls.

Again, alternations, one of the inherited ___________. The light dark alternations. The same form _______ ________ _______ light and dark.

Now, we have just three diagrams left. Now I thought that you should see these diagrams. And because I didn't have them, I had to make these drawings this morning. These are drawn at no scale on blank film. So each drawing is probably three quarters of an inch high, so if there's any slight looseness in the drawing, it's because of an old man's hand and I drew with an exacto knife.

So as a supposition that there was such a thing as an idealized form, we're now going to talk briefly about reversals. Because, positive/positive reversals are now in our twentieth century understanding, rather than figure/ground reversals. So the containment that would have occured if we had, let's say, some peculiarly fashioned virtual square or cube. But the openings that are here are at the service of the containment. And at the corner, the corners make the containment. _________[46] _____ the squares and we are allowed to see or move in the opposite direction from the center.

Now if we reverse that completely, and once the opening becomes the solid, then the corners are free.[47] And Rietveld is possible. "No Hands" Neutra's corner is possible. Everything is possible. This allows us now to encounter this area, because we can now



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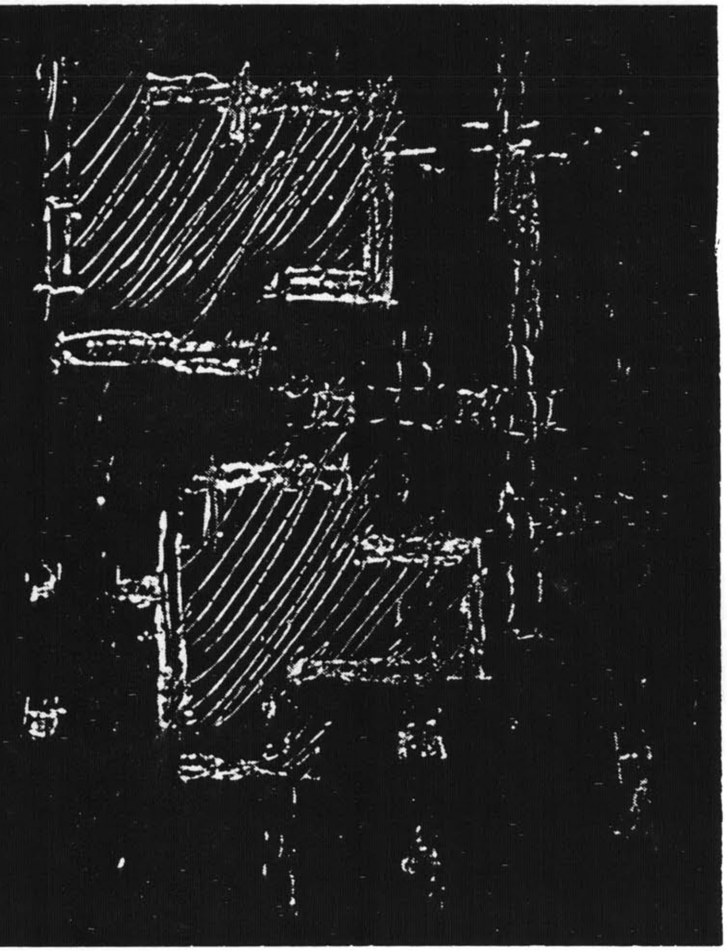

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stand, we can now *be* here and move where the material used to be strongest. Since it's a behavioral reversal as well as a positioning reversal as well as a formal similarity but a positive/positive reversal.

This, as it turns out, is the form that, if we continue, we find is the structural system. This is the diagram, or a diagram that you can find from Herman's office.[48]

Again, here's the reversal. Once the containment inside has turned and the solid inside, is here space, so __________ is moving up, opening up. So at least we can be here, as we can be there.

The next move is for these internal openings to be outside. So now the outside and the inside are one. What was there is now here. So it's a transformation.[49]

Another diagram:[50] Now, if we have not been sold on this thing, that's the form of a floor tile. You might see what happens if we go through the same exercise on an actual habitable building instead of a __________ maze.

And this is the actual plan of a French farmhouse,[51] and if you take the windows and again reverse that, and make the windows into solids, then we're setting up the beginning of a building system that in reversal allows us to understand that the virtual continuity of beams are now moving always in the space. They're not close as they are in this case.

So here, here, is the equivalent of this. So this moves through some of this space. Here, the same.

End of tape. Unfortunate technical malfunctioning resulted in the remainder of this lecture going unrecorded.

Many thanks to Maurice Smith for providing many of the illustrations from his extensive slide collection.

WILLIAM HUBBARD (2Feb)

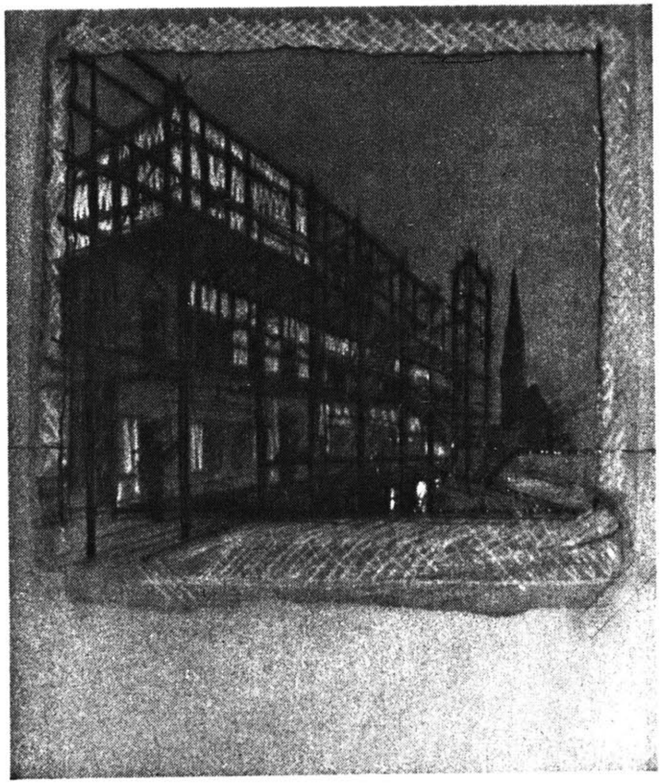
What I was both surprised and gratified to find was that the initial idea that I sketched on the plane flying from the west coast, which I tried out on my students, turned out to catch hold and I loved the way in which they gave it depth and meaning and concrete instance.

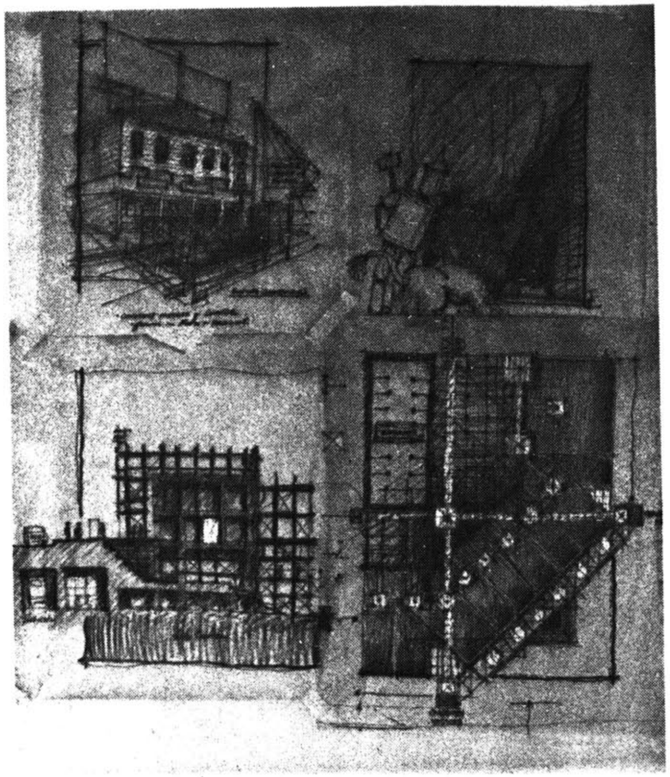
We essentially confronted an issue of the nature of technology in this new modern age. We talked about communications and data and thought about its essence and concluded together that it is essentially an undifferentiated blanket spread across the whole earth. One of the basic characteristics of communication and data access, and all of those kinds of things, is in fact, its ubiquity. What is more, is the fact that you stick up an antenna into the ether and you can pull down either Shakespeare or the Brady Bunch. It is unhierarchical. The same airwaves that carry "high culture" also carries all the layers above and below that high culture.

So taking this notion that data is without hierarchy, as given, and the data is spread across the face of the earth, we thought about architecture as traditionally conceived and it seemed to us that architecture as traditionally conceived is about about making distinctions in the face of the earth. There is HERE, and outside of here there is something else. And then having made that distinction within that place, there's a hierarchy. Some

HUBBARD STUDIO

William Hubbard is Director of Architecture for Urban Innovations Group, the practice arm of the UCLA School of Architecture and Planning. As a teacher and as the author of *Complicity and Conviction* and a variety of articles, he has sought to attune students and the public to the ways that design can embody publicly shared dreams, perceptions and customs.





places are different than others and in architecture, some places are more important than another.

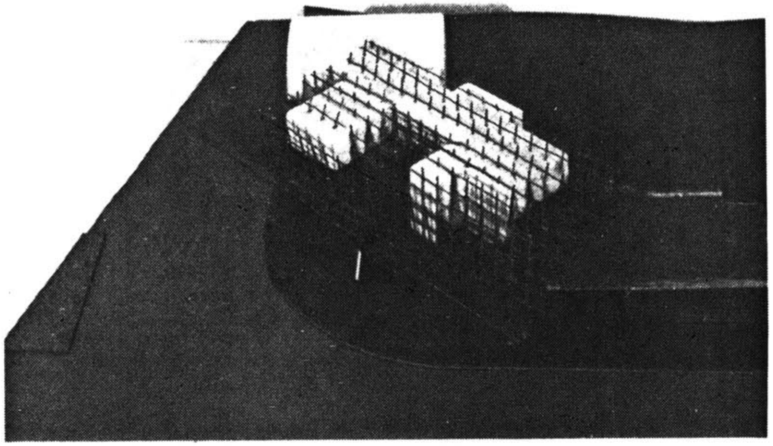
And so here is architecture as traditionally conceived whose nature is hierarchical and differentiated trying to represent a phenomenon that is ubiquitous and unhierarchical. So we are confronted with this dilemma.

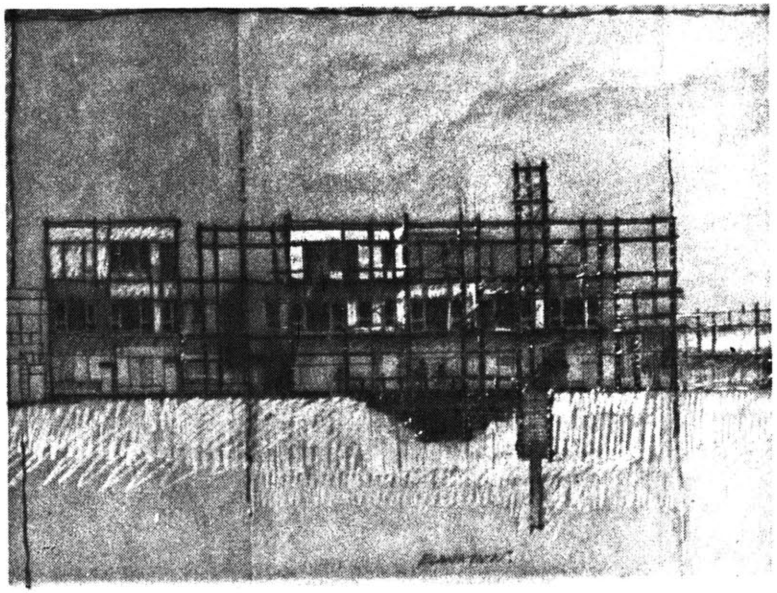
The question was, do you try to find an architecture that in spite of its traditional nature, can somehow convey this notion, that there is undifferentiation, and unhierarchy? Or, on the other hand, to try and counterpose architecture against that universalizing tendency.

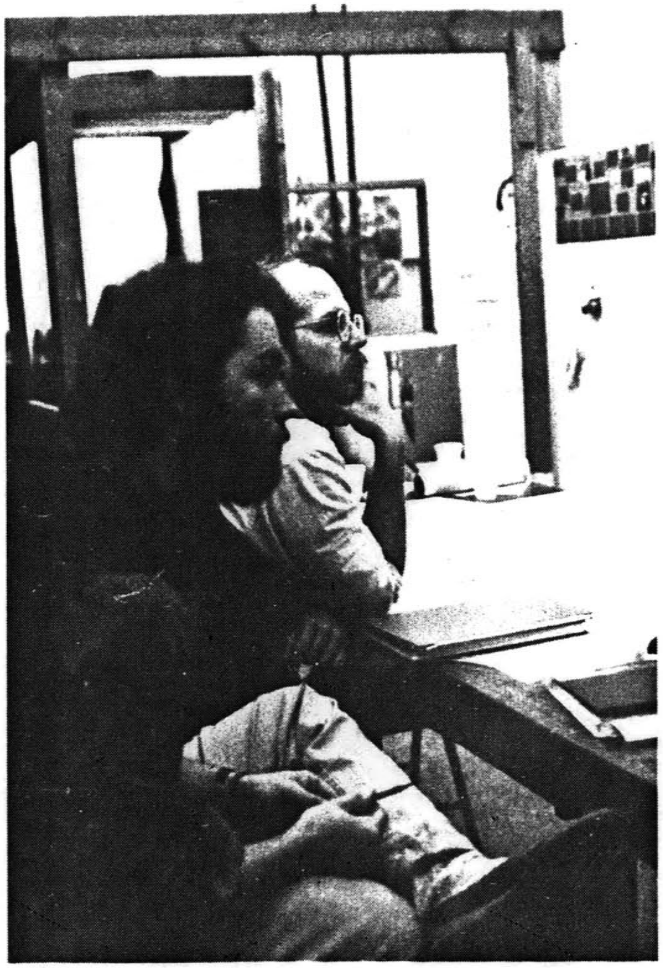
We produced two schemes to find ways to convey these two ideas.

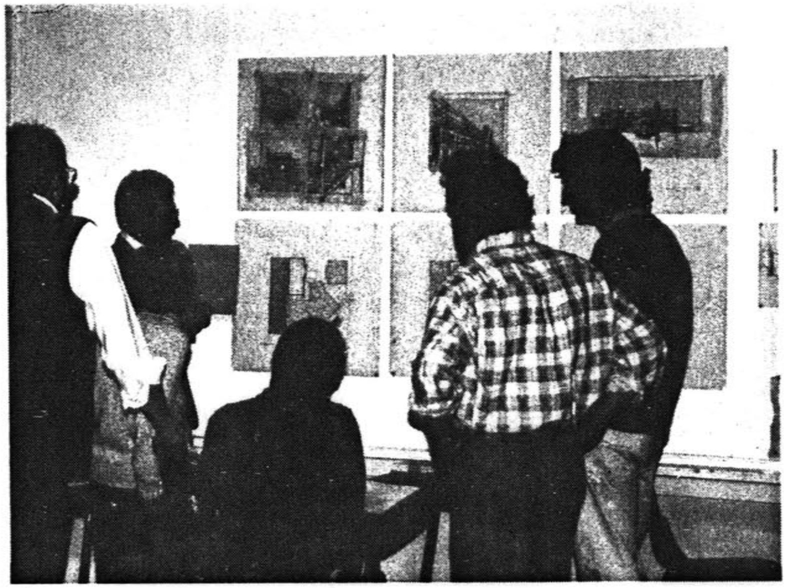
One of the schemes conceived of this center in more or less traditional terms of an institution. It took the various activities and tried to house them in discreet places, each of which would have its own character. And in fact, tried to make the plan of the building be a map to represent a definite progression of spaces. Spaces more important than other spaces.

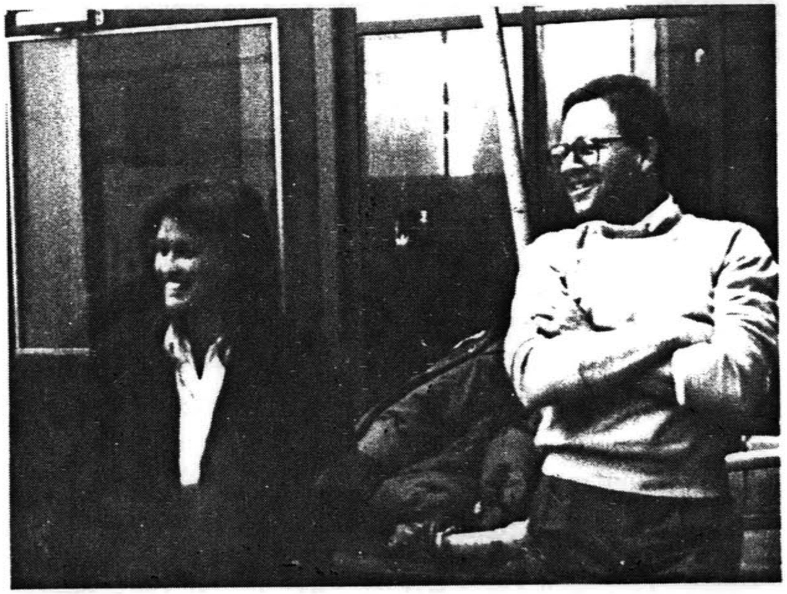
As one would move through the building and in one's use of the building come to an understanding of relationships between the various parts: exhibit, use,











storage, production. That building was then given a civic presence and a coherence on the street. We tried to give the building a sense of closure, a sense of center, a sense of entry. All of those things that might make one conceive this building as an institution, although part of the fabric.

The other group took the other tactic. The tactic of trying to find an architecture that could make visible the kind of ubiquitous thread of this data and information technology. And their essential insight was that data and information are an enabling utility. It simply is not, as Michael said, virtually invisible. And what's more, is not a thing that once you're used to it, you celebrate. It's a thing that you use as much as you use water or gas or electricity or telephone.

So the group's insight was that in fact right below one's feet in Central Square are all these utilities that enable life to go on. Gas, water, power, phone. And what's more, there's the T down there also. And so their insight was to try to make a building that in effect, opened up the whole utility superstructure to one's eyes. So that one would then contemplate the idea that information is one more form of utility just as these are.

Having done that, then they tried to evolve an architecture that defeated hierarchy. The chosen method was to impose across the site a gridwork, a frame work, and to dispose the volumes in such a way that one would be more aware of the gridwork that one passed through than one was aware of the room one happened to be in at the moment.

And one would sense one big room and not some hierarchical division of the place, but simply a circumstantial enclosue within this existent gridwork.

So those are the two approaches. One trying to make information an institution, and the other one trying to convey that information is indeed one large part of our lives.

WOLFGANG PRIX

with Helmut Swiczinsky founded **Coop Himmelblau** in Vienna in 1968, to explore "an idea -- the idea of having architecture with fantasy, as buoyant and variable as clouds." Beyond that, their daring, shocking, joyous proposals and projects have fulfilled their demand for an "architecture that bleeds, that exhausts, that whirls, and even breaks." Their most noted project is the Red Angel, a Viennese wine bar and small theatre.

Architecture is Now

AN ARCHITECTURE
OF SUBSTANCE

29 Jan. 1986

Wolfgang Prix
29 January 1986

Introduction by Paul Lukez

"Would now the wind but had a body; but all the things that most exasperate and outrage mortal man all these things are bodiless, but only bodiless as objects, not as agents."

p. 710; Melville, **Moby Dick.**

This quote from Herman Melville's Moby Dick is probably the most poetic expression of one aspect of Open Architecture: the psychic aspect of Open Architecture.

Who, or how, or what, is that Open Architecture? Or better, how can we think, plan, and build in a world which becomes more fucked up every day? Should we be afraid of these problems? Suppress them? Should we flee into the safe and sound world of traditional architecture? Realizing at the same time that this suppression requires a tremendous amount of energy, energy and intelligence we could much better spend on other things.

Look, the safe and sound world of architecture no longer exists. It will never exist

again. So, we don't believe in the architectural dogmas of the crazy Krier brothers who try to convince us that the truth and beautiful can only be gained if one obeys the old school rules.

There is no absolute truth, and no beauty in architecture.

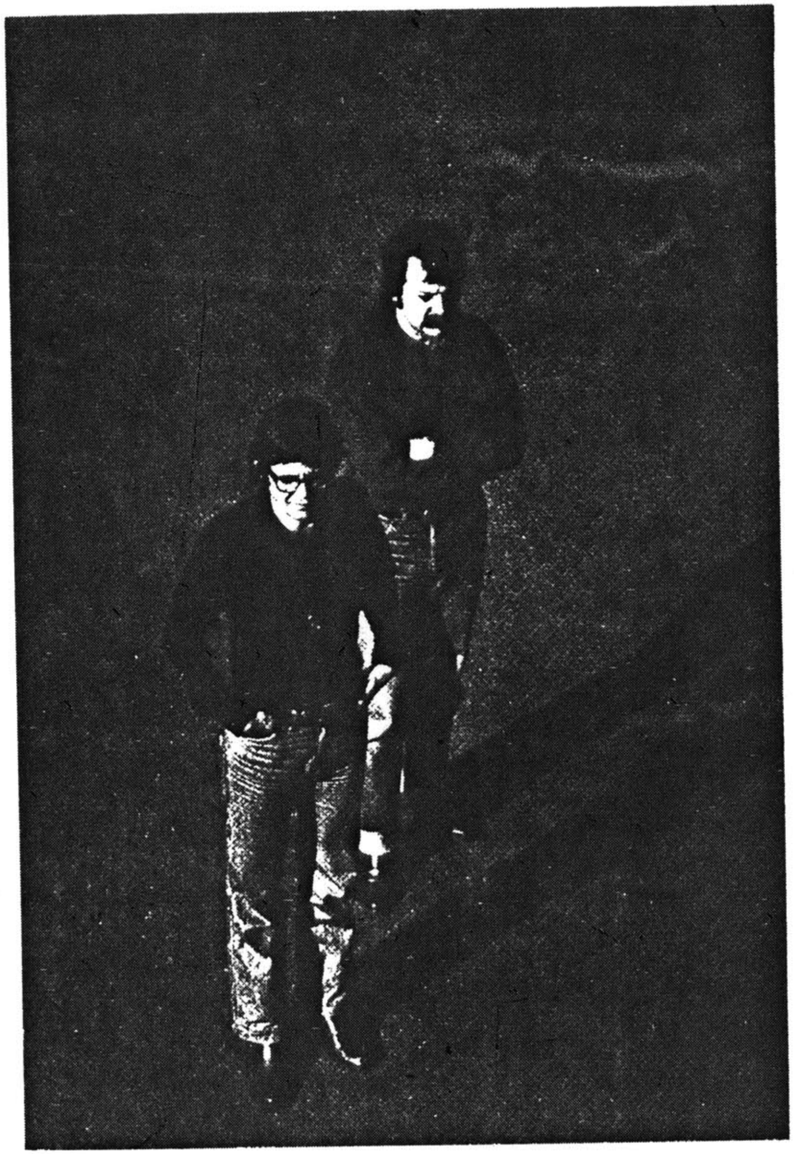
Or, should we believe the city planners who escape into the nineteenth century and who thereby, and not by chance, talk only of closing. Closing the blocks, closing the street, closing the squares. But we don't want any closed squares, nor closed houses. We don't want closed minds and we don't want a closed image of the world.

So we don't believe the politicians and their architects who try to convince us that all problems can be solved by opinion polls. We don't believe the developers and their architects who are always talking about economy, but always have economy in their pockets. So we don't believe the Historical Preservation Societies and these acrobats of taste who want to inhibit the freedom and mobility of fantasy by law and order.

No. We don't believe all those architects. We don't believe anything, nor do we believe any one. Everyone is right, but nothing, absolutely nothing is correct. This is also an aspect of Open Architecture.

Open Architecture, what does that mean? That the building doesn't have a roof, nor doors, nor windows? Does it mean that the building isn't finished? No. That's not what it means.

Open Architecture means open minds, open eyes, open ears, open heart, consciousness. So, architecture is not accommodating because accommodation and classification are, in architecture, as well as in social life, an expression of a rigid attitude. An attitude that turns life to ice. Just as propriety and remaining in the past petrify everything that lives.



However, architecture lives for seconds at the moment of conception. It can never be past because at conception it becomes future. Its instant of conception differentiates and decides. Is this instant free from pressure, cliche, formalism? Then architecture becomes free. Then the circumstantial pressures crumble. Causality is overturned. Then, architecture is now.

see also p. 11 of Coop Himmelblau, **Architecture is Now**

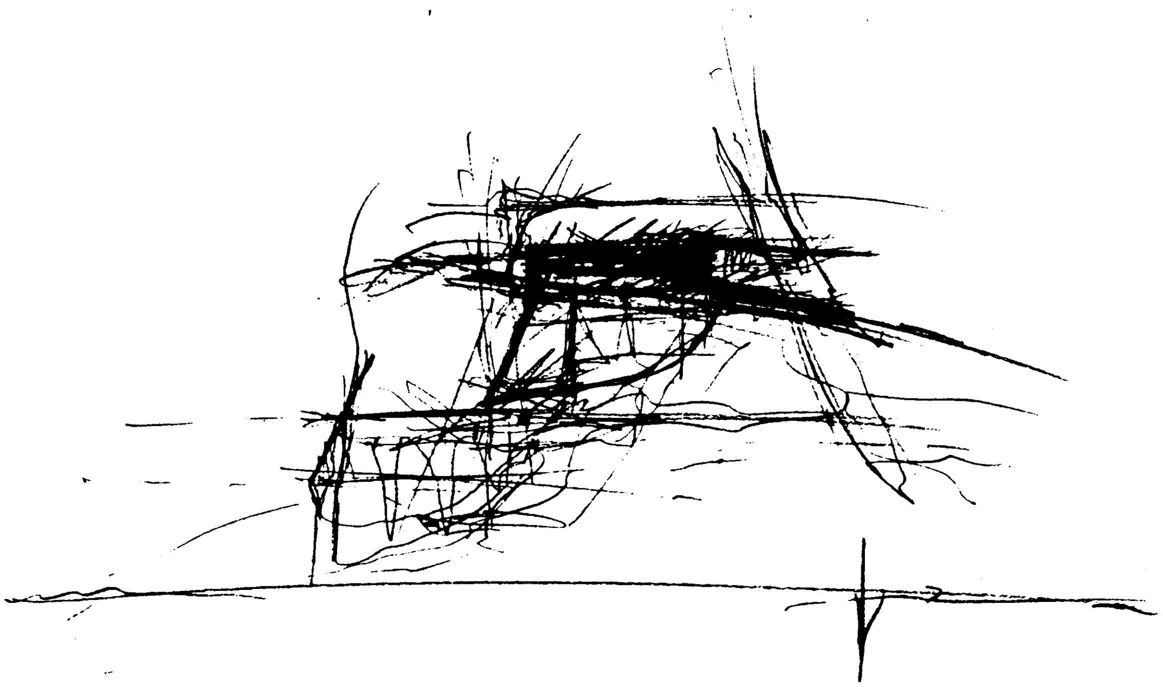
Two concerns have been in the forefront of our work in the last couple of years. The first concern is the conception, or better, the moment of conception. The other concern is coming to grips with an Open Architecture.

The German word for conception is *Entwurf.* The German language is very precise in this case. The first syllable, *"ent"* refers to an unconscious, subconscious human procedure. The second syllable, *"wurf"* comes from the word meaning to throw, to give birth.

One might not be aware at the first glance but there is a lot of discussion about absolute architecture and absolute forms. Especially in Germany. They say it doesn't matter which architect, which society built the building. They say, if the form is absolute, then it is good architecture.

Our statement is that the architect, his head, or his hand invents the building. He is therefore personally responsible for it. We assume that the more frustrated, conservative, tortured, and disturbed or free the architect is, the more frustrated, conservative, tortured, disturbed, or free is the architecture which he invents.
The following sentence can be interpreted: Is this instant free from pressure, cliche, and formalism? Then architecture becomes free.

In the last couple of years, without knowing where it could lead, we have begun to condense the moment of the actual conception. To shorten it. By that I mean, we



Sketch: Open House

talk about the project for a long time, but without considering the spatial consequences, the tangible consequences. And then suddenly there is a drawing. On a paper or on the table. And almost at the same time, there is a model.

That works in this way. You know, Himmelblau is a team. We are two. Almost immediately after one of us begins to draw, he begins to describe what he is drawing. And in this way the project becomes reality for the other as well. And in this way we share the experience of the creation.

Coop Himmelblau is not a color but an idea-- the idea of having architecture with fantasy, as buoyant and variable as clouds. -1968 p. 198 **Architecture is Now**

We cannot prove it, but we believe very strongly, the more intensely the creator experiences his conception, the more the inhabitants will be able to experience the building.

And in this moment, when architecture is lived, when one feels the architecture, this is the creative moment. In this moment all circumstantial pressures crumble. Causality is overturned. In this instant, Architecture is Now.

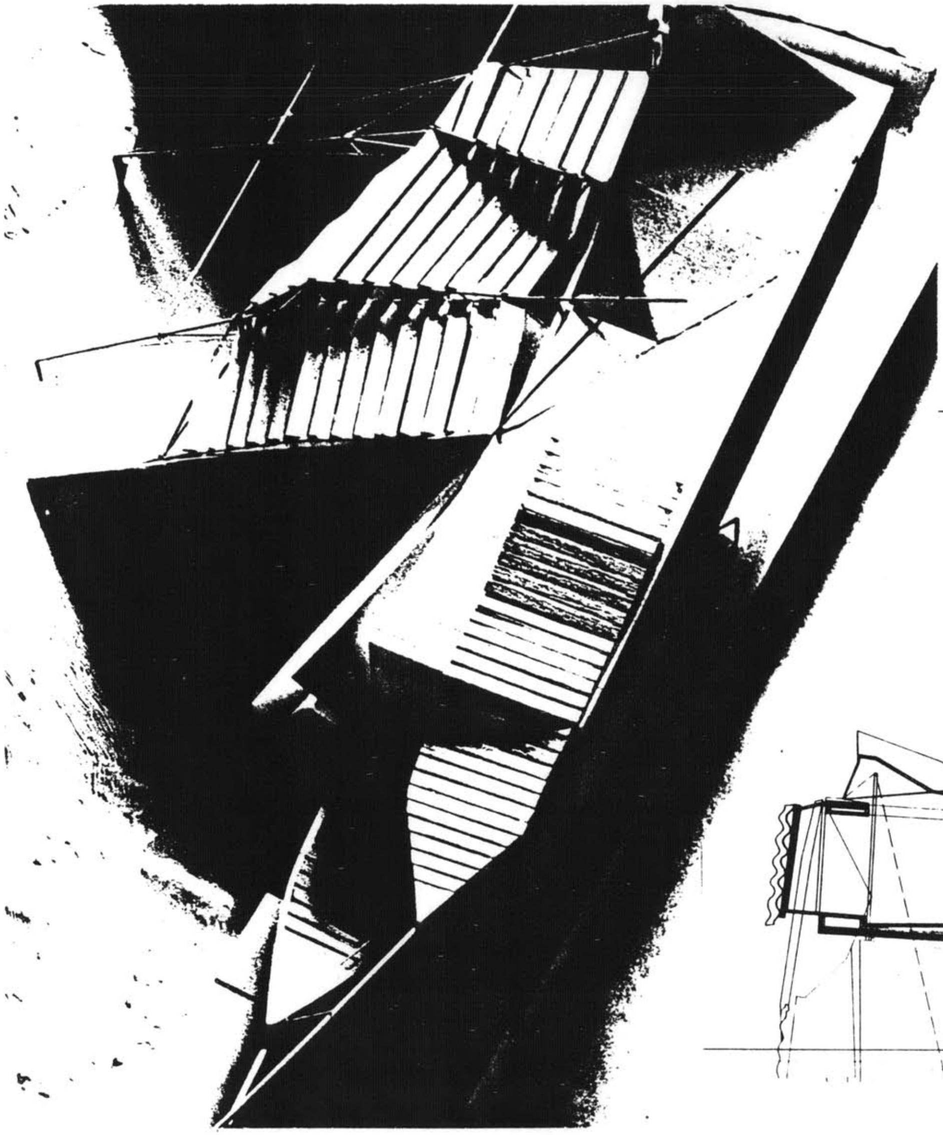
see also p. 11, **Architecture is Now**

This shows the **Open House** which was developed in 1983. For a long time, we resisted designing individual living spaces, and it was not until we developed the concept of Open Architecture that we were able to design houses and flats.

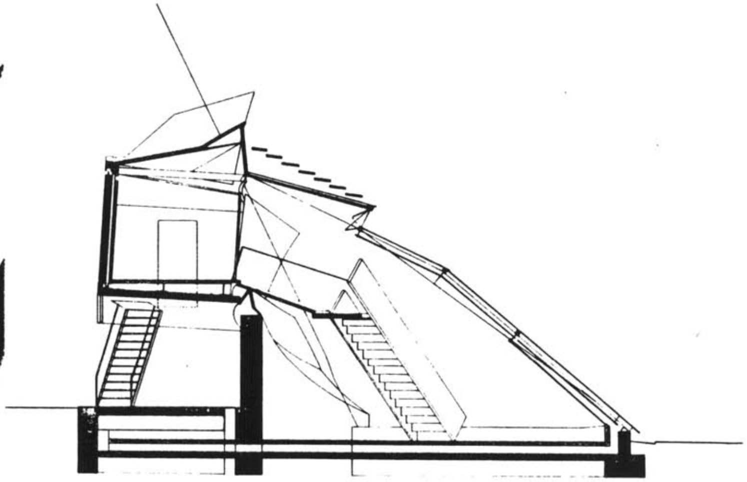
In this case the client wasn't sure about what he wanted. We spent long hours in conversation with the client. This discussion didn't give us an exact idea of what sort of rooms he needed, but it did allow us to determine his emotional needs.

And one day the house was there. Not the building itself, but the feeling. The form and the details weren't so important in that moment. What was important was the emanation of light and shadow, dark and light, height and width, of white and walls. The view and the air. We could sense all that and in order to not be led astray, not even by the graphics, we drew the sketch with our eyes closed. Look, the fingers

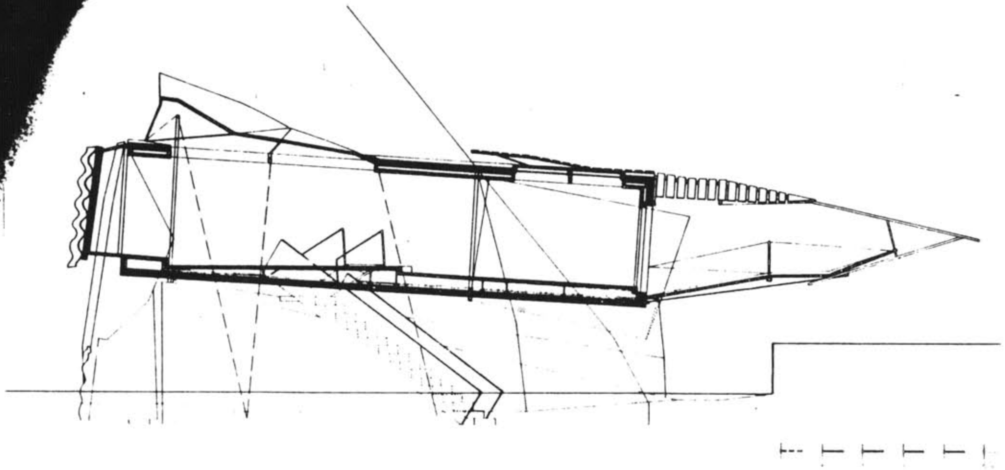
Ein offenes Haus mit geschlossenen Augen gezeichnet. Unabgelenkte Konzentration auf das Gefuhl, das der gebaute Raum haben wird. p. 28 **Architecture is Now**



Model: Open House



Section: Open House



Section: Open House

touching the paper and the pencil was a seismograph of the feelings which would be awakened by the constructed house.

The creation of the building was experienced so strongly that it was easy, on the basis of this explosive drawing, the psychogram of the house, to build a model immediately. The first model has the size of a matchbox.

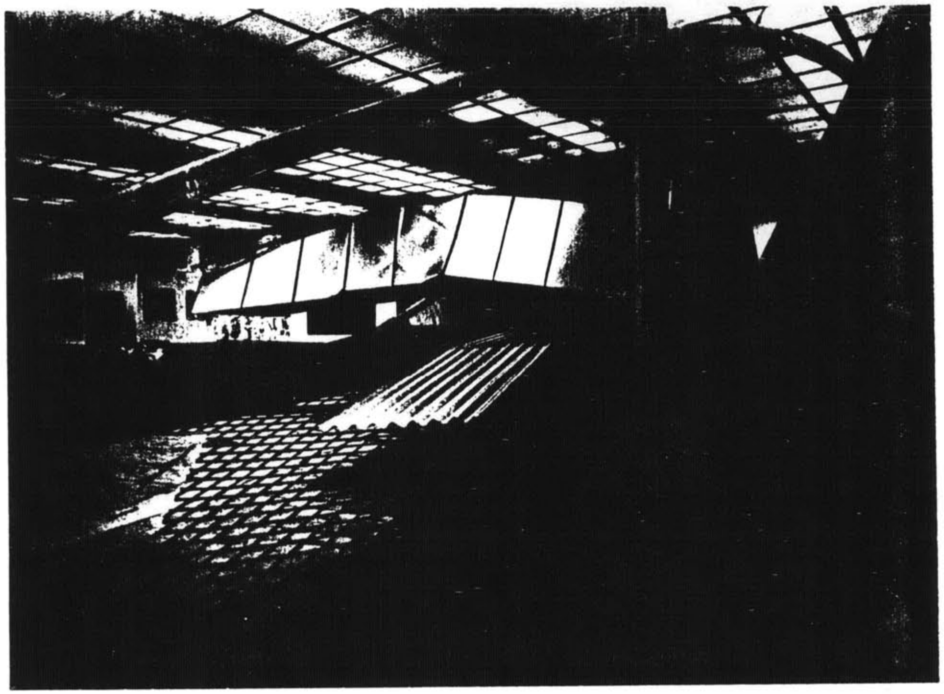
And now comes the next step. Here the teamwork is very important. Construction material is developed, but always determined by the original feeling. The working model is measured, and we begin to work in a larger scale, down to the smallest detail.

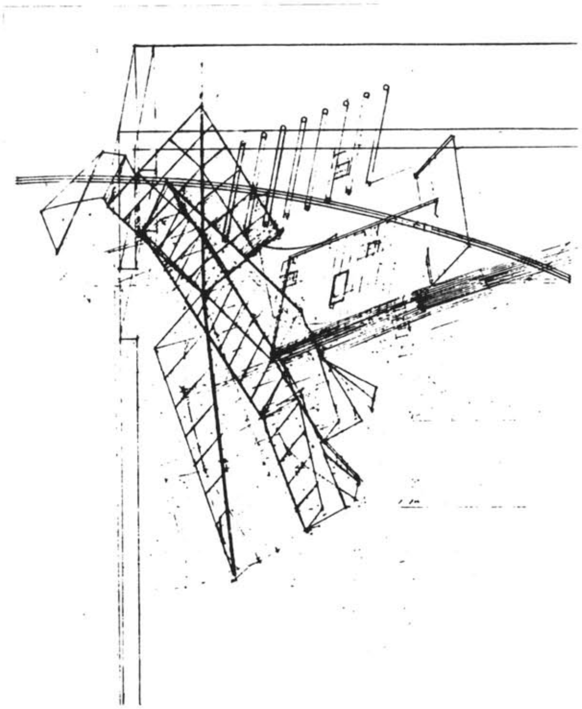
Ground plan and cross section define the house very clearly. The tilted box which rests on stilts, slopes onto the ground. The only way to enter the house is via stairs which lead to the first floor of the house. From this level, one can take stairs through the arch to the lower level. The shaft is nothing more than a balcony.

The house is approximately 150 square meters, and isn't divided into rooms. The owner will be able to divide the area into rooms once the skin is finished. But he says he wants to live in it a while before he does it. Maybe he will do it immediately, maybe he will never do it. That's also an aspect of Open Architecture.

At this point we are planning to begin a building in California, I hope, in the beginning of next year. The sense of these seemingly arbitrary forms become clear as one begins to draw the plans. For instance, this tilted box becomes a double shell construction which is not only excellent for a passive energy system, but also makes it possible to change the installation system at any time.

The power of the drawing is also translated into the construction. The box is mounted on two points, and held in place by tension lines. These tension lines allow us to





have two layers of glass. We are planning to cover the glass partially with blinds in order to control the sunlight.

The slide on the right demonstrates that we don't want to confuse openness with transparency. It also shows that our facades, for example this corrugated aluminum part, are no longer facades, but are actually skins. So, the short description of this project could be: *the feeling of the inside taughtens the skin of the outside.*

We trained ourselves to build such projects without compromising this explosive moment of conception. For example, for exhibition, we have built such projects in an uncompromising way. We don't like to take part in architectural exhibitions because for us, architecture in a museum is like a wild animal in a cage. But we have done it sometimes. I have to state, we never know when we build such an object whether we can use it. So the process is much more important for us than the goal. But elements of these objects show up occasionally in later projects and buildings.

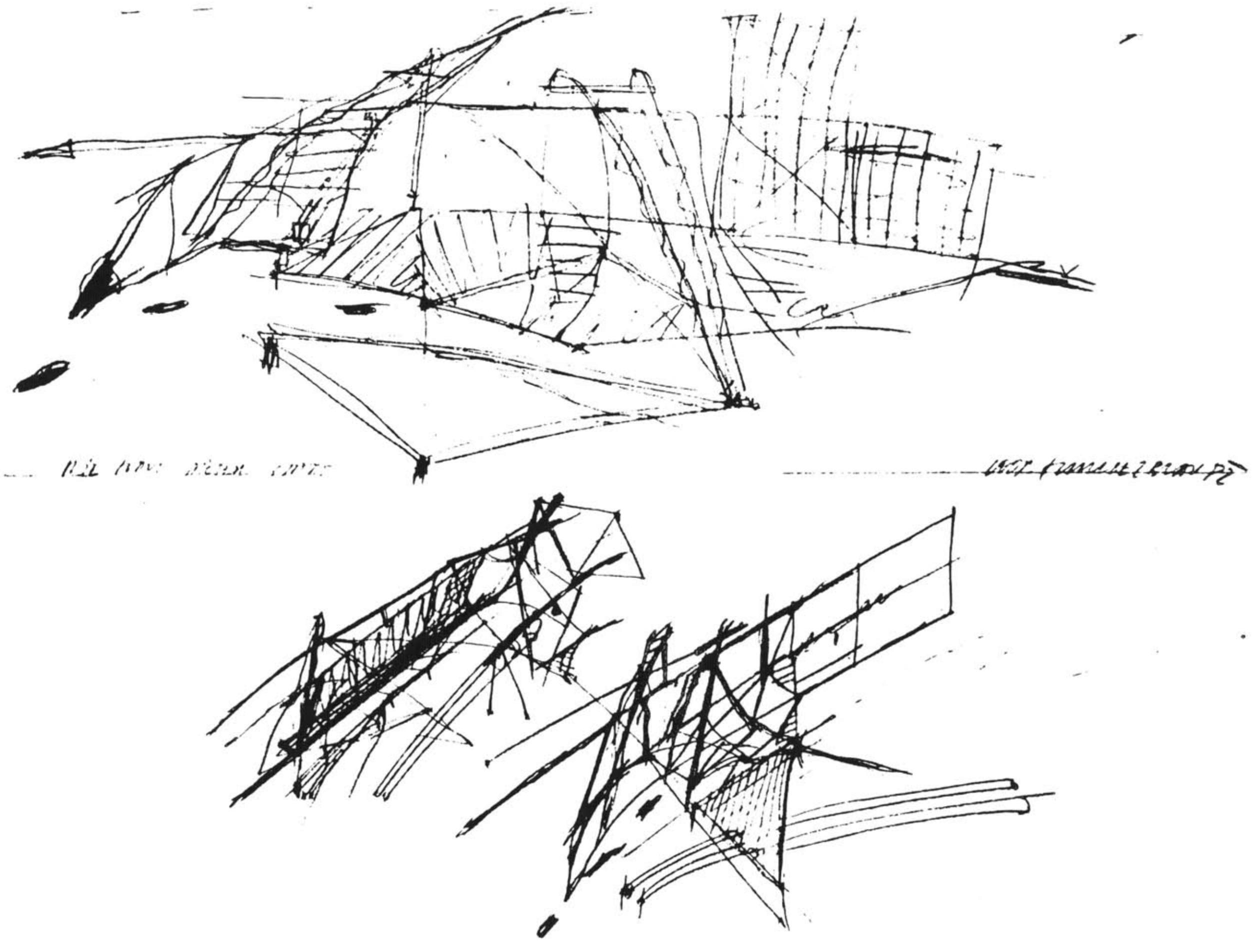
This object: **Architecture is Now,** which was built in Stuttgart, 1982, is an uncompromising realization of a conception which occured in the early evening of the fifth of March, 1982. The space is 400 square meters. The elements are made out of steel, tin, concrete, and wire netting.

Architektur ist Jetzt, 1982; from exhibition "Past, Present, Future"; the Wurtt. Kunstverein, Stuttgart

The text reads:

Our architecture is not domesticated. It moves around in urban areas like a panther in a jungle. The burst beam is the backbone and the head of the panther. He rises and sinks.

The curved guardrail which arches through the space, continues outside. We come to the end in a folded wing and this the extension of the space to the outside.



The second object is called The Skin of the City, and was built in Berlin, 1982. It was directly translated from the drawing without a model. It is about seventy meters long. This model represents an urban intervention and has the scale of 1:10. In other words, the actual architecture is 170 m long, and it represents a mutation of skin. A wire fence is a horizontal network of nerves. Tin, twine, paper, and glass are stretched over the transversal beams creating a three dimensional space. Urban materials, perhaps aggressive, perhaps unpleasant, but real.

Die Haut dieser Stadt, 1982; from exhibition "City and Utopia"; Kunsthalle, Berlin

Look at this deformed, bent, and tortured tin wall. Do you remember the Open House? It comes up, such things.

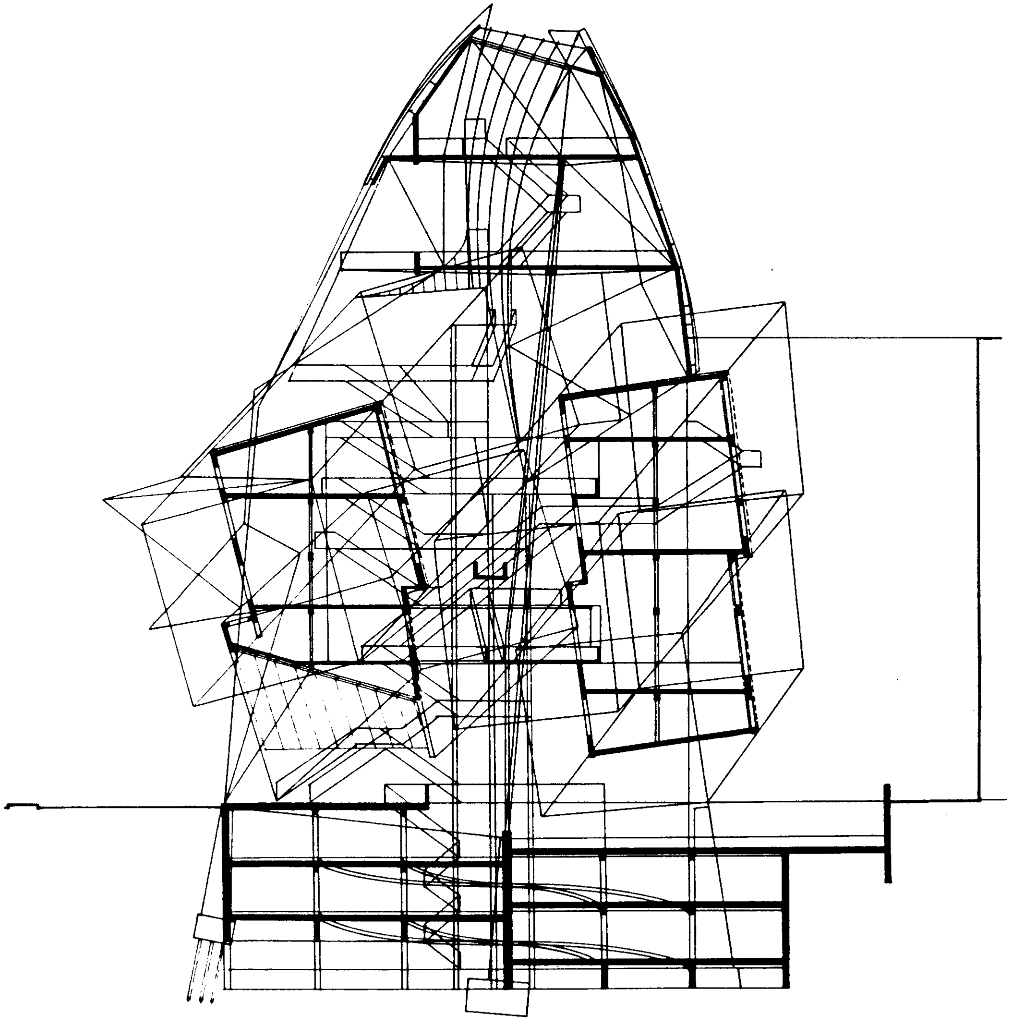
Now, won't you say to me, it's fine to draw sketches with your eyes closed, but such small projects. But how do you do it when you're working on a larger project? For example, let's not start too large, what happens when you want to plan an apartment building with 50 flats?

Look, if you only have architecture in your head, that's all that will come out. For example, if you only think about Vetruvius, Palladio, or Schinkel, then you will only do things designed like Vetruvius, Palladio, and Schinkel. And that's the case today. Anyway, especially in Germany. The architects in Germany are not only designing like Schinkel, they even look like him.

This project does not look like Schinkel. It doesn't pretend any historical self importance. Rather, it's a statement of our four basic rights of city dwelling:

The right to a large living area. The right to an inexpensive living area. The right to design the living area by yourself. And finally, the right to a timely architecture.

Das Recht auf grossen Wohnraum.
Das Recht auf billigen Wohnraum.
Das Recht auf selbstbestimmten Wohnraum.
Das Recht auf zeitrichtige Architektur.



Wohnenlage Wien 2, 1983

This project is free of false meaning. It is the three dimensional solution of building problems as far as any solution exists. These conscious forms of the outer shape are the visible possibilities and their variations.

The inner space is differentiated but not determined, and is the result of a complex spacial interlacing solution.

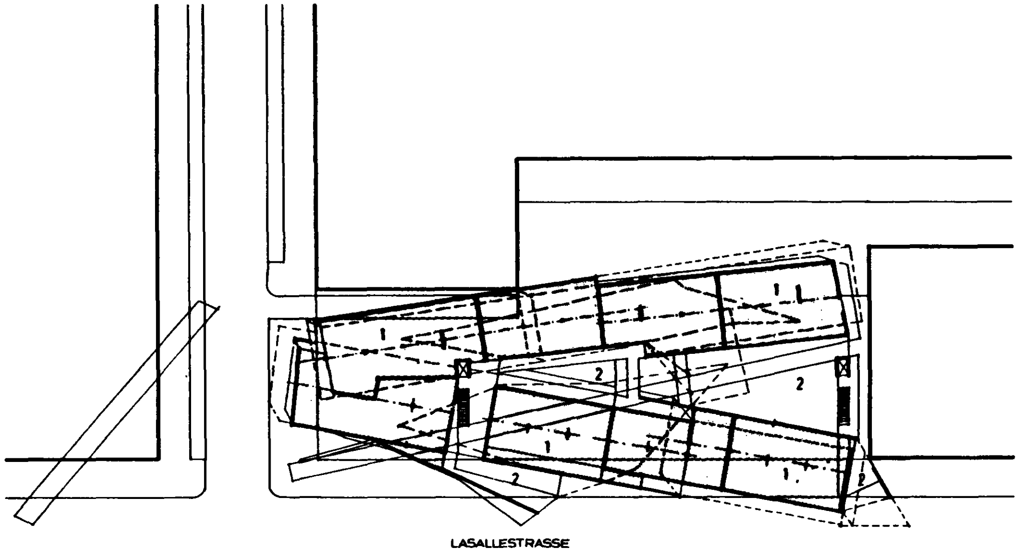
The problem was to fill a space between two buildings on a street in the second district in Vienna. Across from the site is a train station. Fifty flats should fit into the area. On the left you see a very busy intersection of Vienna, and this Lasallestrasse leads out of the city.

Now I think is a good time to explain our basic principles, for it's in this way that we will decide whether or not to build this project. We demand two rights: The right to take our time. And the right to be disobedient. The German psychologist Erich Fromm said, *"The history of mankind began with an act of disobedience, and it is not unlikely that it will end with an act of obedience".* I would like to instill this sense of this sentence to the attitude of all architects.

Look, this project breaks many building codes. You can see the permitted building height and the street line are not followed. We do not agree that we should have to follow doggedly building codes which were perhaps progressive at the beginning of the nineteenth century in Vienna. We want to follow that result by asking why?

OK, no one wants a building to fall apart, but if we have to follow rules, there has to be some purpose to them. They have to be reasonable, and they also have to allow for exceptions.

Trying to get around with officials in Vienna is one of the larger parts of our job, but since we have learned that you have to slam the door of their offices, we are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LASALLESTRASSE

Plan: Wohnenlage

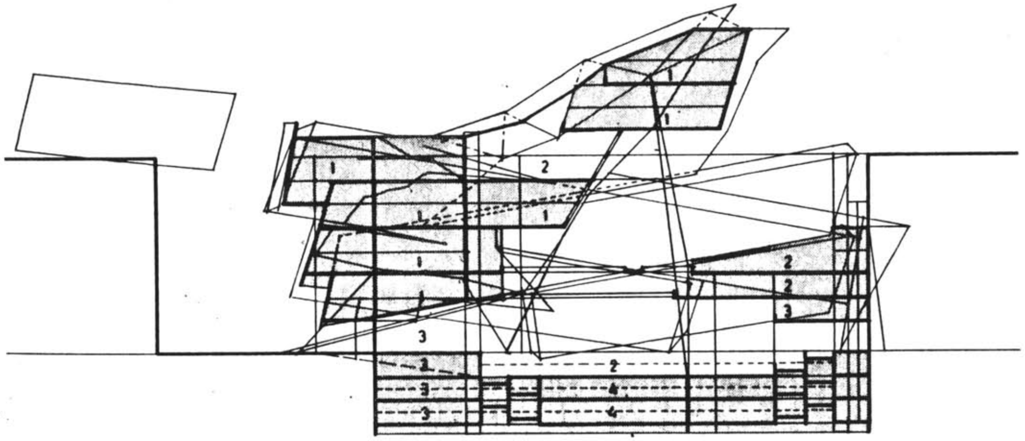
able to get along with them very good.

A while ago we designed a project for a very famous bureaucrat. He's well respected and very famous. And he gives us a commission. His office was in a building with very small doors. But the model was very huge. So we divided the model into two pieces and before the presentation we glued it together with screws and that was, I think, twelve years ago. I think the model is still there. He likes it. Because he couldn't put it out of the door. Too huge!

So the problems of the living conditions in Vienna can be summarized in two short sentences: The flats are too small. The flats are too expensive. OK, we are familiar with the objections but we find it socially irresponsible to cram a four person family into 80 or 90 square meters of living space. That completely inhibits the freedom of movement. The flats must become larger and cheaper. But, that's not possible using historical formalism. At least not a formalism whose rules are followed to the letter and which conserves the present structure.

So, the complacency of the post moderns disguises its conservative contents. How else can we explain such apartment buildings outside that pretend to be a palace with statues? You know! You can read it in each magazine. Statues, arched doors, gables, and so on. But inside, the children are constantly tripping over their parent's TV set when they attempt to play.

It's also not a great help for us when Rob Krier invents an eave. It doesn't help so much. And he invents it therefore because he wants to protect his building from being dirty. Because the rain, and the snow, and such things. It's much more important to us how the building looks in a special way, then how you keep the facade clean. Just don't misunderstand me. Everyone should build everything. Even the eave could be built, could be possible. But they shouldn't try to make us believe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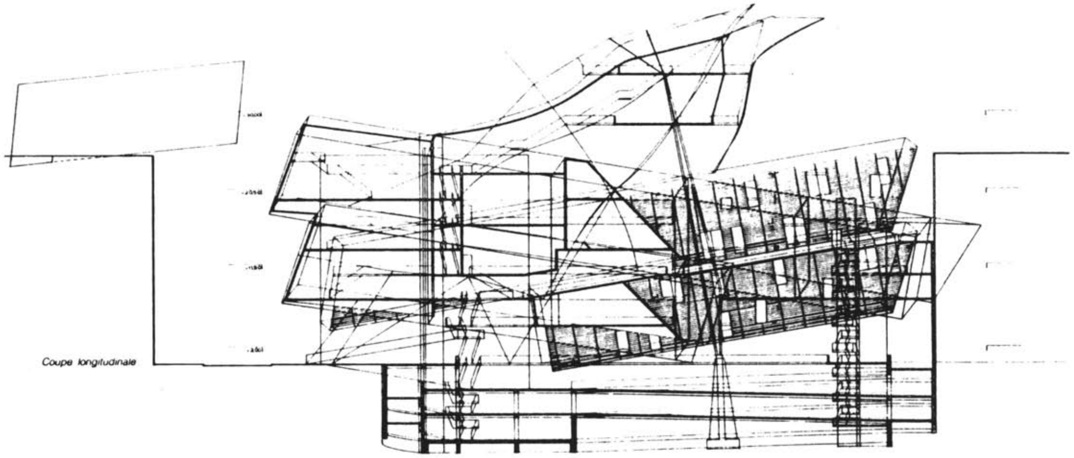

Coupe longitudinale

Section: Wohnenlage

X-Ray drawing: Wohnenlage

that this is modern or progressive.

This shows ground plan and section. At this stage of planning, the scale is 1:200. The building consists of two pieces set at an angle to each other, tilted over with two slices of flame. Within this form we have allowed for fifty half finished apartments.

The floor plans vary somewhat, but they are all two stories, 6 meters high, and can be converted into at least 300 square meters. In addition we have planned space for whatever joint use the occupants choose. There are also square meters set aside for shops, offices, workrooms and storage.

So, why does it look like it does? No one knows. Because there is no need to explain everything in architecture. To always have an explanation before you begin. Look, this explanation almost always sounds like apologizing. "It looks like this because, well you know," references, Vetruvius, Palladio... No! No, it looks like this because that's how we want it. And we enjoy it, really!

These two tilted pieces of the building are tied together by a nervous system of ramps, elevators, stairs. A ramp ascends diagonally through the space. We can now begin to go through the space, and the plans and sections, but first a word to the plans.

We call them x-ray drawings. We ask ourselves, what could be the best way to present this very complex spacial relationship? So, we began, and you will see it in a later project, to draw views and sectional drawings in one plan. In this way you can almost see the building with x-ray vision. This technique allows us to prove the relationship at the connections, and although you won't be able to see them, you will be able to feel them when it's finished. That's how it is in Open Architecture.

So, at the ground floor you can see the start of the ramp. You can see also the vertical elevator shaft and the beginnings of the first lofts. The section shows the

organization of these apartments. The lofts are accessible by ramps, by porches or by stairs. The tipping of the pieces of the building results in almost every loft having a second floor.

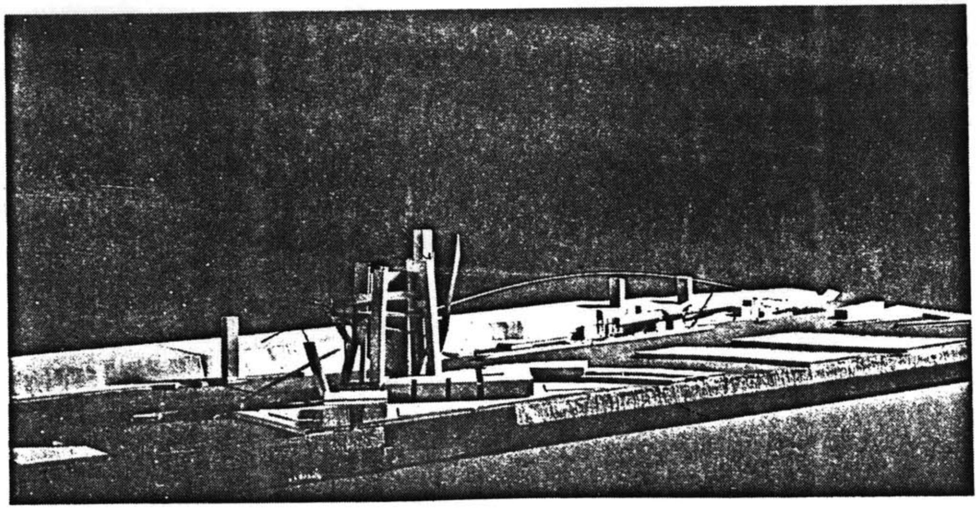
These corners and angles you find in many of these dwellings will compel the inhabitants to do something with them, because we haven't planned any of the rooms except the toilets or bathroom. So the rooms are not determined, but certain possibilities do exist if only because of the different height or the hanging supports. So the occupant must define the space for himself. We don't determine the space for him.

The studio is at the height of 28 meters set between the wings. It is connected to the top of the main part of the building by stairs which at times break through the skin of the wing. So these x-ray drawings are good for showing the expansion and contraction of the building. They are also useful as experience diagrams of the space. The skylight is there because two pieces of the building don't fit together quite right. As you know, when we say facade we mean a shaped skin.

What about the building costs? We have a simple solution. We increase every meter by 5 centimeters. This equals 5%. So, by expanding every meter by 5 centimeters, the volume is increased by 15%. In Austria we have an annual inflation rate of 7.5%. So, the 15% cost increase can be made up by building this project two years earlier. That's a good game, eh?

So the height of the apartment complex measured from the sidewalk to the point of his wing is exactly 42 meters. A bulding nine times this height could look like this.

What you see is a model of a sky scraper for Hamburg. To be more precise, it's the first section of a skyscraper complex. This skyscraper complex is just one part of a



Hamburg Bauforum, 1985

project we developed at the Hamburg Bauforum in the fall of 1985.

The planning area was assigned on the banks of the River Elwe at the Hamburg docks. We have constructed houses reaching into the water. They are so called Hamburger Houses because they have a swimming basement which rises and falls with the level of the water.

So we have designed a suspended platform to serve as a connection link to this clear structure of the loft bridge. We call it *loft bridge,* a structure reaching far out into the water. This structure reaches not only into the water but also determines the course of the suggested town development and presents to us the opposite bank.

We left the intended planning area and constructed a new media city in the center of the docks. So this arch is an optical fiber bridge and connects the planning area with our new planning area.

This part of this interwoven building complex is 375 meters high and in this building complex are office towers for the print medias that make the city of Hamburg important for Europe. These offices are connected vertically, diagonally, and three dimensionally to a media high school, with auditorium, hotel, shops.

The rooms are also designed as empty holes so that their functions could be altered or changed at any time.

The bigger the project, the bigger the model.

How could we build such things? I believe you must start small. That's an old Viennese tradition, to build small projects. That's the only tradition we are involved in. To start small is a good thing.

I will now show a realized project which was completed in June last year. It's our latest, but certainly not our last project we have built and will build. It's a studio for a graphic artist and art collector.

The client wanted a studio in which he could live and work along with his pictures. He owns paintings from very famous Austrian artists and painters. Other requirements were not expressed.

So, this space that we saw had three portals facing the road. This emphasized the partly public character of the room. We had a room of 50 square meters, 5 meters high, with three portals.

The small size of the space didn't discourage us. The three portals were not in our way. The height of the room was very agreeable to us because we saw high walls and doors and thought of moveable stairs and flying platforms, bridges and galleries, and we thought of paintings hanging three rows one above the other. We thought of suspended roofs that turn into frozen wings and of sliding glass.

The drawing was completed in November 1984. The office was finished in July '85. So look at the drawing. We tried, in this case, to build the drawing. Every line on this drawing we have built. Every line has a sense, a construction, a static, a spacial sense.

The original room of 52 square meters was extended by building a gallery and a platform. The three portals were turned into two entrances. One entrance leading over a folding stairs to the gallery that is crossing the room along the upper row of the paintings.

Look, how do you believe comes the client in the second story? It's a built revenge! He is a famous art collector and five years ago was in our studio. And he looked at

our projects and models and said, *"No. No! I would never have you to build for me. Never!"* So, now! If he wants to go up in the second story, he has to open the door, close the door, open the door, go upstairs, close the door, and then he's in. Every time! So. If he works upstairs and the telephone rings, he has no one. He's our friend.

This staircase is moveable. Do you remember Open Architecture?

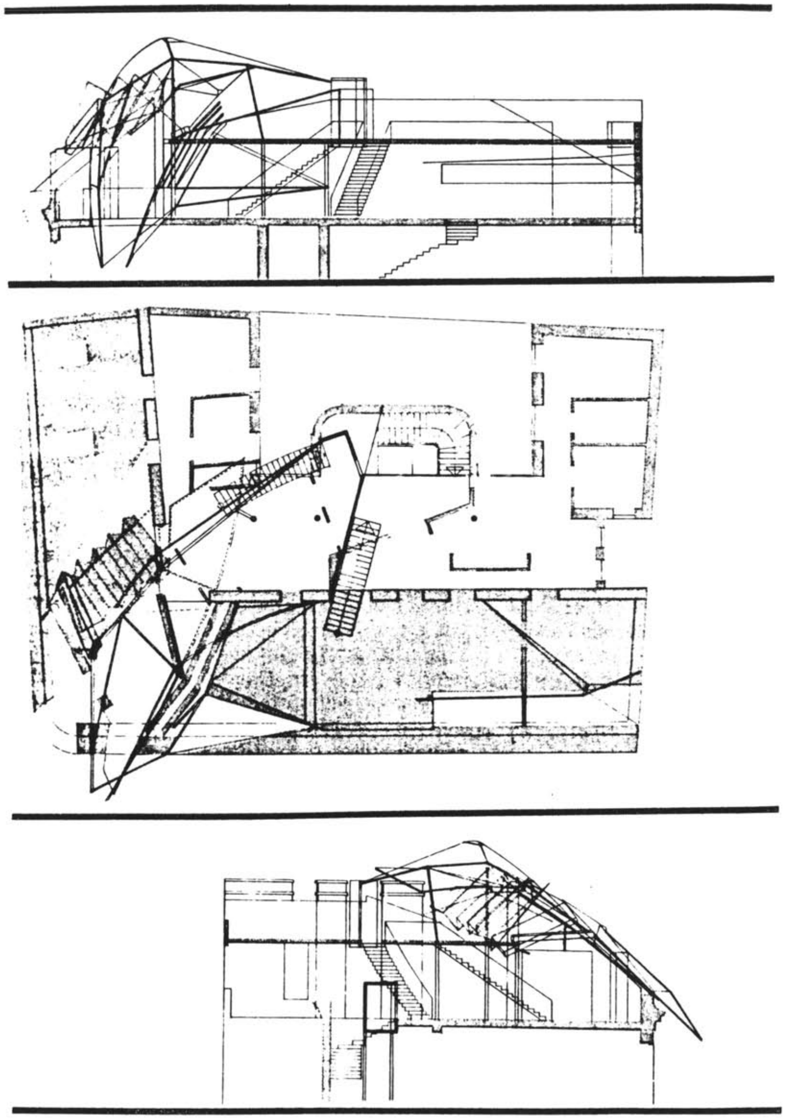
We tried in this project to do only one column. This column is 6 centimeters and supports 6 tons. Something about the construction: We tried to make a *Statischunbestimmtes System;* means static open system. You can not calculate a static open system. So we parted this project in three closed systems: stair, gallery and platform; and connected them together on a knob. At the moment we glue it together, it becomes an open system. That means, if you step on the staircase, every part of this construction supports. Therefore the column is only 6 centimeters thick.

So the steel construction of the upper floor conforms to this suspending state of the sketch. It becomes a differentiated open room and the gallery crosses the room at half the height of the space, and therefore allows the 5 meter high wall to be used fully for paintings to be hung.

All lines of the drawings have been built.

The wing sculpture in the third portal is a self supporting aluminum outer wall. And the construction bending inwards differentiates the natural light. And with the help of the radiator, the sculpture becomes a convection area and supports the circulation of air in this 5 meter high studio. So the wing sculpture defines the interior and exterior of the space and serves at the same time as a control for light and air.

Look, this building has so much intensity for us and it's extremely difficult to



Attic Conversion

photograph. Even a very wide angle is not enough to convey the impression of this space. But this building is so intensively considered and built, that it could easily be ten times it's own size without losing anything. Therefore we regard it as a model for the next project we are planning.

It is an attic conversion. The project is located in Vienna's inner city, in the first district which is a protected zone. And one building code, paragraph 85, states that new buildings in this zone must blend completely with the old buildings, with form, color and material. And there is also a similar rule for the redesigning of roofs which states that the present roof may not be changed at all under any circumstances.

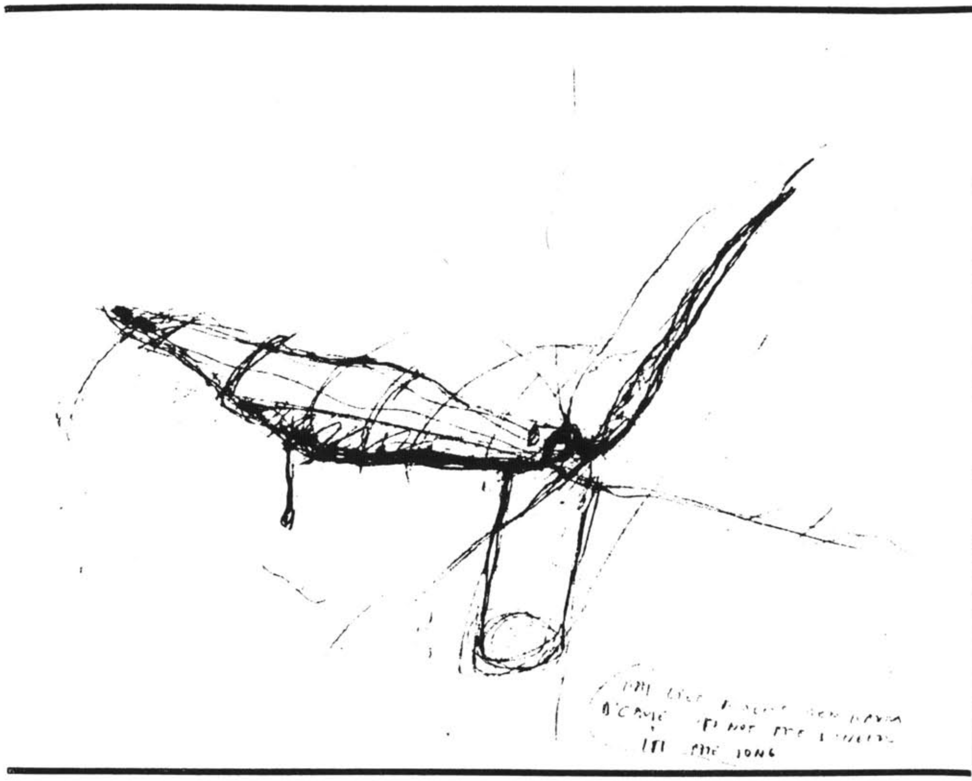
As you can see, we followed this rule to the letter. The task was to organize an area of 400 square meters into two separated office units. So the existing roof is changed into vaulted and slanted parts, glass and sheet metal, supported by a construction, tense and taut, the groin and backbone of this architecture. The building volume requested by the officials is transformed into flexible forms and parts.

Moveable blinds and permanent blinds are the elements for light control and the acoustic screening. So, in addition, the blinds regulate the air circulation and thereby control the temperature.

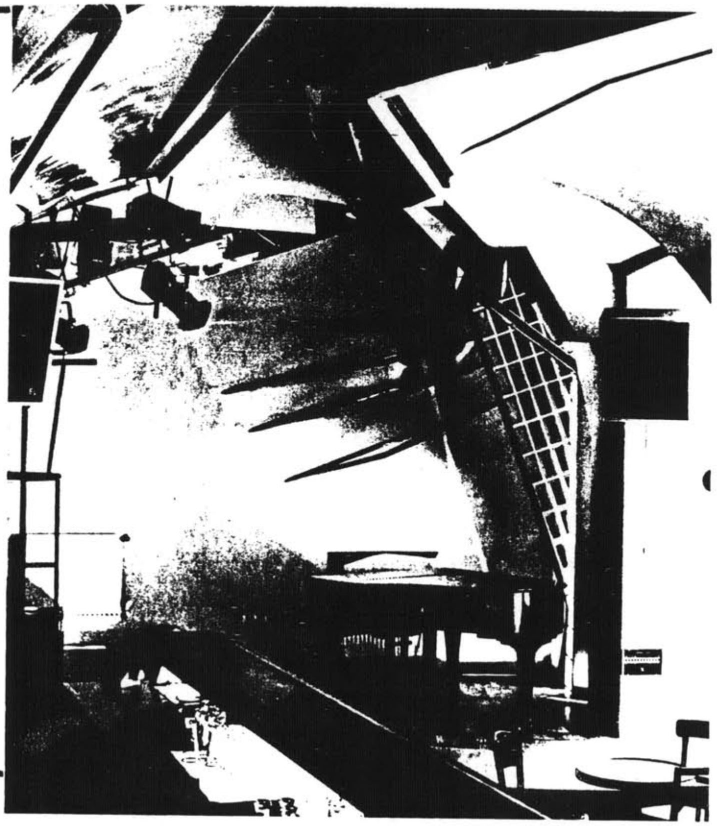
We will begin to build this project exactly on the fifth of September. If you come to Vienna next year, you can see it.

In 1980 we chose my opening quotation from Herman Melville to serve as the scene for a building of the **Red Angel.** We had not come up with the term Open Architecture, but we had already begun building it.

Our task was to build a wine bar which would also contain a show theatre, with a



Sketch of Angel



Interior View: Red Angel

stage for musicians, singers and actors.

Our first thought was, *"My god, you have to feel very sorry for the singer who has to perform a bunch of drunks!"* So we wanted to build something which could protect the entertainer. Not in a physical sense, but rather in a psychic sense.

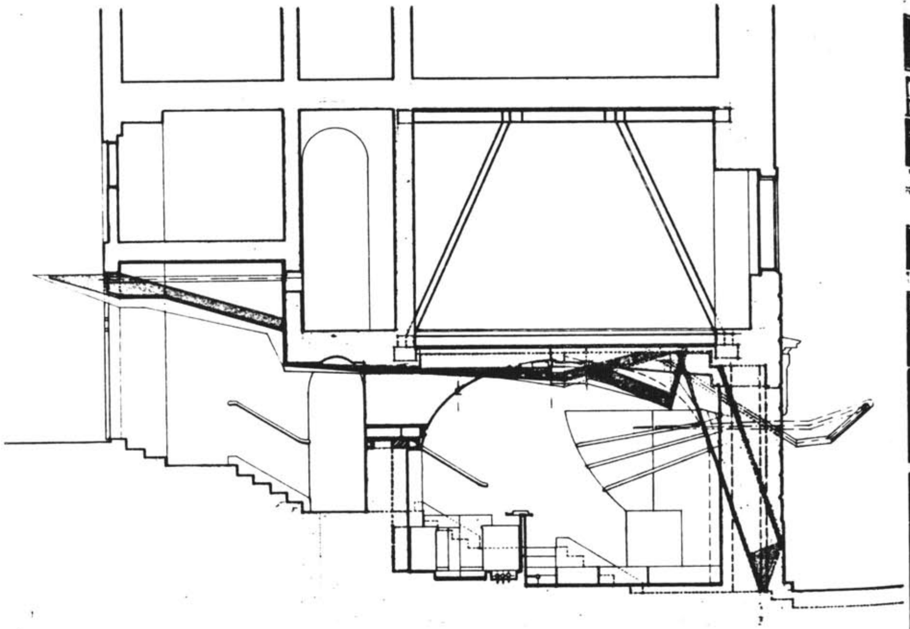
So, the drawings of an angel appeared as from themselves. An angel who spread herself over the stage. We named her Ton Angel because we were thinking of the singers. Much later, when we choose the main color of the bar, so called "angel red", her name changed to Red Angel.

So the Angel of Ton is the concrete breath of the singer, the concrete melody of musician and the built voice of the actor. This angel is a sculpture in space and at the same time defines the space.

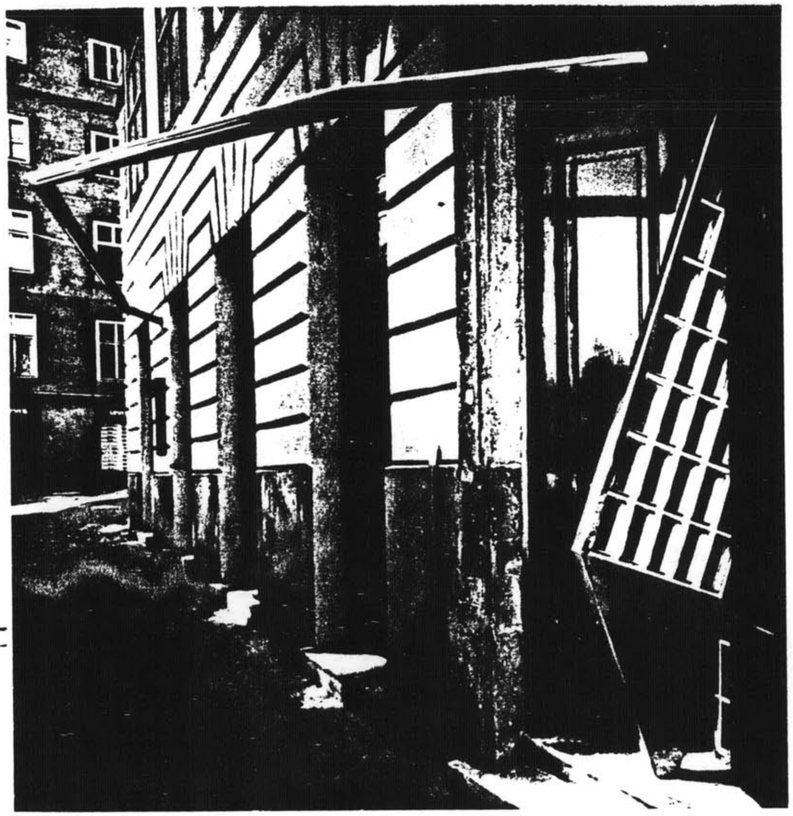
It begins above the stage, and it has a body, chest, backbone, and wings. Many parts of the angel weren't even planned until we began the contruction, but the original drawings served to give us a sense of her.

Who can say what an angel's body really looks like? But our angel is constructed out of glass blocks which lean diagonally over the stage and can be also seen from the outside. The wings which begin over the stage cut through the existing arches. They consist of distorted sheet metal raised with stainless steel edges. In between them is clay, so we called her Ton Angel because in German *"Ton"* means both clay and tone in a musical sense.

So we had no definite plan for the wings, we only knew the system we used to construct it and the general outline of the form. We spent a week working at the site to construct a lifesize model. Then the craftsmen took the measurements and the pieces were completed in the workshop. You need a very good craftsman for such



Section: Red Angel



Exterior View: Red Angel

things!

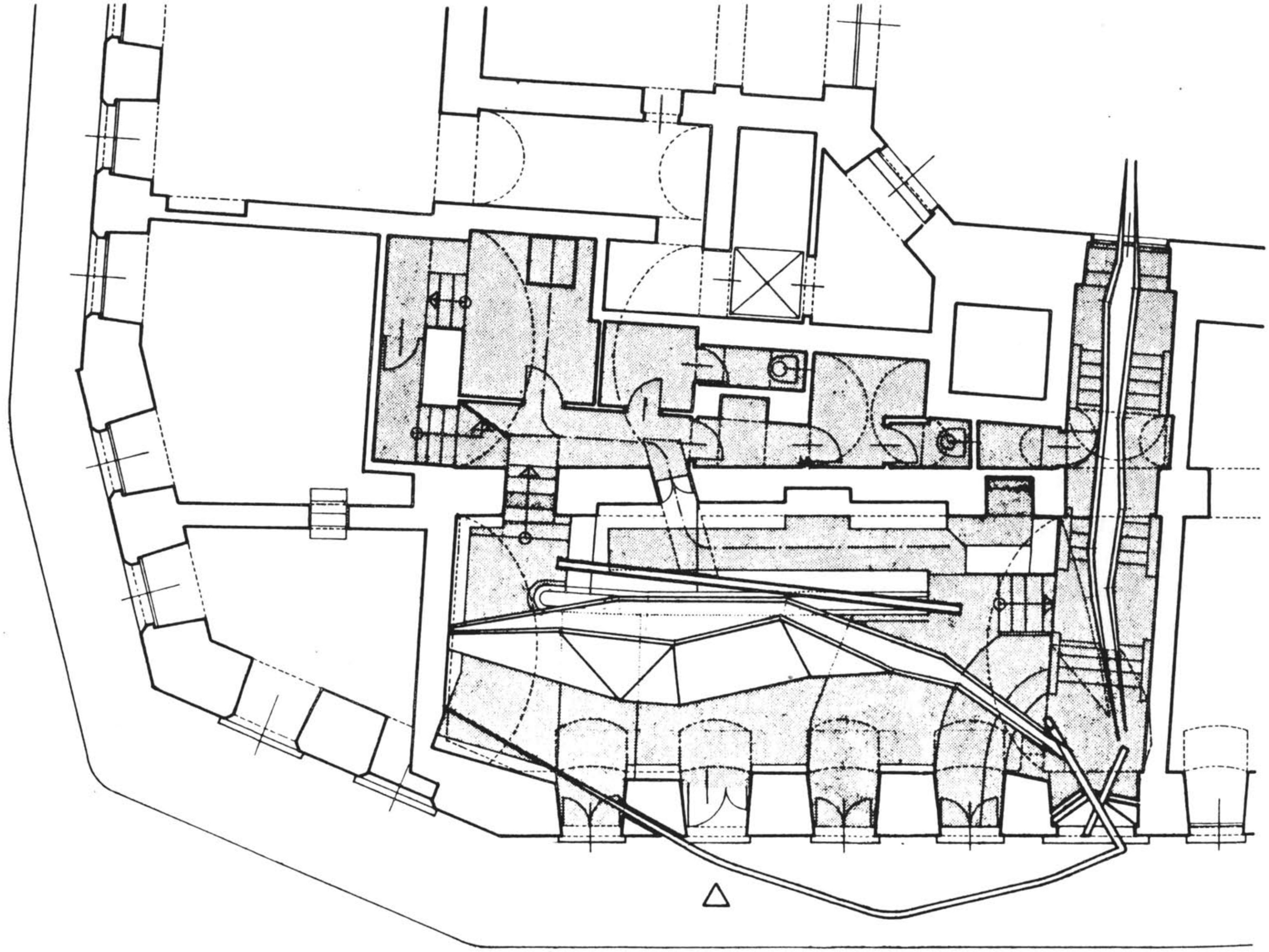
This large wing ends in two points, but not many people see this beacuse they are through an emergency exit leading into the back of the courtyard. So you are never able to see the completed angel. At most you can get a sense of her.

To make room for the angel, we needed to remove three walls supporting the building. It's a very old building. We needed to find a very inexpensive way to support the buliding without these walls. So we convinced the client that it would be cheaper for him to rent the floor above the bar and to do the necessary construction in there.

The materials we used in the interior are typical urban materials: corrugated tin covers the walls; and the doors. two are made from this; the floor is asphalt, and the steps are made out of steel.

The bar is made out of sealed concrete, but the top of the bar and the armrests along the wall are wood. This wood is red pine, a very hard red wood which goes very well with red wine. So, we couldn't get enough of this wood in Vienna because, you know, it's an American wood, so we had to resort to a lighter colored wood for a part of the counter. So, the question was, where in the counter should we place this lighter wood? We went to the carpenter with the plan of the bar. And the plan was very poorly folded, and as we unfolded it, the crease remained in the paper, and we pointed to this crease, and said OK, put the light wood there. That's detail planning!

The entrance to the stairs has been walled up except for the place where the body of the angel passes through it. This body begins at the top, which is maybe the head of it, (it's the spotlight), leads outside, angles around the facade, penetrates the wall next



Plan: Red Angel

to the entrance where you can see the plaque with the quote of Herman Melville. And the sound line drills its way through the wall and ends in a point. And at this point, vibrates whent he wind is blowing outside.

Do you see this mounted radiator? It serves absolutely no purpose. We just wanted to hang it crooked, And so we counted which one. One, two, three, OK, there!

So lots of the people who go into the bar ask us, *"Angel? Where is the angel? I cannot see an angel?"* So our answer is very simple. *"Just drink another liter of wine and you will see her."*

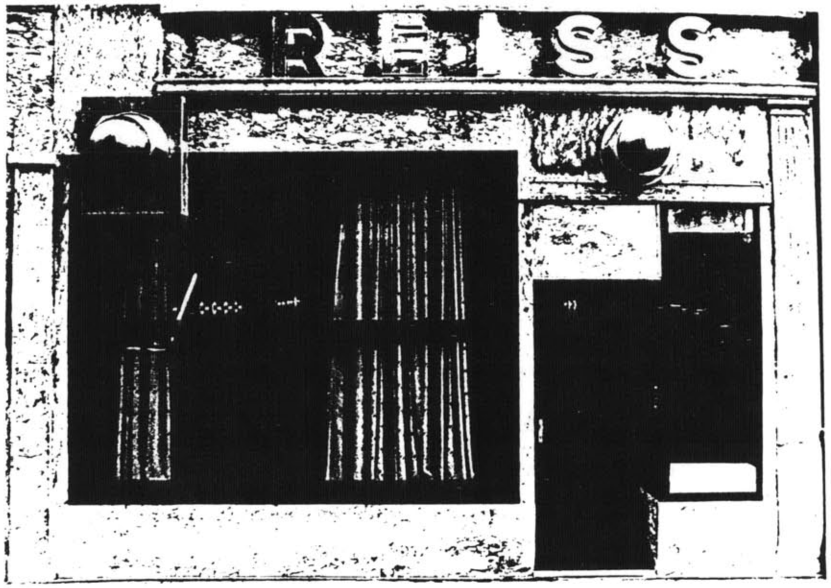
The building which contains the bar was built in 1835 by a very famous old architect, Kornhausl, and is a very heavily protected landmark. So the bar was planned in December 1980 and finished in 1981.

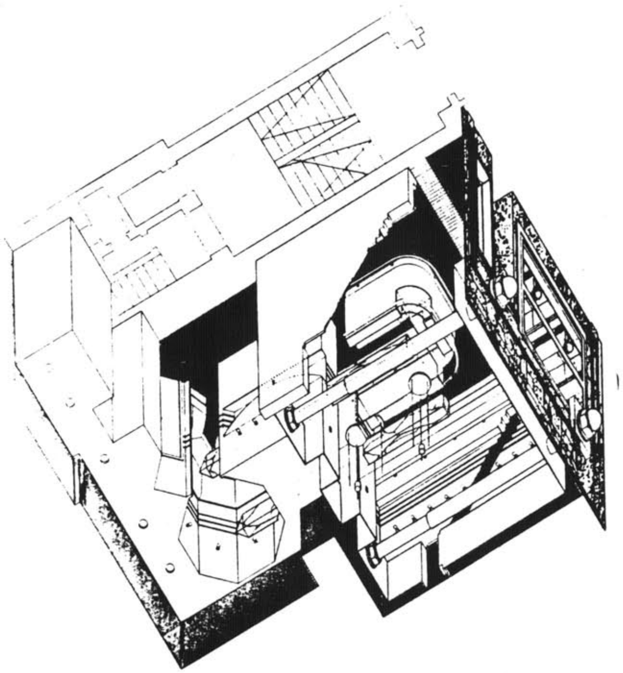
The sculpture deformation of the space is not visible as a unit. You can only sense it through transitions. Many people feel the presence of architecture, many don't. That's also our Open Architecture. The sculpture deformation and form mutations are both aspects of Open Architecture. A form which mutates can be powerful or sensitive, but it can always be experienced. The form which mutates is not a circle, it's a spiral.

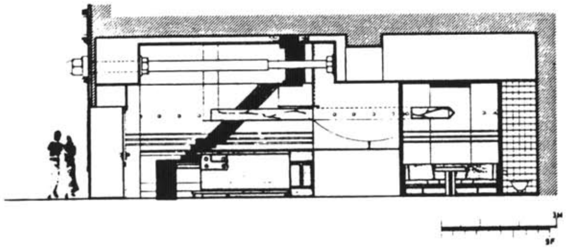
To demonstrate the development of these forms, we will now compare another bar with the Red Angel.

The **Reiss Bar** is another drinking place. It was built in 1977, three years before the Red Angel. The task was to change an existing area into a champagne bar with room for 66 people. But there was too little space for 66 people. We were only 3 square meters too short, so we decided to extend the room the neccessary 48 centimeters.

The telescope extended the space. A crack was caused by this and the crack is exactly







Facade: Reiss Bar

Section: Reiss Bar

Axonometric: Reiss Bar

48 centimeters wide. This crack ran through the wall, the ceiling, and the floor. Since we had not so much money to work with, we decided against changing the facade. Only the telescope indicated that the Reiss Bar had been remodeled.

Here, you can see clearly that the telescopes only give the illusion of the extension, because they are actually only air conditioning vents.

In opposition to the extension, and serving to constrict the extension there are two nails above the bar. These nails penetrate the wall into the extra room. In order to keep the wall between the rooms from falling down we supported it with a champagne glass made out of stainless steel.

The mutation of the form caused by the dissolving of the form.

It's clear that we grow as we build, and we want to build, and we will. Of course, there's a reason why we don't build much. We refuse to blindly follow requests of the client. We enjoy correcting the task that the client puts before us, but most clients don't like this. The second is, it's our aesthetic which develops from the contents.

The development of Open Architecture began at the instant we realized at the experience that architecture is not holy. That it can't conceal, and it can't beautify. Rather it has to do something useful and something to be experience. I don't mean useful in the sense of tied to a specific function, rather in a sense of consciousness.

Consciousness. Right away I think of self confidence, self determination, self realization. But today, especially in Vienna, if you want to criticize an architect in the worst way possible, you say that the project he did is only his self realization.

So the following is a quote from a Viennese psychoanalyst named Ringel. It's very

important. *"Man is not a loner. He is directed toward other people. But often before a child can become a part of society, he fails in one very important relationship. That is the relationship with himself."*

We have many words in German which begin with "self" and have a negative meaning. In German, *Selbstgefallig, Selbstherrlich, Selbstbefleckung, Selbstmord, Selbstverwirklichung.* In English these words mean *selfsatisfied, conceited, masturbation, suicide, selfrealization.* Unselfishness, *selbstlosigkeit,* is extolled as one of the highest human goals. Even when you take the German word literally, it means that you are rid of yourself. You are no longer living. So, we are still alive.

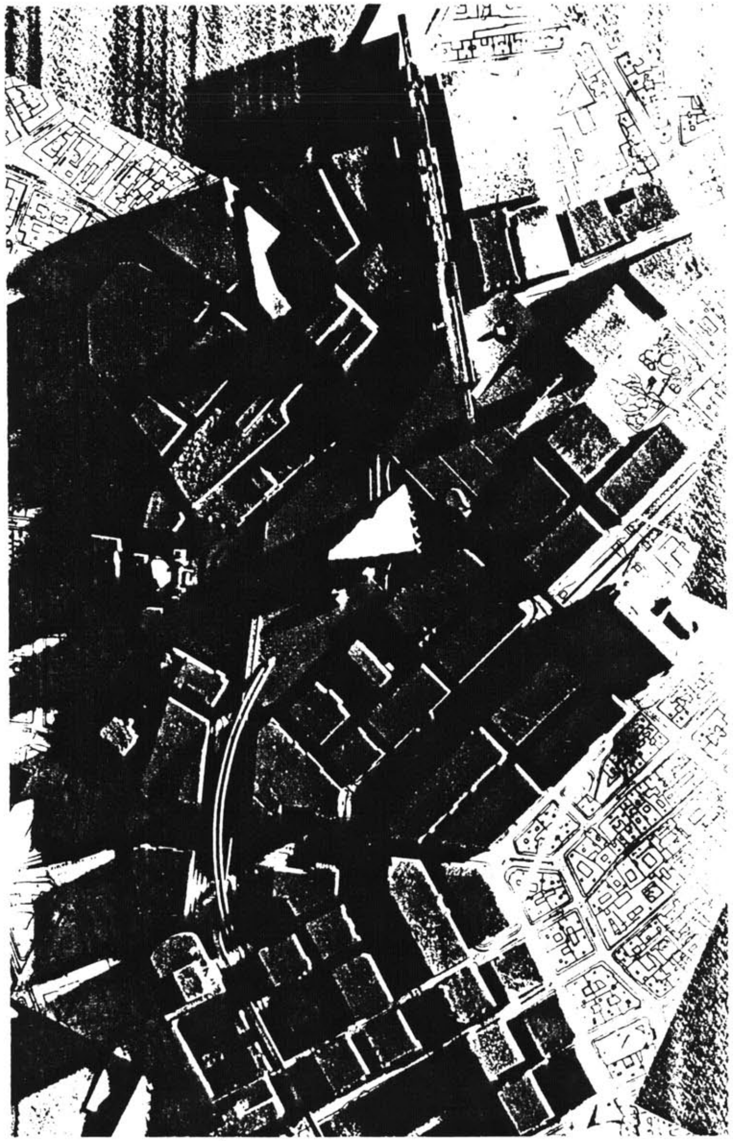
Himmelblau existed since 1968. It consists of two people.

1968. That's the time that architecture took off in Vienna, and not only in Vienna, but in London, Milan, in the States. In Vienna, Hollein and Peichl had prepared the way. It happened very quickly. Every two weeks a new group was founded, formed saying that they have been the first.

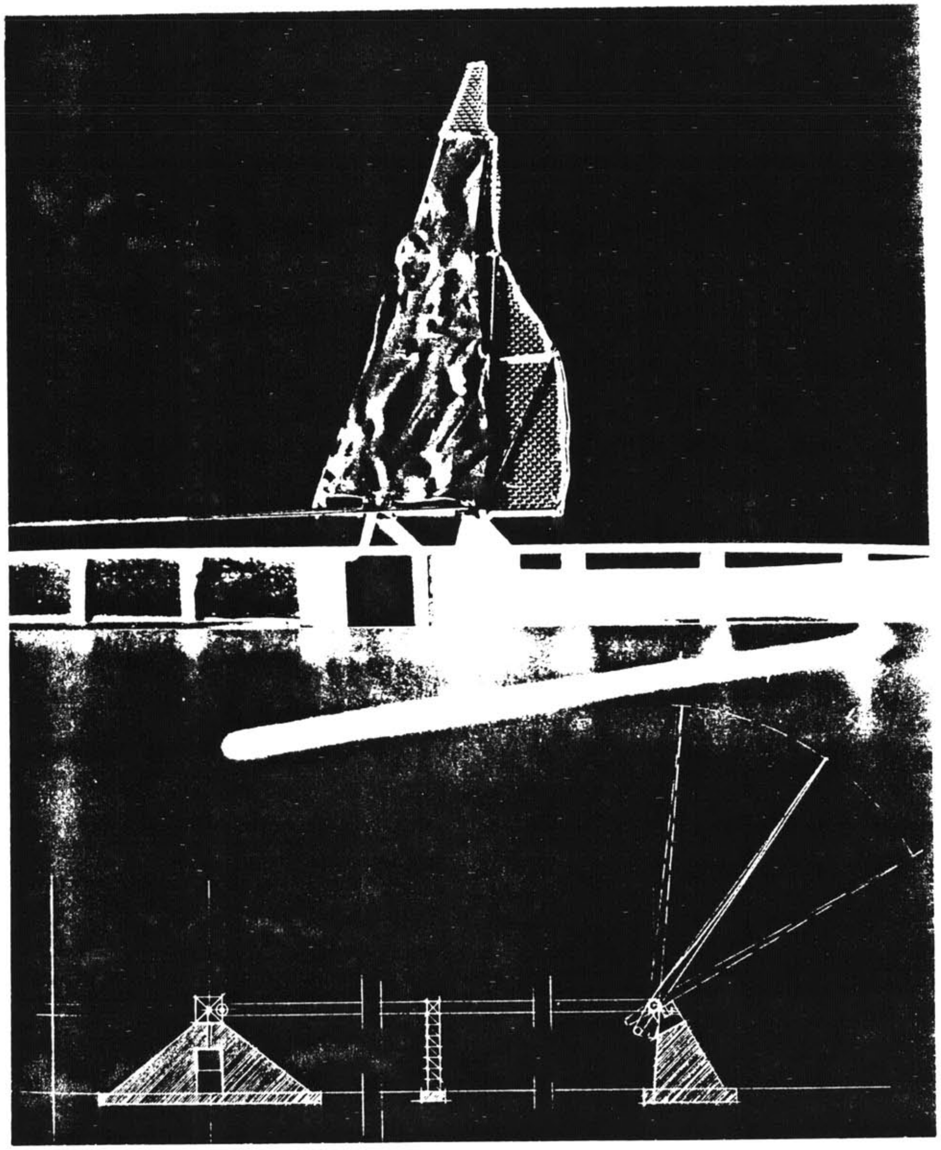
There was a purpose behind showing our team at the beginning. It showed that all projects come about only by teamwork, yes? You have to learn teamwork, but your efforts are well rewarded. Images become more complex simply because there are more people who are imagining. Polyphonic, you can call it.

And there's another thing that all these Viennese have in common. From this claim of having been the first, they developed the claim of having invented architecture. That means, Hollein says that he invented the architecture, Hausrucker says so... That's not true. If any invented architecture, it was Himmelblau, eh?

At this time, rough sketches of cities which beat like a heart and fly like your breast,



Project Study for Karlsplatz, Vienna, 1979



The Temperature Wing, Munich, 1980

pianometric spaces, pulsating, foaming, and exploding happenings were at this time our main projects.

The next to last of these happenings occured in 1976. At this time we tried to encroach on the city spaces with objects, to push the inhabitants to realize the reality of space, of urban space.

In 1977, after building the Reiss Bar, the trend toward the so called modern architecture became unbearable for us. At this time it was fashionable to draw columns, temples and tympanums. In sharp contrast, in our studio we were drawing squares as temporary planning mistakes. We drew architectural structures which stuck out like bones in the flesh of the city. And we designed houses without gables but made of raw concrete, and instead of columns there was a community room which went through the building.

The accepted and useful city. This is the project study for the Karlsplatz in Vienna, developed during this time. We don't alter the situation as it is, we simply bury it in concrete creating a platform 50 meters high which offers a lot of free urban space differentiated only by urban structure, such as this high density residential structure which rises over the edge of the platform. A drive in movie theatre replaces the Secession, which is a very protected landmark, and the subway will be made visible accompanied by a line alongside the city park. And last, but not least, there should be a 120 meter high steel construction and this is where the form of the wing surfaces for the first time.

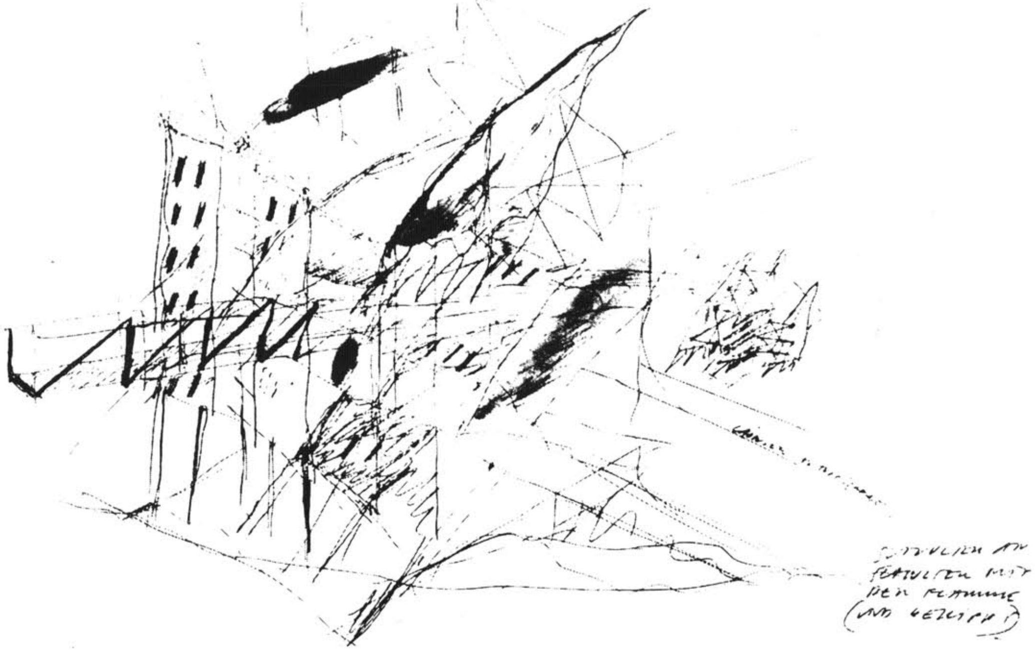
Since then, the form of the wing has come up again and again. This was a project for a contest in Munich. We had to design a park which was situated between buildings. The wing is 14 meters high. It moves influenced by temperature. This long steel cable that is attached to the wing stretches. When it's hot, the wing sinks. When

Happenings: Action: 1970, "Soft Space", Vienna
Action: 1970, "Hard Space", Vienna
Action: 1971, "City Soccer", Vienna
Action: 1973, "House with a Flying Roof", London

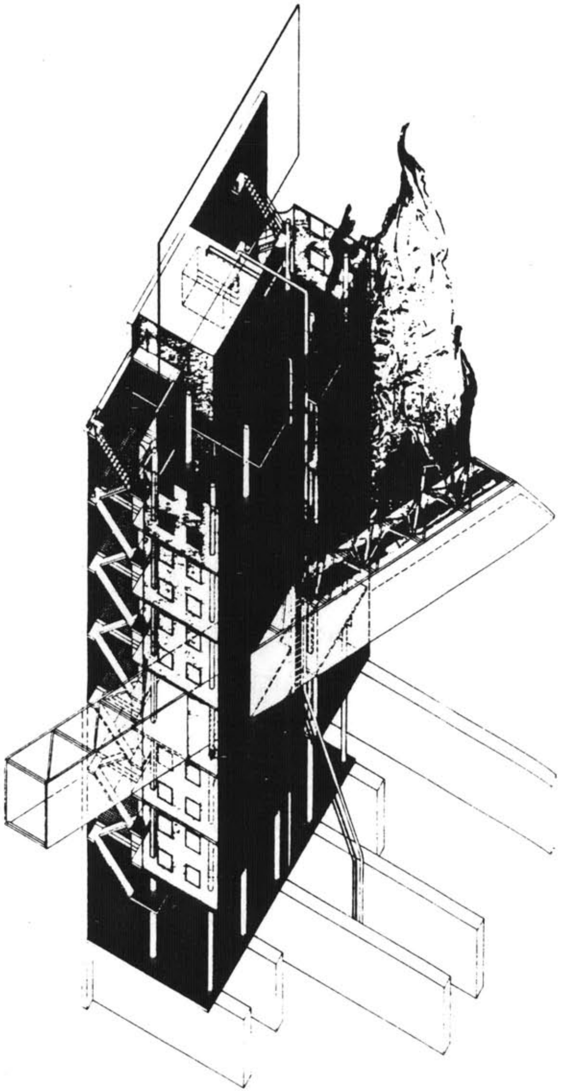
"Super Summer", Vienna, 1976

Super Summer is a concept for urban change.
It makes no demands for perfection.
It only shows by examples, how and where a city can increase its vitality.

The name Super Summer stands for an imaginary season; an artificial season for the artificially constructed urban environment.
It sounds optimistic and provocative and that is definitely the idea. **p. 156 Architecture is Now**


[illegible] an
Fenstern mit
den Flammen
(und Gesicht?)

Sketch: Hot Flat



Axonometric: Hot Flat

it's cold, it will contract, and the wing rises. But, you have to obsrve the wing over a year's time in order to be aware of that.

While working on an apartment building in 1978, we formulated the aesthetic of desolation:

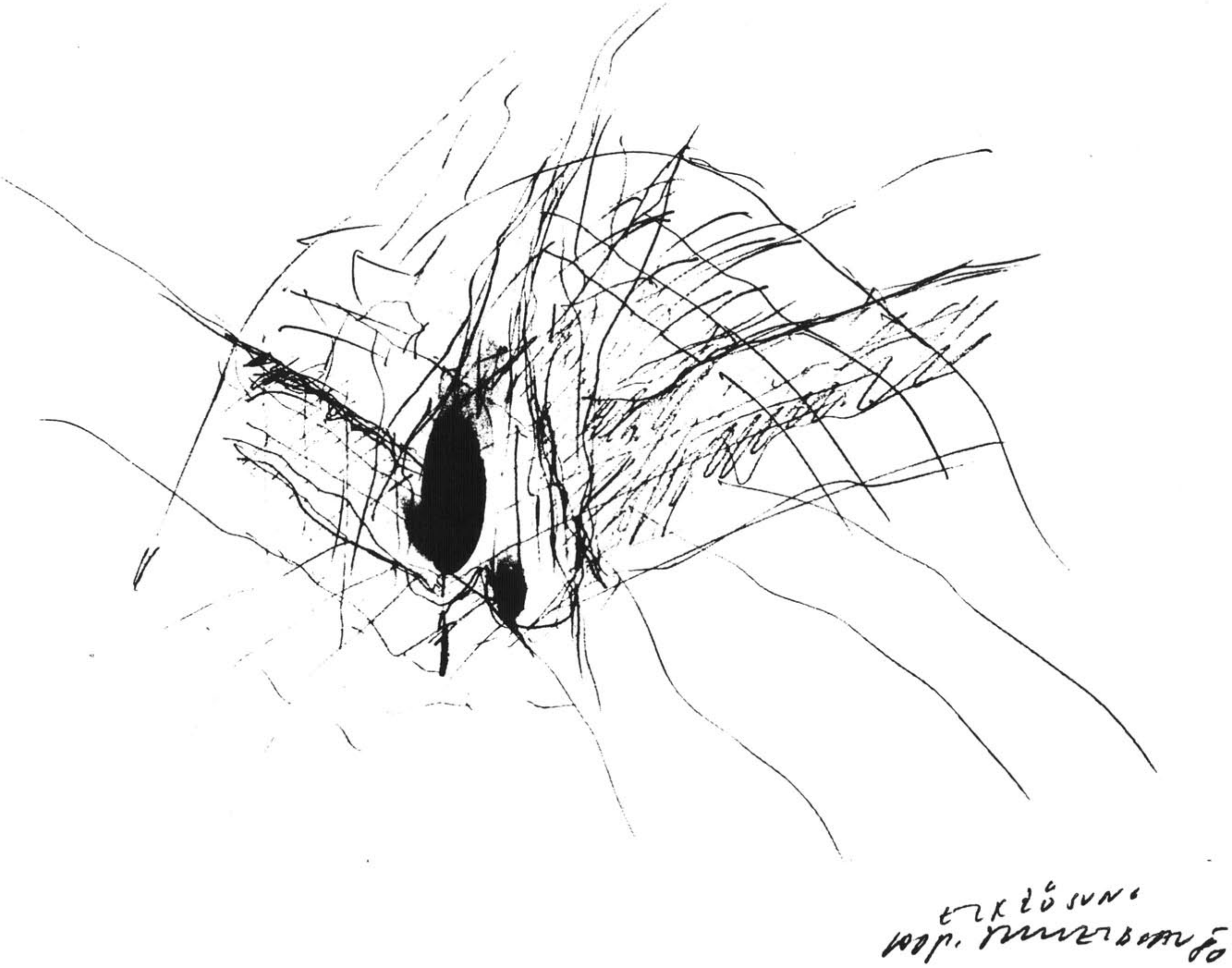
"If there is a poetry of desolation, then it is the aesthetic of architecture of death in white sheets. Death in tiled hospital rooms. The architecture of sudden death on pavement. Death from a ribcage pierced by a steering shaft. The architecture of the path of the bullet through the dealers's head on 42nd Street. The aesthetic of the peep-show sex in washable plastic boxes. Of the broken tongues and the dried up eyes. And that is how the buildings have to be. Unpleasant, rough, pierced, blazing, like an erected angel of death."

"Die Poesie der Trostlosigkeit" p. 115, **Architecture is Now**

This shows a city apartment building for ten families which lodges large and inexpensive apartments. Our concern was shaping and directing attention to the connection and transitions between the private sphere: the apartment, and the public sphere: the city.

Inside the apartment consists of only the four outside walls. The only permanent fixtures are the connections to the media of the city such as TV, video, stereo, and so on. The elevator used for building it will remain as a freight hoist and therefore the balconies can be used either as garden or as parking place, even on the fifth floor.

You see the billboard on the roof of this house? An important consideration for these types of projects are the operating expenses in Vienna. The operating expenses of the building which the inhabitants share. We considered whether we should mount solar energy cells on the roof, but decided it would be much more lucrative to rent this area to a company for advertising.


Erlösung
60

Flame

The flame shaped glass roof covers the courtyard and cuts into the upper stories of the apartments. The wing becomes a flame. Fire, I think, is a good symbol for Open Architecture anyway.

We cannot prove it, but we believe that selfconscious shapes and forms available for free use and fortification affect and influence the owner's growth of his creative self concept. So the philosopher, Karl Popert, discusses in his book, *The Open Society and its Enemies,* profoundly, that historicism bears the imprints of authority, which again inhibits selfresponsibility. He said,

Our collectivistic society is a closed one. But a society which promotes the individual confrontation with personal decisions I call the open one."

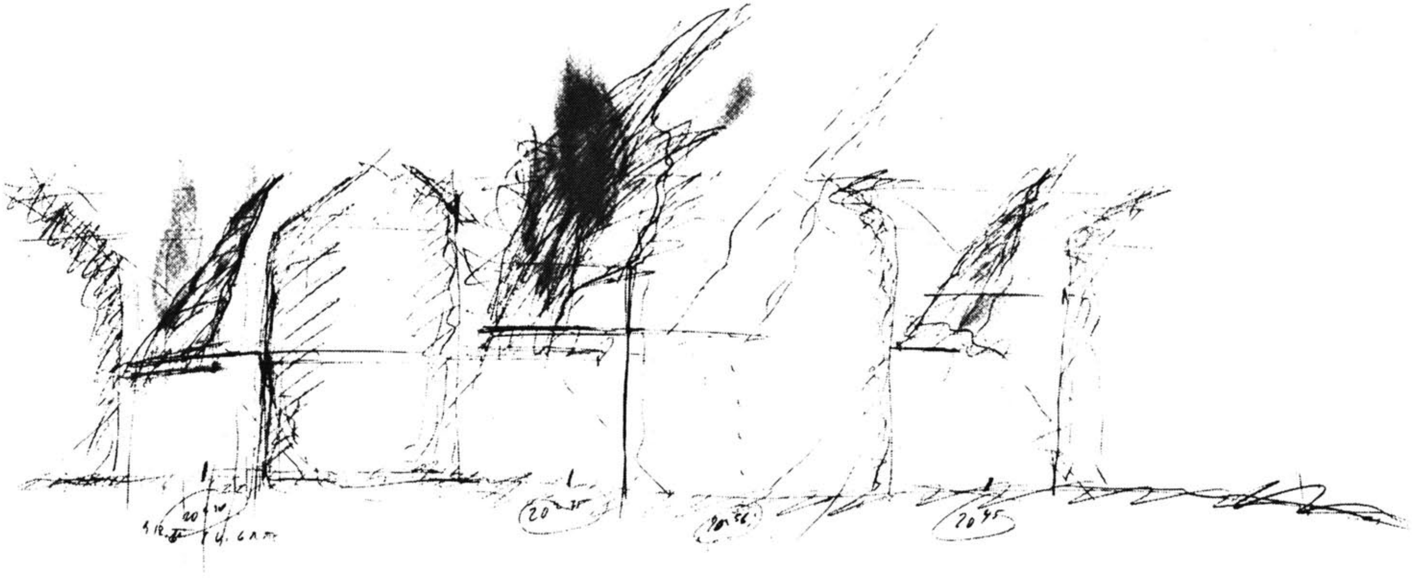
So with this sentence of Karl Popert on our minds we call our projects, projects of Open Architecture. All these projects are projects of Open Architecture.

Six years ago, 1980, things caught fire for us in the studio. We began to draw with a lighter. Pencil and lighter. And along with this drawing we wrote the following text with which to say goodbye to the seventies:

You can judge just how bad the seventies were when you look at its super tense architecture. Opinion polls and compacent democracy leave behind Biedermeier facades. But we don't want to build Biedermeier. Not now, and at no other time. We are tired of seeing Palladio and other historical masks. Because we don't want architecture to exclude everything which is disquieting.

So, the blazing wing is 50 meters high and weighs two tons. The steel construction is distorted and was developed to be fueled by liquid gas burners.

Now it is the night of December the ninth, 1980. We are now in Graz in the


20 30
9.11.80 T.U. GRAZ
20 35
20 40
20 45

"FLAMMENFLÜGEL"
AKTION, T.U. GRAZ
9.11.80 20.30 – 20.45
COOP. HIMMELBLAU 80

courtyard of the Technical University. Curtains of water protect the facade. It is 8:30 in the evening.

(FILM STARTS)

We want architecture to have more. Architecture that bleeds, that exhausts, that whirls, and even breaks. Architecture that lights up, that stings, that rips, and under stress, tears. Architecture should be cavernous, firey, smooth, hard, brutal, round, delicate, colorful, obscene, dreamy, alluring, rebelling, wet, dry, throbbing. Alive or dead. Cold, then cold as a block of ice. Hot, then hot as a blazing wing. Architecture must blaze.

(VOLUME UP: *Sympathy for the Devil,* The Rolling Stones)

No questions asked.

Howard made up some games that we played whose intent was to get us working as a group. The key element of which was to try to understand each move or statement made by one's colleagues, and then to transform or strengthen it. This requires listening, and thinking as opposed to spouting off, and it precludes disagreeing which always stops or slows down group momentum. The process of transforming or strengthening was fun and interactive. By simply not strengthening, only transforming, one could avoid agreeing with something that did not seem convincing. -W.R.

HOWARD DAVIS (2 Feb)

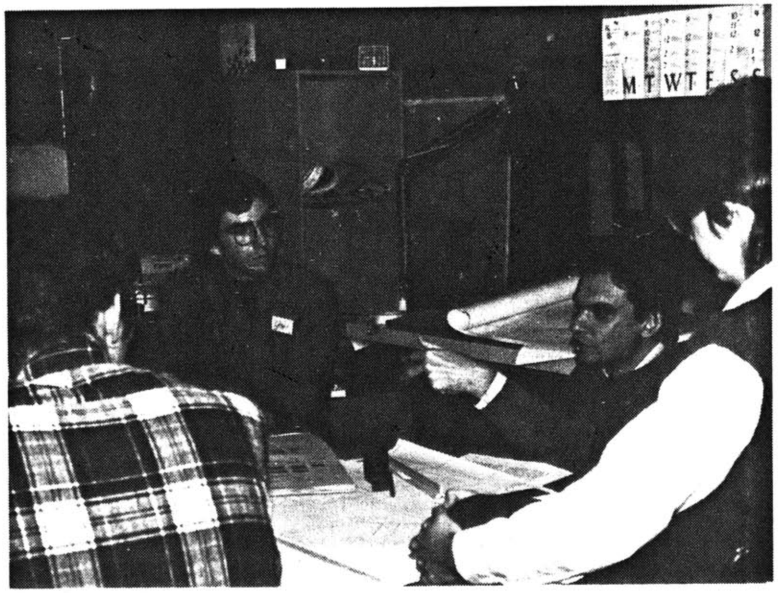
These are our two projects over here. I'm not going to go through a very elaborate description of them, except to say that when I started, as we were talking to the students at the beginning, I said that I thought that the best way to get some discussion going about the positions which were ________, was to actually do a building. In other words, to actually spend three days putting together a building even though it would be incomplete. Even though it would have a lot of problems, because it would be the building itself that would establish a kind of conjecture about the issues that we are dealing with in this symposium.

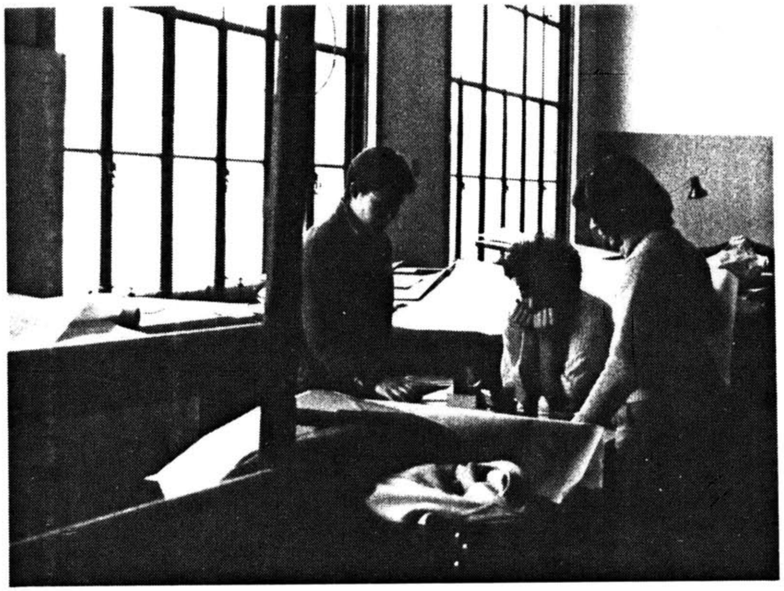
And even though what we see here is rather incomplete, I think it has done that very well for the students. I think that one of the important issues that we were dealing with in the course of the week was the question of whether this new technology actually implies that we don't have buildings any more. And whether the things that go on in association with learning about and using and making things with this new technology actually changes the nature of building to the point where the kinds of buildings that are built become unrecognizable from the kinds of buildings that have been built all along.

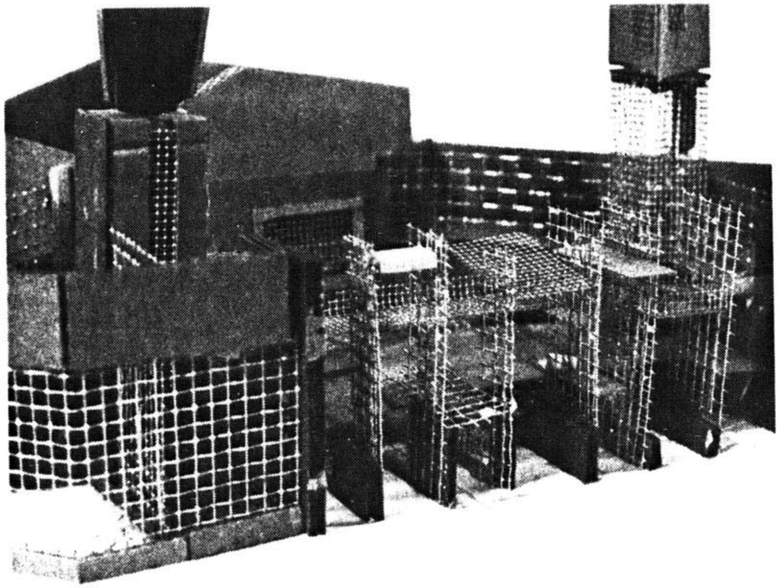
Obviously one of the main issues as far as that's

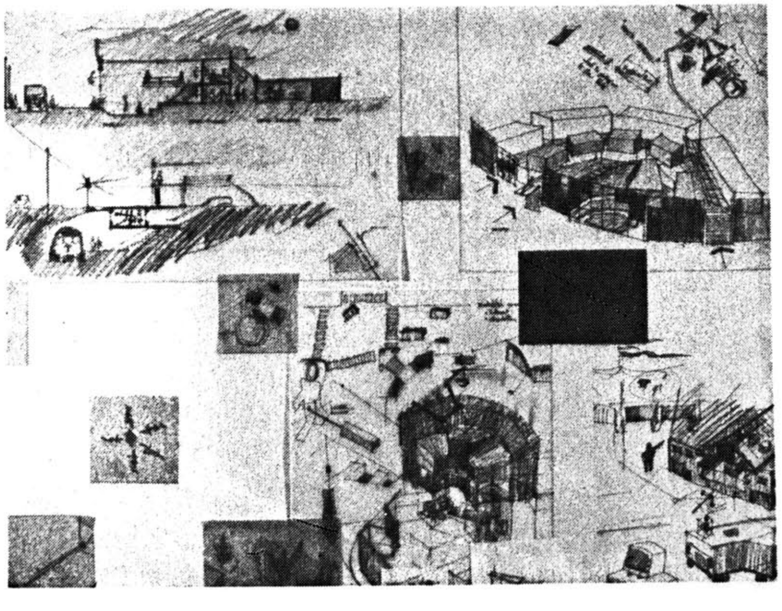
DAVIS STUDIO

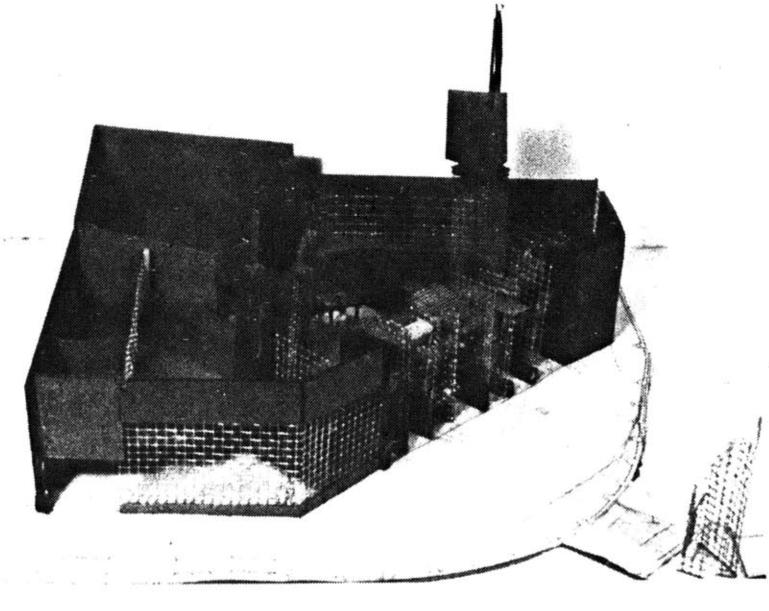
Howard Davis is now an Assistant Professor of Architecture at the University of Texas at Austin, following seven years of teaching at Berkeley. He is the co-author of *The Production of Houses* and has collaborated with Christopher Alexander on other projects and publications concerning community housing. His current work in progress is *The Future of Ancient Lights.*



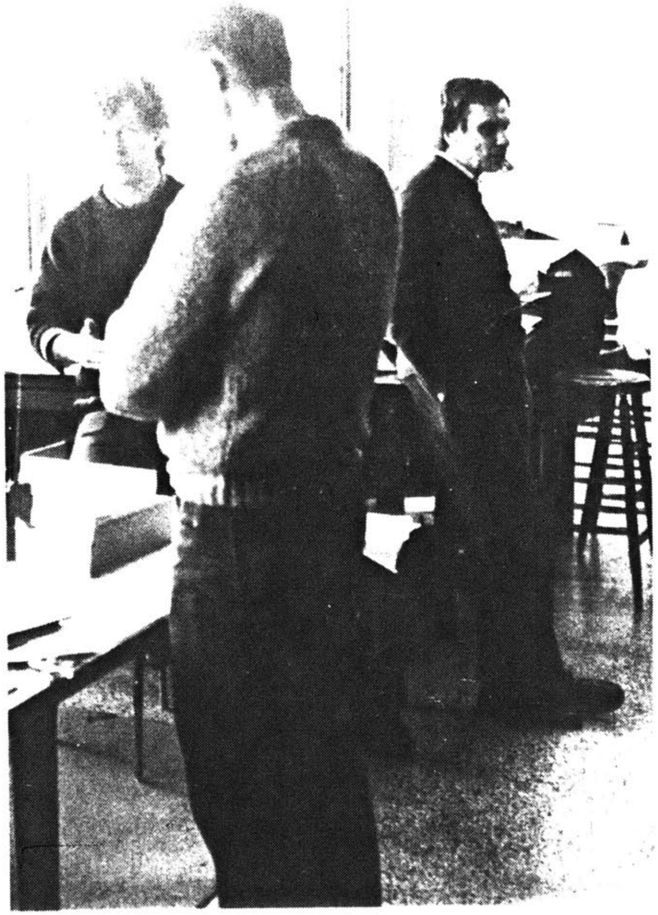


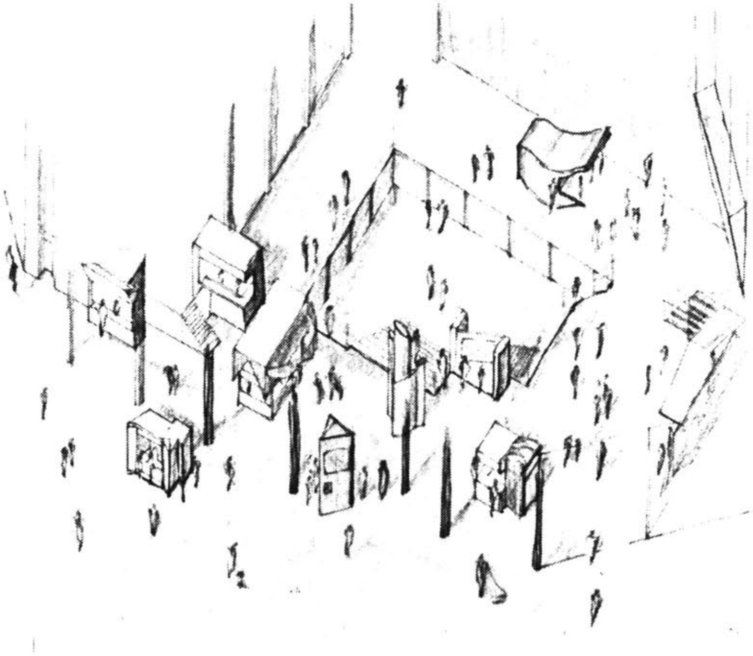


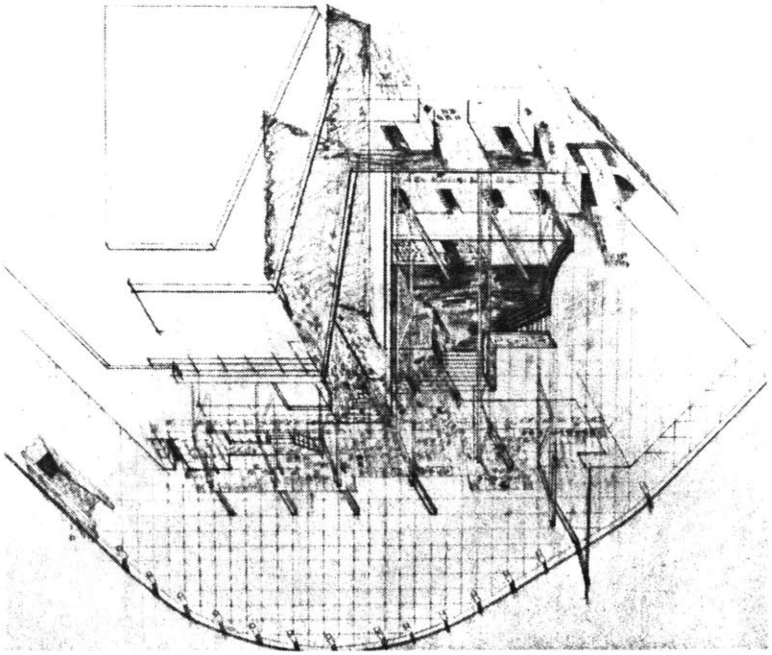


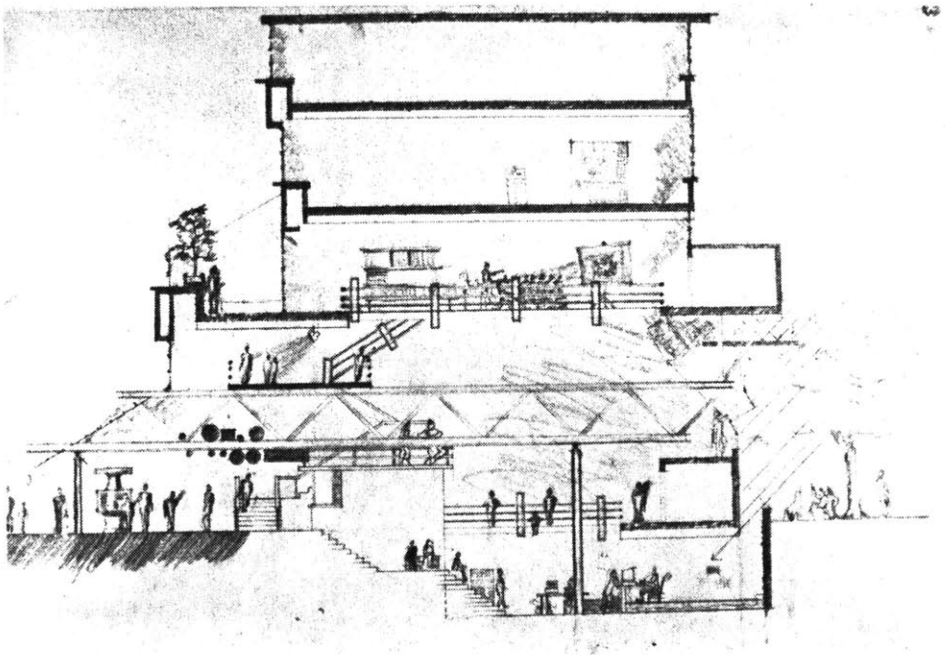


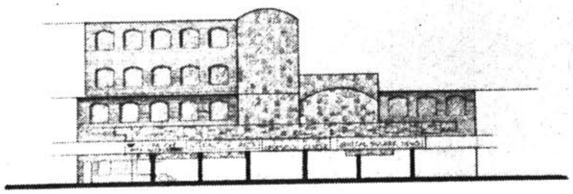
concerned is the question of whether all this technological stuff can result in a building that has associated with it some kind of central place where people come together. Which is, to some extent, what buildings are about. The attitude that both of the groups took manifested itself somewhat differently, was that indeed there was the need for some kind of central place, somehow associated with the square, but which was enlivened by the specific technological things that were going on inside.

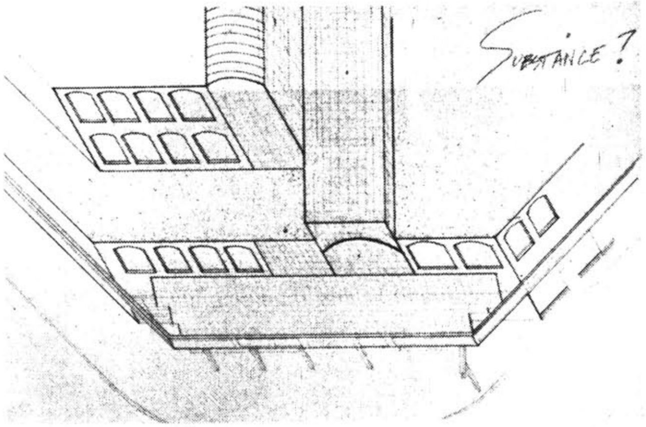




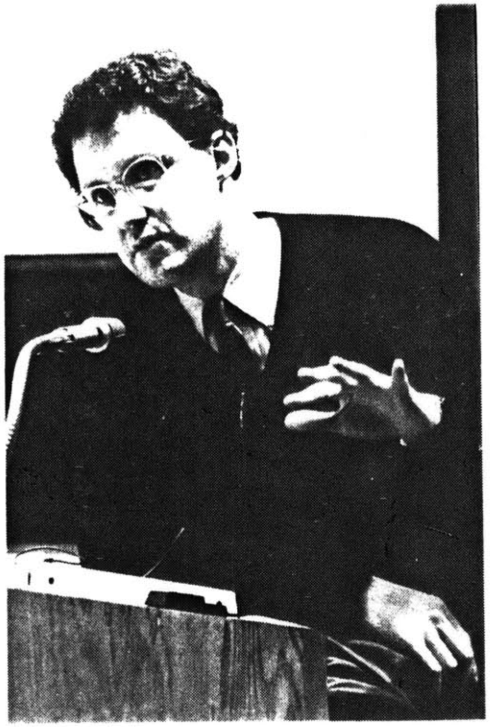








MEANINGS, PURPOSES & QUALITIES
ARE NOT PROPERTIES OF THE MATERIAL WORLD
BUT ARE HUMAN CREATIONS — CREATIONS



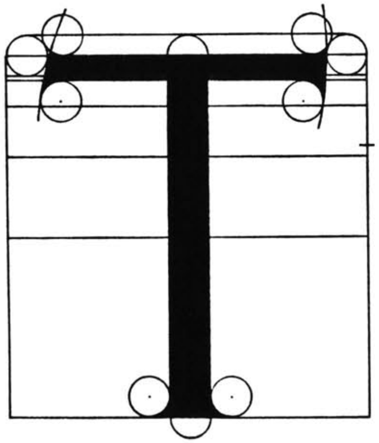
JOHN WHITEMAN

is an Associate Professor in the Urban Design program at the Graduate School of Design, Harvard University. At the age of 31, his work on urban and regional form and on theories of place has already been the subject of great praise and admiration. Trained in both architecture and and urban planning, he is currently working on a book about the implications of Hegel's thought for architecture.

Form and Substance in Architecture

AN ARCHITECTURE OF SUBSTANCE

30 Jan. 1986



John Whiteman
30 January 86

Introduction by Mary Meagher

It's very nice to see quite so many people. It's also a bit nerve racking for me. Lecturing always has struck me as a rather strange affair. There's so many of you, not very many of me. It seems desperately unequal. I'll try to do what I can to get over that.

It's also very nice to see so many people from Harvard defending me on an away game as it were. And that's very nice. It's also very nice to see two people that I actually met on an airplane, and didn't expect to see them again.

Somebody once remarked about philosophy, that the fear that haunts philosophers, that almost devours them, is the idea that someone, somewhere, might be happy. And my job, I guess tonight, is to see whether I can use philosophy to throw a little bit of light on some problems that I think are extant, available around in architecture.

I promised Mary, when she asked me to talk, to talk about the title of this

JOHN WHITEMAN (1 Feb)

The thing about substance that I think is important is that, I'm not sure that I can define what it is, because I think, in a sense, it is something that should escape precise definition. Part of it is because precise definitions have to do with productive logic. But I think one could talk a little bit more about changing the question from a *what* to a *when* and a *how.*

It seems to me that what we have to do, is to push all our inventive energies on things that actually don't matter that much anymore. I mean that surely the lesson that you have to learn from someone like Aldo Rossi is that in some ways, where our inventive energies are put, which is on structural transformation, is basically illusory now. And that isn't what matters.

And that what we have to do is to start to look at the points in life where we actually do repeat ourselves, and need to repeat ourselves. And to redescribe those points.

Technology is one of them, in a big way, because the whole point of a technological argument is that it should be closed and strictly ordered and lead to the same kind of result. Prediction was always the acid test of scientific thinking.

The problem is that architecture gets involved with scientific thinking, and it is in peril. The nature of the subject matter in architecture is always very different from the nature of the subject matter in science. And science, when it's essentially involved in predicting things, or when it's applied in producing the same kind of thing, or basically what you want. In architecture when you produce something, I don't think you necessarily go into it with the intent of producing what you want. You go into it with a more experimental attitude, not quite knowing how it will turn out.

Another way of saying that is to say that technological artifacts are not supposed to mean anything but themselves. They stand there simply as dumb things. They may be taken in the world, of course, as un-dumb things; they may acquire meanings over time, but architecture is involved in the self conscious control of that process. Of putting a thing in the world. And it's not an automatic affair. It's not a closed self referential logic. It may involve an articulating logic of architecture which is internally consistent in some way. But you only do that for the price of some external reference.

And it means that what you have to look at is that when you build things, what's represented, unlike technology which just tries to make things that just represent themselves; what gets represented in architecture is amongst other things, the mind that makes it. It's a way of testing and recognizing what kind of mentalities that we actually have these days.

And it's our uneasiness and the present unease in architecture that has to do with continued inability to answer that question.

...One of the real central questions has to do with the self conscious nature of production. Technological production is basically unselfconscious. And basically boring as well. Boring because it isn't involved in looking at the mind that is making the thing.

...When you strip away all the things that constitute the differences in the world, somewhere at the bottom you get close to that dreadful thing called human nature. The horrible recognition that people everywhere are always pretty much the same. And ultimately that's a little boring. So what we do is invent nice lots to live in. And that the world is really just a pack of lies. But it's actually much more fun to live in a pack of lies than a horrible truth.

symposium, "An Architecture of Substance". I find it a compelling title in some ways. A title very much of hope. But, as always, hopes, desperate hopes, belie fears. It seems to me that there is a certain plaintive cry in that title. A feeling that something might have been lost. When you ask for an architecture of substance, it's almost presumed, I guess, that the one we have doesn't have it. A feeling that architecture might be empty in some way. That it may not move us.

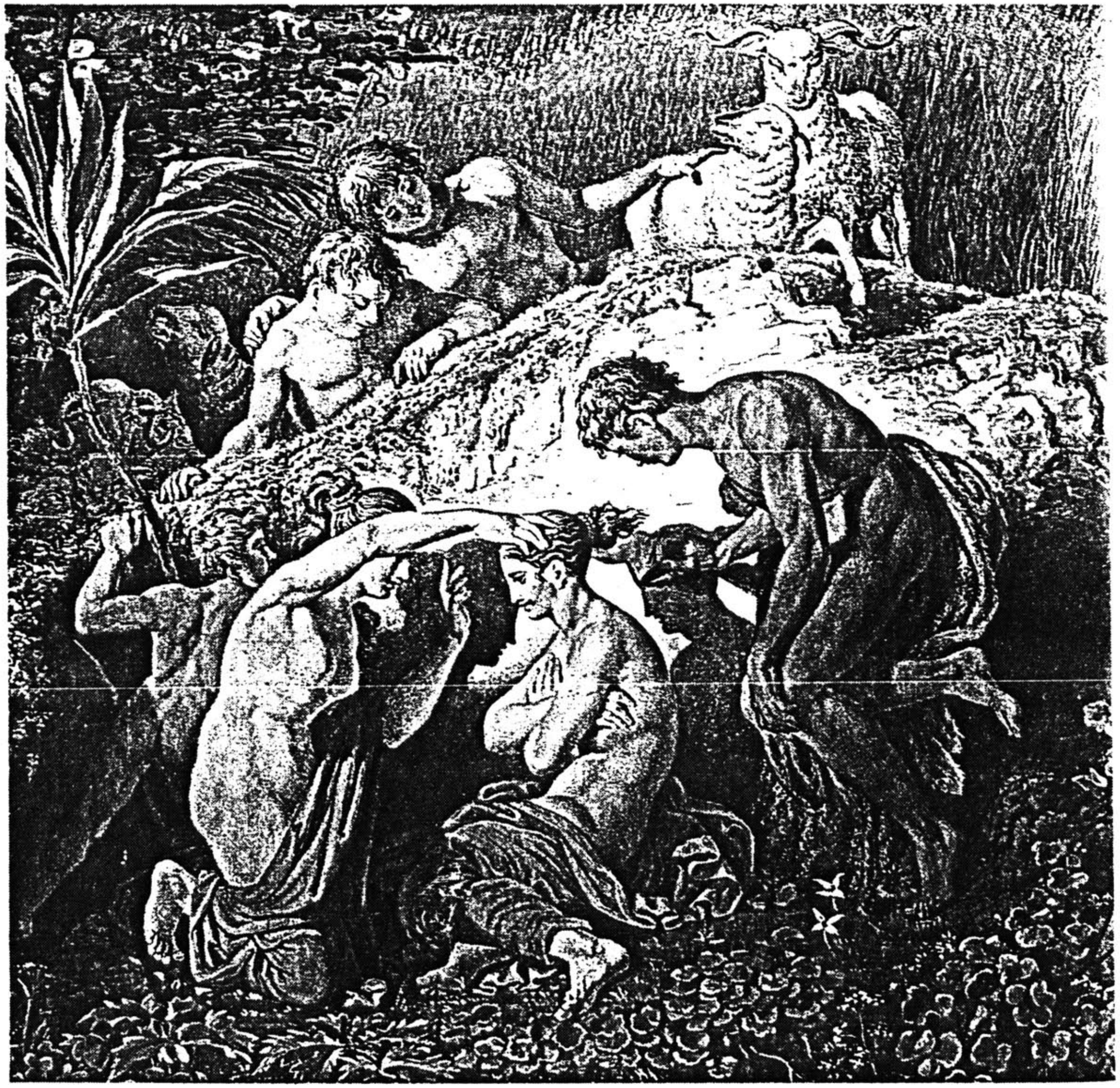
What I'd like to try and do tonight is to talk about this notion of substance, which actually I find a rather difficult word, and might change the title somewhat, but I'm thankful that it got me started.

What I want to find and try and define for you is the notion of an architecture that might mean something, and how that might work. There are a few notions in that title that would be better to get out straight away. The first is the notion that there is a building. There is real material. That architecture happens in the real material world. It doesn't happen on paper. It doesn't happen in magazines. And it doesn't happen in books. It happens in buildings. And that building material is the material of architecture.

That may sound like a tautology, but a lot of the opposite happens these days.

The second notion is clearly that of substance, which is what I'm going to spend the lecture on. And I think that really to be what is represented in building. What it means, essentially. And that's what I'm going to spend most of my time on.

The third notion of course is architecture, which is really the skill. And ultimately, the property of the building. One of the select properties of a building to carry meaning. Now this may all sound very classical to you, the idea that what we do as architects is arrange matter for the purposes of substance. For the purposes of



K. Schinkel: "Der Erfindung der Malerei"

meaning. And indeed it is an old idea, but it's been with us and it goes all the way through modernism, I think.

And it's largely our misconceptions with this triad of "building, meaning, and skill" that I think account for many of the confusions. And hence the rather plaintive notion of that title.

For the last two hundred years, I think architecture has largely been conceived as an exclusively formal problem. And I think that the main problem we have now, is that we have convinced ourselves, really without being aware of it, that architectural production is really not any different from any other kind of production. That we can use the logic of production on architecture without much error, without much wrong result.

We've convinced ourselves that buildings can be manipulated with the same formal freedom and efficiency as the manufacture of candies or the painting of an abstract painting. What I'd like to show you is that sense of freedom and efficiency that we think we've achieved in building is largely erroneous. It's that, that needs fixing up.

The slide on the right I like rather a lot. I'm going to keep it there the whole lecture. It's a drawing by Schinkel, and the reason I'm going to leave it there, is that it contains within it many of the things that I'm talking about. The idea that representation must be taken from nature, and that it is given back to it in some way.

The idea that architecture became entangled with production and mass production, of course, is clearly a theme in Le Corbusier's architecture. I'm showing you here a scheme for a large scale housing block. The kinds of interiors involved in it. What's interesting about this kind of architecture, the architecture of our century, is that we

very rarely describe our projects in technical or economic terms alone, but we choose to describe our projects in a language which is absolutely replete with reference to historical and social meaning, to symbols and to styles. And we regard that language as the true reflection of our intention, rather than the problem of production. And that's part of the paradox. And that paradox gives us a big feeling of uncertainty about what we do right now.

What I'd like to try and do is deal with this problem of form. How is it we take forms, and shape them and make them meaningful for a lived world? Now "form" is a very elusive term. I looked it up in Webster's, and it contains 19 senses, no less. There are two that struck me as particularly interesting. One was the idea that form is the outline of something when all the other qualities of it have been withered away, taken away. Then the absolutely contradictory notion in the definition, that form is actually the particular way of being in the world of something, that actually gives it its nature. In other words, it's an arrangement of qualities, that come together and define what that thing is. That's exactly the opposite of the first definition. It doesn't contain the sense of reduction.

And then there was a third definition that I found myself very attracted to which said that form consists in the definition of the beauty and appearance of the thing. I rather liked that. And afterward it said "archaic" in brackets, and that didn't make me feel too good.

The idea of form, as a notion, has it's origin in Aristotle. And it's in Aristotle's understanding of creativity in terms of matter and form. For Aristotle, matter was simply everything that could be formed. Everything that we could put our hands around and manipulate. And form was originally seen as an idea, which in the sphere of visual reality appears as an icon. That what we do, is that we take matter, arrange it with our hands, give it a form, and make it appear as an icon to stand for

something.

And throughout the history of the visual arts, the idea of form as a critical notion, was used hardly at all. It was essentially a practical notion. And it included notions of hand and mind.

The attempt to reduce the diversity and richness of the visual world into visual form, took place only in the eighteenth century. And until then, a whole spectrum of words, like "paradigm, trope, symbol, allegory", and so on, wouldn't have been applicable to the notion of form itself. Instead, we've decided to collect those up into a single word, pure form. It's not clear to me whether that's a benefit. And I'd like to examine some of what, I think, we've lost.

Not to get Corb into too much trouble, I'd like to show a second of his buildings, in which it's clear that he's doing something else other than mere production. Where he's actually taking matter, arranging it, as Aristotle might have said, and producing back an icon, however perplexing it might be, which is replete with religious significance, and needs some working out on the part of the viewer.

For the purposes of argument, what's important about an Aristotelian notion of form is the way that a concrete and material thing participates in the formative power of an invisible reality; of a reality beyond itself. It's not something which is there immediately present. It has intimations of other things, sometimes as Shelley might have said, "intimations of immortality." And it is this aspect of form, which is particularly interesting to me. The idea that you might have a material thing come to mean, or stand for, something else. And of course that's the problem of symbolism.

Now symbolism will always contain a duality. And it's a duality that we must learn how to keep, and not erase. The duality is this: that there is always a material aspect

to a symbolism. There's the sound of my voice. There's the ink of these words. There's the bricks of this building. And the sound of my voice, the ink on the page, the bricks of the building, come to be the material aspect of that symbol. That material aspect can also be described in the way that it's arranged. And it's arranged for specific purposes of meaning which actually have very little to do with the interior, or self referential properties of that material itself. You can get anything to stand for anything else.

It's marvelous, in a way, that I can stand here, and make the sound of "water", and that it can refer to the cup that is in front of me. There is nothing logical about the relationship between the symbol that I use and the fact that the water's sitting there. It's a cultural achievement. Sure, the word "water" has a structural sense, but what it means, what it denotes, is what is important.

Now, in architecture what we have to learn how to deal with, that we don't deal with very well at the moment, is a way of looking at the arrangement of material, not on its own strict internal interior logical terms, but for the purposes of meaning. We have to learn how to take the physionomic aspect of something and relate it to its iconic aspect. And we have to learn not to close down that dualism.

What I'd like to describe now are particular ways of closing that dualism down, and why I think they are particularly worrying.

If you can see that there is a way of describing material by itself, then you can see immediately that that can be idealized. And it is in fact through idealization that representation of architectural form has moved into a kind of danger area.

It's paradoxical, in a way, that the idealization of form in architecture has actually occured. And it's paradoxical for the following kinds of reasons:

In the development of architecture, and particularly in the development of representation in architecture, the crisis comes through idealizing the material of the form on its own terms, rather than with respect to the meaning that can be made. For various reasons, the most important influences on the idealization of architectural form have been modern science and modern technology. And it's a paradox that architecture has fallen a victim to this kind of idealization.

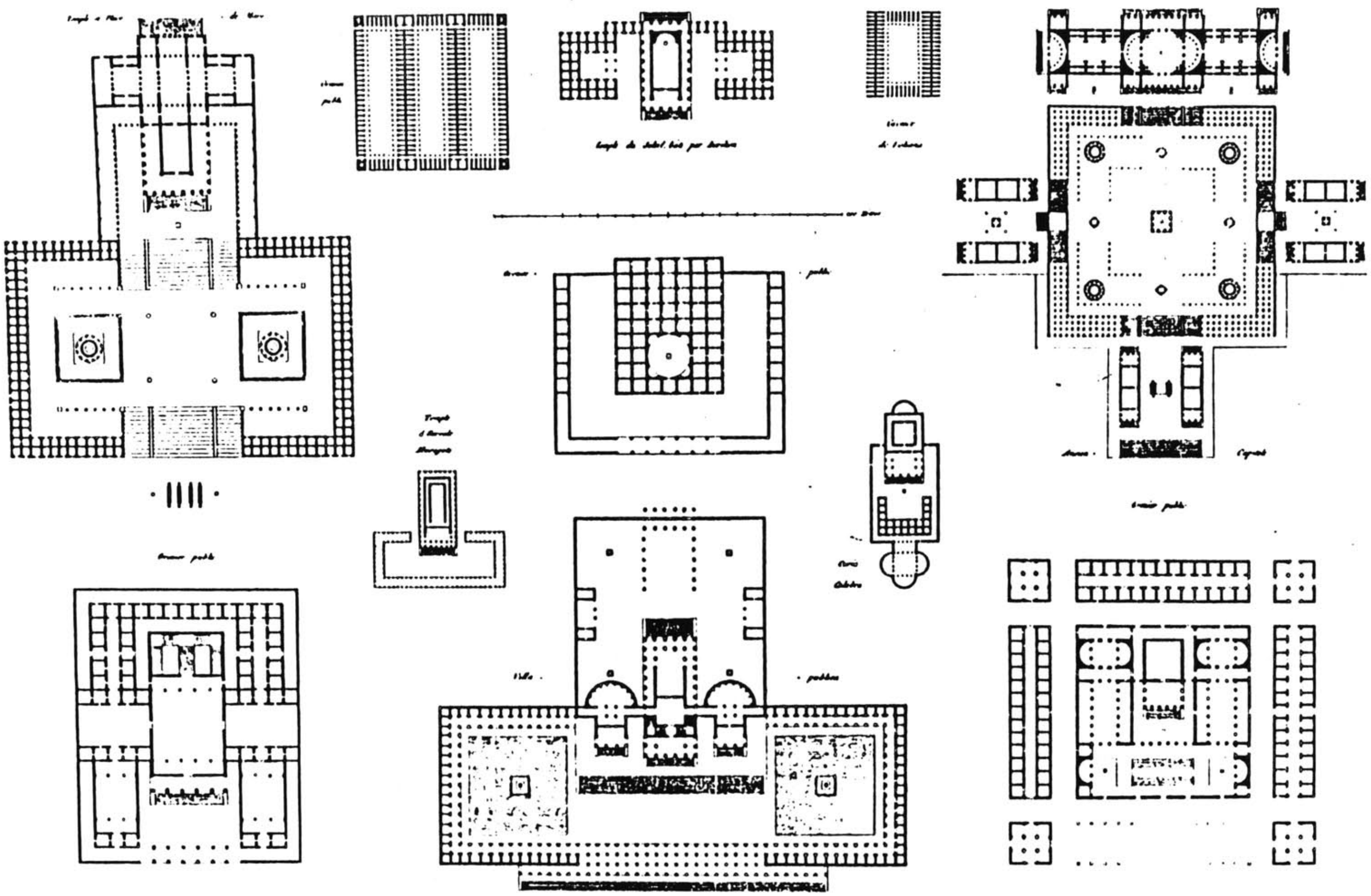
Because it was architecture that actually gave rise to much of the development of modern science, especially through building science and the science of materials. It's paradoxical in a way since architecture gave rise to modern science and technology in a big way, that it should find itself left behind in its wake. That science and technology in a sense have moved on, can do bigger and better things. And architecture seems positively medieval in its capabilities with respect to that.

Now one of the paradoxes that it leaves us, is the belief, which I think is shared by artists and scientists during this critical period of transition, that the order of reality is essentially mathematical. And that mathematical forms are essentially the most adequate representations of the universe.

At the beginning of the enlightenment, representations of the cosmology, of the cosmos, people like Newton and Kepler, were well aware that their representations were just that: representations. They were formulated as models of the universe in an attempt to represent, and through the representation, to participate in the hidden and universal order. Now listen to Kepler:

The Christians know that mathematical principles according to which the corporal world is to be created, are coeternal with God. That God is the soul and the mind in the most supernaturally true sense of the word, and that human souls are images of God conforming to him in essentials as well.

DIVERS ÉDIFICES PUBLICS, D'APRÈS LE CHAMP DE MARS DE PIRANESE.



J. N. L. Durand

Now what's interesting about that statement is the idea that the laws of nature, as they were being used through science and ultimately to come through technology, were paralleled with, and made coequal with, the sense of the cosmos, and any religious symbolism that might have gone with it. And it was actually this religious zeal that actually permeated science at the time, that was responsible for bringing the problem of architectural representation to a fundamental point of ambiguity. That buildings started to be built which contained scientific representations of nature, but also were overloaded with religious conceptions, or conceptions of other meanings.

So in Perrault, for example, that you find a notion of a pure geometrical order appearing, trying desperately to vie with some other notions of grandeur behind it. Or in Guarini, geometry and God becoming coequal in their representational status.

Now what's happening as these kinds of representations move, is the idea that eventually we would like to eliminate all external reference in architecture. That eventually we could get to dealing with architecture purely on its own strict and formal term.

You can see this most in the work of Durand. What is generally accepted is that Durand was the first person to lay the foundation of an architectural order without direct reference to existing tradition. Referring instead, to a state of architectural autonomy. Now if you look at Durand's pages, what you find is essentially a collection of things. And it's this property that I would like to focus on for a while.

Because collection may seem at first to be a very systematic and rational task. The idea that you can organize different and found things in the world into a comparative survey. And it was similar to the comparative studies and taxonomies of science.

The problem for architecture, though, is this: that implied by these pages is a kind of

JOHN WHITEMAN (1 Feb)

It seems to me that one of the most important things that we might do is to look more carefully at the extent of the architect's will in some way. That there is some need to look more carefully at the range of will that an architect actually does have and can actually operate on. That's a theme that you find taken up a lot by typologists who are deliberately trying to bring that back, narrow down the range of invention, if you like, that architects engage in. And to try by a certain form of repetition of past forms to find freedoms within closed circles, as it were.

I personally think that that discussion is very strongly linked to a second problem, which is the problem of reference in architecture, and the problem of meaning in architecture. The question of whether you can actually mean anything on purpose. It seems that most architectural discussions and a lot of architectural production just doesn't like to face up to that question head on. And engages in discourses and methods which very closely approximate the automatic in many ways. That the range of discretion and choice that we do have, because it defies rigid and rational explanation, needs to be sort of buried and cleared out of discussions, because it won't stand in any simple and clear way. And it's that set of issues that I find myself concerned with now.

And for me, they essentially run around the problem of whether a person making a thing for another set of persons can do that with a certain amount of deliberate and positive aspects to their meaning. That would be the way that I would focus on issues in that dilemna; that being more positive about it, that those are the questions that you would actually have to ask and find some fairly simple assertions to as ways of moving forward.

capriciousness. Because, once you have collected and arranged these things, the question immediately comes up as to how they should be used. What is the will? What is the will that will select one of these things, and use it? Where and why? And how the more rational the collection, the greater that problem. The more capricious and specious the choice becomes.

Now Durand was well aware of this. In fact, these pages were only intended as the beginning of a project, a project that would actually lead him to a logic of a universal proposition. A science of composition.

Now I hope you can see that in the notion of a science of composition, we've come a long, long way from the kinds of descriptions of form that Aristotle gave us. Because in Aristotle you only know you have composed something when it comes to rest. Where the visual vocabulary derives from the meanings that you're trying to make. Suddenly, in Durand, you're faced with a very, very different thing, which is that your architectural composition comes to rest, but within its own internal and formal logic is divorced from meaning. In fact it's particularly dried out. These look like any collection of butterflies on a page. They're dead.

Now what's important about Durand's method of design, which was supposed to be a foundation of a new and rational architectural order, was that it is based implicitly on several assumptions which are very rarely revealed.

The first assumption which may not be immediately obvious, is that history has run its course. If you go around collecting forms like this, and assuming that an autonomous and rational mind can compose them, the first assumption that you're making is that the history of forms has run its course. And it is up to the autonomous individual to reorganize them, and to make them anew. And that that is a fairly reasonable and accurate way of acting.

Now the second, and even more curious assumption, I think, is the belief that this new order separated from history would actually be based on formal principles situated outside history itself. The paradox for somebody like me, who thinks that form has to be related to meaning, that the logics can never separate, that they're not autonomous; the paradox for me, is that it seems to be impossible to create a system which can claim to be self referential, in other words, autonomous and purely formal, but which at the same time can be used as a framework for criticizing history and designs as they have emerged over time.

I think this is a dilemma which has never been answered, but rather quietly absorbed into architectural thought, and it's a dilemma, I think, we still live with.

There's an ambiguity in compositions based on this kind of thinking. And the ambiguity is between traditional symbolic representation and a modern instrumental or formal representation. And that duality is well illustrated by a quote from de Carte:

I have observed some laws which God has established so firmly in nature, and which he has imprinted so steadfastly in our souls, that after reflecting on them long enough, we can no longer doubt that they are precisely observed in everything that happens in the world.

De Carte is looking at the structure of his own mathematics, and assuming, in the end, that it is the structures of the cosmos fixed there and put there by a god. Now in the light of all previous understanding of form, the novelty and audacity of this kind of thinking is actually astonishing. What it does is it closes down the distance that used to exist between a form and its meaning. It closes down the distance between the visible and the invisible, between the real and the slightly unreal, the things we're not sure about. It robs us of the distance of a form and the inferred

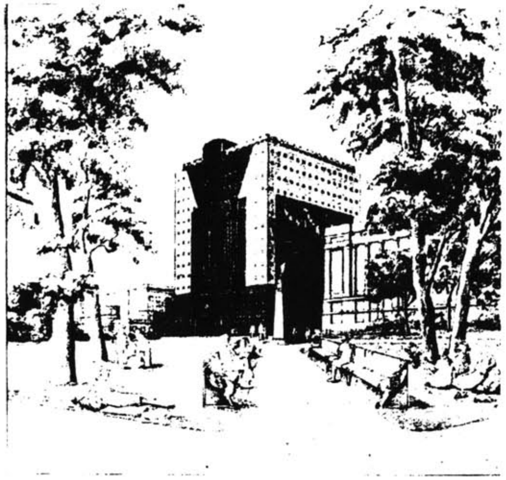
meaning. It tries to encapsulate all that in a single autonomous logic, and the price, of course, is a certain amount of dry cleaning on the amount of meaning that can be made.

The challenge of the kind of representation and architectural thought that is represented by Durand is as follows: What's happening is, essentially, that when you're thinking like this, is that there is an initial hypothesis often unstated. That the point of departure for an architectural project is a belief that the structure of nature is actually an ordered and mathematical structure. And that's what's really important in the world.

Scratch an architect's back and ask him why he's doing what he's doing, he will often tell you that his purpose and his aim in life is to produce a degree of order in the world. And he may regard that often as a certain legitimizing statement.

That assumption acts as a point of departure for a project in which reality is interpreted or projected in such a way that it can actually be described formally, mathematically. So these projections are a kind of drying out of architectural history into formal terms. Then what happens is that these facts, so called, can be arranged and rearranged according to an architectural theory. And what they do as well as support the architectural theory you might like to bring to this empirical material, they actually confirm the initial projection that you made, because that's the kind of selection that you've been up to. So as well as being able to make truck with this, to actually make compositions, you actually start to confirm the very initial assumption that you had, which was the idea that nature is itself mathematical. And when you build like this, that's what gets revealed far more than the power of your own compositions.

I'm obviously none too fond of this kind of thinking. I think it represents a



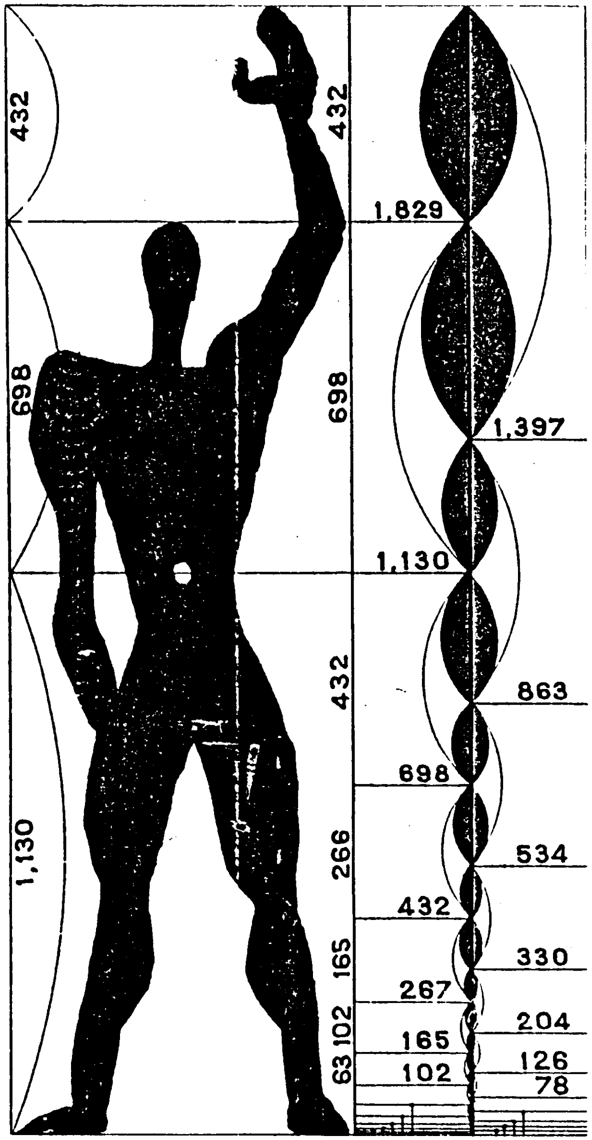
Michael Graves: Portland Building

profound ontological disorientation which we haven't really recovered. And I think it robs us of a more genuine and more difficult representation of reality which can be made through form. I also think that it's intimately connected with the sense of production, the idea that things can be orderly produced. And there seems to me to be very little doubt that both modern technology and modern science are motivated by the same interest, that is essentially a domination of reality, a push to production, and ultimately a will to power. And that the technique for doing that in architecture is by idealizing form in some way.

The tautological problem that you have to face up to is that the autonomy, the pure autonomy of science or rational orders in architecture is actually a fiction. It's completely impossible to eliminate the senses from what you do. You cannot, even if you think you're doing it. You must understand that it's a tautological impossibility to actually take these forms as partis for buildings. To arrange them and rearrange them and compose them in your mind, without reference to a certain kind of sensibility that you would create, either consciously or unconsciously. The intellect cannot defeat the senses so long as it relies on them for its evidence.

The problem for architects is not whether that happens, but how conscious one is of that process. What's happening in these pictures is that the architectural rationalism is forgetting that in composing its own artifacts, they are actually just reproducing the initial assumptions and pictures of the world that it had at the beginning. And it seems to me to be very important to see this kind of work as partial in some way. Maybe as a small basis for the beginning of something, but not as a closed, and fully autonomous, articulated formal method which Durand hoped it might be.

There is a sense in which the instrumental representation that is shown here, the idea that you can actually grab a form and control it completely through its meanings and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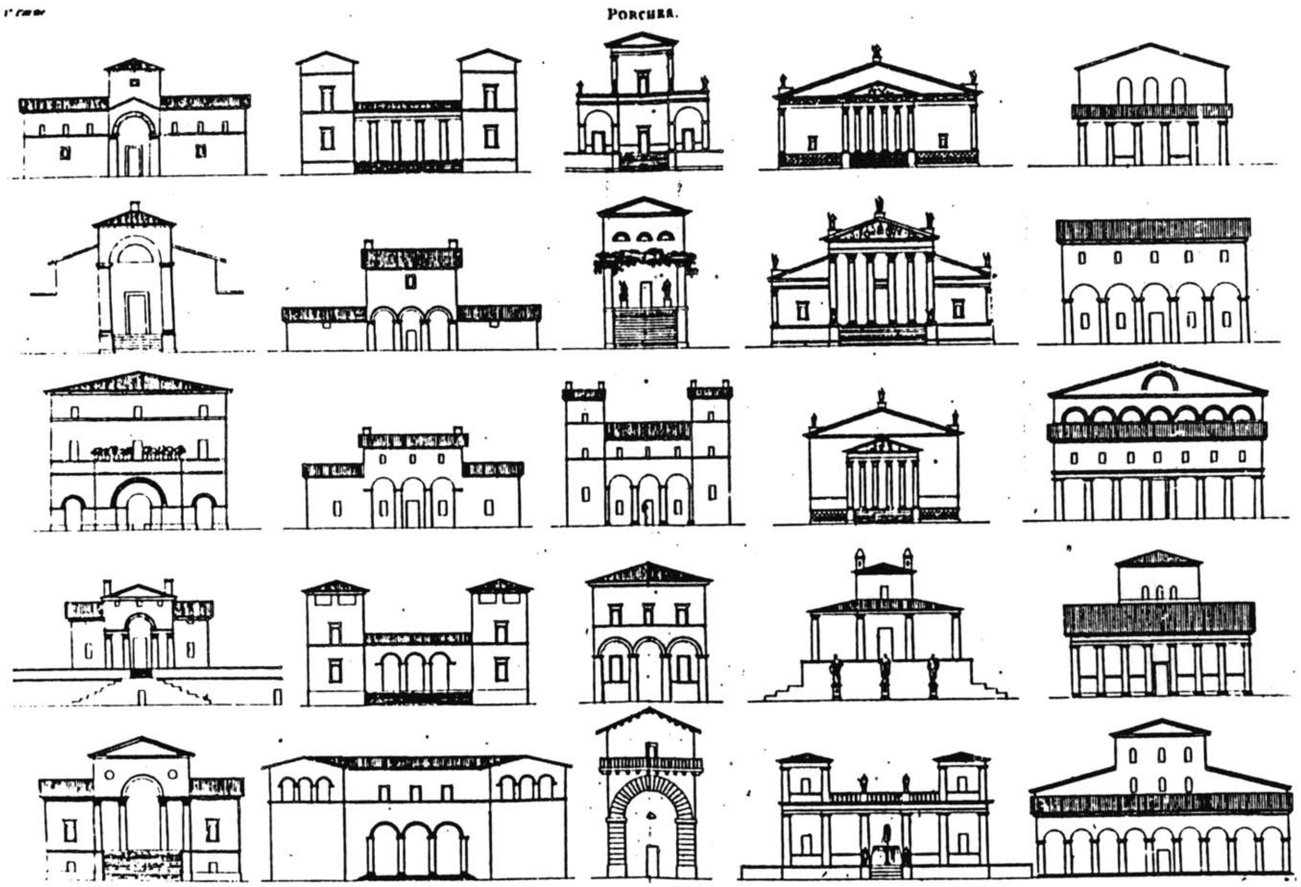
Le Corbusier: Modulor

put it back in the world. That kind of instrumental representation stands in a very sharp contrast and very sharp contradiction to a symbolic form of representation, the sense defined by Aristotle. The reason for that is that symbolic representation has to be reconcilliatory and serves as a vehicle for participating in a world, a real world, outside of yourself. This kind of representation tends to be aggressive, serves as an instrument of autonomy, domination and control. It also leads to an immense number of dualities and skipping a few centuries it leads to –I hope you can see that when you start to use the logic of rationalized forms, that there is then very little choice but to paste your figuration on the outside, or to get rid of it at all. And that the building appears in the world as a very dualized artifact.

Inside, this is just an ordinary building. But on the outside it is pasted up with a kind of figuration because there is a need for that. But what's happened is that nobody has actually challenged this strict and rational instrumental way in which the interior has been designed, and whether that may appear on the outside as a revelation of what is on the inside, and as a criticism of it in some sense. Or as a way that we can then reflect on the need for having such buildings in the city at all.

A more serious attempt, I think, of trying to understand the problems of human reference in a rational order has been made by Le Corbusier, Where he's trying to relate the idea of a human figure to the mathematics of production. And you know that from the Modulor.

This is actually a very serious attempt, in my view, one that we don't talk so much about any more in architecture, but it seems to me that the cultural meaning behind the Modulor was to bring together in some deep and serious way, the mathematics of the human body with the mathematics of the machine. Understanding fully that reference in architecture leads two ways. It leads back to the body and out to some other kind of meaning. And that these numbers were Le Corbusier's attempt to deal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PORCHES.

J. N. L. Durand

with, in a very serious and articulate way, the aggravated contradiction between symbolic and instrumental representation that permeates architecture in this century.

The problem of course is that our century has raised to a status the idea of technique, or art, to a universal instrumentality. And essentially that is a relatively stupid thing to do. In Aristotelian terms, technique was simply something that had to be subordinated to its poesis or symbolic representation. And the reason for that was that the technique of something could only refer to a small segment of reality. The bit that you were messing around with. The figuranomic aspect of the symbol. But the poetry of it tried to refer to reality as a whole. Now our century has turned that relationship upside down. Which is that we often look for poetry in instrumental terms. We use the instrumental sense and instrumental appearance as a love for the kinds of meanings that we would like to make. And I think that our century has been troubled by the kinds of beauty associated with those two things.

Even when Corbusier is working lyrically, I think you can feel the numbers of the machine under the building. And when he's working less lyrically, the poetry looks, I think, somewhat sad with respect to the size of the machine, the production machine that is actually being made.

Now this is another page from Durand. The reason I've gone back to Durand is that it is more or less an assertion that I'm not going to justify in this lecture, is that it is in fact Durand's methods that have had a very formal and very thorough influence in architecture, and that have actually this kind of reasoning, for which he is not to blame, just a symptom. That it is actually Durand's architectural method that has given rise to some of the problems with which we find ourselves. The idea in Durand, being that you can survey the world, capriciously choose, and recompose things into a fixed composition. This leaves you with a certain kind of capriciousness, and the only way of closing down that capriciousness is to make some very drastic

and arbitrary assumptions such as, that the order of nature is essentially mathematical. Or worse still, you just slide in under the rhythms of production, and that those power down your choices, and bring your composition to rest in some way.

Now the limits of this kind of reasoning were recognized by a man called Gottfried Semper, who actually produced a very profound critique of Durand's things:

The Frenchman came closer than any other person to the task, the real task, which is a scientific architectural theory. But even he lost the goals. He lost himself in tables and formulae. He organized everything into series. He brought individual elements together, but only in a mechanical way, without demonstrating the organic law that establishes their relationship.

And so Semper introduces for us a second myth which, I think, is still with us. The idea that we can solve this problem of composition by reference to some notion of organicism. Semper was better equipped, more sophisticated that Durand, and he seemed to be aware, unlike Durand, that his goal was nothing less than a complete science of architectural design. He used to wander the gardens in Paris and look at biological collections of fossils and shells and so on. And he was impressed by the collection, but he was also impressed by the organic sense that organized the collection. He wanted to, instead of dealing with the arbitrary and capricious way that architecture had to be organized through a Durand table, he wanted to solve the problem of how you organize these pieces, one with another, with an appeal to a sense of organicism.

So there's a change of belief in Semper. It's determined by his admiration for a science. And in particular a science which could deal with a change in purpose, i.e. biology or zoology. And also by the contemporary belief, contemporary with Semper, that art is a mysterious expression of the powers in nature. It's not actually an

expression of mind or culture, but it's still outside of the reference of human beings. But that it can express nature.

So link organicism with the notion that the content of architectural expression is going to be nature, and you find a new solution to the problem of composition as it was posed by Durand. You no longer have to close it down in strict mathematical or intrumental term. You can do it with reference to nature and some sense of organicism.

As you know, Semper's particular solution to this problem was to appeal to a primitive hut. What he was looking for, –the primitive hut was the corollary to the fossil for Semper, what he was looking for was a kind of composition that could look back through its own history. You will notice that that is still a totally internal and closed loop system. It's different from Durand because what happens in a composition like this, is that the architect basically has to solve this composition or task at an instant in time. It's a synchronic task. You've just got to put your mind around it, then you can do it. For Semper, the task was more difficult. When you did it, you had to put your mind around it, but you also had to reflect the whole past history of architectural building in some way.
You have to have a full geneology of building in every architectural act.

It's a strange notion, I think. It's strange, not for the desire to see architecture as a continuous thing, which I think is fine, it's strange because he believes strongly that that whole history can be encapsulated and can be seen. It's a kind of geneology without tears. There's no sadness and there's no forgetting. And what happens is if you could complete it, architecture would become, a rational and functional collection of history and forms given by history for present problems.

Semper's task, impressive though it seems, was never completed. And obviously could

not be completed. Because if you think about it, it would be necessary to transform the whole culture to which architecture inevitably belongs into verifiable conditions that make one part of a complete functional system of architecture. That if you want to perfect the functional and organic task in architecture, you basically have to be an imperialist; you have to go get every material thing in culture that architecture touches, and you have to have a reason for it, and you have to be able to organize it within your own mind. That kind of imperialism, which is by lay persons often been attached to modern architecture, I think is there in some sense, and it would behoove us to recognize it, look at it, and see it for what it is. See it as an overextended ambition of a wrong headed kind of symbolism.

In our century, the way that that doctrine turned up was not so much actually with reference to science; more with reference to technology which is one step less self conscious than the original formulation in Semper. In the things like the Bauhaus and the German Werkbund and so on, in Wagner and in Loos, it's not the rhythms of science that are being appealed to in those architecture, but rather the rhythms of technology. But I hope you can see that it is in fact the rhythms of science that have permeated modern technology. Leaving it the way it is, leaving its appearance the way it is. And that architecture has somehow gotten itself entangled with that problem of technological production like that.

And here we're obviously deep in the instrumental realm. One of my major interests is in aesthetics. And the reason I teach aesthetics at the moment, is because I think it's a word that needs a lot of overhauling. And I'd like to introduce it into this lecture as a kind of Halley's Comet, as it were, to the discussion. Because it seems to me that our attitudes toward aesthetics parallel almost exactly our ideas towards the idea of architecture as rational production in some way. The major dualism that we live with in our time exemplified in our time, I think, by Michael Graves' building is

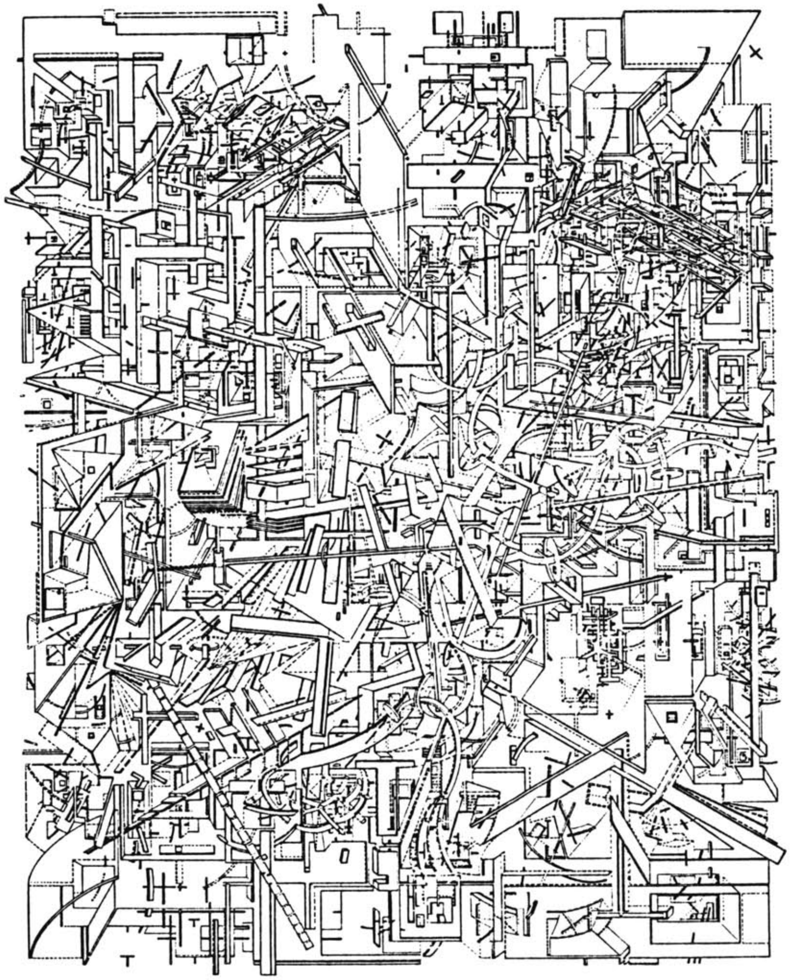
a concept of architectural production as a rational affair. And a concept of aesthetic representation as a trivial disconnected from the world affair.

Wittenstein once said that there were certain times when particular words get so confused that they basically need to be taken out of circulation and sent to the dry cleaners. And I think that "aesthetics" is really one of them. We use it for everything, from beauty in nature to beauty in art. We often use it to refer to works of art par exemus. I regard that largely as a misunderstanding of the word and would like it to be used in that rather archaic sense that the dictionary referred to, as "concerned with the beauty or appearance of real things". Which is actually quite a lot when you think about it.

The problem with aesthetics as it appeared, is that it actually came out on the defensive. When you set up an instrumental logic in the world, a logic of quantities, then the logic of qualities tends not to be a logic. And yet something is lost, and so a body of thought is almost bound to emerge which will defend the qualities in the world rather than the quantities.

If the sign of production, though, is essentially only involved in rational organization, and not in terms of symbolism, then these qualities actually take on a very important role themselves, which is that that's the realm in which meaning is made. But the paradox is that we've been robbed of any form of reasoning or structural logic with which to arrange these things, and so the problem of meaning recedes as a problem of subjectivity. More acutely said, the more objective the world becomes, the more subjective we become.

Now this has turned up in architecture and drawings such as this, where essentially what you see is a kind of structural free play, in which the aesthetic sense is trying to permeate the structural sense, and winning out as a kind of capriciousness. A



Daniel Libeskind: "Cranbrook 1979"

capriciousness that ultimately is rooted in the very same logic that you find in those rather more ordered pages of Durand.

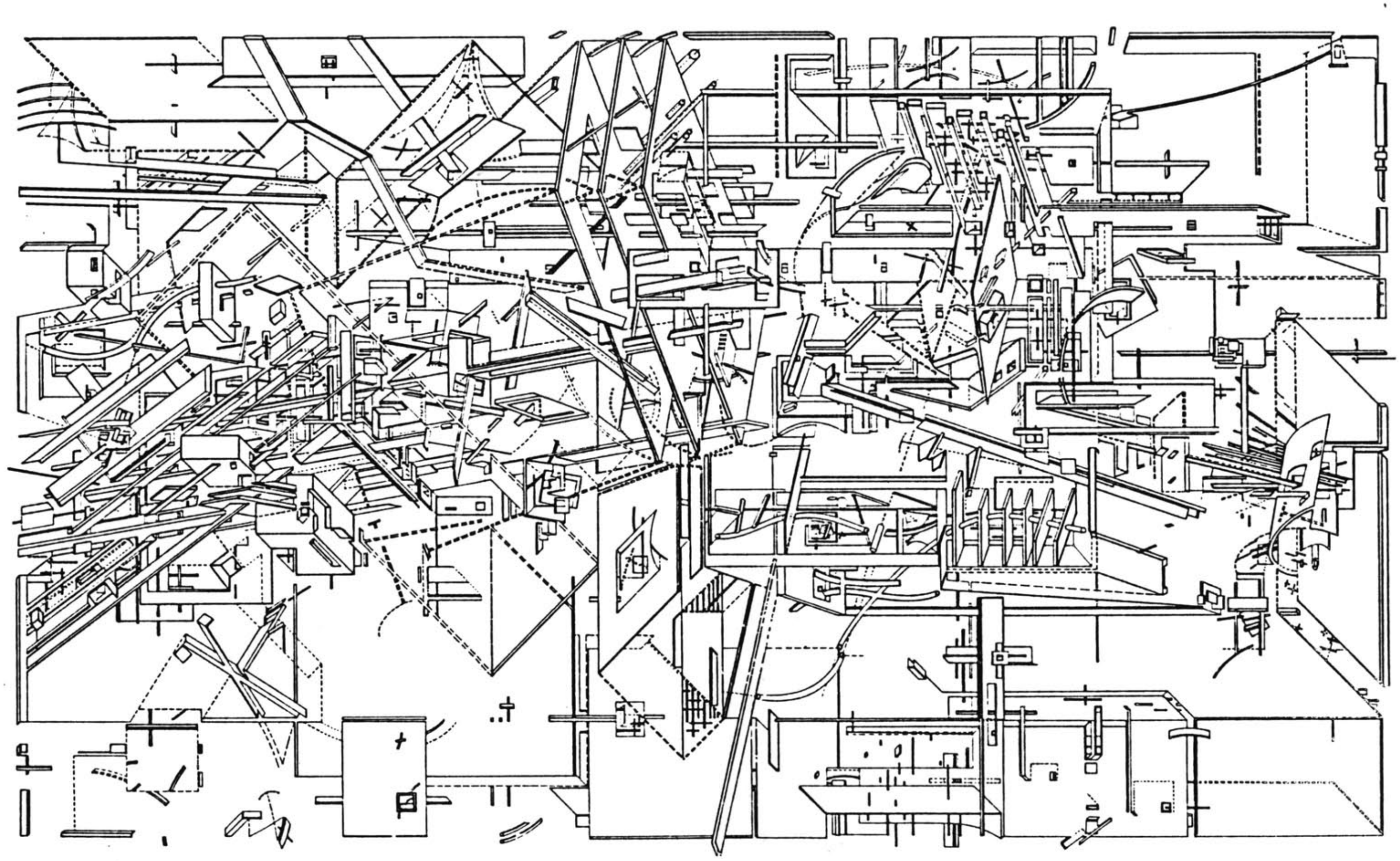
This is a drawing by Daniel Liebeskind, by the way.

Now what's not really being noticed in this history, is the transformation of man and his things into a world which is dominated by objectivity on the one hand, the real world, and the problems of our retreated and backed off subjectivity on the other.

That problem was sensed early by Turner, that the world of instrumentality, the train, would leave us in a fog of subjectivity. And essentially, aesthetics came forward to deal with that fog. It's concerns were everything that would resist mathematization. The subjective experience, qualities, perception, imagination, feeling and fantasy. Aesthetics was supposed to be able to deal with all of those things.

But aesthetics is closely linked to the relativization of taste and on the one hand and the formalization of experience on the other. What I'm going to try and show you is that it is plagued by its own problems.

When you start to see beauty or aesthetics as something capricious, something away from rationalized logic, it becomes simply a matter of arbitrary human convention. Beauty becomes seen as a kind of convention. And then if you really believe that, the only kind of approach tht you can bring to history, the history of forms and the history of beauty, is essentially a syncratic and pictorial one where the emphasis is going to be on invention. Now the reason for that is that the aesthetic mind, the composing mind, has got to approach history more or less as a tourist. Not as something that is lived through you, but something which you are over, out of, deflected from, because you've given away a large realm of your experience to the actual propulsion of history and you are on the outside of that; your subjectivity is



Daniel Libeskind: "The Garden"

blocked out from that kind of thing. And you're in a position where you're on the outside looking in. Now being on the outside looking in, you feel, like Durand, that you have a sense of choice. That you have a sense of mastery over what is given by the will and the power to compose, rearrange and put things in the order that you would like to see them in.

It gives, obviously, a fascination with frame breaking. And there's a specific reason for that. That if you want to make an aesthetic composition, when you don't want to deal with the structural qualities of the world, you don't want ever to let that lie reveal itself. And so what you do, as illustrated by these drawings of Daniel Liebeskind, is find a fascination with frame breaking itself. With a way of preventing the realization of the rational structure of what you're actually doing, and you will actually try and defend the qualitative world against that by inventing an aesthetic of frame breaking itself. That's a way of keeping separate two domains which have been structured to be apart one from another.

So what's happened here, is that you have a similar transformation of ordinary symbolic representation from Aristotle, that I talked about, into aesthetic representation. But this one is not like the instrumental representation which is really domination for production. This is essentially a kind of domination for pleasure. A domination of the world through reorganizing it, rearranging it according to your own willful and pleasurable desires.

And essentially the trick in modern aesthetic is to find a way of composition which is based on inventive interpretation of taking old things out of their context, rearranging them in some way, and giving you a new picture of the world.

You could also see that in Piranesi's drawings. It was available at that time, this kind of logic. What's very important to see in this is that you are also faced with a

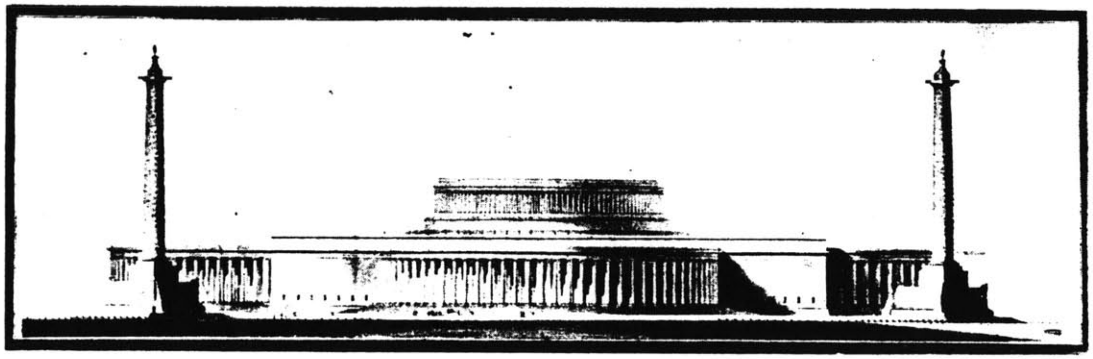
problem of composition. Just like Durand where he had to close down the problem of his composition with pure mathematics because that was the only thing that would be justified, Piranesi has got to close down, or Liebeskind has got to close down his compositions with logic drawn from things which have nothing to do with meaning. They essentially all have to do with theatre, with light, with foreground and background, with juxtaposition, and so on. This is a formal unity, not a unity of content. If it were a unity of content, it wouldn't contain this kind of page to page unity or even handedness that these drawings seem to have despite their discontinuities.

What's important to see is that it is the mind that thinks it's doing the ordering in these drawings, and that these drawings don't actually refer to the structure of things in the world. That the sense of order behind these drawings is willful in a strong way.

What's happening here, of course, is that aesthetic reality is being divorced, disconnected from the world, and it's becoming identical with subjective experience. The mind feels free to wander in these things. It even gets excited by them, moves around quickly, and so on. But that sense, pleasurable though it is, is disconnected from practical reality, then we've decided to deal with practical reality in a merely instrumental way.

So the problem for us is that we have dualized the world of symbol, its material and its meaning, into a world of production and a world of aesthetics. And that's what we're finding very difficult to bring back together.

This world of aesthetics, as a disconnected and unproductive thing, has a long line of thought. It originated in Kant, in "The Critique of Judgement", the idea that art should, in fact, be completely impractical and disinterested in things. That's a doctrine that you can find in Kant. And there are still very serious doctrines around that



Etienne-Louis Boullee: Project for a Museum argue that art and architecture, "the beautiful", should in fact have nothing to do with function. That essentially all art is useless, as Oscar Wilde would say. And that it should be involved not in necessity, but in freedom and in the expression of pleasure and of pleasing compositions.

This duality between a logic of production and the logic of aesthetics has been dealt with once before by the revolutionary architects, people like Boullee and Ledoux.

Imagine a Boullee museum. What the revolutionary architects tried to deal with is, once again, they tried to close down the gap that I've set out and said is so critically difficult for us. The gap essentially being that between the logic of production in architecture which solved on rational grounds on the one hand, and that between an aesthetic of architecture which can only be solved on willful and pleasureable grounds on the other.

Boullee essentially tried to deal with this problems explicitly. But what's interesting about his attempt is in the end it recoils and falls back on mathematical justifications in the end. What's immediately striking about any design by Boullee or Ledoux is that the ultimate justification of the form of the architecture comes from geometrical and mathematical forms, rather than from what on formal terms are arbitrary, but the forms given by symbolism. But the effort was worthwhile because we learned something.

They developed a theory of how architecture should work. And it's actually a theory which is quite close to what Aristotle might have liked. What they said was that it

was impossible to create architectural imagery without a profound knowledge of nature. And that the poetry of architecture lay in its natural effects. And what we have to do is to work out what the required impact on a human subject was that would actually give that effect of nature.

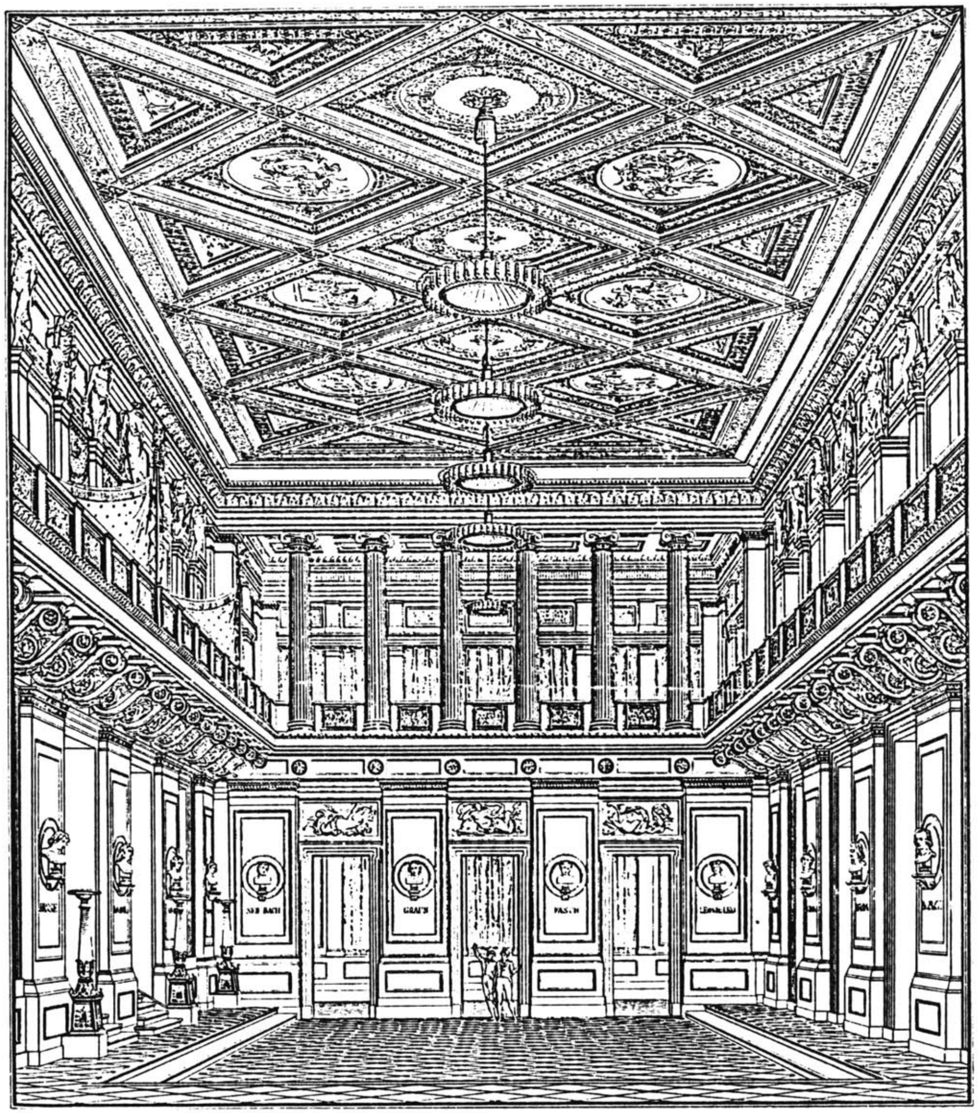
That's a very interesting notion because there's a two way reference working there. There's a reference back to the body of the person, and then there's a reference out, in this case, to nature. It was based on a notion that all our ideas and all our perceptions come to us via external objects. That external objects make different impressions on us. And according to whether they're more or less analogous with the human organism, that kind of composition is more or less effective.

And so what they tried to do is to produce a theory of architecture which was rooted in the way that it would affect a subject. And their solution to it was actually rather a curious one, which was essentially the mass of architecture was what affected the subject, and then once you've said that, as Boullee once wrote,

I'm weary of the mute sterility of irregular forms, and I've proceeded to study regular forms.

You can see immediately once you've gone to mass, what's going to be the next step in the justification line, is going to be to mathematize and regularize that mass. And that once you can understand the play of regular masses on the human being, then you have a certain kind of reference back to the structure of a productive mind.

Incidentally, that is obviously a theme that is still with us in this century, because Corbusier described architecture as *the masterful, correct and magnificent play of masses brought together in light.* And that's a set of thoughts drawn on directly from statements from people like Ledoux and Boullee.



K. Schinkel: Perspectivische Darstellung des Concertsaales im kongl. Schauspielhause zu Berlin

But the problem with the solution that Boullee and Ledoux gave is this: is that architecture then simply becomes reduced to the configuration of volumes and their perception. And architectural order is established merely by regularizing the relationships between shapes, their volumes and experience. And the price of regulation, the price of ordering it that way, is the eclipse of other qualities that aesthetics originally set out to rescue, qualities like texture and color, and so on.

It's always the case in our time that when we need to be rational and justify what it is that we're doing, we fall back on regularized and mathematized forms.

The problem to which this slide of Schinkel's was supposed to refer is that attempt having failed, the next way of dealing with this problem is to make the problem even wider. If you can't solve the problem of architectural logic by focusing on a building and the affects that it creates on a subject, then what you do is you say, well, no, obviously it has to be done in a tradition. If logic cannot bring to rest the forms that are needed to relate to human beings, and then that tends to be given through history and geography as a style, then maybe what we had better focus on, is not so much the building per say, we may have to extend our rationalism to deal with the problem of style.

And style in the early nineteenth century emerged as an absolutely crucial problem, as a new problem in architecture. The problem of style was this: if we could invent a new way of doing everything, then essentially, the individual pieces would not be so difficult, would not be so troublesome for us. And that if we could put our mind around more than just the individual building, but actually invent a whole new style. Style was a term originally borrowed from rhetoric, from the kind of form that I set out at the beginning. If we could make style the subject of reason, then we might solve the architectural problem.

It's based on a recognition which is very different from what Boullee and Ledoux are doing, because to be involved in style is to be involved in human ideas, not natural ideas. You don't make an appeal to nature as a justification for what you're up to, then have to fall back on to mathematical forms to justify that conception. You make a direct appeal to the arbitrariness and the conventional nature of what buildings are. They are involved in a style.

And so the mind is making an appeal to itself when it tries to reason and put its mind around the problem of style. But that has a problem. A little quote from Alexander Pope:

Could he whose rules the rapid comets bind describe or fix one movement of his mind.

It seems that what we're very good at is using laws and instrumental logic to deal with things outside of ourselves, but our mind is too quicksilver for an instrumental logic. It won't submit to the patterns of reason to which nature seems to submit. And that the project of style seems in every kind of way as doomed as all the other projects we've just examined. But it's worth looking at as an effort, because it really was an important effort and Schinkel was amongst the more brave attempts at it.

But what we've seen is that style, and putting one's reason around style, has given style an impossible job to do. That a single autonomous mind is going to invent the way a building should be done. And Schinkel took that task on.

It appears with a new sense of history, which was called historicism at the time, and historicism was a particular sense of history. It's exactly that notion of history as tourism. History becomes a field of unique events. What's lost is the sense of continuity between event. There's no sense of history as a flow.

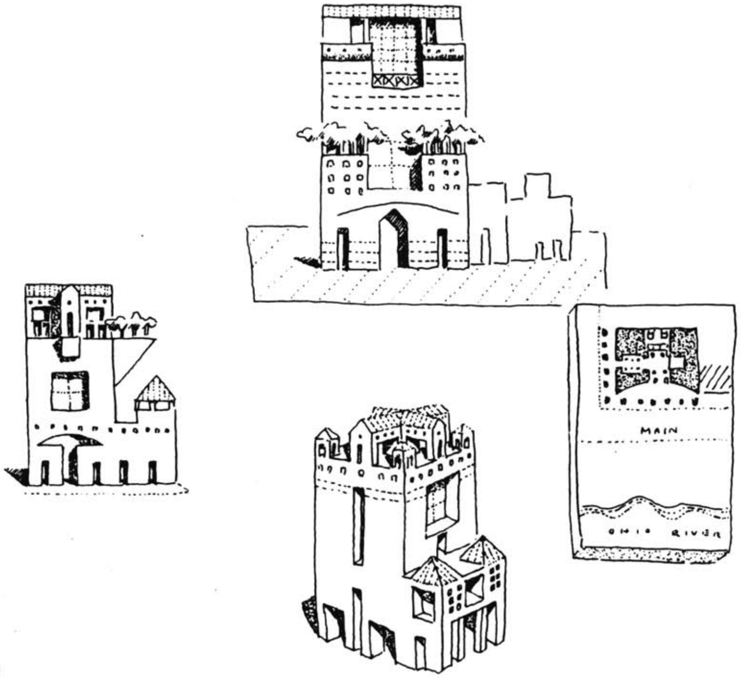
What's happening in historicism is what with style, and the idea of inventing style, immediately becomes associated. In historicism you see history as a field of unique events to be collected up, sorted out, distinguished, and so on. But again, it's up to a mind to do this. It's not a description of the real world, it's up to the mind to actually produce some conclusions about that.

What happened of course is that the solution to that problem was to see each age as having its own individual style and character. And that these ages were described with the same value. It was not our case that we should say that the Medieval age was worse than the Renaissance age which was worse or better than the Baroque. All that was needed to say was that those things, those labels stuck, and that they did actually describe a certain continuity in the way that the compositional problem had been solved for each age.

And historicism was a way of looking at those unique events and then detecting similarities in the compositional style that held together for a time.

The important thing about historicism is that it has very little interest in history. What it's really interested in is the present. It's a way of looking at the past and trying to understand where you are and at the same time to divorce yourself from it. And you find that kind of dualistic attitude in a Schinkel building. Which is that yes, there's a reference to a past style, but no, it's struggling like hell to get away from it. It's kind of "get that history off of me, much as I want to refer to it. I need it for justification, but I don't want to be involved in it. I don't want to be seen to be with it."

So style and historicism in the early nineteenth century essentially are coincident. If you can bring those two things together, and put one's mind around them, the compositional task can be achieved in architecture.


MAIN
OHIO RIVER
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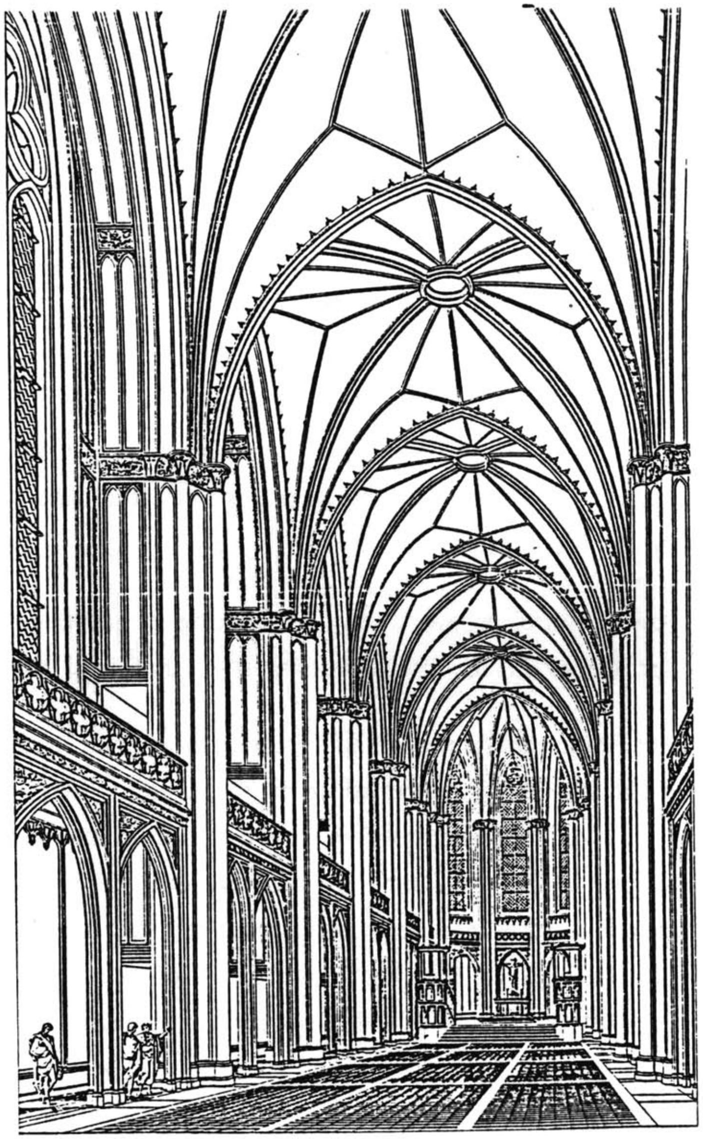
Michael Graves: Sketches



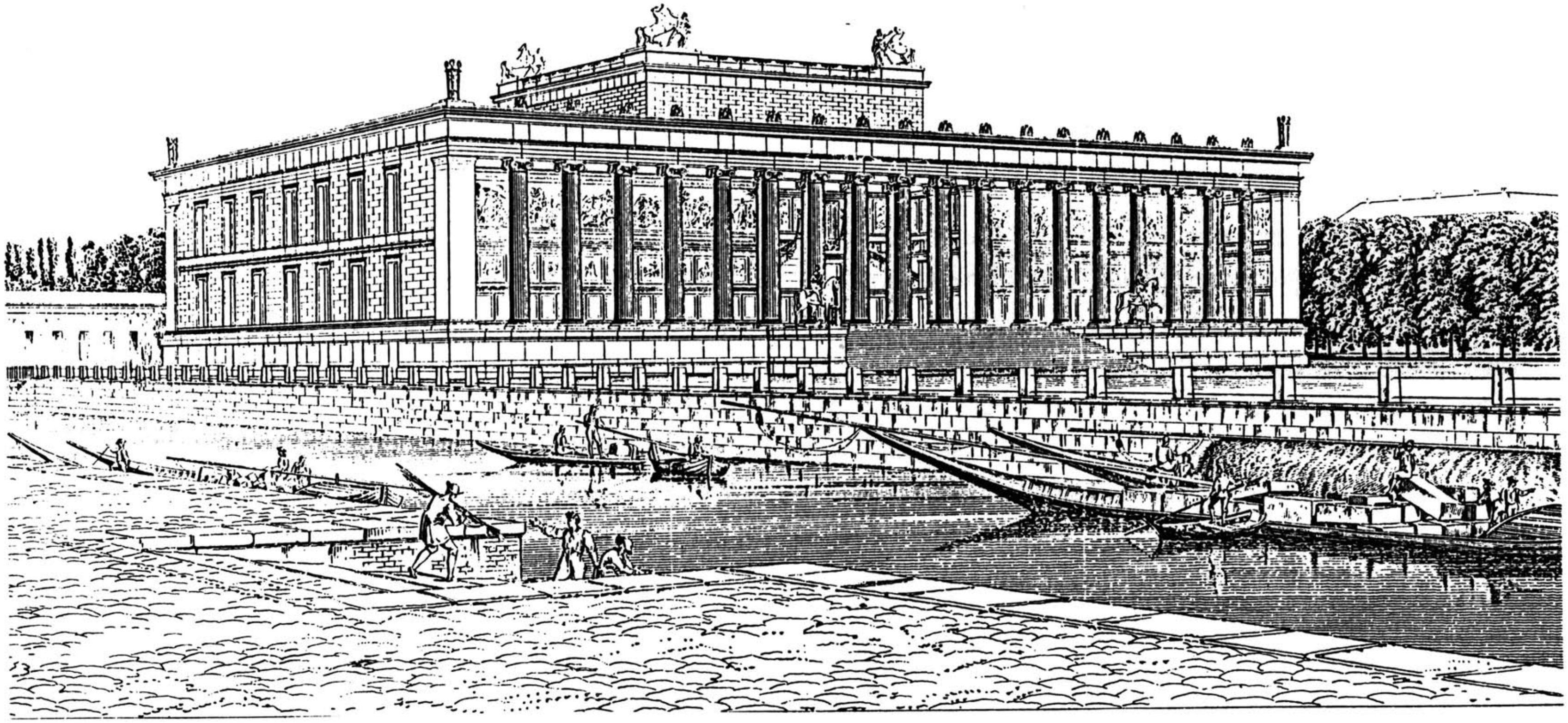
K. Schinkel: Perspectivische Ansicht des Inneren der Kirche auf dem Werderschen Markt in Berlin

The problem for us, the way we're looking at this problem in this lecture is this: is that that problem is solved by an autonomous mind. It's solved by a mind which is emancipated from the fetters of tradition. And the amazing supposition was that the architect genius was supposed to achieve nothing less than the complete reshaping and reevaluation of the forms in which he would live at that point in time.

So historicism actually is a way of jettisoning the past, by defining it. Making it clear for what it is. And then saying, "well now we're in the present, we've got a new thing to do. How do we use the information, the traditions that are given by us, but use them in a new way?" I hope you can see that this is exactly a similar problem that we met in the way that aesthetics was first constructed, because it comes out as that same capriciousness that is actually up to a person, an individual to do that task.

This is Graves being capricious with history. The reason for this slide is that these problems that I seem to be describing, the different points in history, the reason I am describing them, is that the currents of those things are so much around in our present thinking that they're very hard to distinguish. So that while my discussion about historicism with that may seem strange, this is what we're actually producing. And I think it might be stranger. The idea tht one might actually play with history with that kind of capriciousness, and then decorate what essentially was the rational and logically ordered part of the building with this kind of stuff, I find the most dualistic and unsatisfactory reconciliation of an architectural object.

Schinkel of course, dealt with many styles. He was interested in Greek and Gothic. And what could be used from them. What's interesting is that both of the Schinkel buildings reveal an incredibly rational mind, which rather overtakes the origin, the source, with which he was dealing. This is Gothic with good rational manners. It's not Gothic with aspiration. It's Gothic with math.



K. Schinkel: Altes Museum

What's happening in the architectural problem as Schinkel approaches it, is that essentially it becomes a problem of memory and will. What you have to do is perceive the spiritual principle of an age, bring it to terms with the conditions of your own age, and harmonize it in accordance with your needs. And that that essentially is a problem of the conscious memory, and recognition of times passed. And the active will in terms of the way that their memories are brought to the present and used in the present. And in that way historicism has a serious intellectual and architectural project.

It's not nostalgia, it's a way of grappling with the past in the present. It's actually a serious intellectual problem in architecture, but it does actually become a problem of the memory and a problem of the will. And in the end, the only solution that Schinkel could find, was monumentality. That what you had to do was, instead of looking the problem of architectural meaning straight in the face and getting scared by it, what you do is justify your objects with a kind of logic that seems to be able to stand for all times, instead of your own.

So in a funny kind of way, historicism in Schinkel negates its own logic. Instead of trying to solve architectural problems in the present, which was the stated aim, you run to monumentality which solves them for all times because monuments by definition are involved in a certain kind of historical continuity and permanence. So what happens is you solve them, not with respect to the immediate present that you were dealing with, but you solve the architectural problem with respect to all time, hoping that your answer for the present unconsciously seeps out and recognized for what it is.

But the value of Schinkel's architecture is to see that the problem of bringing order and meaning of architecture into one composition. He's trying with more success,

unlike some of the others that we've looked at, to bring back the problem of order and meaning in architecture to avoid that duality of the material logic of a symbol, and to bring them together and to bring them to rest as monism rather than a dualism.

The problem with it, of course is that we're all susceptible to the kind of structuring logics around and powerful in our own time. And it's not clear when you look at a Schinkel building that you aren't in fact looking at the very same productive logic that underlay his own times. And this is actually a drawing of a factory by Schinkel, and it's not clear to me that the kind of monumentality involved in that is not really about what it is said to be about, but is in a funny kind of way, tainted, inevitably involved with, productive logic of our times.

Coming closer to the present, the immediate problem for us is that we've lost, in some strong and difficult way, the ability to look the problem of architectural meaning straight in the face. We talk about grain elevators as works of art without any sense of loss whatsoever. Le Corbusier, from whose book this photograph is drawn, compared a DuLage automobile once with the Parthenon, thinking in a sense, that they might be the same thing. And just like Schinkel's architecture, we are learning to confuse instrumental meanings with more difficult social and spiritual ones. And that structure, and that rhythm of production is finding its way into our own architecture as well.

So what I tried to show you is how confusing and how illusory the modern situation is. I've tried to preserve the notion of a symbolic representation. That is a form that gets arranged, and it aquires its form for the purposes of meaning no matter how difficult those are. And that that is very different from a pure aesthetic disinterested representation or a strict, strong, instrumental representation.

Around that confusion, whole movements of architecture have been formed. Where you see a productive architecture juxtaposed with a sense of nature. And the combination used as justification, rather than focusing on the architectural problem from an internal perspective of seeing what life might actually be like in that thing, we've built enough of these things to know that there is a serious problem.

But despite this, we have a fascination with a kind of logic of art which is pushing us faster and faster. At the beginning of this century, and I think still with us, there is a new sense of art, a new stylistic phase, where we thought we were on the threshhold of a completely new kind of art. An art with forms which signify nothing. An art with forms that represent nothing. That remind us of nothing. and which arouse our souls as deeply and strongly as music has always been able to do.

There's a fascination that we carry having failed in problem of architectural symbolism, that maybe what we should do is give up. Maybe what we should be seeking is a kind of architecture degree zero. A kind of architecture without meaning. An architecture of quietude, in some sense. It's obviously an idea drawn from painting in which color can speak for itself, not for anything else. The idea that form and color in painting would be non figurative. That they would essentially be completely self referential, quiet, sitting there on the page, being what they were, without any meaning whatsoever. There was a dream in these paintings and in this kind of art, a dream of no reference whatsoever.

The problem of this ideal in architecture is that it is absurd. It may be fine in painting, the idea that what you can get is an inner balance, a kind of perfection where everything has gone quiet. In architecture, though, because of its dependence on the dualism of the necessity and beauty, this is beauty by itself, away from necessity. But because in architecture there is a need to deal with the logical, the rational, and

the structuring sense of the world, as well as the beautiful sense of the world; this kind of ideal leads to the absurd, as I've tried to show you. This may be beautiful as an architectural drawing, but as a building it is literally, absurd. And I don't think that Daniel Liebeskind would disagree with that. But he might say that the current situation of architecture is absurd.

The problem for me, as a more positive and hopeful thinker, is that these drawings, these kinds of things, these kinds of ideas, represent things that could never be in architecture, and for better or for worse we do have to stop thinking like this, and we do have to start thinking about how to hold real meanings and real buildings. The problem cannot be solved either by an aesthetic mind, nor can it be solved by a strict productive, rational mind. It can only be solved by a mind that wants to deal with the problem of form and meaning togethr in one breath. With the bravery of a Schinkel or the bravery of Boullee.

What underlies these kinds of compositions is Nietzsche identified in art, which is that art, essentially, is a will to power. And that pleasure was not actually the real purpose of aesthetic composition. Instead, power was the real purpose. And what power wanted to do was to take conflict, to rearrange it, until conflict meant nothing. Until conflict could be erased. And no matter how contradictory this drawing may seem to be, its ultimate image is one of peace. Its ultimate image is one of being master of the chaos. Its ultimate image is one of being form cum logical. In fact, a kind of simplicity, a kind of unambiguity, a kind of mathematics of fracture. Ultimately the thing that's behind it is conflict gone quiet.

What Nietzsche touched on in his philosophy of art, which I think serves as a very serious warning to the kinds of impulses that architects have, is that these kinds of compositons, no matter how beautiful, the quietude behind them, the way that conflict

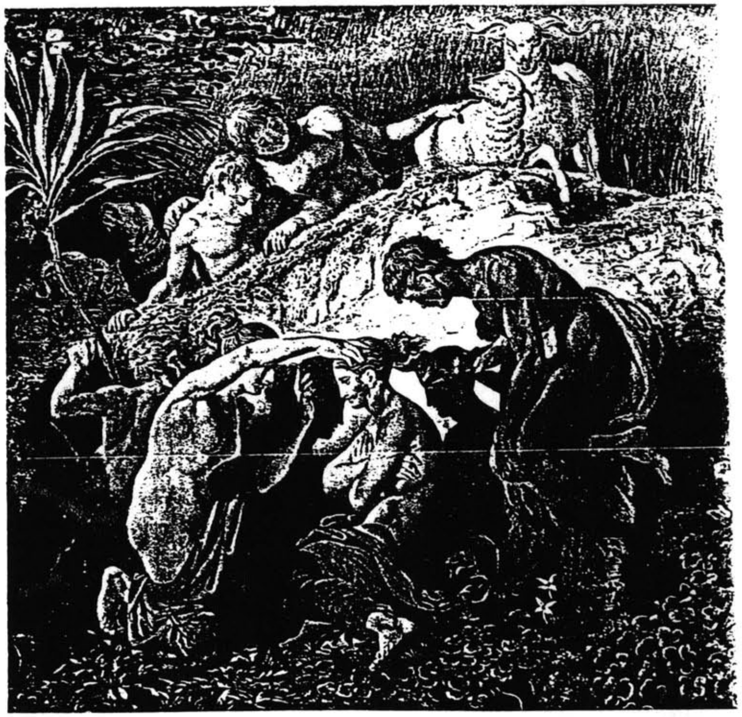
gets settled in its abstract beauties, is essentially a will to power. It may not matter so much in a painting, but it would matter, like crazy, in a building.

The problem in building and in architecture would be that these kinds of compositions leave a residue. The residue that they leave is nothing less then the mind itself that is making them. Having struggled bitterly and difficultly to exclude all external reference and to leave the page encrusted only with an internal kind of reference, what actually is left is, of course, the mind of its maker. And it's a solipsistic representation and perhaps not one worth building, if building ultimately has to be understood as a social art, as a construction of the "us", rather than a construction of the "me".

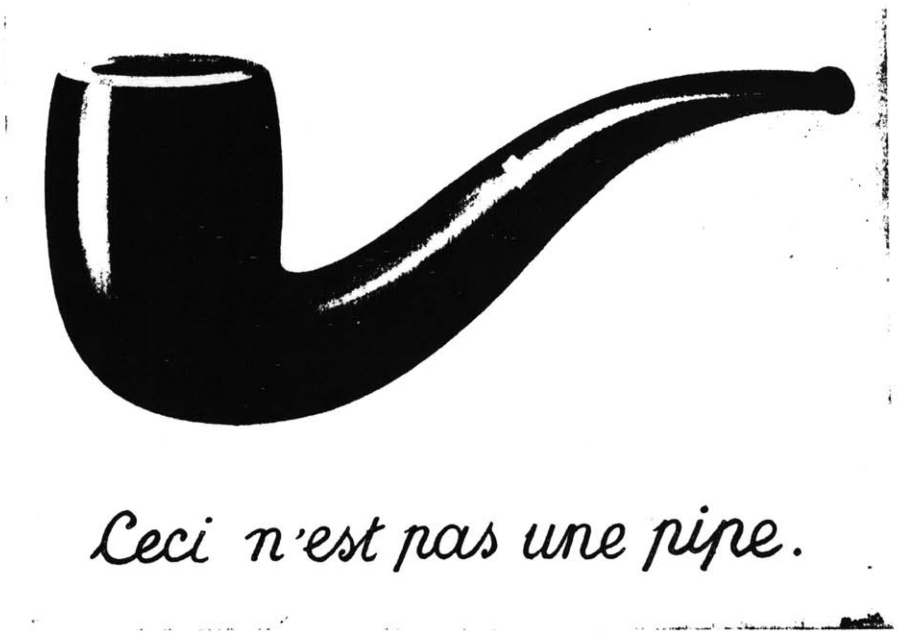
Modernism, as a style in architecture, is inevitably bound up with that kind of impulse. With an impulse of the individual will of the artist, his creative will, providing order in the world. And that modernism is bound up with that sentiment. And that the style of architecture, it being great, it being white, it being peaceful, is actually the appearance of a sense of domination.

It seems to me that our problem at the moment, just to get over four false understandings, four mistakes that we make, we have started to mistake historicism for history. We've started to mistake aesthetic meaning for symbolic meaning. We've started to mistake individual styles for participation in tradition. And we've started to mistake individual creativity for architectural order. And that there is necessary in architectural production a kind of sacrifice or sublimity of the individual worker, the individual architect. There is a kind of obedience involved which a subjectivist culture tends to react rather strongly against.

This advertisement for architecture, as Tschumi calls it, suggests essentially there are certain rules and principles given by history, that our job is to identify and protect in



K. Schinkel: "Der Erfindung der Malerei"


Ceci n'est pas une pipe.

Rene Magritte: La Trahison des Images

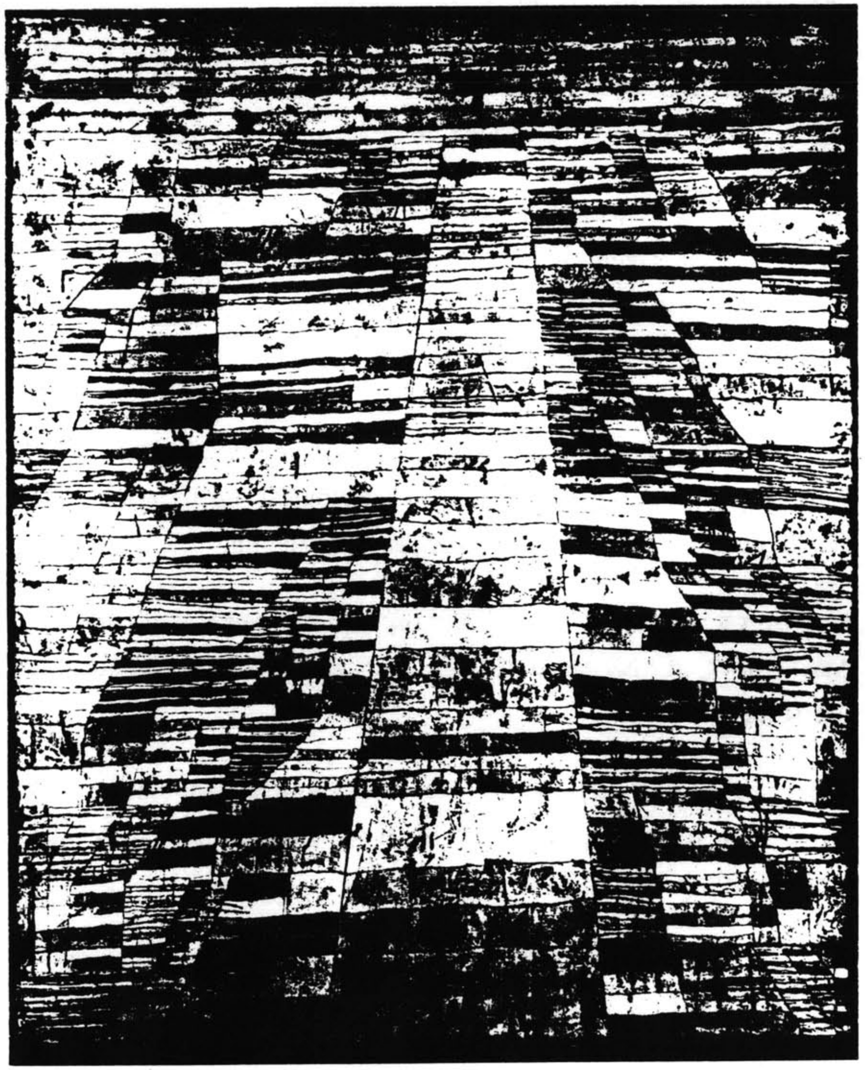
some ways, as much as to break. That the endless quest for novelty would produce nothing. And that what we have to do is to cast our net even wider. We have to understand now what pieces of history come to us which must not be broken, and which pieces come to us which may be broken. And how those are given and formed.

Part of our problem, then, has to see that inevitably what we do, will relate the individual, the figure in the city, with the actual structure of the city itself. And that part of our problem is to understand the way that figure and structure are related, one to another. In other words that one side of the reference in architecture which leads back to the body, and the other side of the reference in architecture which leads outward to the human creation, not to nature as a justification, which would collapse into a mathematical or an idealogical justification, but a justification found in the arbitrary, the things that people actually do.

Part of our problem has to face up to this duality, or the problem, of representation. And I hope at this stage to have brought two slides about representation together on the screen.

The first, on the left, which has been there all the time, is actually by Schinkel, and shows how representation must be taken because that's the source. The reality. The representations come from reality.

The second one by Magritte shows, in the end, that they're a kind of lie. That indeed, that is not a pipe, that is a representation of one. And that the point made by the painting about the pipe and about itself, is truthful, but it's that paradox that a simple instrumental logic has left us with, and we always want to close down. We seem unhappy to live with the fact that symbols will always have a material aspect which will have its own logic. And an aspect to their meaning which will be somewhat more elusive and invisible for us to deal with. And that Magritte, in this



Paul Klee: Hauptweg und Nebenwege

sense, is trying to point that out to you.

Our problem, I think, is to deal with understanding in such a way that we don't use the logic of our productive instruments to determine the shape and the style of what we do, but that we start to understand how our figure, and our representations are made against the structure of representations that are given to us by history. And also that the products of those representations, the city, the environment in which we live, is also a kind of outward sink of reference that is deserving of a certain kind of consciousness and care.

The final slide that I would like to show you is something of a metaphor for me. *The High Road and the By Road,* by Paul Klee. I would like to join that with a quote from Wickenstein:

The road to truth is the road which is straight ahead.

That it's always there, but that it's always closed. And it seems that the more direct routes that a productive logic would wish us to take, are actually the ones that we shouldn't take. Because they rob us of the more interesting and the more symbolic aspects of our own experience. They essentially devalue the appearance of the world for us, and make us look for structural things underneath it as more profound truths. Mistaking those profound truths for the logic of the production that we are actually using ourself. And that they stop us from focusing on the immediate and the ordinary and the sensual.

Oscar Wilde once said, that it's really only the superficial who do not judge by appearance.

Thank you.

JOHN WHITEMAN (1 Feb)

I would agree with that.

It would be kind of interesting if you could devise a kind of architecture which draws attention to itself as it makes the meanings that it makes. And that would actually be a way of having an architecture which is highly self conscious.

It might be quite nice to have a building which as well as being dreadfully solemn about the way that it sets up its ceremonies and its images, it suddenly there's this little quirky voice in all of this that says, "Hey, you're really being taken for a ride." And it might be quite nice.

Q: I'd like to know if you are optimistic, or in an age of information look out in an architectural style.....?

JW: My students at Harvard know me as an optimist. I think we tend to devalue the things that have been given to us from history, so for example, when I am talking about L.A., the idea that the city might be seen as a printed circuit, literally as a printed circuit, and therefore start to use that imagery in architectural composition, and in architectural representations, is something that absolutely fascinates me. The idea that we have grown to distrust the things that are given to us and given around us. If we can actually start to look at those things, when you say "information technology" immediately one tends to think, well, could that be a source for architectural imagery. Well if course it could, but can it be a source in the strict and partial terms that the word technology makes you think about it. Possibly not. What has to happen is an expansion of the kind of logic that's involved in information technology into a more symbolic logic. You can find that in novels by Thomas Pynchon about Los Angeles, for example, where the notion of the city is just that —as an information exchange, and is taken to a paranoiac level. It's taken to a very strange level in that novel where people communicate by dustbins. But in the end, those things are sources of architectural imagery. But in order for them to be a source, you have to reject the strict and simple way that instrumental logic is given to you, and you actually have to start to look the problem of architectural form straight in the face, once more.

The stuff that I'm working on at the moment is involved in how it is that one actually takes dumb material, shapes it for the purposes of meaning, and then holds and doesn't try to close down the kinds of dualities that symbols are always going to

have, which is between their material, their medium, and their meaning. Science in a way, the naive, jumbo version of science that I was knocking is a way of not looking at its own pictures. A way of not recognizing its own artificiality. The problem for architecture is what's at stake is not simply candy making. What's at stake in architecure is representation of a culture. And so until you face up to that, you are never going to get good buildings. And that means facing up to the kinds of representations that you're making and being self conscious about that.

Q: My question is, society's gotten so large, and we are able to travel so fast, there are so many messages out there, can we have a representation for our culture?

JW: That's not a problem for me. It might be a problem for you. The way that I would think of that problem, is that simply the problem is not whether we have it, because it's always there, the question is recognizing it. All that demands is that architects have a little bit more guts about the forms that are given to us. And deal with the problem of looking at them and dealing with them as representations, of playing with them. Yes, I agree it's difficult, partly because we've convinced ourselves that the problem is difficult. Some of the techniques by which some of these things may be achieved are a sort of paradox. Irony is one of the more effective compositional tools that we have. I mean, in Bob Venturi's buildings, he seems to have moved into a very effective phase. There are techniques of composition that can take from what is given in the present, organize it into very meaningful compositions which draw attention, not just to the meaning that they would make, but also to their own artificiality.

Q: I ended up being a little confused about what you mean by "meaning". It seemed to present, somehow, a notion that the form in a building refers to

JOHN WHITEMAN (1 Feb)

Meaning is simply not a thing. It exists probably as a stream of associations that we can make from one object to another and so on. A couple points that I question: One is that if "there is something that is the same, then it is that which is important." That's an amazing assumption that's made by all the technological rationalism. That if the two things are the same, that that identity relationship is the important thing. Whereas the difference isn't. Philosophically, that's an absolutely audacious and breathtaking assumption that I don't buy at all.

And the reason that I don't buy it, is that in the cases that one cites where something is the same, I think that we have to look very carefully at what we see and what we feel. And it comes very closely to your sense of alienation. In other words, the extinction of meaning. That the cases where you can cite where people are actually feeling "the same thing" tend to be like the Salk Institute, which is involved in mysticism of some kind. An extreme sense of alienation.

I'm not knocking that as a source of meaning. But if it's the only kind of meaning that we would push, then we are robbing ourselves of much more interesting meanings where we associate differences and playfulness. And then we are being a bit somber and a bit serious about it. And the price is the price of censorship.

something outside itself. Or symbolizes something outside itself. If we allow that even a non referential painting or building is imbedded in the conventions, or uses the set of conventions of thought which are themselves connected to and validated by certain authorities, or legitimized by histories or traditions, so we could say that it would be hard say that a Malevich, or Pollack, or a building by Hannes Meyer refers to something, but that's different from saying that it's meaningless which I understood you to say at some point.

JW: The question is essentially, in what consists architectural meaning?

Q: Besides what is self referential, it could also be said that meaning--

JW: There are always self referential meanings around in the world, the word "word" is self referential. What 's interesting about self reference, is how it's impossible on its own terms. For example, the word "word" refers to itself. But it also refers to every other word. It has an external reference too. And the misguided thing in architecture, I think, is not so much the search for self reference, which is actually a search for a kind of strictness in composition which I find very healthy, but the unacknowledgement of the external references that you will inevitably have that come along with that. Ultimately in our society what we do is to put those in the unconscious. We don't admit that those external references are then carried in our artistic projects through the project of the unconscious. The problem for such a rationalist person like me, involved in philosophy as I am, is that that might be very dangerous, which is that I would always be very worried that those meanings are not necessarily the meanings that we might like. The more specific answer to the problem of architectural meaning is that buildings can be made to refer to almost anything. What we have to do is to decide to what we would like them to refer to. They could refer to things that don't exist. They could refer to novels. There's nothing

logically restrictive about a medium that cuts down the extent of the external reference that you may make. What's interesting about architecture is partly because of its temporal continuity is that its external references tend to be somewhat shorter lived than the building. And that does tend to be a problem in architectural production, because the meanings that you make don't stand for all time. And there's another set of discussions than the ones we've had tonight which have to do with the falling away of external reference.

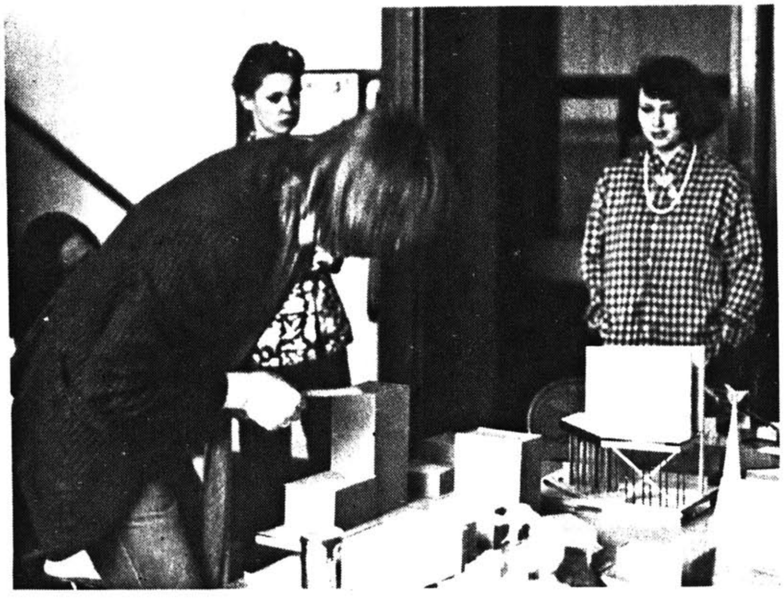
Q: These external references, are they necessarily figural?

JW: That's a good question, because what counts as a figure? Your question comes with two senses to me. One is the historical sense of can we do it now? And the second is, is it logically possible? The answer to the logical question I think is much easier. Anything that actually achieves an external meaning is a trope, a figure. We mistake whole objects for the meanings that they mean. So for example when you look at this as "glass of water", you did have the option of looking at it as "plastic bubbles", but the object that you take it for, comes because of its meanings and the use that those meanings have in life. And so, that's a figure. If you follow that discussion, what that means, the way we cut architectural appearance into structural vs figural is rather a stupid thing to do. And the recovery of reference in building would actually involve the closing down of that distinction. And ultimately anything can be taken as a figure. The problem is whether the intention can be perceived or not. And then it would be left as a figure.

Q: Why should architecture represent?

JW: Primarily because of the impossibility of not doing that. Any act of construction, will at the very least, reveal the mind that made it. And if that is given to a person, as architecture is essentially a kind of gift, then the mind that made it had better be

worth living in if that's all that's represented. It's a serious problem which is that the project of self reference in the end as the rigorous exclusion of external reference goes along, the only thing that can then be left to be represented is the internal mind that made the thing. And as architecture is conceived of as a gift, then that thing given away, I'd like to know that I'd like to live in your mind.



MINDY LEHRMAN FOR ZAHA HADID STUDIO (2 Feb)

We had Wolf Prix for about a day and a half, and we did all those models and some of the drawings you see here. He wanted his part to be entirely separate from Zaha's part. With Zaha, we tried to respond to what we had learned from both the lectures.

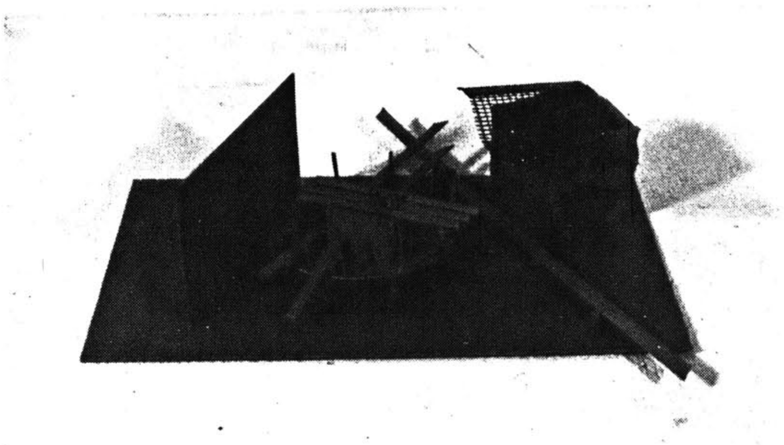
A few of the points I think come out are that about 4:30 two days ago we all got to a point where we didn't feel that any individual of us was compromising too much. That we could collectively make one thing. And that especially in the time that we had it would be wiser for us to put all of our efforts into one place. And then if we had time later on go off as individuals and elaborate on them. I don't think we got to the individual thing.

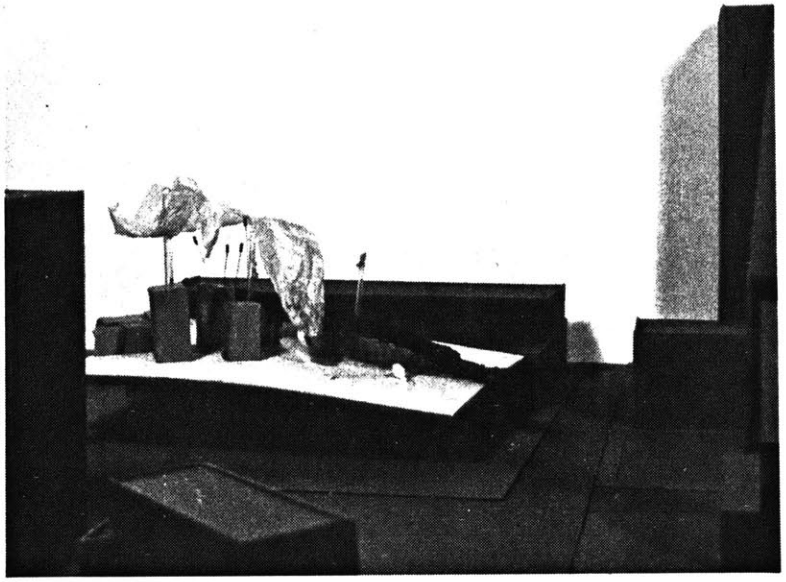
Our piece is meant to be an analog, more than specific. We started with the idea that there was a passive and an active part to the program. We also agreed informally that Central Square needed a square, still taking off from the newsstand project from the first day.

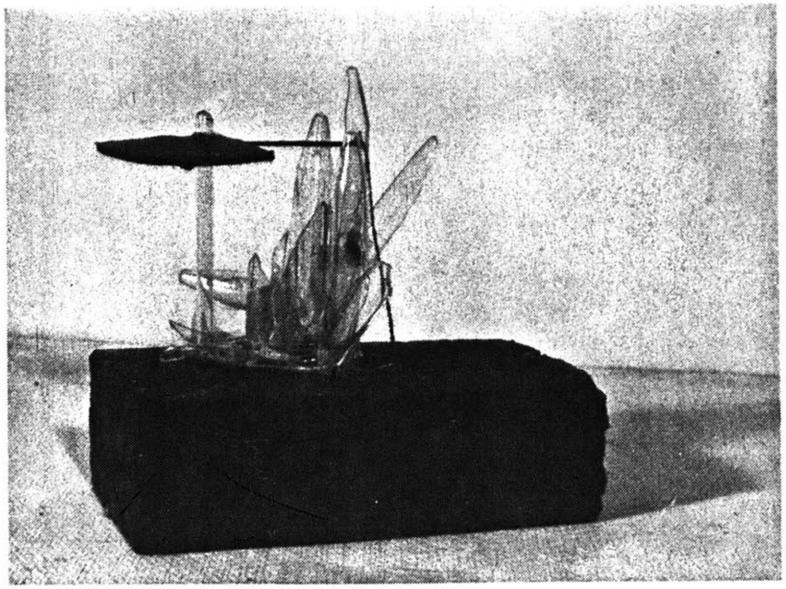
We wanted this to be a distinct place but not isolated from the rest of Central Square. The idea of passive and active was a little bit ambiguous when we started to look at it because we thought that the activities and

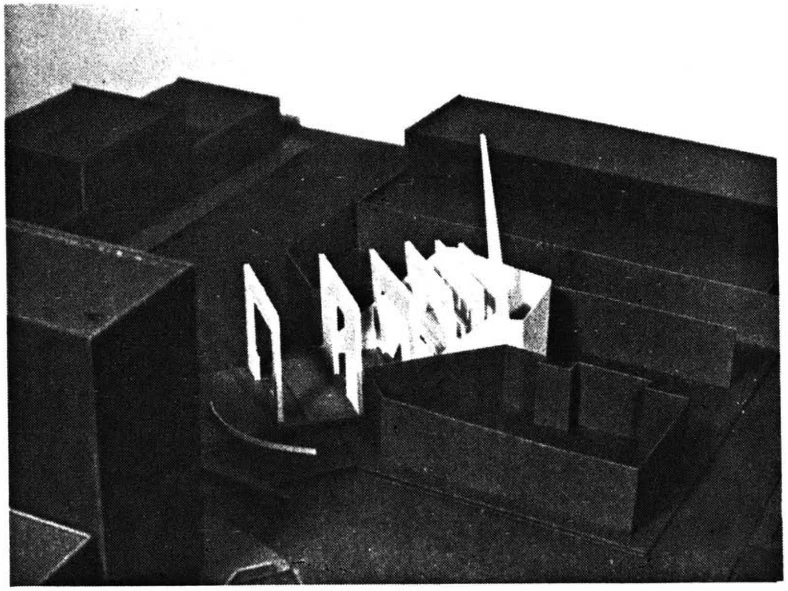
PRIX/HADID STUDIO

Zaha Hadid teaches at the school of the Architectural Association in London. Her work is amazing, less a tangible rendering of reality than a provocative inquiry of possibility. She recently won the world wide competition for The Peak in Hong Kong. She has lectured widely, and her work has been published in *Progressive Architecture, Architectural Review,* and other journals.





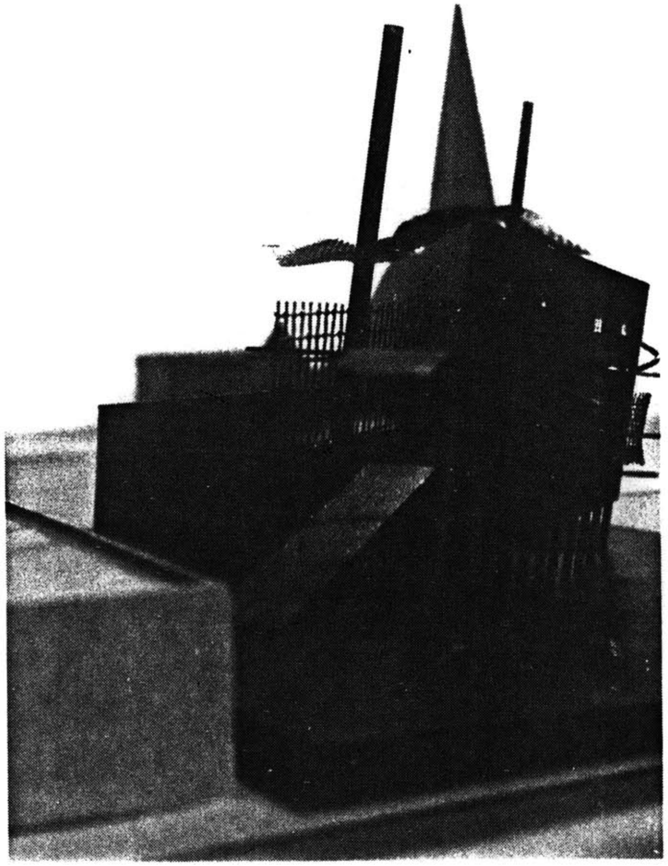


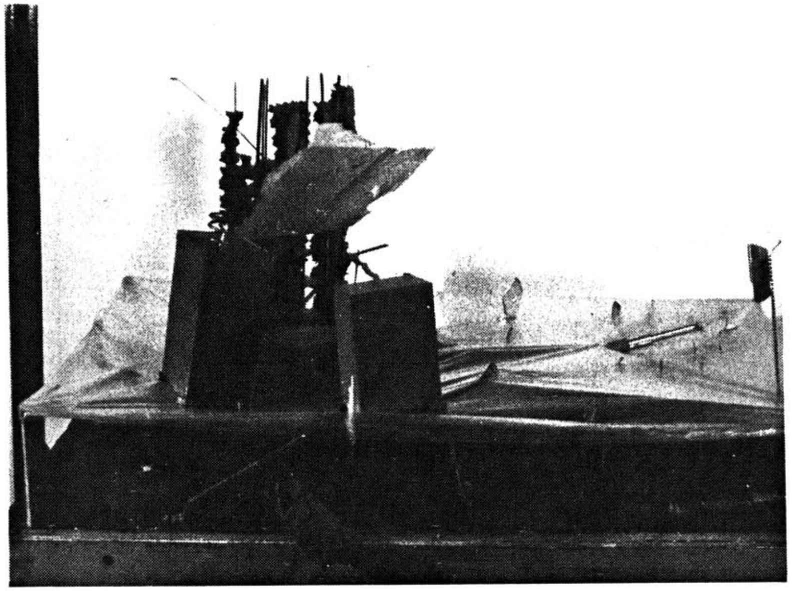


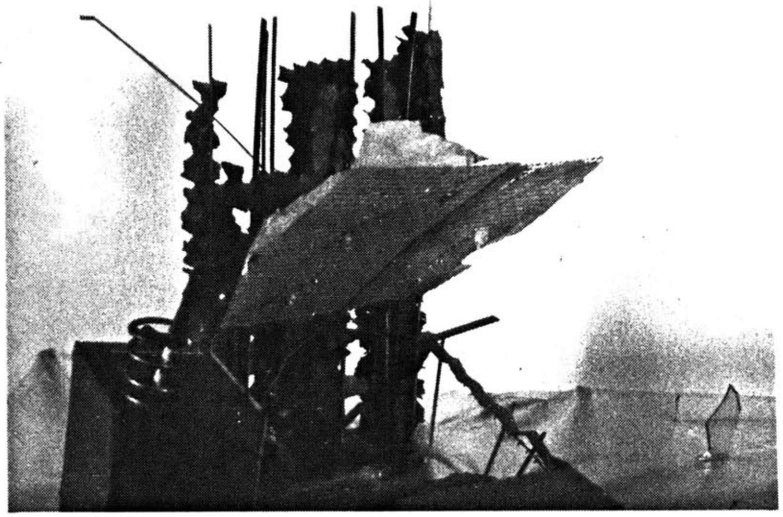
production would be an active thing, but in fact, the consumption or the looking at what was produced was also an active thing.

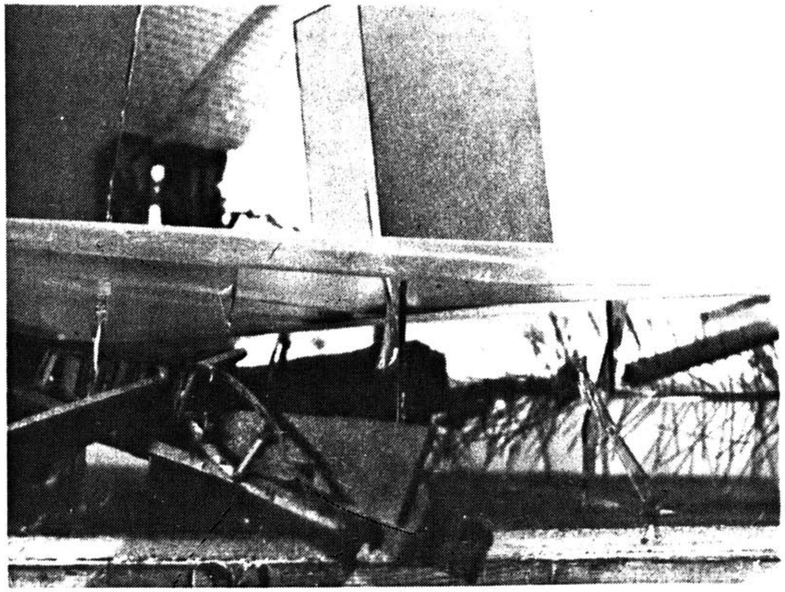
So we very quickly decided that we would enclose the square but not with any very strict gestures of enclosure. I don't know how to start talking about our piece with general terms without being very specific about our project.

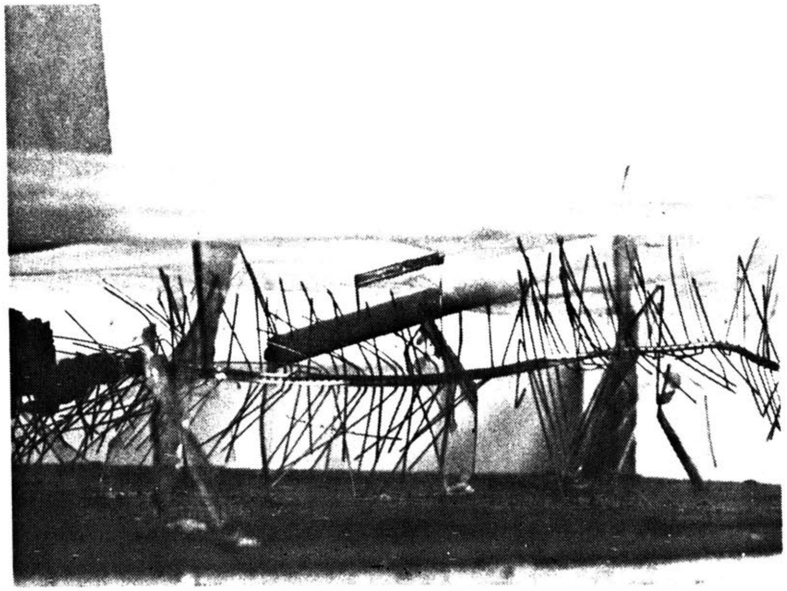
Part of our intention was to make the street a place of theatre and also to bring part out. We had an interior theatre down the street. We have many ways for our information to get out to the public. Not only just one gesture, it's an extremely open place. Acceptable and accessible from many different places. We have more or less an informal structure here where all the productivity takes place. Like monk's cells but in a vertical situation. From the back we have places where the public is very welcome, and we added to the program the idea of the nightclub. The nightclub we put underground adjacent to our tall structure so that when something would happen that could be performed within the nightclub, that would be something that would draw the public to it. We also gestured out to the tallest building around. We put a community center on the top with a satellite antenna. We put a projection booth here. We put a theatre down the street. We used the church as part of our thinking and





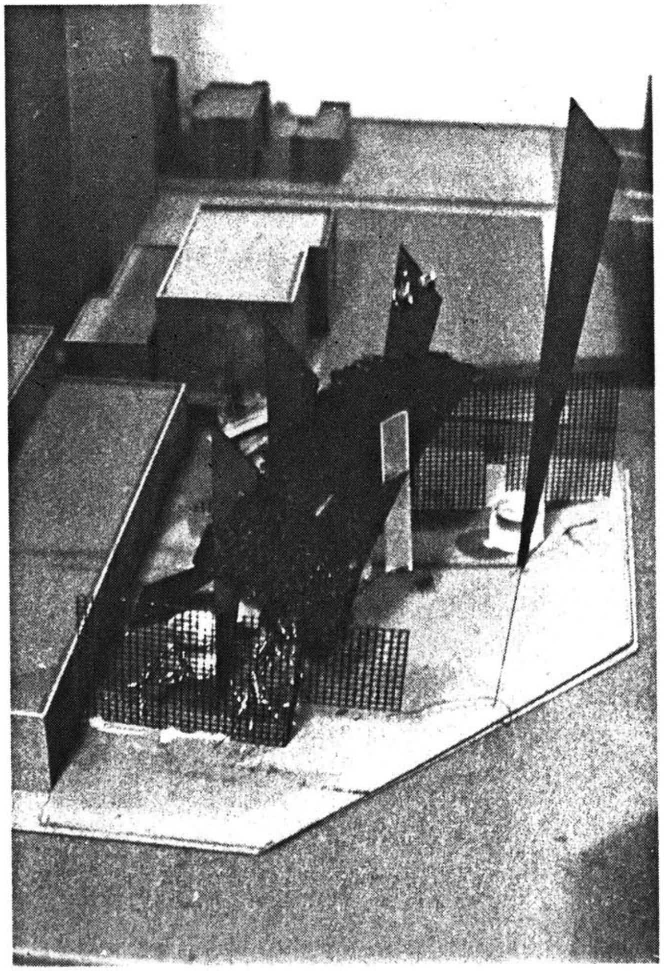


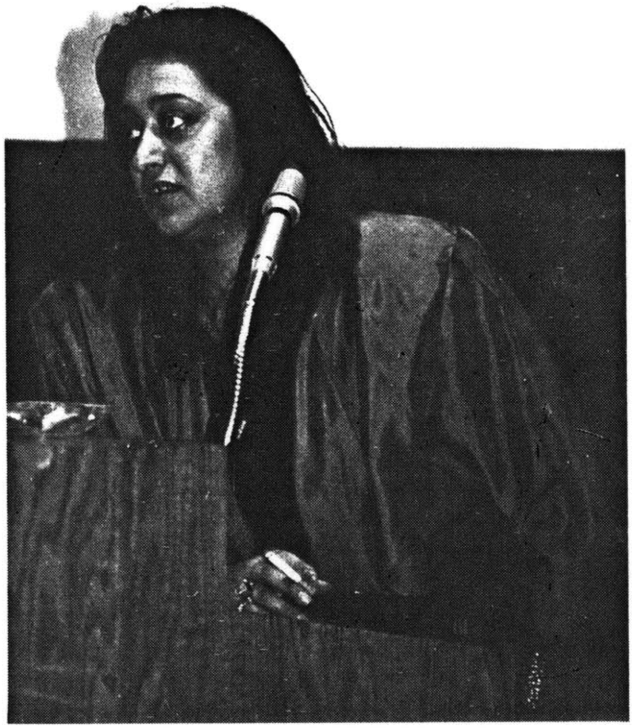




that was a pivot for some of us. We made this a comfortable armchair with a lot of openness.

Our process was a form of information that could be made a collective expression of very multiple personality types.





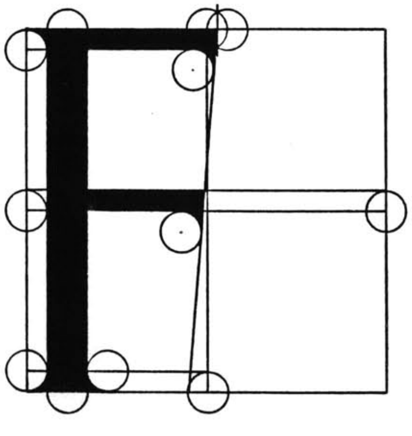
ZAHA HADID

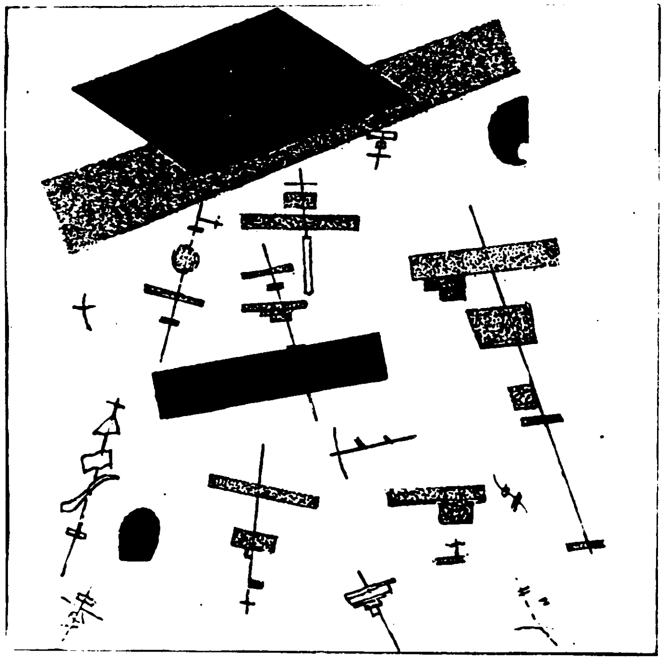
teaches at the school of the Architectural Association in London. Her work is amazing, less a tangible rendering of conventional reality than a provocative inquiry of possibility. She recently won the world wide competition for The Peak in Hong Kong. She has lectured widely and her work has been published in *Progressive Architecture, Architectural Review,* and other journals.

Modernism in the late 20th Century and its Implications

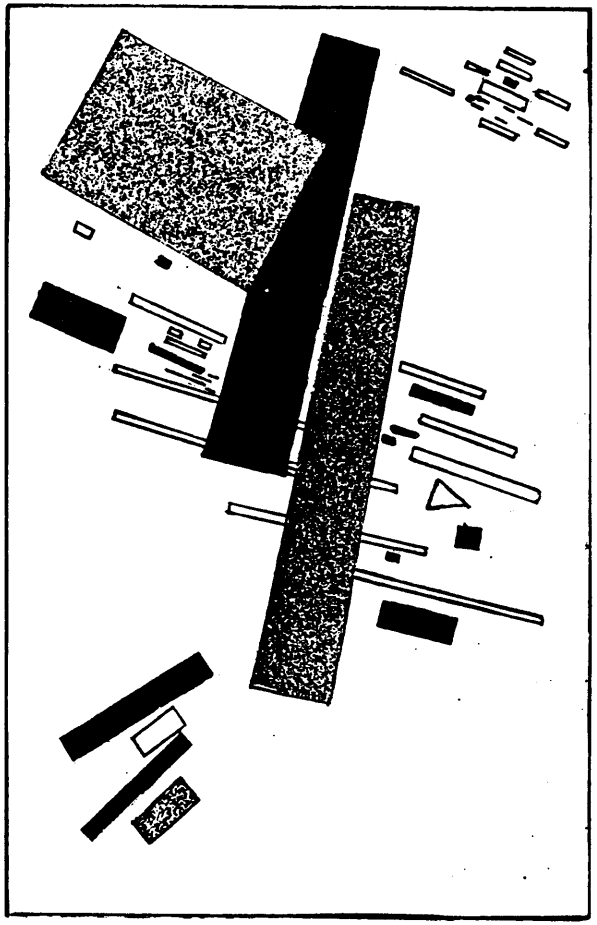
AN ARCHITECTURE OF SUBSTANCE

31 Jan. 1986





Kasimir Malevich



Kasimir Malevich

Zaha Hadid
31 January 1986

Introduction by Jane Gitlin

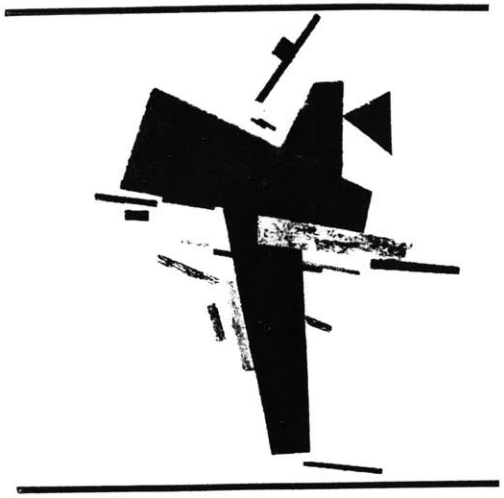
This is not a lecture on the history of modern architecture but I think it is very important to mention that without these precedents and the early investigations of the modernists in this century, this work would not have been possible. This is not really a work which was started by me but was started by O.M.A., Rem Koolhaas and Elia Zenghelis. I was a student of theirs many years ago at the A.A. They really directed me into this direction, so I cannot really claim the credit that it was invented or created by me.

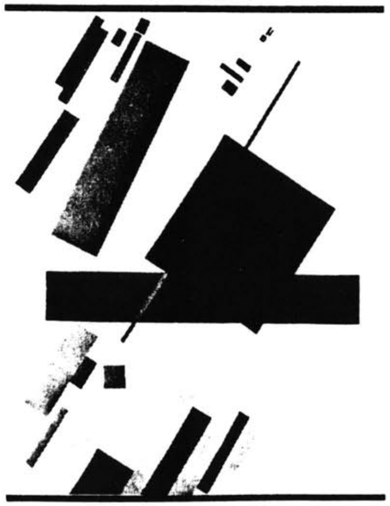
Office of Metropolitan Architecture, Rotterdam

Architectural Association, London

It was in my fourth year at the A.A. when we were given a project to look at the Malevich Architectonic. The idea was that there is a kind of possibility of implementing or imposing or superimposing this method into architecture.

These are very early Suprematist drawings. It was only through the tectonic, these models, that I once, and on a postcard, superimposed on them and had them skylined. They implied that if they are given a scale and a location they could become an





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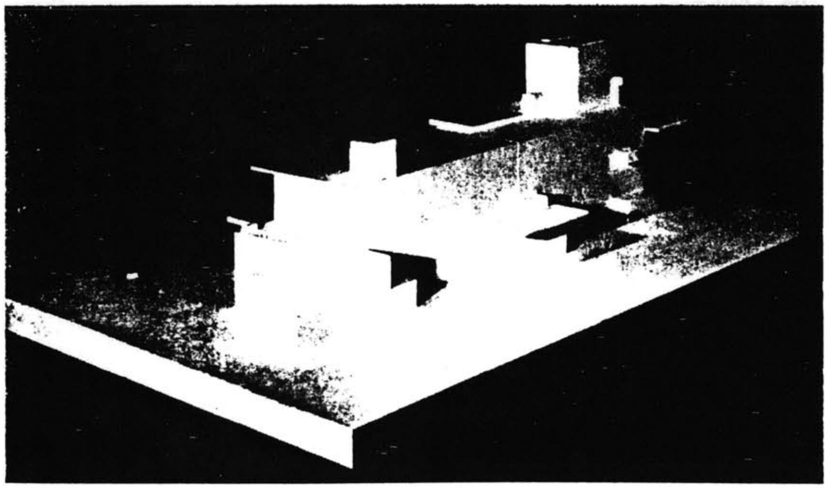
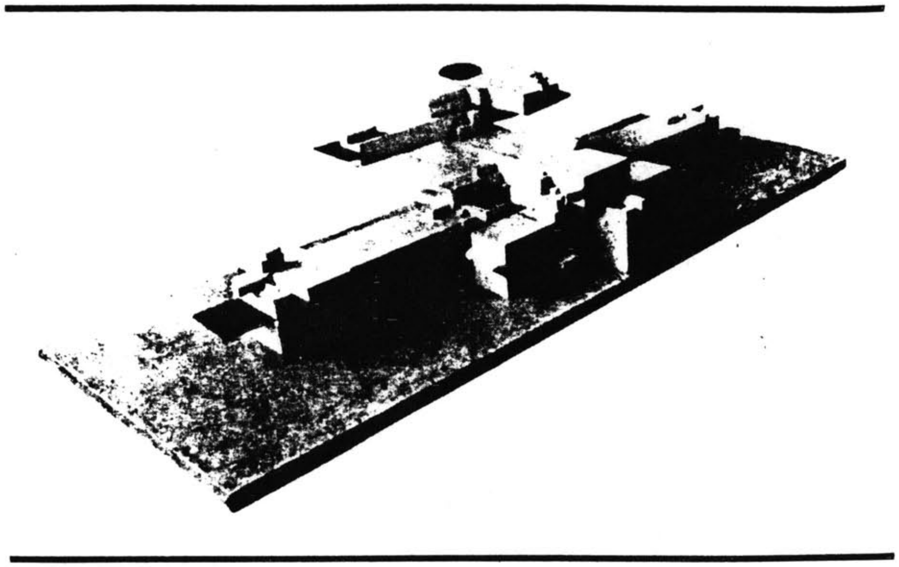
Kasimir Malevich





Kasimir Malevich: Tectonic

Kasimir Malevich: Tectonic

architecture.

The reason why the Russians and O.M.A. excited me a great deal is because their kind of premise has never been yet fully tested. The modern project has not begun, and with that premise, and in an atmosphere of complete hostility from ten years ago from the historicists, and even more radically now. In England, unfortunately, they have just discovered post-modernism. So it's a reimportation of things which they have once exported. Which is also another irony.

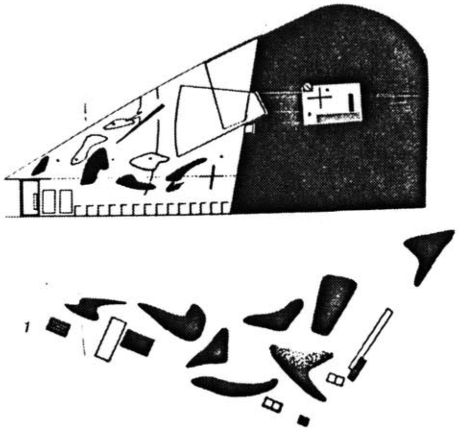
One of the tectonics, a horizontal tectonic was given to us as a brief with a site and a scale, and invaded with a program. The result was a drawing where the tectonic was placed on the Thames and was declared as an entity and invaded horizontally by a series of layers which were the specific program. The Peak has a very similar brief to this.

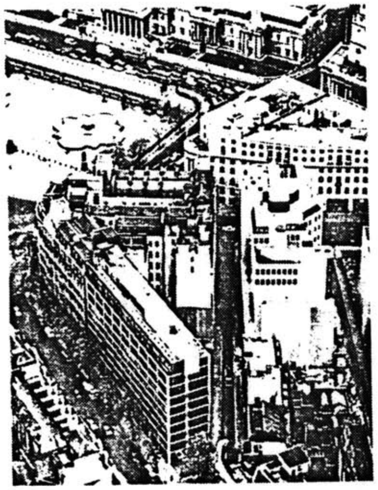
The injection of Suprematism into architecture really came to life by two people: El Lissitsky and Velamir Khlebnikov. The Russians were one of the few in the early twentieth century who actually paid attention to the program. And one can say that because of political changes in the USSR that was made possible. So because of a revolution which occured it was impossible to actually create a new program and invent a new brief for the new population for those who will be using it.

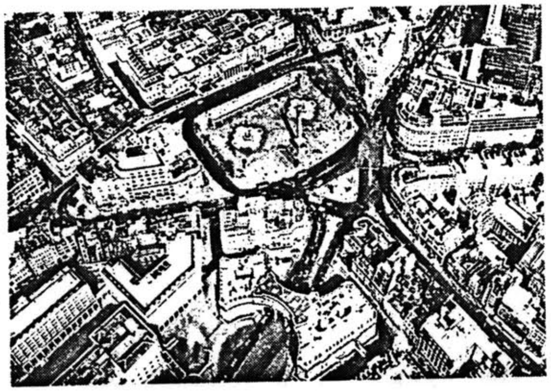
It was Khlebnikov who actually took this idea of Suprematism and dipped it into architecture in the most optimal way. And in Europe simultaneously, there was the whole business of the skyscraper, the new skin. The marriage of technology as a new thing in the twentieth century with the new ideas began to merge together. But unfortunately every time that it is was going to be possible to actually implement them, these things were aborted. It was on that premise that we took off in the mid seventies to understand modernity as a cultural backround for this century.

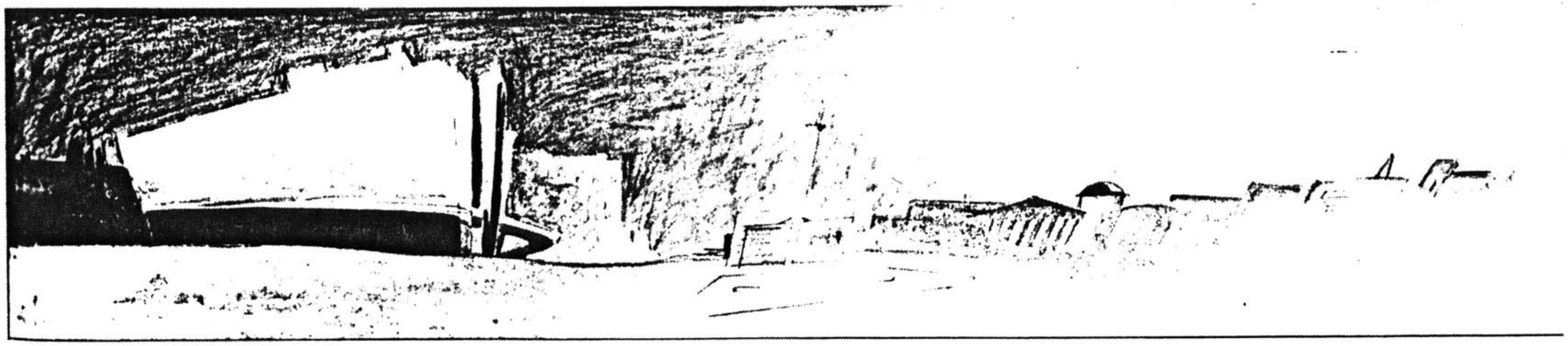
"Future Planits for Earth Dwellers"

I am now thinking of material: white opaque glass, concrete, tarred felt, heating by electricity, a planit without pipes. The coloring of the residential planit is predominantly black and white. Red, black and white in exceptional circumstances, it depends on the tension of the state's powers and its weakness in dynamicism. The planit must be universally tangible for man, inside as well as outside, the planit is as simple as a tiny speck, everywhere accessible to the man living within it, who, in fine weather, may sit on its surface. The planit thanks to its construction and system will afford the opportunity to keep it clean; it can be washed everyday without the least difficulty, and thanks to its small stature is harmless. –Malevich, 1924.









Views: Trafalgar Square

Early sketches: Trafalgar Square

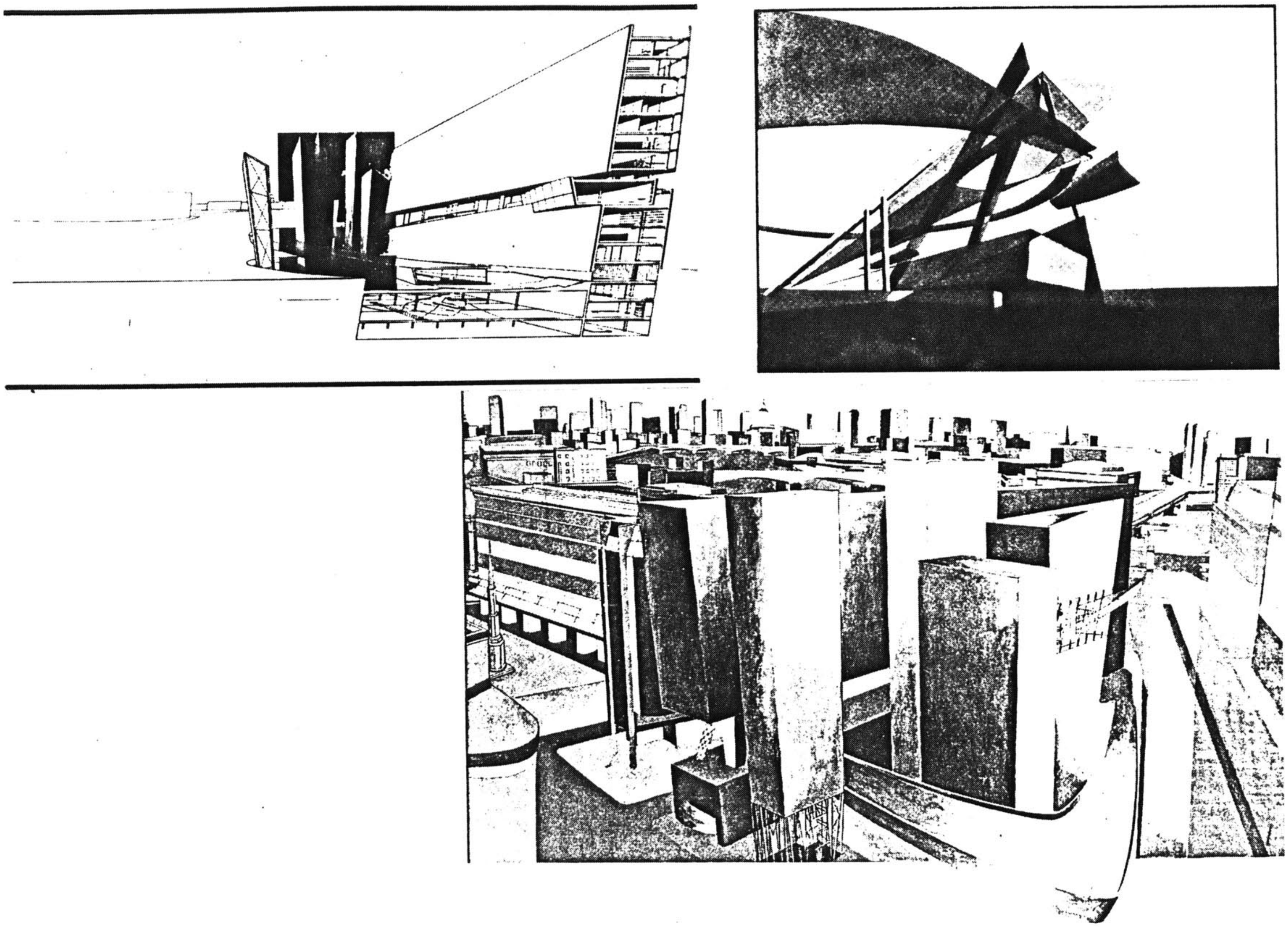
In terms of planning and the creation of a new urban space, the irony of this is that many of these things were never fully tested in Europe. They were imported to America and parts were implemented in Manhattan. Rockefeller Center has the most intense programming witnessed to date. Radio City Music Hall. The kiss of death in America was due to the use of the curtain wall and applying it everywhere. The idea of the skin became in current time the language of the post-modernists: The notion of pastiche, that nothing has to be what it is, it could look like anything else. And one should not forget Brasilia.

Some recent projects:

Living in England is very frustrating because they won't allow you to *do* anything. So, I thought "well, there's a trick. If they let me invade the rooftops maybe it won't be so bad." So we went on to find every kind of available rooftop in London which one can build on. And despite that, we came across a lot of resistance.

The whole business of rooftops is that it has its own boundaries and its own kind of context. It's not a very new idea doing a penthouse, anyway. But I wanted to do somethng in London, and it was getting very frustrating. This was a very simple project: a sandwich on top of a building. Unfortunately it was in Belgravia, and no way can you do a thing. It was a sandwich between the existing roof of the building and a new roof above it. It was very simple, just one purely glass wall. The resistance was, why have a glass wall? It's wet and dreary. So that was the end of that project.

The next one was done for a competition in London in Trafalgar Square. The Square has caused a great deal of controversy. Not because of this particular competition, but because of another one which was the extention of the National Gallery, which was won by Robert Venturi only a week ago. That's why I said the British only just



Trafalgar Square Competition

discovered post-modernism. They call it a square but it's really a roundabout. If you're a tourist in London or anybody who wants to use it, it cannot be used because there is nowhere for any body to go to. You get sandwiched between traffic. The only people who actually use the square are the pigeons.

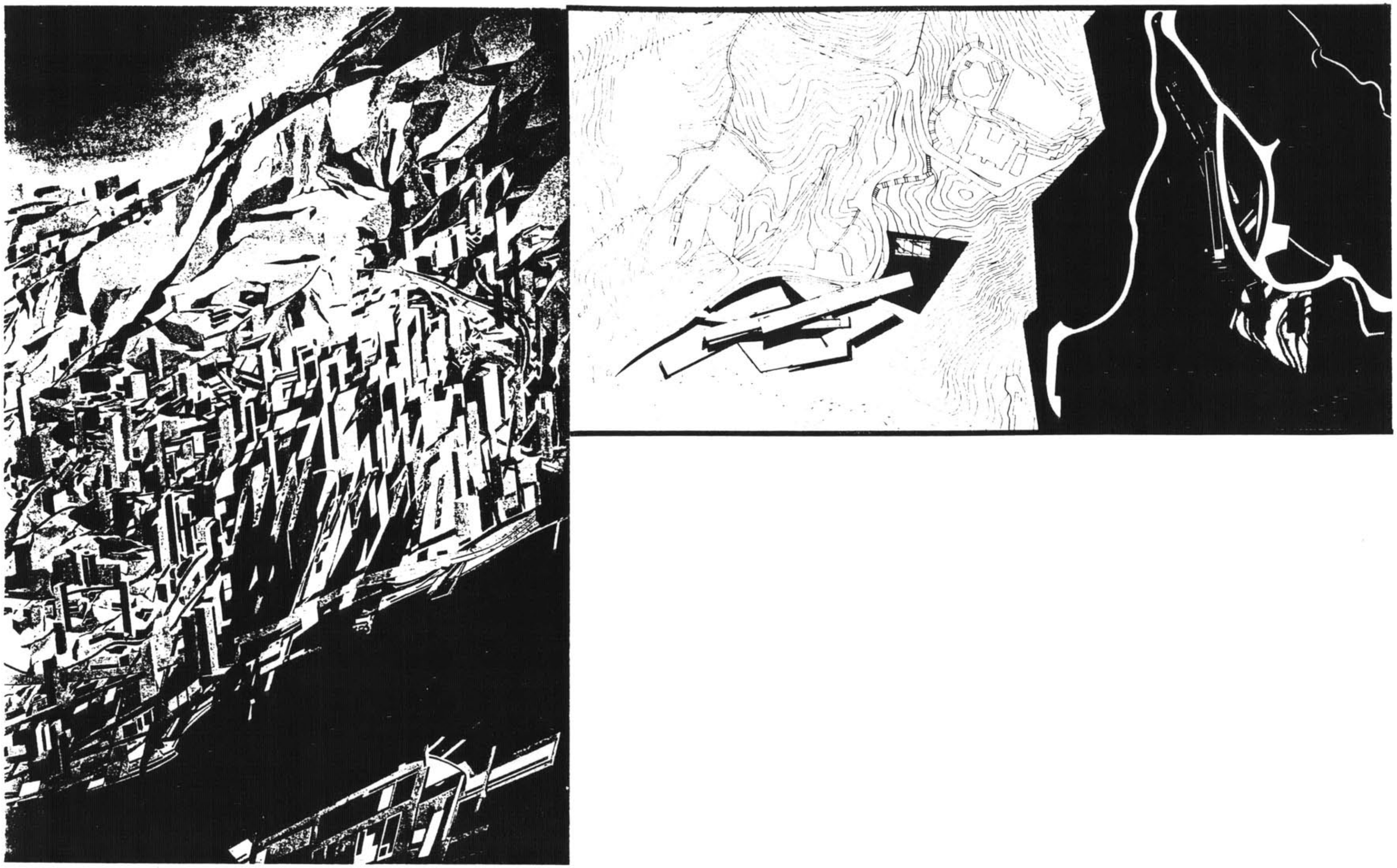
We decided that first of all, the square is completely unseen if you are coming up Northhampton Avenue. Currently in London there is no need for massive office space because hardly anybody works. What is important on this particular site is really to declare it a civic space, so it is really necessary to actually release the land and to point out the buildings on this site which are very specific or are unnecessary.

The interesting thing about the square is that everytime we moved around the square. the site changed. That gave us the implication that the site is partially fragmented.

It's very curious that unlike some places in the United States where buildings have a kind of public quality, in England this hardly exists: That the government or the developers see any virtue of declaring the grade, or below grade, or above grade as a public zone. It became clear that the public space could not just be on the ground. It had to be on the ground, sometimes below ground, and eventually became a unit of the building over here.

This is the slit which is public, which is like an open deck with all the public facilities, so it becomes an elevated landscape. The ramp which has whatever is necessary for the square, information and so forth goes up onto that. And below grade are all the public facilities. These are the towers. And the building, the top part of it is all glass, the back is clear, the front is vitrolite and the base is rusticated.

For the Milan Triennalle, I had the misfortune of being allocated in the historic



Site views: The Peak

section to do something. I don't know why, because maybe because I am an Arab and I can do tents. I was responsible for cushions and textiles. On that note I thought, "I can't do that, do you mind if I do it in plaster?" And they said "Of course."

For this building we were supposed to do an installation which is about twelve meters long by three or four wide. And it is to do with the comfort they wanted in tissue, meaning textiles, and the idea of comfort in the twentieth century. Given, if this is the podium where this room sits on, the podium is the plan of a house. This became an extrusion of one of the rooms, and for the exhibition purposes it was extruded out, and is always seen in perspective from the plinth.

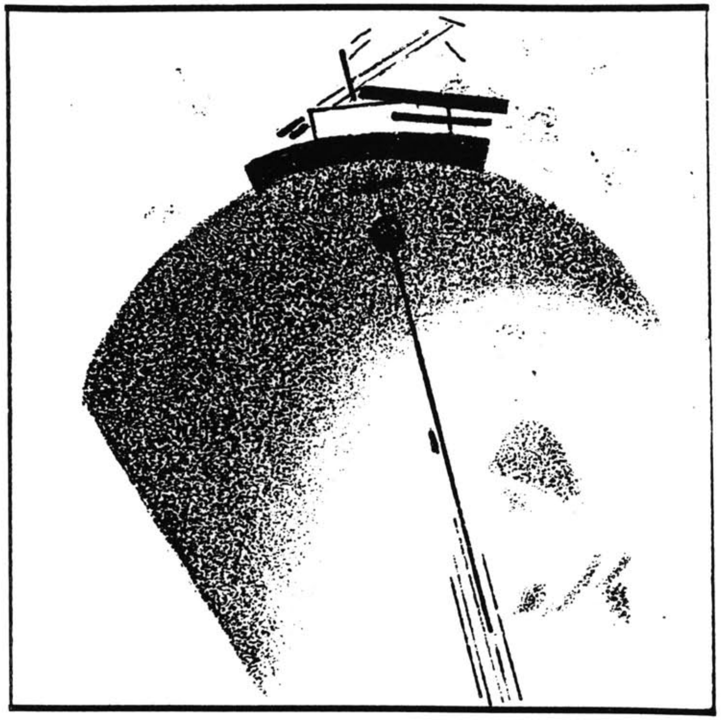
And finally I'll explain **The Peak** in more detail. This building can not be understand, nor could be built, so we were very excited by the fact that the computer actually understood it. And took us no time to tell it.

The front of the island of Hong Kong is made of purely fabricated ground or infill. And what you see behind it is not really very tall buildings, they are on the cliff. So you have the shoreline, you have the mid levels and then there is a kind of drop, and the site itself is right at the top.

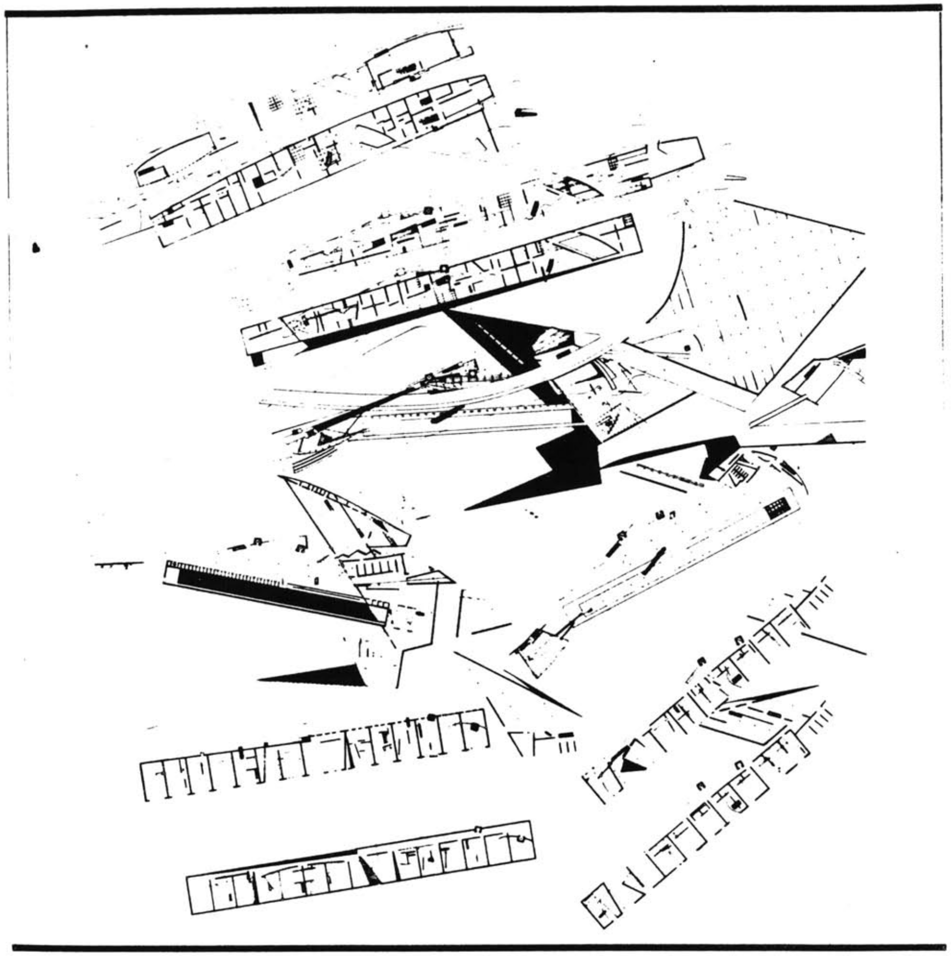
I felt that the site, although elevated, did not have a kind of rural quality, but it had a kind of strange quality in the sense that it's related in terms of spirit to a very dense urban condition. But in terms of siting it was removed.

What was also important in the brief is that the view is significant from here. I went to Hong Kong many, many times and every time I went to the Peak it was in fog, so I discovered that the view has no importance whatsoever. Truly!

What is also true is that the view in front of you is never interrupted, so was not



Kasimir Malevich



Plans: The Peak

necessary to build more towers on the peak, but it was very important to do one building. The given site was three sites, and the program was designed as a brief for three buildings. One was supposed to have housing, one a club, and one a hotel. It was important to amalgamate the three sites and declare them as one.

Of course, we cheated. We were only supposed to be three storeys high, and this building was about eight.

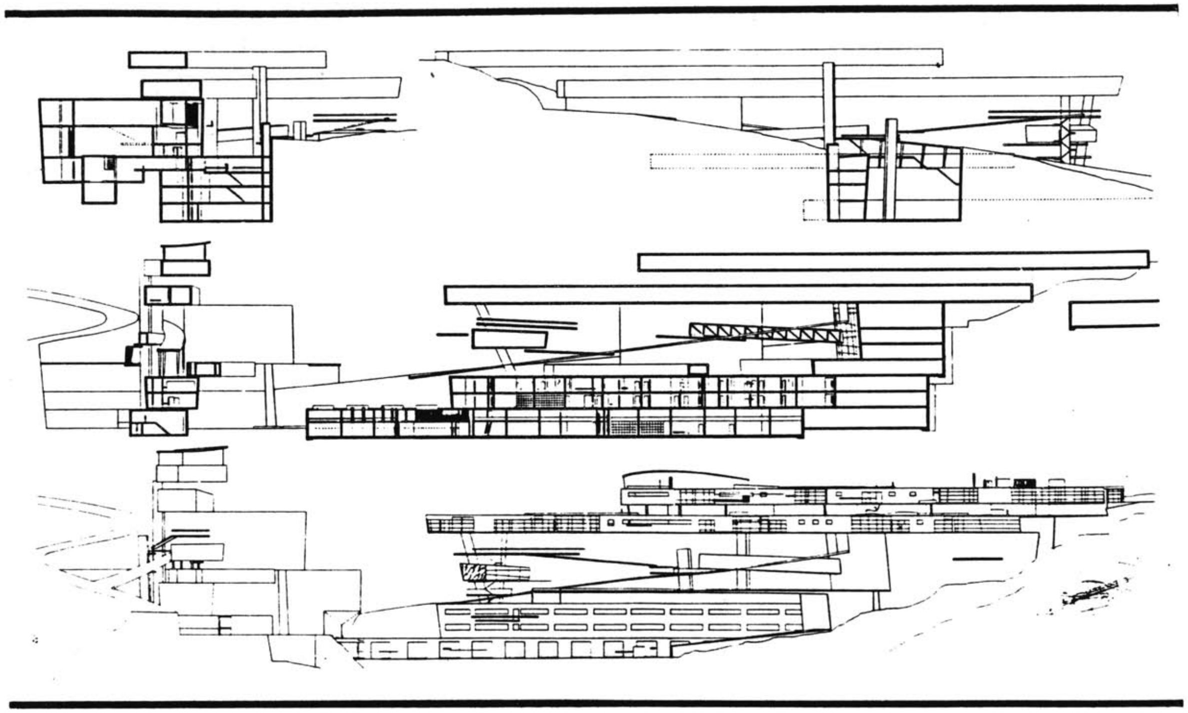
If you are given the slope of the land, and you inject it with a building which is more like a horizontal skyscraper, wherever it interferes with the land, the land itself changes. So it became necessary to excavate it. The rock which is blasted from the mountain is polished and clad a new part of the building which is called a man-made mountain.

As you remove the land you replace it by a series of like geological plates, and they became a series of beams which sit on top of each other to make a final composite which is the new geology of the land. A modern geology.

The elements of the project: the first beam, the second beam, the pool which straddles from the man-made mountain to the deck. This becomes a new urban space, which is not a square surrounded by buildings, but is actually a space that is vertical, a void open to the air. The top two beams are the apartments. Each specific beam has a specific program.

These drawings do not illustrate the reality of things, necessarily, all the time, but are done as investigations of the site, and telling the story of this project.

I was telling some students this morning that I was not much liked when I declared a few years ago that I don't like nature. I have to elaborate on that. I don't like shrubbery. What I mean is, I really don't like picturesque nature, and I think that



Sections: The Peak

one can manipulate nature in such a way that it is not necessarily disregarded, but it also does not become a romantic notion that you cannot build on it.

The shoreline is very dense, as you lift up these buildings they fragment, and as you move further up it becomes predominantly the rock. A British explorer many years ago went to the peak and threw confetti which was shrubbery, and so it's green unfortunately.

So if one goes through the layers of the building, first beam which is the studios, over that are twenty apartments which sit on top. The interior of these apartments vary completely throughout the beam, and on the second beam they are supposed to have maximum flexibility, so some of them can have their floors moved and they can become a kind of a maisonette on two floors. Over that is the exercise pool. So as you lift throught the void, the ramp which links you to the land, the gymnasium, and this is where all the kind of hedonistic activities of the club take place. In the void there are a series of suspended platforms which can vary from diving boards to places where people can rest or eat or read. One of the last beams which is a series of patio houses, more like a kind of courtyard housing which is on this last beam which is to do with very private apartments. This rests on the top piece of land. An open deck, another deck in the air between the last two beams, and then finally the last layer. So all the program is contained in these beams and on the top are these two parabaloids which have two public rooms, one for dining, one for living.

And this is the new geology, which we called the Suprematist geology, which are all these pieces which make this project internally all composited into one plane. So this project is really made out of two events. One which is like a snow storm in reverse, which is the program really migrating from the city. And they clash with these beams which are coming from god knows where. So as these two things interact: the beams

☐ You are known specially for your drawings of architecture, where you combine virtuoso techniques with the historical suprematist idiom and that of electronics. How do you situate your work within the architectural panorama today?
It is not for me to place my work in the architectural panorama of today. What I had hoped was that it might be understood not on the level of aesthetics or graphics but, more importantly, as the implication of such an architecture at this moment in time. I would like it to be seen as work relevant to the latter part of the twentieth century, the projected territory of the next one; in the significance of modernity beyond its formal implications and the emphasis on the programme as the only vehicle to explore future territories in architecture.

You teach Architectural Design at the Architectural Association in London. Do you think architecture can be taught?
Facts could be taught but thinking cannot. For me teaching is a learning experience and that is why it excites. Our role in it as teachers of architecture is that of directing and guiding future generations, to the understanding of architecture, the developing of ideas and ultimately to the implementation and execution of these ideas. Design is a philosophy and can only be self-taught.

You have just won the Hong Kong Peak Competition, one of the most important to be announced in recent times. Do you feel fulfilled in your drawings or is your problem building?
Drawing is a very exciting and interesting medium, the one I enjoy most in architectural representation. Let's say the one I can manipulate the most to date. It is not only used to illustrate architecture and describe it but through it one can explore territories of design, and it can also act as a way of telling the story of that architecture. As for the Peak, ultimately to build it will be most fulfilling and rewarding for it certainly was never seen as an exercise in drawing ingenuity.

Does design interest you? Do you consider design and architecture very different to each other?
Design is an aspect of architecture and at times cannot be separated from it. Design is a system of thinking which does not only rely on talent for there is not substitute for intellingence. Without both there can be no architecture.

Mention a few phenomena, things or persons that interest you.
I thought the age of phenomena was over or am I wrong? This might seem odd, but quite frankly the one thing that intrigues me most is the function of the human brain as a guiding force.

Excerpt from Domus, March 1984

with the program, it is to do with a metropolitan condition and a way of life which is not rural.

I think what is one of the most interesting things about briefs for competitions is the understanding of how one can actually manipulate the brief and change it. You don't have to necessarily cheat or break the rules, just slightly twist it.

Thank you

Questions:

Q: As you progress and construct buildings, will your projects simplify just by the mere practicalities of making things?

ZH: There is a distinction between simple and simplistic. Simple is always more difficult, and simplistic is more naive. I would like it to be simple. One should not compromise. This was the kiss of death for modern architecture. A lot of the projects that were done in Europe after the war, testing certain modern ideologies, and they were done very well, I don't think they had the reputation that they have right now. I don't think that someone should make the same mistake again. So I hope not. Obviously it will change, by physical presence, if they ever get there.

Q: What is the current status of The Peak?

ZH: The client has disappeared, so there's no status. Unless I convince the mainland Chinese to do it which is highly unlikely.

Q: What are the techniques used for drawings?

ZAHA HADID (1 Feb)

I think to go back to the Russians, one should not forget politics. We should not discuss it as a purely formal exercise. I think it's rather naive on your part to say that. Because I think politics play a very major role in this. And to go back to the difference between formalism and functionalism, I think at this moment in time is very important to be able to marry these two things together. You cannot really do one or the other. And I think they failed in the early part of the century because they were very myopic, and they were very biased towards one tendency. And then it was very necessary that they actually stripped from architecture any kind of paraphenalia. That kind of thing then, which was experimental, maybe, is not so bad right now. And I think one has to look at it in a different light.

EM: Are there political connotations in the work you are doing now?

ZH: Yes, of course there are.

EM: What are they?

ZH: Well it doesn't have to mean that I am a communist, but I'm also not a conservative. I think there is a big area in between. I think there is a major cultural change in this part of the century, and the latter part of the century which, whether it is perfectly recognizable or not, implies there is a different change in architecture. I think that is what modern architecture is all about. It has to do with this kind of acknowledgement of change in this century. And I think that allows for new programs to really be rewritten and invented. And that is not very political in a very black and white sense, but I think it is a very accurate description of this period. Unlike that in Russia where it was very obvious political change. Right now there is a major cultural change.

I went to a lecture by Stern given at the AA and he said that the reason that Constructivism collapsed, was because it did not represent a political style. And hence, Post Modernism implies that it is Reaganism.

And I think it is a very dangerous game when one draws these lines. It has become that biased. If you are a modernist you are anti the current government. And it's a very unfortunate situation.

And there is another kind of politics, which I think is much more significant, which is to do with the way people live, which is totally different. Hence it goes back to the idea of these buildings becoming redundant in terms of their usage. And even more so that one should not just regurgitate old forms to inhabit them again.

ZH: They are primarily acrylic (plastic) and most of the landscapes are water color. If I don't like it I can just peel it off, seriously!

Q: Why are the sections so simplistic compared to the plans? Is this significant in your stance towards modernism?

ZH: The plans are like *akufic* (arabic script) calligraphy works in plan. Through the plan you can create a new space; at times, through the section. But I think the plans are also quite simple once you get used to them. The sections are not as complicated because I don't think it's necessary.

Q: What do you like about the Suprematists?

ZH: It's not a matter of liking, I think the interesting thing about them was that there was an implication that that could be injected into architecture which was never really tested. And that was a starting point for my own work.

Q: Why didn't it work then?

ZH: When Malevich explained his work, it kind of sounded pseudo religious. Because the minute you say they were not bound to earthly rules, it sounds like a religion. I think that in architecture, we are the ones that set up the rules, and we are confined by them, so it was a matter of really breaking them. This implies a creation of a new kind of living, a new kind of space.

Q: How do terms "implemementing, imposing, superimposing, and injecting" relate to terms of architecture? Is this a dynamic, an image, or is it actually the way in which you create?

ZH: I make a separation in terms of how you inject a building and a program.

ZAHA HADID (1 Feb)

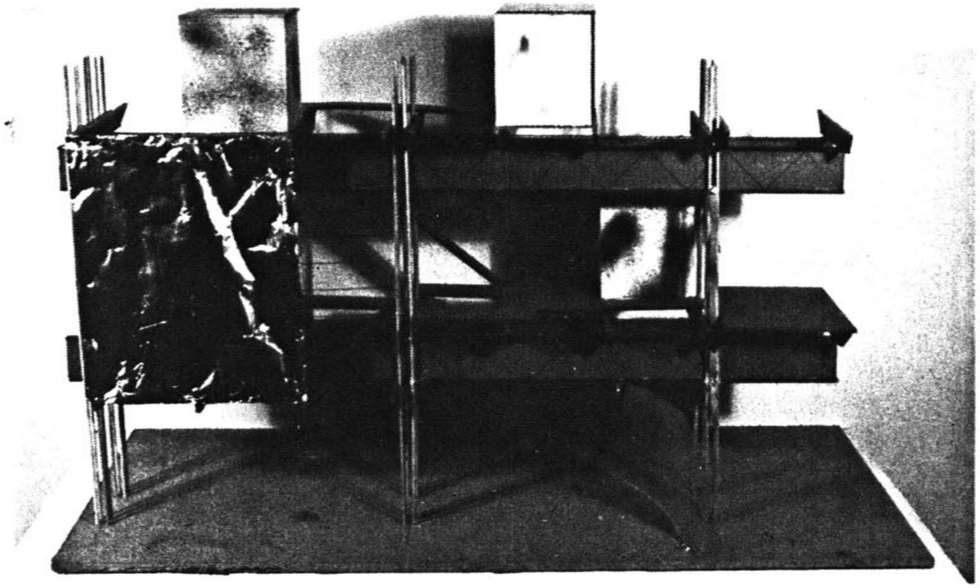
society doesn't take architects seriously.... science is much more advanced than architecture... we have to use it... it's atool, not a heroic event..

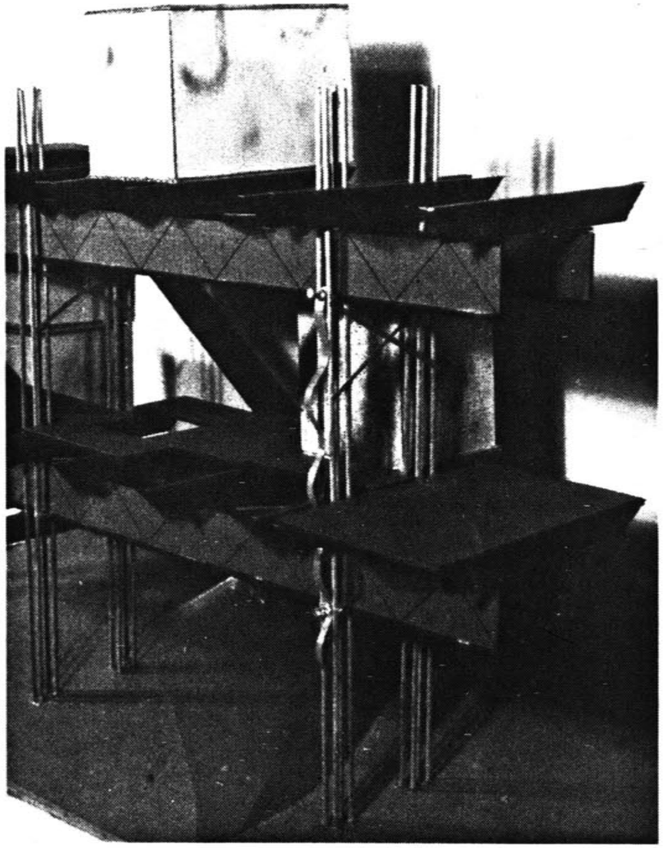
When you inject a program you really invade a particular site. The making of architecture is much more total. There is an implication that the making of architecture is like the making of a building and I do separate the two things. And so, considering that there is a kind of a context which is existing, that you implement certain rules on a particular site and you inject the site with a program to finally make an architecture. So these are the tools of the making of an architecture.

Q: Does that mean architecture and building exist in a hierarchical relationship?

ZH: No. It's much more general, architecture, than a specific thing. I think there is a misunderstanding that building is architecture, because there are lots of buildings which have nothing to do with architecture. So I do separate them.

Thanks a lot.





VICTOR OLGYAY FOR STANLEY SAITOWITZ (2 Feb)

I was the teaching assistant for Stanley, and I can not really speak in his words, but at least describe a little bit of the process that we went through.

We began to requisite a series of discussions concerning the program and it's implications, and dragged out various references and discussed those. After a while we felt the need to get something tangible done rather than continue these discussions which we pursued for the first day and a half. So we all went away to our desks and started sketching. We came back after another half a day and talked about what we had each done individually. These were identified as four general responses to the set of issues.

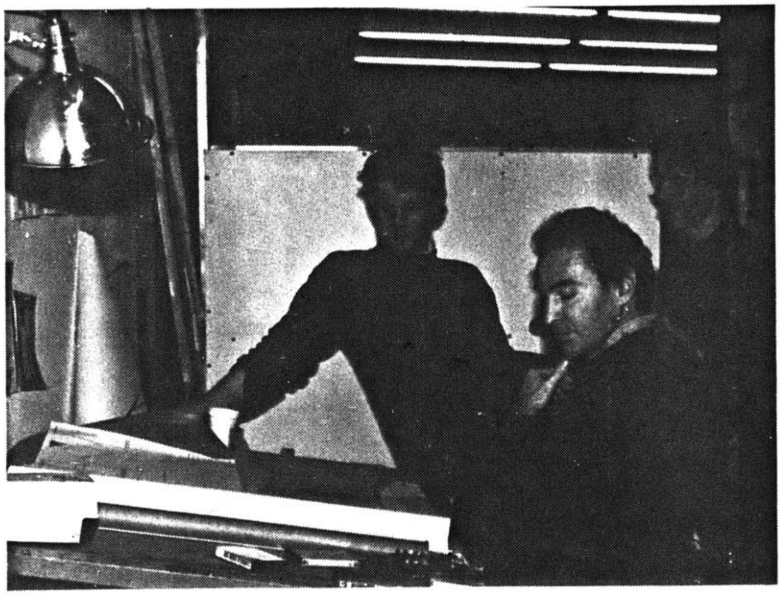
It was primarily an urban design issue which was taking the opportunity of the site to create a square. And there were three designs that seemed to take that as the thrust of the response.

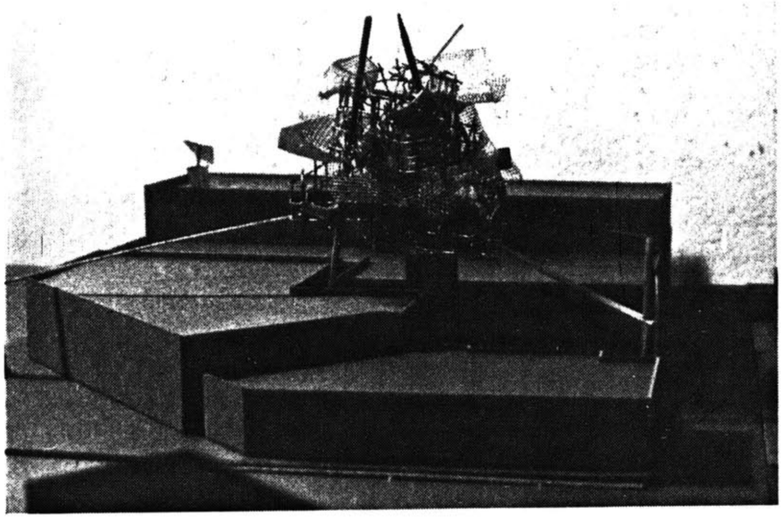
There was a second group which approached the site as the context and trying to maintain that, an infill response in terms of either working above, over, below, or with the context as the primary motivating force.

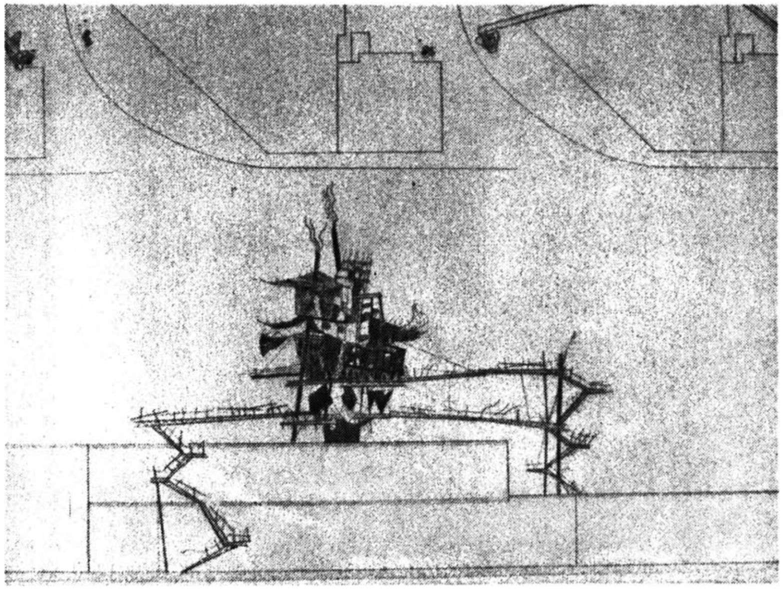
The third group took a more symbolic approach using the symbol of the wall as representing the in.formation

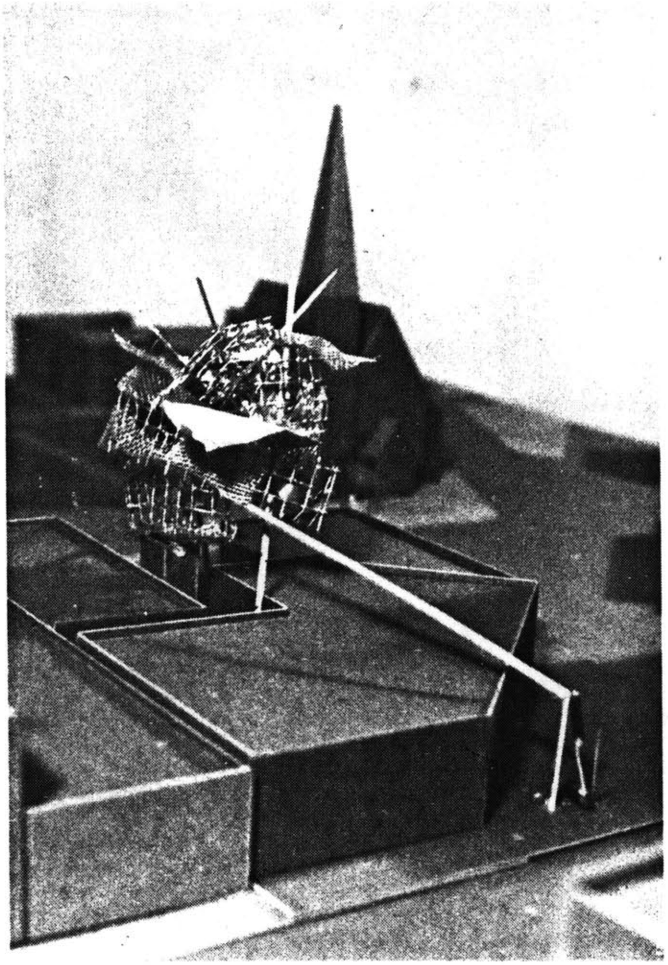
SAITOWITZ STUDIO

Stanley Saitowitz began his practice in South Africa and now is Assistant Professor at Berkeley. He also maintains an active practice in San Francisco, through which he has been experimenting with imaginative applications of materials and forms. He "continues in his way the role of artist as provoker of the imagination."





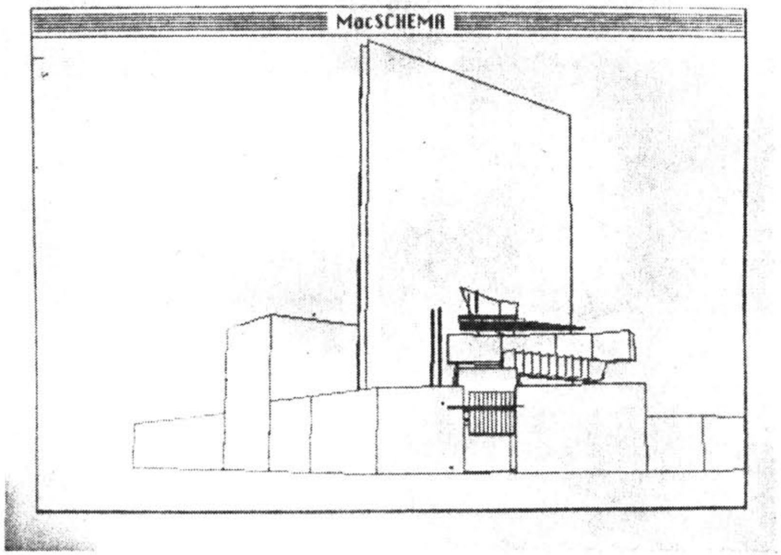




technology and composition of working that into the site and program.

The fourth group, which was actually supposed to be a separate group, took the idea that these technologies could be individual elements. Maybe like pods or phone booths or something that is dispersable. And then this building would be a collection of that as well as the ability to spread out from that and perhaps even invade other schemes.

So we had those four fairly distinct approaches. And we broke up into these groups. As far as working with groups, Stanley encouraged us try and work with models and drawings rather than regress to some intellectualizing about the program which seemed to be the natural tendency and didn't always produce as much as something which he found had less of a signature.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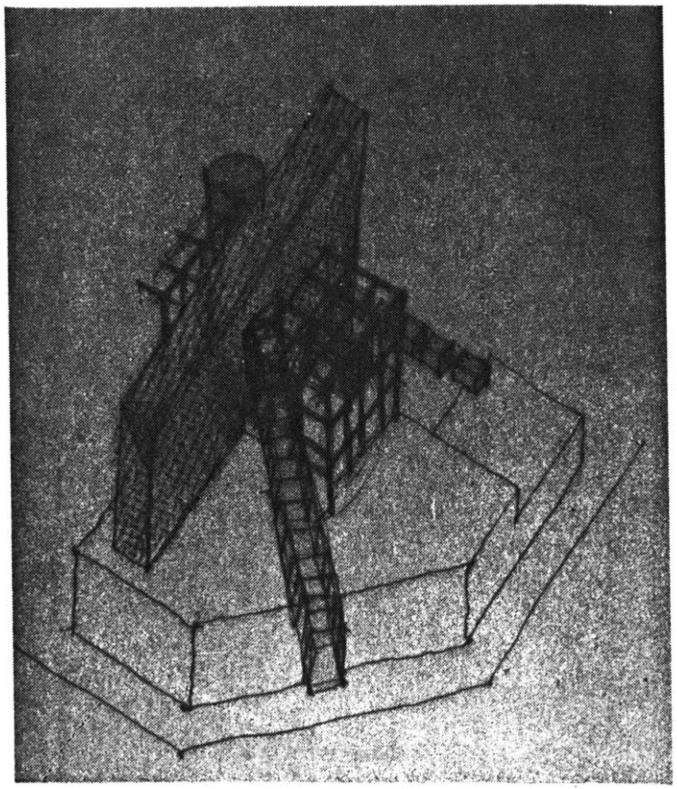

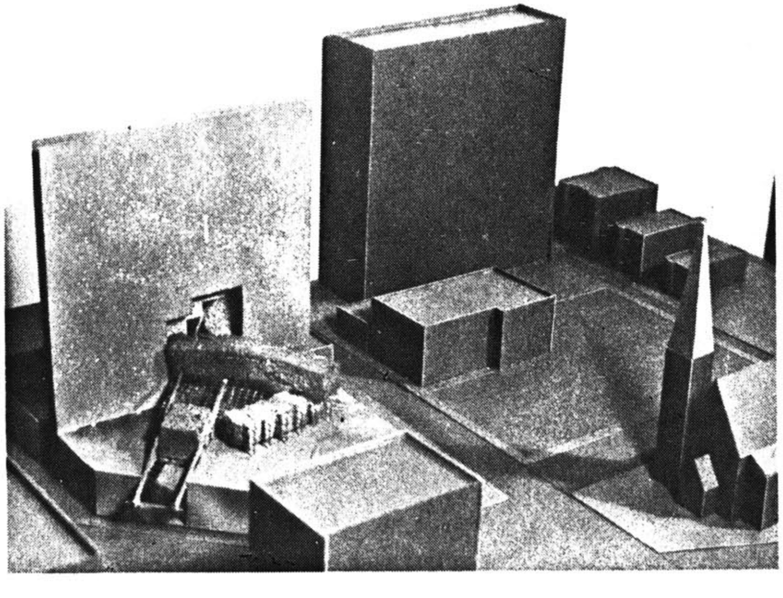

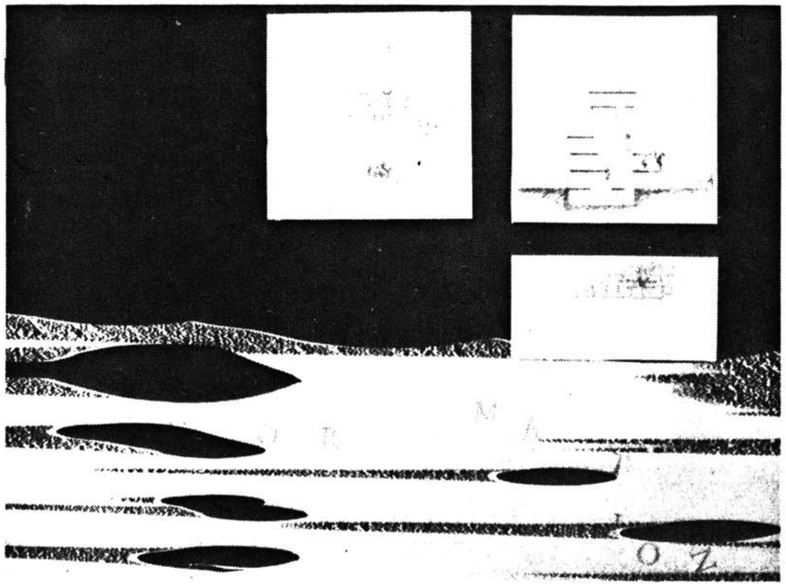
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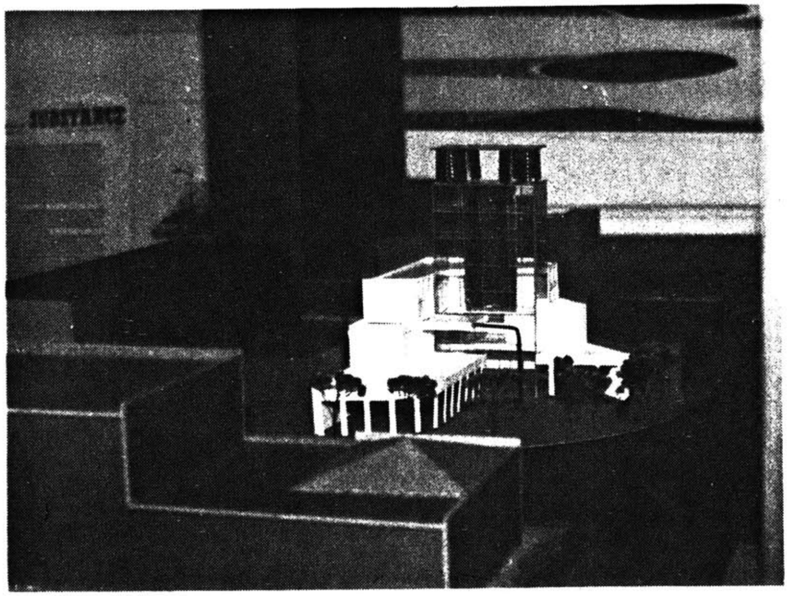
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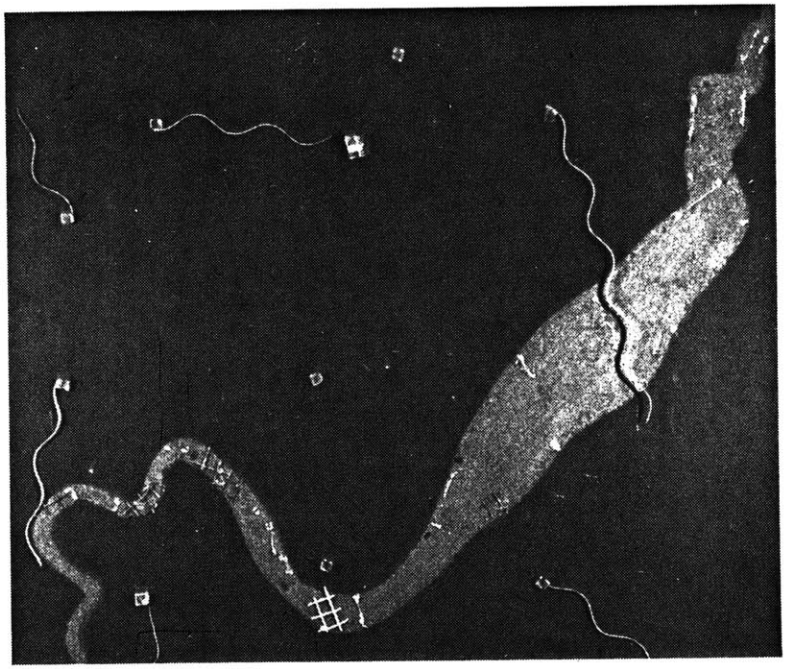


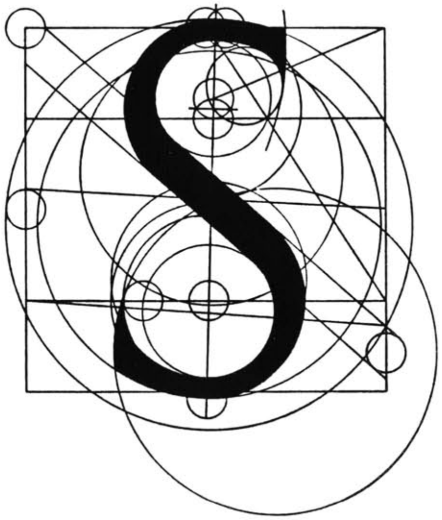
ERIC MOSS

is an innovative and controversial architect from Los Angeles who also teaches at the Southern California Institute of Architecture. Drawing inspiration from a broad range of literary, archaeological as well as architectural sources, he has been described as "committed to forging his own idiosyncratic way in the pursuit of a contemporary American architecture that is committed to speaking not only of but to the century of which it is such an essential part."

Stonehenge Decoded
Knossos Unloaded
Manhattan Outmoded

AN ARCHITECTURE
OF SUBSTANCE

1 Feb. 1986



Eric Moss
1 February 1986

Introduction by Paul Lukez

Thanks very much.

As is the intellectual custom of this part of the world, I understand, or if it isn't, it will become so, at this moment, I'd like to indulge myself in a bit of what I might call euphemistically "street corner philosophy." Not in order to appear unduly profound, but in order to establish a premise, and to give you a notion of a sensibility which I feel, and at some level or another you may share with me. Perhaps unbeknownst to you.

My general feeling is that the world at the moment lacks-- this is not another daily dose of intellectual nihilism, by the way. But I think there is a clear lack of a kind of collective datum or frame of reference. I'd like you to know, contrary perhaps to what we heard last evening, that there is no new man. And there won't be one. And I think as thinking and architecture developed in the teens and in the twenties; de Stijl, Marinetti, Contructivists, Le Corbusier, and so on; there was a certain optimism.

El Serpiente: Chichen Itza

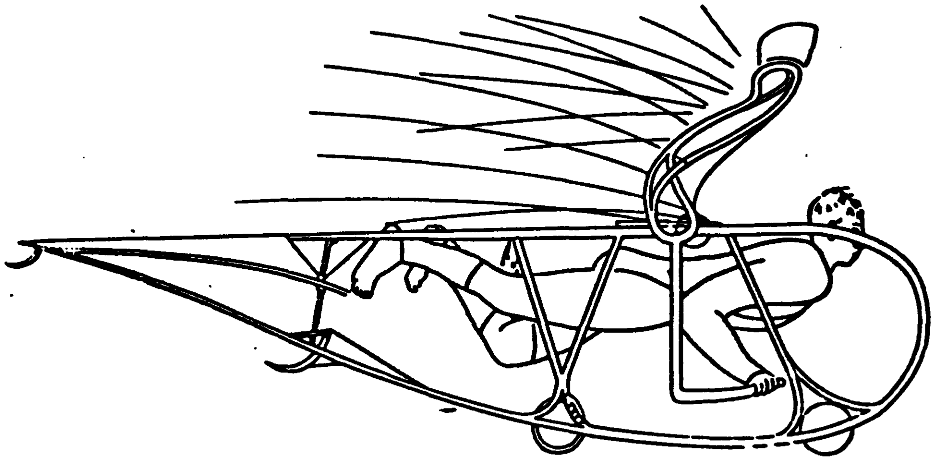
It was more political and social and in some cases more personal and artistic. But a notion that somehow we could make a new world, out of new things, off the shelf, prefabricated, assembly line and all of that. Out of which would evolve inevitably, as a historic inevitability, this new man, made or abiding in a culture, in a world made in these new ways.

There's kind of the innocence and enthusiasm that accompanies, I think, those drawings and writings. And a collective sense that we can move on in that direction, which I think has finally broken down not only in the image of the South Bronx, which is a more literal kind of fracturing, but I think the breakdown is also internal and psychological.

So that the kind of collective thesis and push to make the new world, I think one at this point in time finds it hard to *feel*. And one of the references on that we have, Mies, as he didn't quite expect to be seen, at IIT. But we stand at a point where we can look back across time and see so many conceptual notions in art and in architecture and in politics and religion, that have arisen and fallen, that it's hard to pontificate now in a collective sense. That is, its hard to prognosticate that the new man in the new society will arise.

This slide is from the ball court at Chichen-Itza and is *El Serpiente* that runs along the edge of the ball court. And I use it only as illustrative of something which is part of kind of a collective ritual that, I think, without trying and without intellectualizing that everyone in this society at whatever level of intellectual sophistication could relate to and understand. And I think we lack those kind of images today.

Another version of same: Tatlin, in what seems and perhaps is slightly unfair, kind of adolescence and naive enthusiasm, wonder and awe, and all of that, that man could



ERIC MOSS (1 Feb)

The triumph of technology has a very short life. And is ultimately, probably, not sufficient to continue to enervate the populace and architecture. It has a kind of romanticism when it spans the Brooklyn Bridge, but when you come across the 59th Street Bridge there's this WALL of stuff, which is superceded only by the wall in Hong Kong. And finally the triumph of technology as an end in itself, not as a means to some other end, is a kind of empty drum.

Vladimir Tatlin: Flying Machine

make these things and could fly. But by the time you've taken the shuttle fifteen times, the wonder and the appeal of all of that seems to dissipate, and in fact is just a matter of "How soon can I get on, and how soon can I get off?" I think we have to find a new impetus and a new energy and a new vantage point. I think at this point, for me, it has to be found in a somewhat personal way.

Isozaki's drawing when he was still working in Kenzo Tange's office is a rendition of similar kinds of ideas That Tange's notion of a mask and a frame in Tokyo bay as a mechanism for this ambition to remake the world at a colossal scale, itself will start to crumble. And in a sense, sit on the rubble of what also, at one time, was a powerful and vital vantage point: The Parthenon on the hill of the Acropolis in Athens. And my rendition, similar topic, which has a little bit to do with the process which is in a certain sense, I don't want to make it melodramatic, but which is personal and private. And sometimes, but you shouldn't take it quite this seriously, perhaps, that it gets a little frightening and one starts to look over one's shoulder in an attempt to find some sort of frame of reference.

Here are a couple of early projects which don't yet begin to reflect the kinds of things that I mention now. I think that those notions will show up toward the end of this little talk in the final few projects.

This project is the first building that I built when I opened my office in 1977. To describe it accurately and honestly I think it was a kind of samurai act on the street. An attempt to obliterate what was there, although what was there was kind of residue of this sort of conventional suburban apartment stuff.

The **Pinball House**, which was done slightly after that point in time, raised among other things, that there's a very strange question of what constitutes art? In the mind of the owner, art was constituted by a collection of five sacrosanct operational pinball

machines which we housed in a gallery that ran along the inside. And the image of the building itself began to learn from those games.

On the left, a dip into a kind of jocular historicity. A guest house in an area called Malibu was to replace an existing guest house. The diagram of the elevation and the gabled piece were actually an analog to the existing building. It wasn't intended to prioritize the new over the old, to lionize what was there before, or any of that. But it was an effort to begin a discussion, or to see what the relationships might be, between what was there before and what replaced it.

This building is a combination office building and warehouse and was done in downtown. "Downtown" probably referred to more euphemistically in a city like Los Angeles, but in the location known as "downtown." It starts to make use of this kind of hardware store, pipe duct, vocabulary I referred to initially in this sort of off the shelf assembly line way. But it doesn't do it and it never did it as a believer. It doesn't do it religiously. It does it in an attempt to understand somehow the place of those objects in a chronology of beauty that starts with the Parthenon and runs through Charte, and Cluny, and Lakeshore Drive and on up to what is almost the present. So that the beauty somehow, to speak diagramatically, of the railroad car which is a kind of modern equivalent, is somehow worked onto this piece.

Then there came another house, which was for me a lesson and a step, began with an existing series of pieces that were, among other things, tumbling down one of the Hollywood Hills. The building was a series of pieces made of masonry, plaster, corrugated metal, and everything else that one could possibly imagine, and had been assembled and reassembled over a long period of time. The notion that started to come through in the project, for me, was that a kind of conceptual coherence for the project relative to the first few that I've shown. A kind of consistency and continuity started to break down and finally wasn't really essential in order to make the

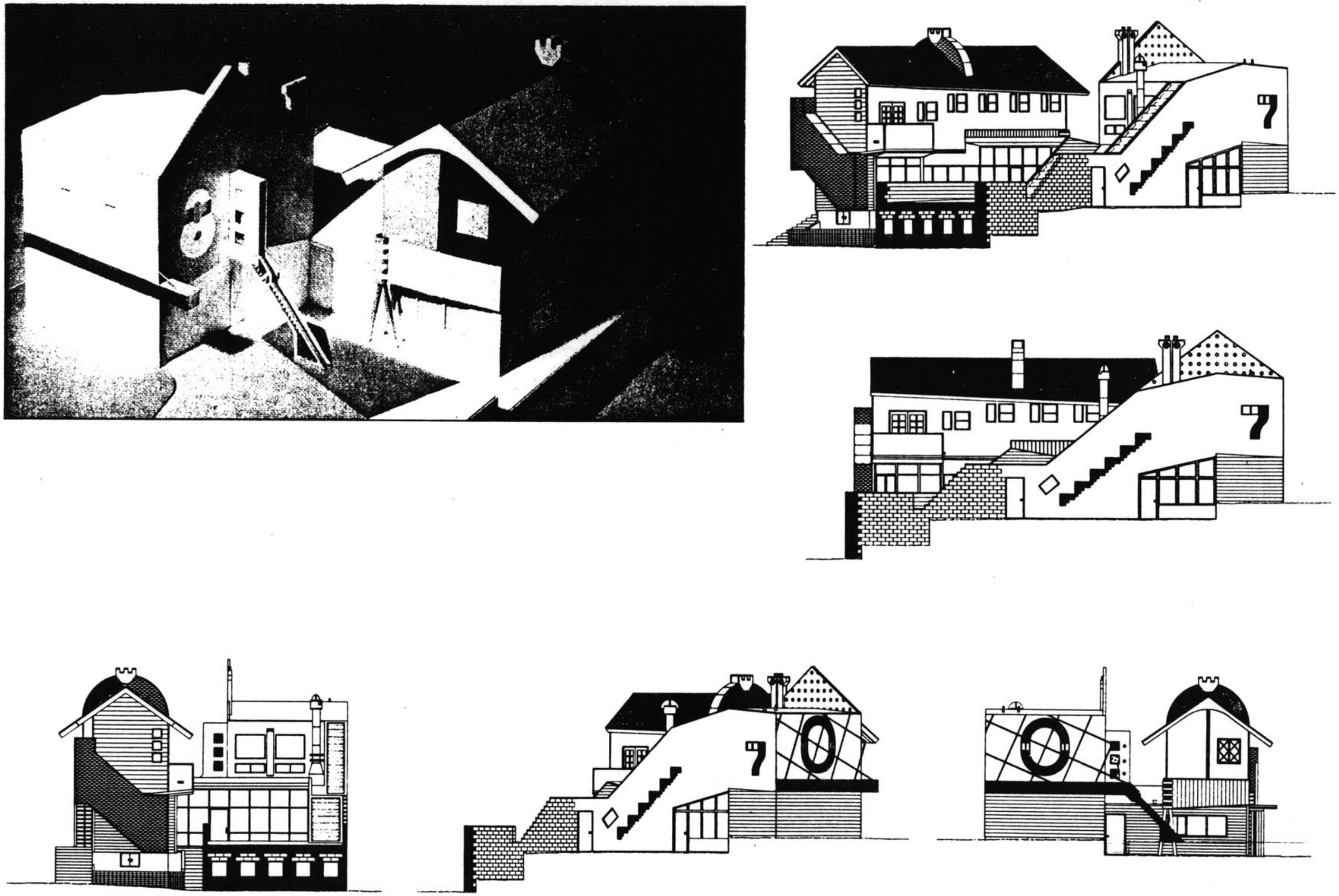
building.

This was followed or actually was developed along with another project at about the same time called **Fun House**, so called by the owner, who owned a piece of property in the San Fernando Valley of about 30 acres on which was a 5000 sq ft San Fernando Valley rendition of what one might call French Provincial, or French Parochial Provincial, or Developer Parochial French Provincial, or something like that. I mention that only because at least obliquely, again a kind of historicity was referenced because of the initial reference in the original house.

One other thing which is a curiosity, perhaps more than a curiosity, the owner was the proud owner of eighty some odd dogs that ran loose on this property. I'm not making this up although I probably would if it were necessary. So when one moves from left to right along the entry road and then turns into that automated gate one is greeted by eighty canines yapping and running and doing all sorts of strange things. And one doesn't know whether to run or to duck, but whatever the reaction, it seemed that that aspect of the owner and the property and the project ought to find a place, finally, in the resolution of the building. And it did.

Again to return to this historicity. The Loire Chateau, Chambord, that we all know and love, and the towers of the building, and this building is developed in two pieces, is a kind of diagramatic section throught the turret of Chambord. In terms of the organization of the building, it broke down into two pieces, and works in a sort of schizophrenic way. One approaches the building along a flat wall up a slope, walking. And that wall is planar in two dimensional condition, and enters the building and goes to either the right or to the left.

The owner, who commissioned us, had a fourteen year old daughter who, he claimed, was an artist. She made slightly different claims. One of the pieces was to belong to



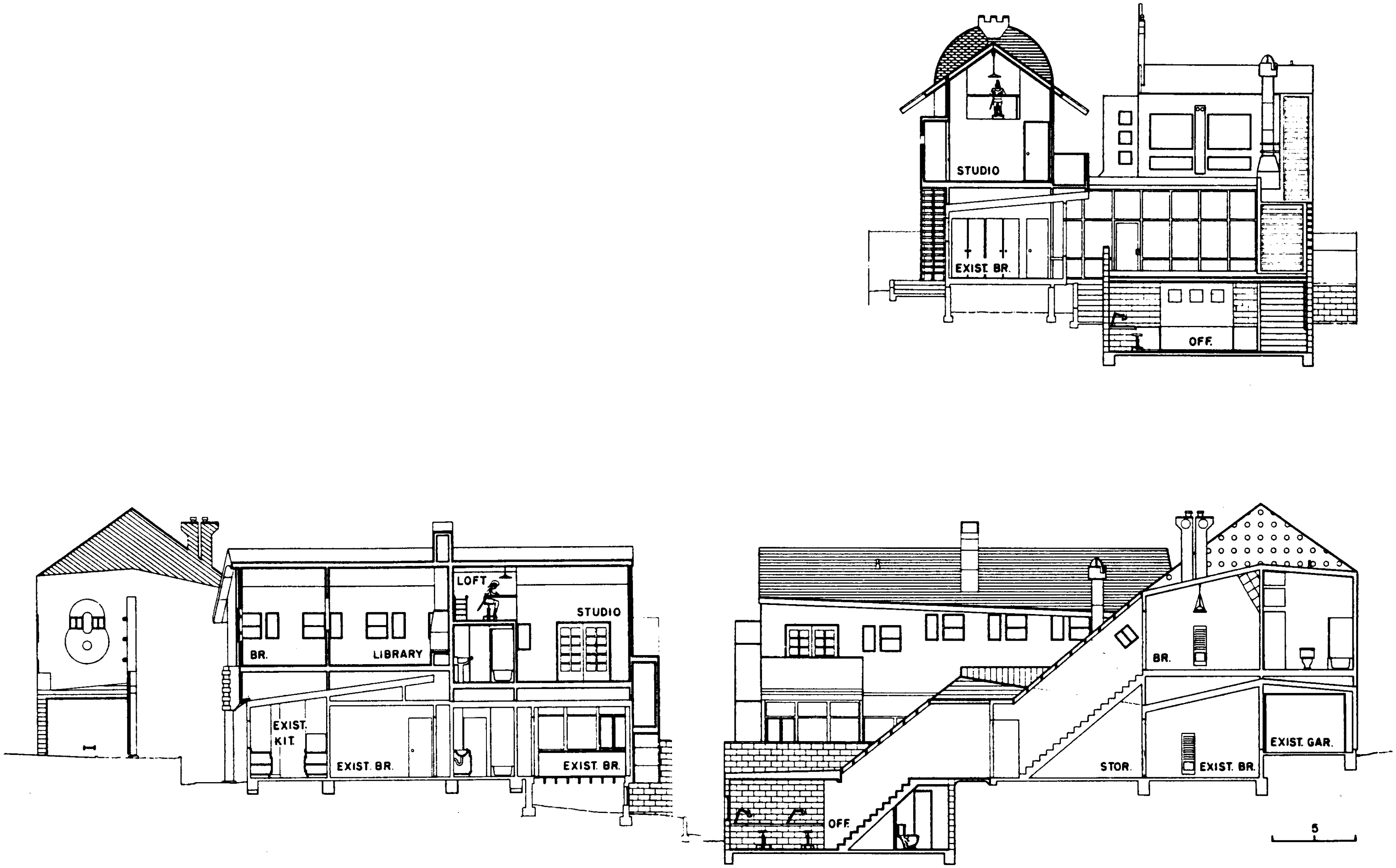
708 House, Pacific Palisades, California her. The other side was for the sixteen year old son, who was a musician, and that side, which is the larger side was also to be used on occasion for banqueting and dining.

Organizationally the service pieces: storage, kitchen and all of that are shoved against the back wall. Then the drums open up to the side of a hill and look on out into a valley.

On the roof, the punctures are two constellations. The Big Dog and the Little Dog. The dog stars are etched in perpetuity into the roof structure of the domes.

This was done in 1981 and is less, really, a building than a series of pieces, components, fragments, notions, and seems to be a kind of catharsis which, for me, had to be done and overcome. There are a number of issues that seem to be more cerebral than experiential, and I won't elaborate on all of them. The issue of the grid, the rotated grid, which is ipso facto, almost everybody's mechanism, and I think probably too quickly now and in the past, needed to be somehow built in or incorporated in the building. And in knowing its antecedents in Myletis and Hippodamus and elevations on Park Avenue and conceptions of architecture like "I start with ze grid" and the Free University of Berlin which lives and breathes and grows based on a kind of conceptual, operational grid. All of those kind of references which were a part of my own history, and a part of all of ours, somehow came to be symbolized or built into the front wall, where it's twisted, hangs off the wall, grows, is limited, and in one case is suggestive of a kind of strut or structural condition.

The building was a second hand case study house, and there are a number of very special case study house buildings done in Los Angeles in the late forties. This was not quite in that lineage but followed very quickly thereafter and I think was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Sections: 708 House

acknowledged for being white and neat and straight and clean and all of those presumed virtues at that time.

To that was added a second story piece which is bedroom and service pieces. The second phase which has actually been modified and redrawn, is an apartment unit. The third phase is a bunker, or underground piece, which will probably be necessary to house the inhabitants after the completion of the first two pieces. It's built in a middle, upper middle class neighborhood of Pacific Palisades.

At a certain level it really is a trialogue, that is, a discussion between a number of pieces. A kind of conceptual debate about one another, and I think about the original building that engendered them.

The section is actually developed by building the new floor over the old roof, rather that tearing it out. So there is a zone. It's demarcated on occasion here by tile. A kind of errogenous zone that is created between the old roof and the new floor which can be taken advantage of in various ways.

The flying door actually contains a simple sliding door which slides into this pocket. When it's within the space, art objects of a sort, (these are rubbings from Thailand), can be attached to the door, and then the door is shoved into the slot and the local gentry are treated to an expose of far eastern art.

The last residue of off the shelf and prefabrication are those two toilet plungers which are actually attached over a fiberglass mount and as they deteriorate they can be replaced at the local hardware store. Conceivably they also have some anatomical references.

A kind of analog stair on the north wall, sort of Brobdingnagian above and Lilliputian below.

This is a project which jumps about three years, in which we were invited to participate in New York. There's a garden on the lower east side, or was until very recently, made by a notorious fellow who rides a purple bicycle who calls himself "Adam Purple." And without going through the bitter chronology of his experience as a squatter, which ran about ten years, in an attempt to reinhabit a bombed out, drugged out, dilapidated area, he managed through force of will to generate this garden out of bits and pieces from all over the area. And to develop a kind of, it's not so much a theory in an intellectual sense, but a pseudo-theory, which sounds a little bit like Berkeley in the late sixties. But which was finally less important than the power and the will to do this thing which is, in fact, of some interest.

It has particular kinds of mathematical rules. It has, in terms of dimension and proportions, a series of concentric circles that, according to his theory, will expand infinitely. There's a ying-yang in the center which is made out of purple and white flowers.

The task which was set before us by the gallery in Manhattan was to propose a mechanism for adding housing to the site. There came a time when the socially responsible liberals were contesting with the artistically supportive liberals over whether housing should be built on the site and the garden should be removed, or whether the garden should stay and the housing should go elsewhere and so on.

So this debate apparently raged in the *Village Voice* and the *New York Times* and the *National Geographic* and all range of media, apparently to the satisfaction of Adam Purple who had, finally, a colossal vehicle for dispensing his brand of returning sanity to Manhattan.

What was done conceptually was the following: There were a series of totems about sixty feet high that were developed in a circle that demarcated the existing garden.

KURT FORSTER (to EM 1 Feb)

Why be so condescending to the Constructivists? When you put constellations into the ceiling of the building like wearing a cosmological feather in one's hat... isn't that an even grander project?

From those, a series of finger blocks were developed that accomodated new housing. Where that was impossible, that is to say, where there were existing buildings, the reciprocal move was developed so that the analog building was in fact the cutout into the original tenement.

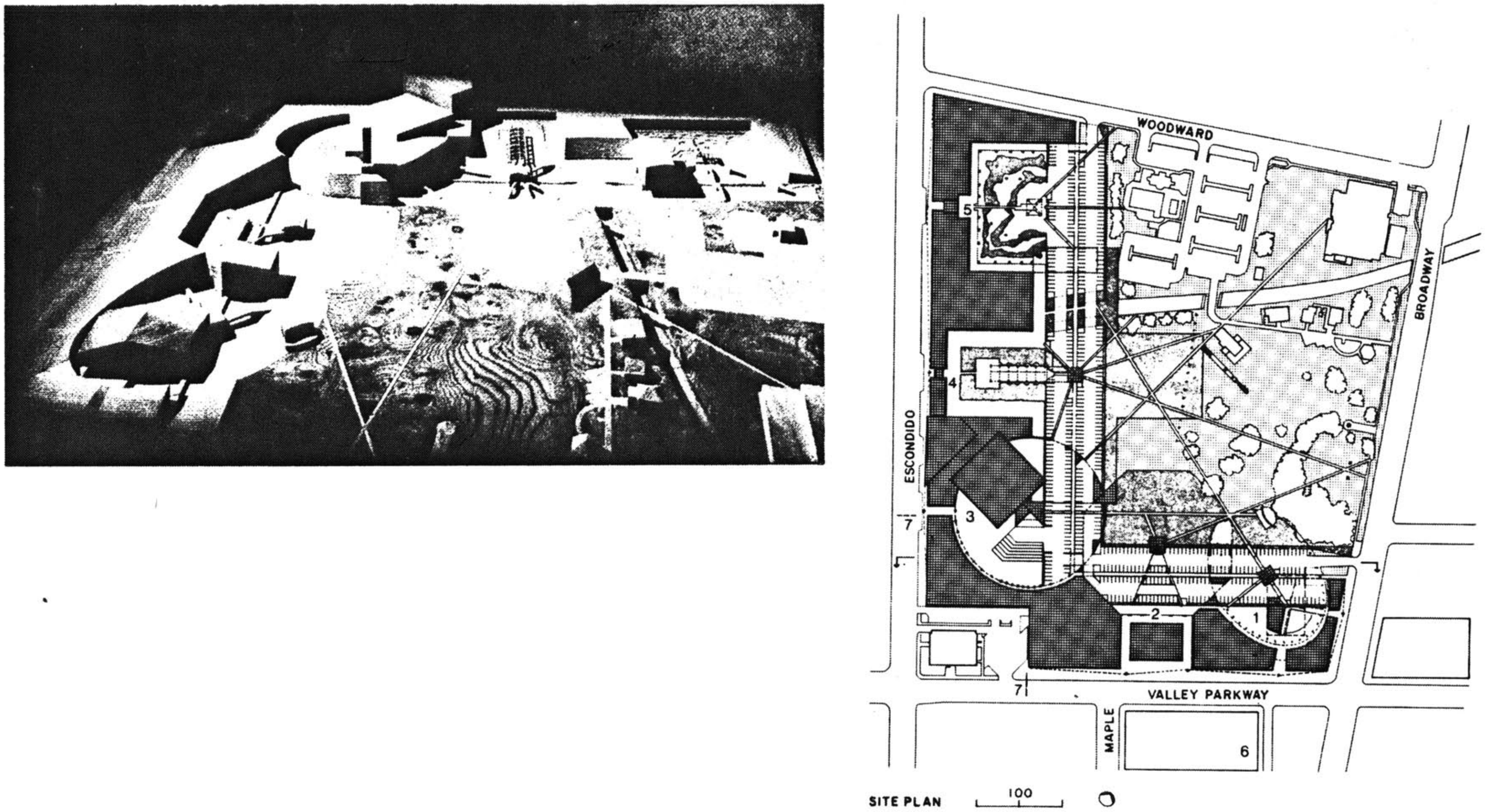
In the center of the site was raised a pavillion, which is also a kind of totem, called *"The Totem to the Indigent King."* The order of the twelve totems, which ties in obviously to a system of hours, and also a rotation on the roof, which is a conventional kind of pyramid roof except spun to the cardinal points and clipped off on the lines of the street grid. So in part, the conceptual discussion takes place as a confrontation between the order of the city and the order of Adam's philosophy, and the garden.

There is another use of the constellation notion. There is a constellation called King Ciphes. This pavillion was dedicated to the indigent king, and the image of that constellation which is on the north wall of the building, and which actually will contain, in a few thousand years, the north star as the position of the axis of the earth shifts, is etched in gold leaf on the north wall and roof.

Inside the building there is toilet and lav and tub. A chair sits in the middle, in back of the chair is a ladder. From that ladder one climbs up to a loft and tosses there a mattress.

Another project done within the last year, a proposal for a city hall in a little town south of Los Angeles uses quite a different organizational mechanism. The five civic buildings: city hall, city hall offices, theatres of various kinds, a convention center, and of course, the essential art museum.

Without contesting those as conceptual elements in a small town, the project was


WOODWARD
BROADWAY
ESCONDIDO
VALLEY PARKWAY
MAPLE
1
2
3
4
5
6
7
7
SITE PLAN
100

Escondido Civic Center, Escondido, California organized around these five pieces in a reciprocal sense. The five pieces were positioned as the ellipse, the octagon, the circle, the cruciform, and the square, which overlap. External to those forms, following the edge of the site, a kind of long L-shaped building was developed with these pieces as interior courts and quadrangles, which in turn looked out over a park which had a particular and special history for the locals.

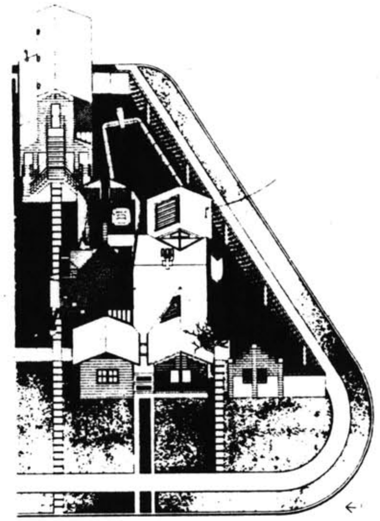
That plan notion is adjusted in terms of a conceptual section which is related to the dropping of a roof, theoretically, over the entire site which slopes up and back down. A series of interconections and interrelationships of centers which turn out to be essential organizational pieces in the project on the next level of development.

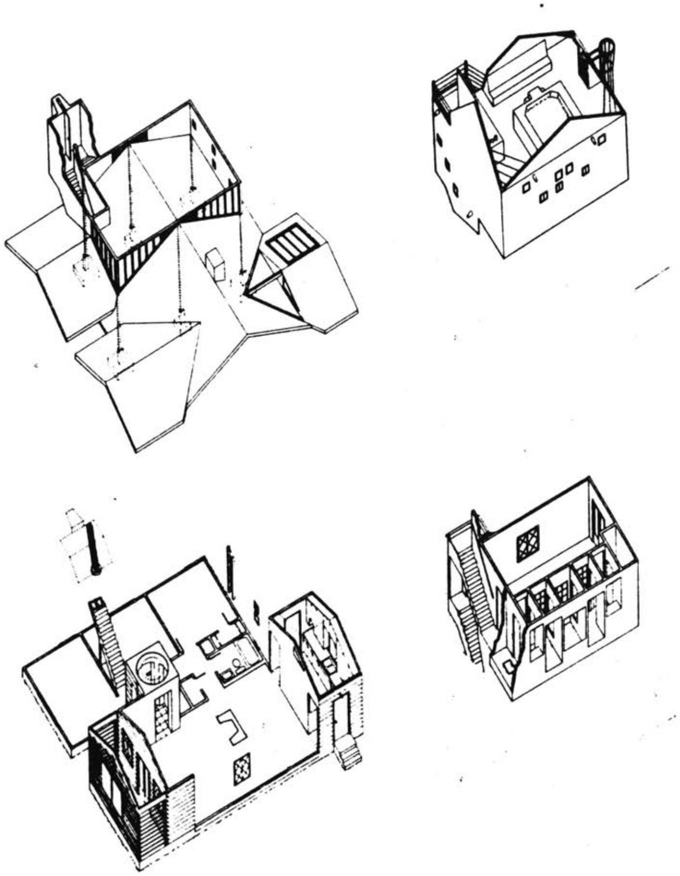
But before things got too formal and somebody thought we were at Versailles, I dropped an L-shaped parking lot into the midst of all of this, depressed at four and a half feet below the level of the grade which is essentially flat. The essential geometric configurations are retained, but broken in section and one can stay within this space and look over the parking and still connect visually and in terms of circulation out to the park.

Another level of development which is also, to some extent, related to centers and foci and derived from both the order of the plan geometries and also the issue of lifting it up with the theoretical roof in section, is this piece, which again, utilizes the twisted roof, and faces the direction of most vehicular access.

The organizational centers of these elements linked to various pieces on the site: to an old bandstand, to a series of moved houses, to the local YWCA, and other sacrosanct buildings in the town.

One of the notions that was in the back of my mind is part of the thinking, has to





Petal House: Los Angeles

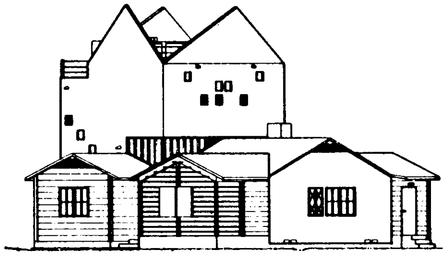
do with a very different kind of project, somewhat mysterious, in the Peruvian highlands called the Plains of Nasga. Which is apparently, as one walks it, a series of disconnected and somewhat disconcerting lines, but if one were to fly over it one sees, at a colossal scale, animals of various kinds. It's very, very old. By analogy, there is this order of lines which cohere and are intelligible within the various geometric plan forms. But as they start to run over and out and amongst the pieces, become both legible and illegible. That is they're conceptually understandable if one knows the theoretical premise, but on the other hand they also communicate a notion which is slightly disordered.

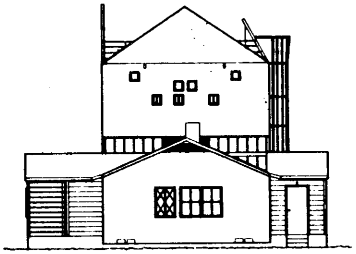
You start to see now the consequence of the overlapping pieces that also make buildings. For example, this piece, which is an amalgamation of the elliptical piece and the octagon. And these pieces, one of which is a kind of clock tower which has to do with the connection of the octagon, the circle and the cruciform. So it was a mechanism, both in plan and in section, that enabled me to produce some buildings which were something of a surprise.

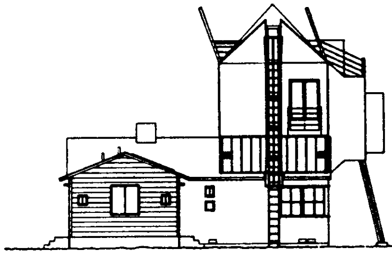
This house was finished about a year and a half ago in West Los Angeles, and is a series of additions to a fairly conventional building, which I've called the **Petal House.** The nomenclature, which may be slightly confusing, has really to do with the making of this roof. An erstwhile pyramid which has lineages to Egypt but also to Levittown, to say nothing of the local neighborhood.

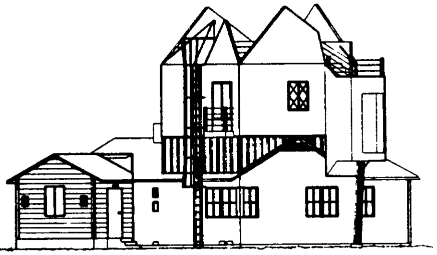
There was an existing one storey building to which was added an extension of living area, porch, new kitchen, the second storeys, and all of it enclosed within the perimeter wall.

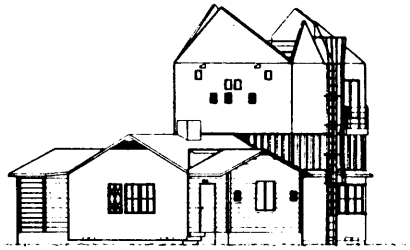
The site is hard by, fortuitously for me in a Kevin Lynch sense, the Santa Monica Freeway and is a corner site which may justify a certain kind of behavior which

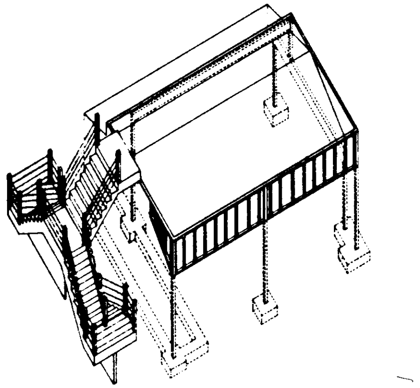

SOUTHWEST ELEVATION

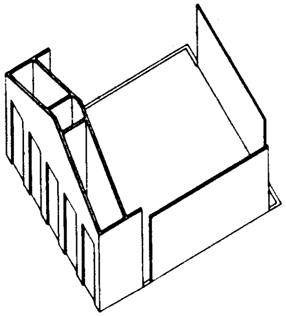

SOUTH ELEVATION

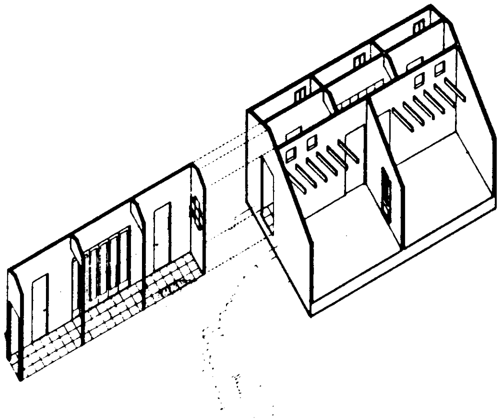

EAST ELEVATION

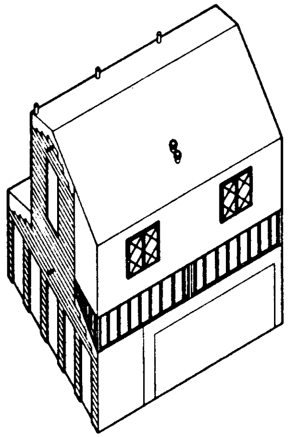

NORTHEAST ELEVATION


SOUTHEAST ELEVATION









Petal House: Los Angeles

another site would not. The original house was part of a tract. The building can see to, and be seen from the Santa Monica Freeway.

In section, the notion was to build the new floor over the original roof which created this special interim zone. This zone is between the original roof and the new floor, which is in fact related to a construction problem and the lateral loads in the building. The building had to be plywooded from the wall at the second floor all the way down through the wall of the first floor. That piece is a manifestation of that problem. The only thing which is slightly different is that the studs are placed on the outside. So the standard position of plywood and studs is reversed.

I had thought of the roof of the deck and that the making of that, and the attempted dissolution of the pyramid notion would not reference back to the original conceptual idea. That is, it came from a pyramid whose pieces were separated and pulled apart. But in fact, looking at it now, it's still suggestive of its antecedents. So it may be, if one is interested in destruction, or in desecration, in order to pull something new out of it, that a further evolution would have to take place on that form.

The column which actually does and does not support the landing of the stair is involved with a private discussion of structure, and is also related to an intrinsic interest in making objects. It's made out of four 4x4s held apart by some PVC pipe. It falls in the walk which is otherwise axial and symmetrical to the back garage building.

The back building is euphemistically referred to as the "Church of the Holy Mercedes." The original entry piece to the garage was swung around to the back alley. And requisite rose window.

This next building is in an area called Silver Lake which is a middle class area and actually has a long history of work by Neutra, Ain, and Schindler, so it's certainly a special place in which to build.

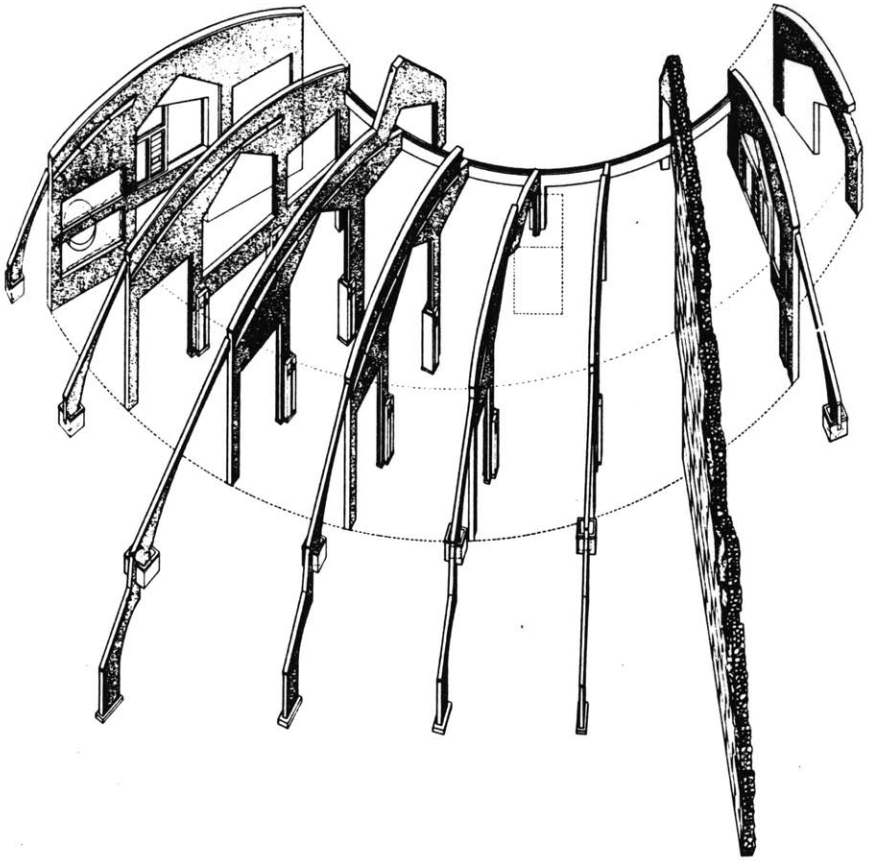
The house looks out onto the resevoir. Rather than twisting the building to the view, to the lake, to Mt. Sinai, or to any other external object, the manipulation of the building has to do just with the making of the object and what it is visually. Once the roof is rotated, it then dictates to a second building, which is a new building in back; a combination of office space, recreation room, and parking.

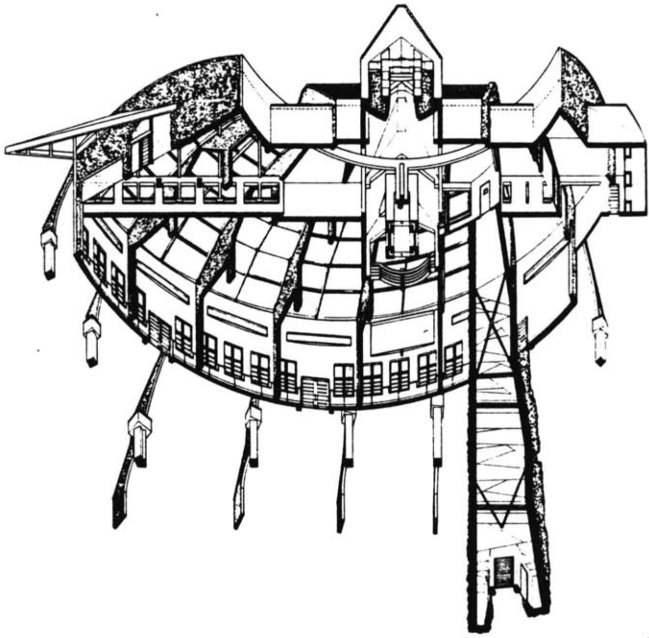
The original building, which is a duplex, is now to become a single family house. Originally it was entered from either side. Now I've inserted this totem, or column into the front of the building which forms, conceptually, an entrance which is also related to a wall that runs down the middle of the building and at one time divided the units.

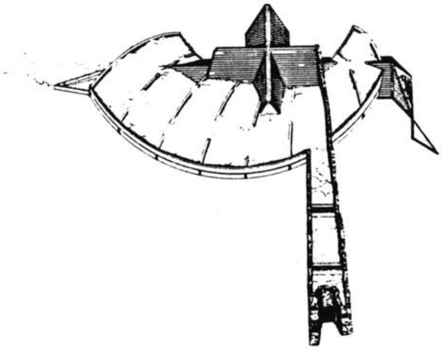
What has been done in plan is to perforate that central wall. You enter into a space which is now a double height space. The living room becomes a kind of amalgamation between this as a high space and this as a lower space. The original stair exists on both sides of that solid wall which now opens up so that one can move through the stair.

So what actually has happened is the building, in essence, from here down remains what it was. This piece is now a new piece. The original arched entry exists physiologically but is covered with a rectilinear piece, actually it is three pieces of glass. One with a window in a window. A series of stacks are added, and a wall around the perimeter and the back building.

The last project has been worked on in the office by vast numbers of people for







Honey Springs Country Club: San Diego

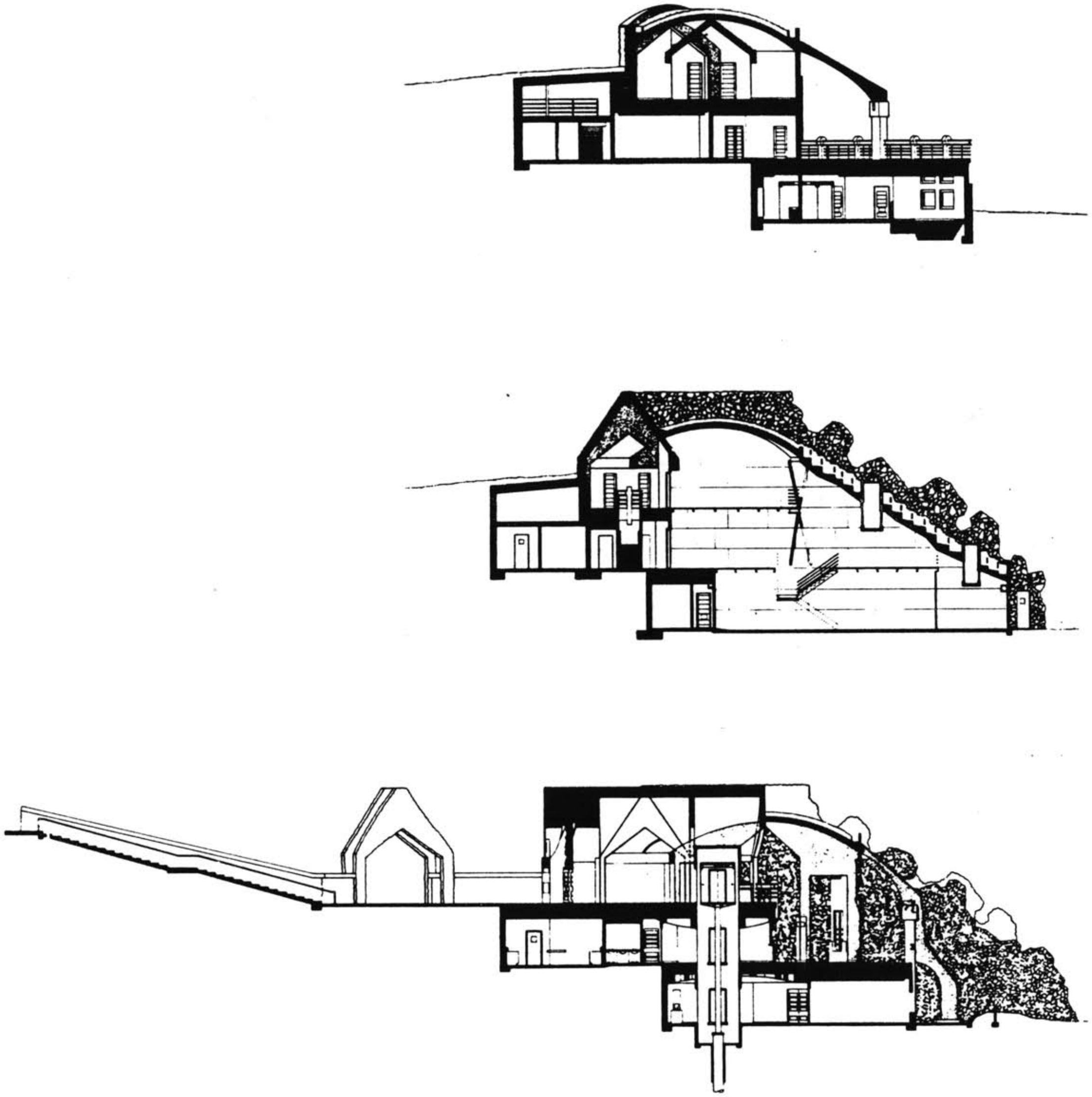
about a year and a half. It's the focal building in an otherwise undistinguished residential development in the hinterlands of San Diego, a place called Honey Springs. It's a country club.

There are essentially four major pieces: A base piece which fits into the land. There's this curved piece which is two non-concentric curves. A cruciform piece forms the lobby. And then this element which I call Mt. Analog, which is somewhat related to the environment in which the building sits which is a kind of granite bowl on a very large scale.

The building is not intended at all to be the didactic, environmental, socially responsible, energy preserving building, and all of that. It does have an aspect which deals in a very different way from some of the other buildings where the interrelationship of the land and what's built upon it. This has to do with the intrinsic beauty of the site and also some pragmatic concerns about the presence of the building vis a vis other buildings in the neighborhood. Also the issue that other residential buildings will look down on the country club.

So the roof of the building is a planted condition. It will either be bacharus or iceplant, but it's a manicured planted condition so that it reads within the landscaped environment as a discreet piece. It also has a ribbed system which is part of a radial order and that also is legible but under the planted condition. So it's both a sod roof and a man-made roof.

The basic generative order of the building has to do with two systems. One which is a Cartesian system, the grid which is related to this cruciform lobby. The radial system has the vaulted roof. Part of the process of working out the project had to do with the interconnection, the prioritization of various pieces of the two systems as they worked their way through the building.



Sections: Honey Springs Country Club

What it means to me in terms of the making of the object is that one can posit certain organizational, visual, formal, artistic, notions without knowing for a certainty what one will arrive at in the end. Which, I think, is conceptually quite different from setting up a notion which one already knows and doesn't have to be investigated. At a certain level I knew and at a certain level did not know what would finally arrive at the end of the project.

The skin of the curvilinear piece, actually the two non-concentric curves, if one looks for a pragmatic or utilitarian or a functional derivation, the big end enclosing the restaurant. As the pieces in plan become smaller, there are a series of meeting rooms. So just in terms of the dimension of space, the non-concentric curves seem operationally intelligible.

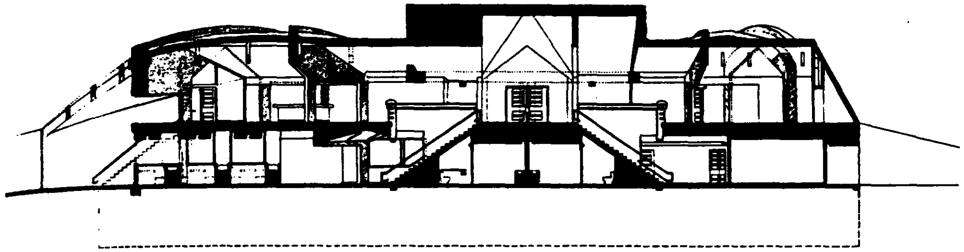
The base piece of the building, which is trapezoidal, is pushed into the land.

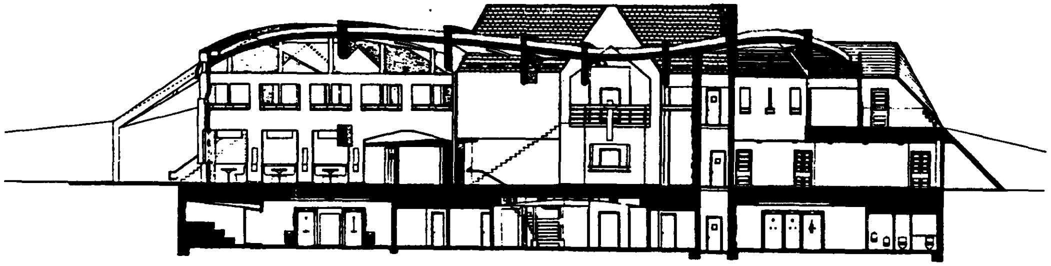
So the top level, level one, the lobby and bar. Level two, the restaurant and terrace. Level three, the health club.

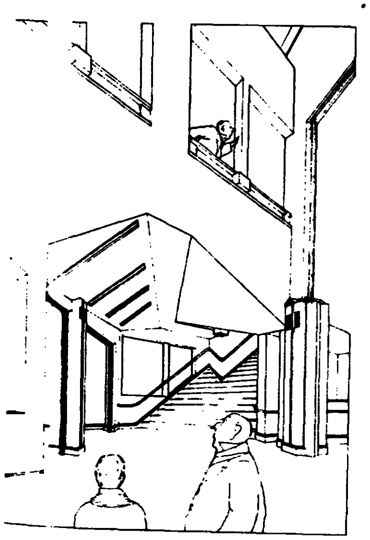
Another tactic which is somewhat new for me, a kind of reiteration, experientially, so that one comes to recognize to a certain extent a variety of experiences is an associational relationship in terms of materials and in terms of form.

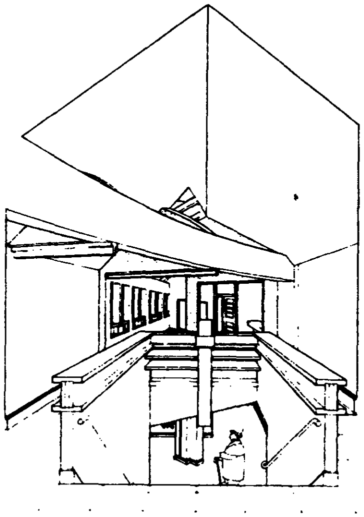
You have to see the working drawings at some point. It's an extremely complex roof system and framing system, as you can imagine. All the mechanical equipment for the building exists between this ceiling and this floor.

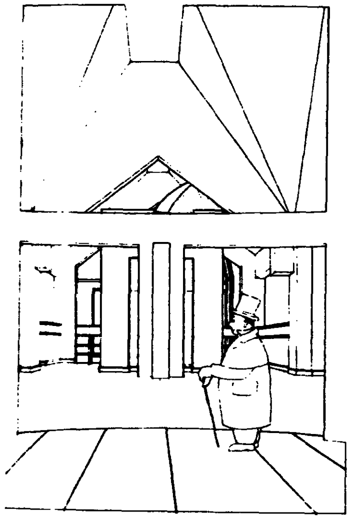
The stair actually passed the kitchen, or something called "California Cuisine". I'm not sure what the hell that is, but it's supposed to be very hygenic. As it is actually visually appealing, it was felt that to be able to see into at least a part of the











Sections: Honey Springs Country Club

kitchen as food is being prepared as one came down the stair, was desireable.

Issues of the elevation. There is actually a large clerestory window in here so that one comes in sequence from grade level down into this elliptical, six foot below grade, plaza into the entrance. And then arrives here at an overlook and looks out to the island.

One of the fascinating aspects of the project for me, had to do with the interrelationship of a whole series of pieces. This is the residue of one of the two curvilinear pieces which doesn't disappear but becomes a beam that flies through the space.

Thank you very much.

Questions

Q: You spoke of tradition and modern culture. I wonder if you could go into that a bit more. Your work seems far more a herald of modern consumption than a critique of it.

EM: Did you say consumption? What the hell does that mean? That sounds like something Ralph Nader might say. What is a "herald of modern consumption?"

Q: Consumer culture. Novelty. Invention. One liner. You seem a herald of that.

EM: There may be a confusion about the meaning of the term culture. If it has to do with what everybody's doing, in your definition, the Super Bowl is culture. That's what everybody's doing and what everybody's interested in. I never had the feeling

that that's what I was doing. To refer to the last project, there are a whole series of issues that have to do with making that object that I think require a certain amount of time, a certain amount of study, and are not a kind of one liner sort of issue or building. We'd probably have to go building by building. It also may be that your perception is inclined to the one liner, so that it's not what's been delivered, but what you see. Maybe it would be better if you went around the track again, and maybe you'd find something else. Your perception is not my perception.

Q: In your introduction you talked about the idea of the death of the new man, or the disbelief of the new man. To me that's like the notion of the death of the author, the fact that we no longer believe in the architect as the hero. We no longer believe in the architect as the center of a designing will. As we get that sort of condition, which I agree with, you seem to describe, it would seem to knock down, or even disallow a formal free play.

EM: I don't think so. I think the key words that you use are "we believe" or "we don't believe" and I think there is no longer a "we believe". That's the point. It probably really has to do this symposium in general. If you look at the line up of personalities it's egalitarian if nothing else. It doesn't seem to attempt to say "This is what it is." And what I'm saying is that can't be said with conviction any longer. So what I do is an attempt to be a kind of architectural introvert. And I think that will go further as we continue to do the work that we do. So it is to that extent that you can connect with it, because there are probably always aspirations for something collective, even though there are times when one can't reach it. That maybe by going down and in you find something that comes up and out. And then at a certain point in time there is a kind of genuine reconciliation. But I don't think you can manufacture that. I think there are a lot of extremely artificial attempts kicking around now to manufacture what is supposed to be a concensus or congenial or

ERIC MOSS (1 Feb)

If it's true that the suburban parking lot has a meaning and the World Trade Center has a meaning, then if you want to say and you want to be listened to, you want to suggest that those aren't the meanings that things ought to have. Which I think has something to do with the ambitions of certain kinds of architectural work, then you have to take on those values which are generally either subscribed to, acknowledged, accepted, but not contested. If one wants to contest those notions or those values that are euphemistically defined in the suburban parking lot, then at a certain level one has to drive the point home. Whether it has to do with making the door three times in case you missed it....

I think that in general, for me, that the issue of contesting a certain presumed or societally presumed set of "values" is part of the obligation of architecture at a certain point in time.

friendly or the way to do it, and so on. I'm interested in hearing it discussed and watching it go by my face, but I'm not particularly interested in doing it and I don't find it very credible.

Q: I think you have a very personal style and it's imaginatively done, the intersection of all these principles. A lot of issues of construction which I think take a lot of thought to work out to be built. Do you have a lot of problems? Do you get that when the contractor says "Whoah, what's happening here?" How do you get through to back the buck?

EM: I assume you're asking if I have a lot of problems of building. I don't think any more so than anyone who is interested in building in a special way. What starts to happen is that you find a few people who are there who can build certain things at a certain scale, in a certain way, with a certain amount of patience, and a certain amount of care. And finally in an act of love, which is a tough word to throw around, like beauty. But I think there are people like that. And when the contractor walks in, and he just walks out the back door? We have that experience just like anyone else. I think there's a tendency that you have to watch for. A tendency towards self-pity or at least melodrama in cases where people try to build certain kinds of things and have a certain level of difficulty doing it. "I'm misunderstood." You just have to push it. At a certain level you just have to will it into existence and you have to want it to come to pass. And it's my experince that that's do-able if one is persistent enough. It can be done.

Q: In your own process, how do you start?

EM: I wouldn't say we're systematic about the process. We are systematic about the process of *making* the object. The building usually starts from a small sketch or series of sketches or diagrams which might be translated into a combination of hard

EOM: At the level of meaning, form has a tremendous power to move you. Meaning has a kind of potent... tactile quality I would make a distinction between a kind of abstraction of the form and the substance of it, in terms of joints and all of that.

lines and rough models very quickly, and then refined and refined and at a certain point maybe thrown out or radically modified. That seems to be the process. The other aspect of that is that the longer one does this, the more ideas one accumulates. One builds up a residue of notions and ideas. The idea of the Petal House preceded the Petal House. So it was a kind of meeting of certain particular needs and uses and a site and a building, with the notion that actually existed a priori. Everyone has a file of notes and sketches and so on. So the conceptual idea may not be totally unique to the solution of the particular problem.

Thank you.

It's too bad that our model didn't show all the intense arguments we had in putting the parts together. Y.F.

The students in the group largely felt that they had to suspend judgement and allow Carmen to lead them through an unfamiliar process. -R.B.

The Corneil studio focused very closely on the idea of making an artifact by beginning with a set of objects and tools for working and letting the imagination work on them. The objects were generic things like sticks, frames, and planes as well as suggestive found objects. From this we simply made things. We made constructs. We made drawings. -T.W.

CARMEN CORNEIL (2 Feb)

Our smaller group produced one scheme, and I got to play too. "Play", I think is what was at the back of our minds. I started this thing perhaps Wednesday noon by enunciating a position that was that we would try to treat "substance" as being something to do with the fact that this stuff was real building material. A level of consideration.

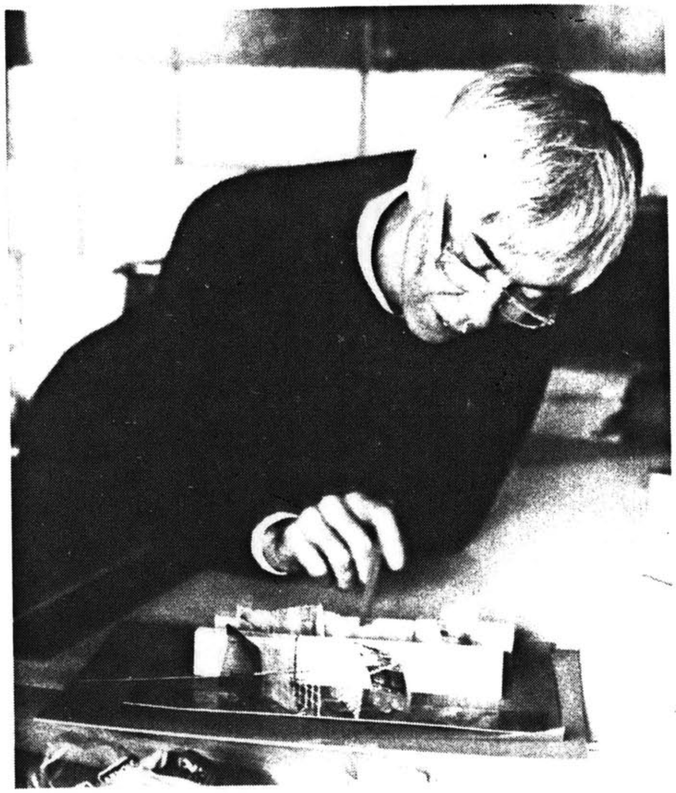
We were interested in fostering that kind of work that has to do with finding arrangements of things that feel good. Not just ________ about considering building parts, building elements and what their character is, what their position in the situation would be, and what their interaction would be. And to pursue that point of view.

A bit in defiance of what we take to be a tendency towards dominance of concept in our thinking, or voyeurism in our response to things, we took a first step of trying to decide what would, in this building, be a presence, both in terms of building elements and the topic of equipment. These are givens, which you could say are the tangible givens. A lot of the things that we might think about the program might be intangible givens, but we were trying to focus this time on those things. That we would make up this building out of it.

They of course rushed off immediately and find some

CORNEIL STUDIO

Carmen Corneil is Professor of Architecture at the University of Toronto and has also taught at MIT. He has maintained an active practice, designing award winning projects in Canada and Scandanavia. In the site plan for the town of Vestmannaeyjar, Iceland, he sought to "risk an idealistic and experimental direction and be open to participation and determination by the people."

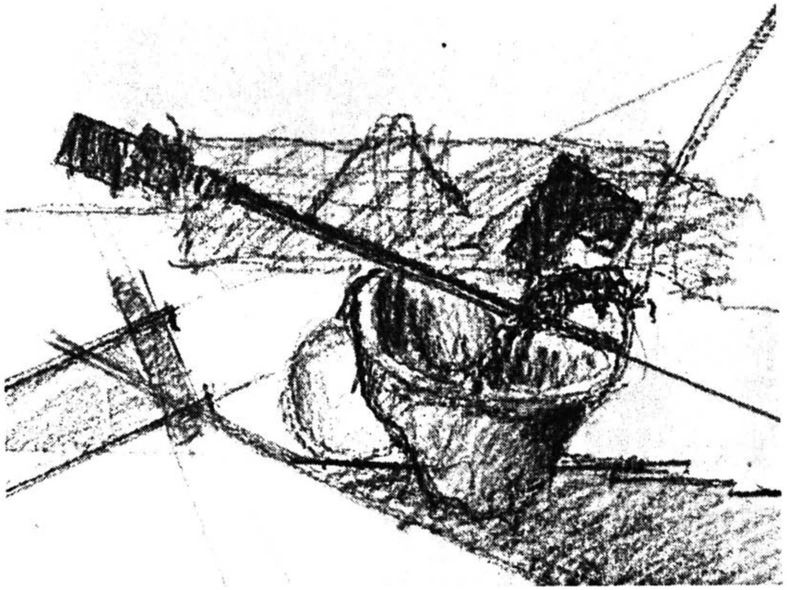


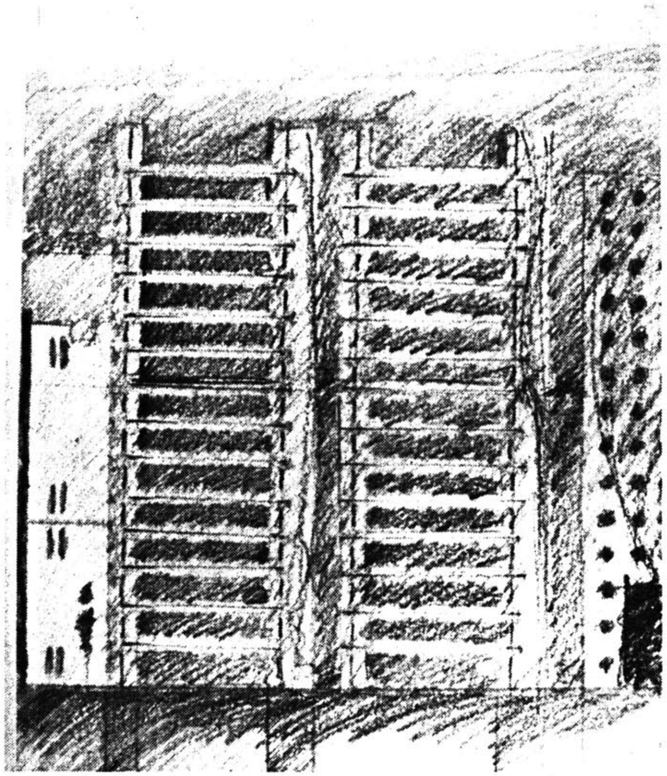
CARMEN CORNEIL (2 Feb)

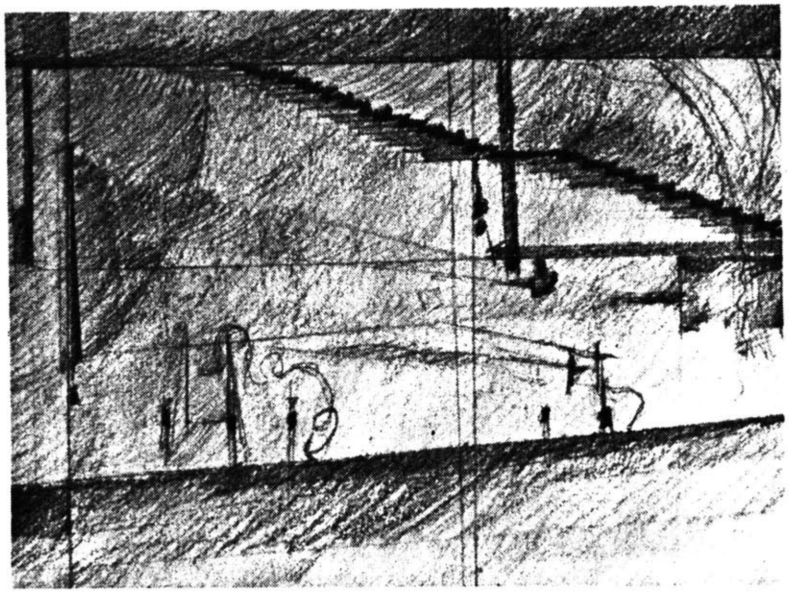
This is not something we normally do: three days of this kind of hard work.

One of the things you get out of working with models is that the pieces talk back to you.

So much more risk and chance in this business of working through feelings and through hunches. This is not intellectually "quite correct". Some kinds of possibilities grow up around that instant.



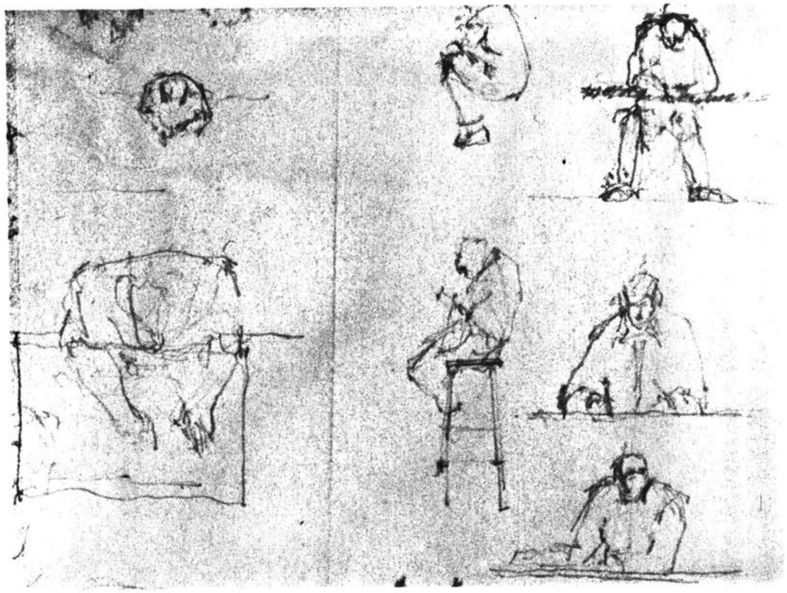


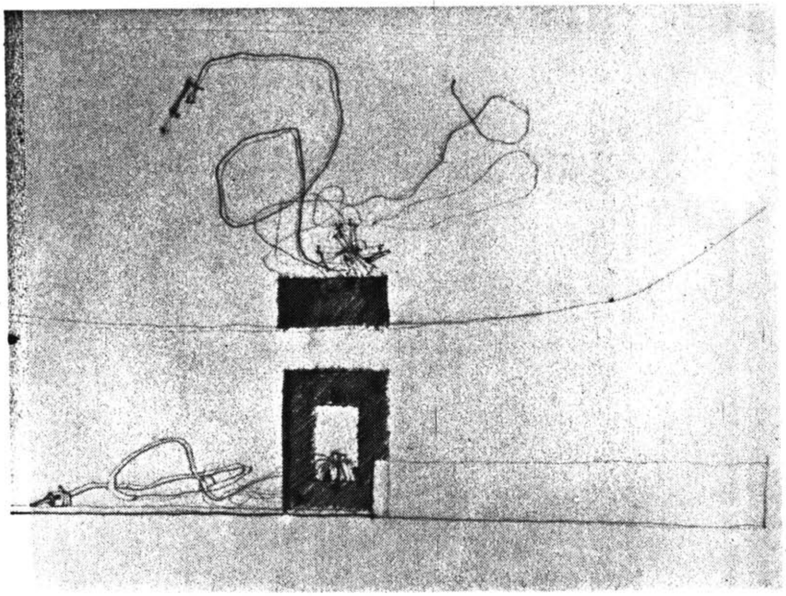


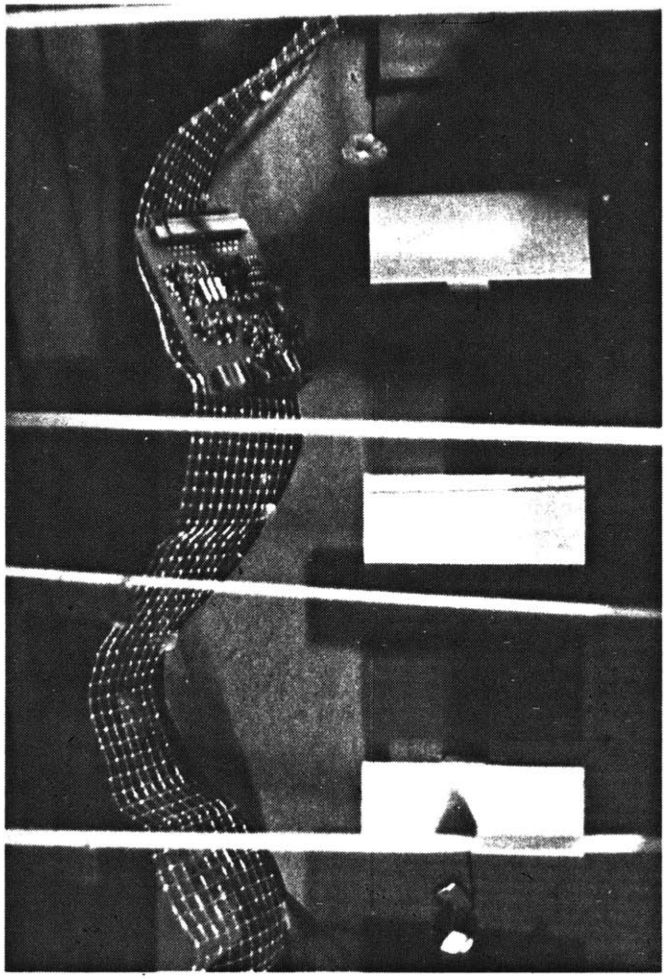
things to represent those things and establish a scale, which is a bit of a lurch into the unknown. And then pursue a process by which we established that we draw to scale whatever it was that we produced and began by drawing ourselves to scale as plan and elevation record. And then we moved into playing with a few of these pieces to find what the interaction might be established between them with a view to their character seen as building parts. No intermediary. No set of German blocks playing Rossi forms. But the things themselves understood as scale model parts to build with. So that one could imagine oneself always in this situation among these things.

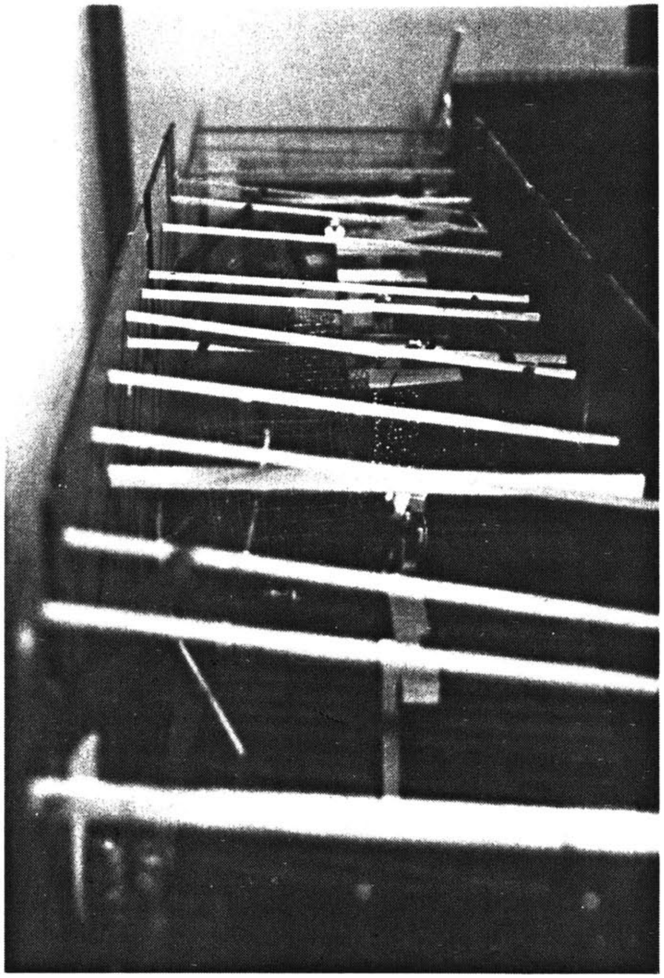
Having those things in hand, some of them having been represented as equipment so we could play a second game with how do you put a few building parts together with some equipment parts. And in little reviews of these things ideas were emerging all the time about attitudes to both the building parts and technological parts. And conceptual ideas, I must say, about what would be reassuring and help us to be in places, and what would be a bit more changeable and unpredictable.

Through a process, then, of carrying this thing forward into some studies where we let the parts change scale and become conceptual study pieces, were some small parts with characteristics that might represent larger aspects of







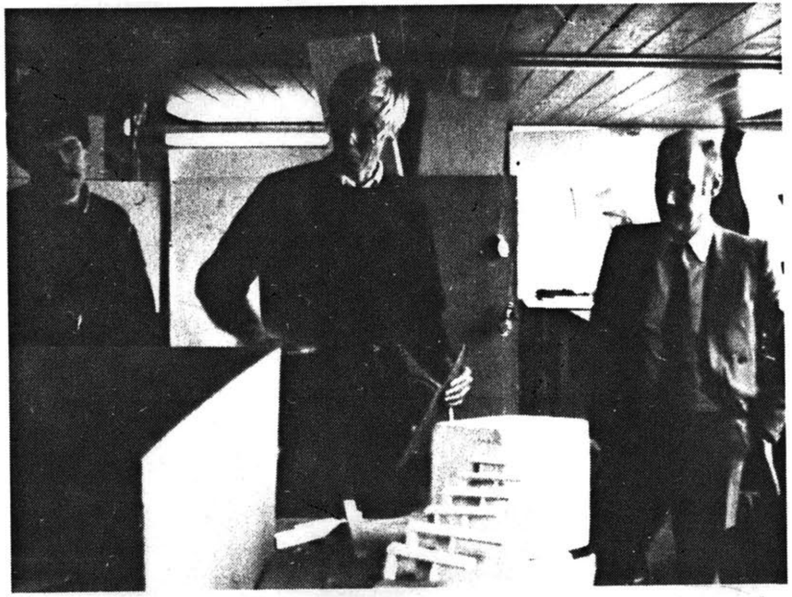


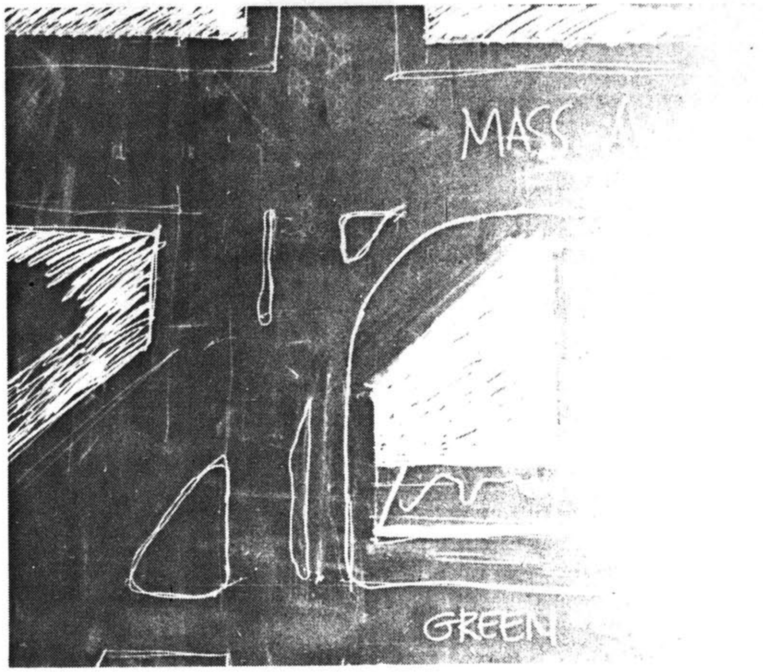
the building, were played together to establish larger conceptual ideas and site ideas for the building.

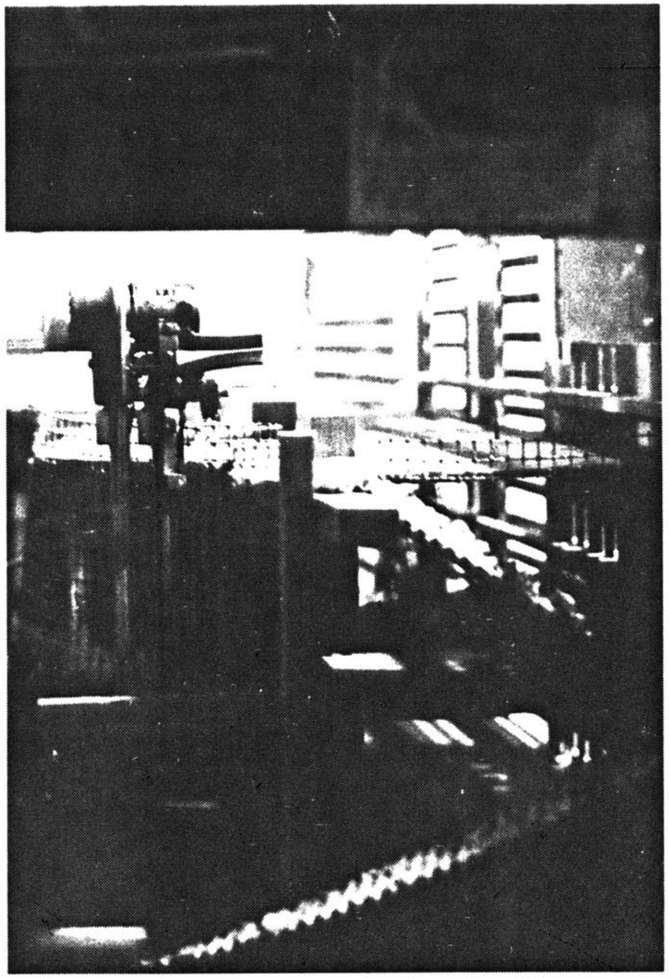
And then going back and finally having decided through looking at the propositions we came up with out of that, on one particular issue of the site, making the site to scale and carrying the game into a rather more difficult and intense period where suddenly there's too much space, too much schematic quality of the thing, that somehow has to be contended with. And filled somehow with detail.

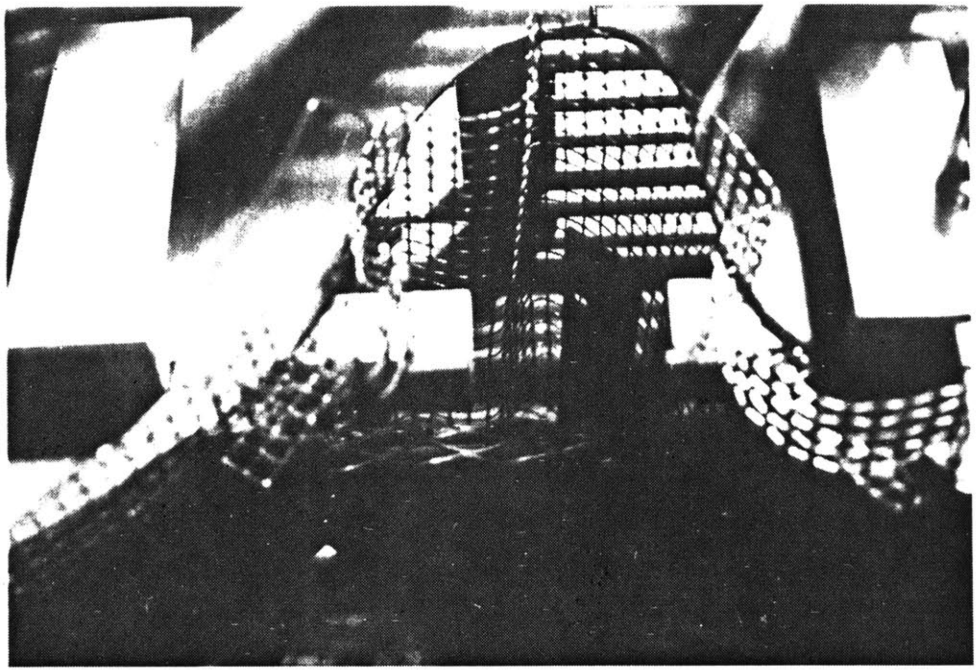
This is like going off the deep end a bit. This is like saying ultimately, this is the building. It's got all these systems. All these systems are going to be present in the final story. How do we place some up, some down? How do we get peace amongst all these things?

We can judge these things from the point of view, cause the thing's big enough now, of the use of an occupant, an inhabitant. And going along with this always is a kind of cycling out of the contemplative act of architecture where something stands before you and can push you around a little bit, and judge whether it feels right for you, that things are doing something for you that you want done; back into the analysis act of drawing where we always are aware of what the drawing represents. So we moved back and forth between those things, and kept a time record on the wall in there that goes along with





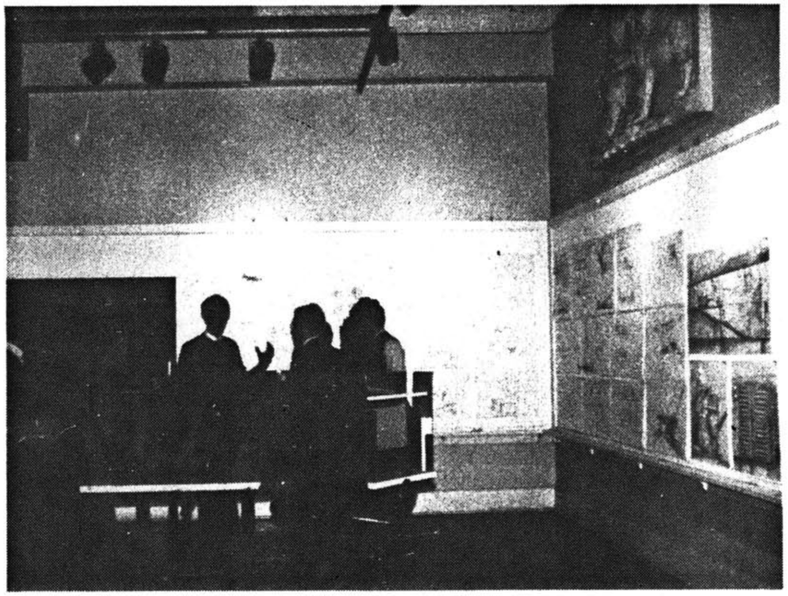


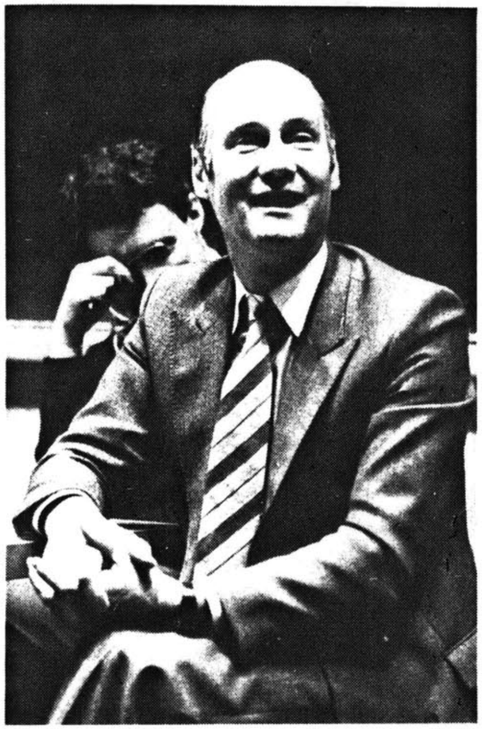


some phases of the use of the parts.

You might come to a result which is not something you would want to stay with because it's always a question of trying something out, putting something down and then backing up and looking at it. The look is an intelligent look. There are all kind of overtones of everything you do and you track through all your associations and references and so on. But you are aware of what it is that you are making and what it's going to look like from a hundred feet away, and what it's going to be like in there, and what else is going to come in and impinge on that place.

And it seems to me that that keeps us honest, and we would have to pursue this for quite a long time to get it right. I think this is just more or less an experiment to try and see whether we could move the realm of consideration, the focus of our consideration, more into the tangible world. The world that I was trying to suggest was architecture's own, and ought to be a generative one.





KURT FORSTER

the distinguished architecture critic and historian, is currently Director of the Getty Center for the History of Art and the Humanities in Los Angeles. He has taught at MIT and Stanford, and written numerous articles on modern and contemporary architecture, as well as that of the Romanesque and Renaissance eras. He has served as guest editor of *Oppositions* and *Architectural Review.*

UnRAVELing Rossi

AN ARCHITECTURE OF SUBSTANCE

1 Feb. 1986

Kurt Forster
1 February 1986

Introduction by Louise Hara

Hello, it's great to be back. I trust that the purple color upholstery and the Perrier have been added here to ease the transition which you thought I'd have to accomplish between here and California. But you don't know that I am coming from London where I've been exposed to the rigors of life. So it isn't so hard, you know. I'm afraid lunch never had a high priority at MIT as I recall. And therefore I'll have to strain your patience a little bit, not least because as you may know, music has it's own rhythm and takes its own time.

Only at the beginning will I have to, as it were, abandon for a moment the automotive speed of discourse and expose you to what will look like an image or impression of a langorous world moving along at an inalterable rhythm of its own.

What could justify the coupling of the names, however insidious in spelling and printing, of Ravel and Rossi? The French composer, whose most productive years ended in the early 1920's, died in 1937 when Rossi was only six years old and had

probably never heard of him.

What connects the exquisite compositions of Ravel, characterized by Hopkins as *"in deep sympathy with the worlds of children and animals, and with the imagined exotic and antique life"*[1] with the architect, who asked, *"To what then, could I have aspired in my craft? Certainly, to small things, having seen that the possibility of great ones was historically precluded."*[2]

I see in the composer's and the architect's works two highly distinct but secretly related responses to the evolution of modern art. Perhaps even to the thought of evolution and development itself. A response and even a resistance to modern art's driving force. A force of development, marking in rapid succession the stations of a concerted historical advance. A development that definitely shattered the forms into which new thought refused to be cast.

It would be far too narrow and simpleminded to identify Ravel and Rossi merely therefore as reactionaries of perhaps a special kind. Or as classicists of a somewhat exotic and undisciplined caste. Yet, there are clearly classicizing intentions in their work. Their motive force, however, is more emotive, more archaic, leading Ravel to explore ancient modal melodies, and Rossi to recover the still elements of architecture.

There are a startling number of other similarities. Both Ravel and Rossi seem to have sprung into being artistic individualities with their earliest works. All of the pieces, it seems, were conceived in the twenties of their lives, and early thirties,[3] only to return to these same themes and techniques again and again, thereafter.

What Ravel accomplished with his *Menuet Antique*[4] and the *Pavane pour une Infante Defunte* in the late 1890's, what he accomplished in this very early moment, Rossi put forward in his early projects for the Monuments to the Resistance and the Partisans,

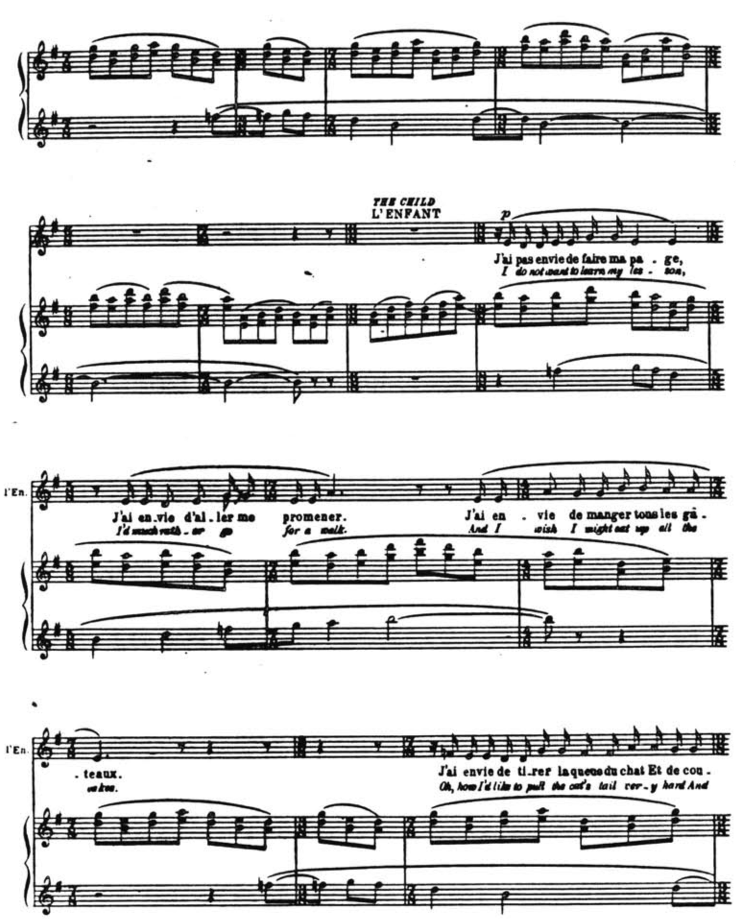
---

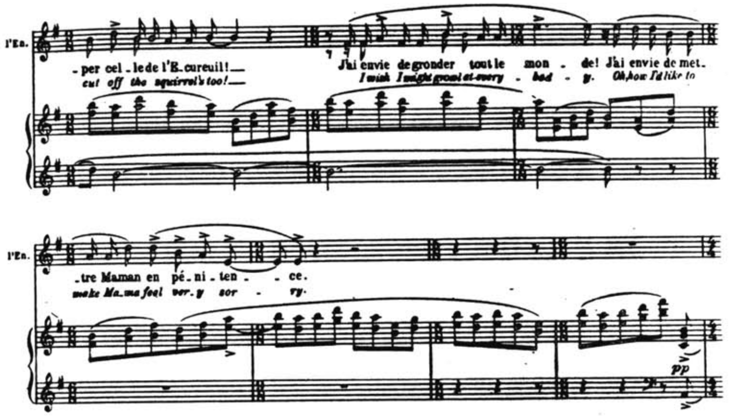
[1] *His huge appetite for the exotic and the antique was colored by a preference that they should be retailed throught he distorting glass of a naive intermediary, as in a child's picture book.* p. 615, Hopkins

[2] p. 23, Scientific Autobiography

[3] *1913: Ravel was 38. In a few years, with a zest and a lightness of touch which he later regretted he could not recapture... he built up the major part of his work.* p.70, Roland-Manuel

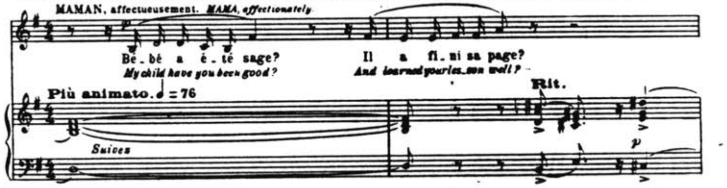
[4] *Ravel called it his 'somewhat retrograde work'.* p. 23, Roland-Manuel


THE CHILD
L'ENFANT
J'ai pas envie de faire ma pa - ge,
I do not want to learn my les - son,
l'En.
J'ai en - vie d'al - ler me promener.
I'd much rath - er go for a walk.
J'ai en - vie de manger tous les gâ -
And I wish I might eat up all the
l'En.
- teaux.
cakes.
J'ai envie de ti - rer la queue du chat Et de cou -
Oh, how I'd like to pull the cat's tail ver - y hard And


l'En.
- per cel - le de l'E - cureuil! —
cut off the squirrel's too! —
J'ai envie de gronder tout le mon - de! J'ai envie de met -
I wish I might growl at every - bod - y. Oh,how I'd like to
l'En.
- tre Maman en pé - ni - ten - ce.
make Ma - ma feel ver - y sor - ry.
pp

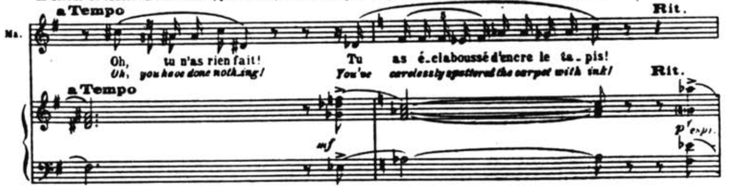
The door opens. Enter Mama (or rather as much as can be seen with the ceiling very low and the entire scale of all the furnishings and all the objects in exaggerated dimensions in order to make more striking the smallness of the Child) that is to say a skirt, the lower part of a silk apron, a steel chain from which hangs a pair of scissors, and a hand. This hand is raised with the index finger pointing.

La porte s'ouvre. Entre Maman (ou plûtot ce qu'en laissent voir le plafond très bas et l'échelle de tout le décor où tous les objets assument des dimensions exagérées, pour rendre frappante la petitesse de l'Enfant) c'est-à-dire une jupe, le bas d'un tablier de soie, la chaine d'acier où pend une paire de ciseaux, et une main. Cette main se lève, interroge de l'index.


MAMAN, affectueusement. MAMA, affectionately.
p
Bé - bé a é - té sage?
My child have you been good?
Il a fi - ni sa page?
And learned your les - son well?
Più animato. ♩ = 76
Rit.
Suivez
p

The Child makes no reply and pouting, slips down low in his chair. The skirt moves forward, one hand over the copybook. The other hand, higher, holds a tray on which are a teapot and a cup.

L'Enfant ne répond rien et se laisse glisser, boudeur, en bas de sa chaise. La robe s'avance sur la scène, une main tendue au-dessus du cahier. L'autre main, plus haute, soutient un plateau portant la théière et la tasse du goûter.


a Tempo
Rit.
Ma.
Oh, tu n'as rien fait! Tu as é - claboussé d'encre le ta - pis!
Oh, you have done noth - ing! You've carelessly spattered the carpet with ink!
Rit.
a Tempo
mf
p espr.

...part of score... L'enfant et les Sortileges

between 1960 and 1965.

What music historians recognized as Ravel's consuming artistic concern;[5] namely, his quest for *"absolutely the right thing,"*[6] the right two or three sounds, like the right word and only word that could be used for an object; his persistant and conscious technique in his exploitation of parallel chords, and his penchant for archaic forms; these find their counterpart in what Rossi himself confessed to be *"the lack of evolution in my work"*.[7] And his constant invocation of childhood memories.

Of course, Ravel's music can be understood as a persistant effort to create a poetic recollection of childhood.[8] The composer was never more imaginative or more at ease than in the musical reconstruction of those worlds of children and animals.[9] The imagined exotic and antique life. The themes of childhood from the *Mother Goose Suite* to the only short opera with a child protagonist: *L'Enfant et les Sortileges* from 1920-25, are therefore a kind of retrospective work. The life of objects remains central to Ravel's work.

For the *l'Enfant et les Sortileges* you have to imagine a langorous afternoon, the child is at home, and begins to indulge in imagination instead of doing the homework. Finally Mother appears, and the voice of authority which you will instantly recognize, will ask the child, "Did you do your work?"[10] and at that moment the child of course quite understandibly goes into a fit. And what happens in this outburst of destructive reaction to the world of discipline and of adults is a curious groaning, low, painful and aching emergence of the world of the objects. As the pendulum of the clock dashes across the room unable to stop its own mechanical motion, as the tea cups, a huge size, begin to tremble in their saucers, the coffee pot, of course, singing in a kind of fake English (because it's Wedgewood) moves toward the Chinese cups singing in a kind of fake Chinese, they engage in a sort of dance of the objects.

[5] *"It's lucky I've managed to write music, because I know perfectly well I should never have been able to do anything else." -Ravel* p. 64, Hopkins

[6] *l'objet juste* p. 615, Hopkins

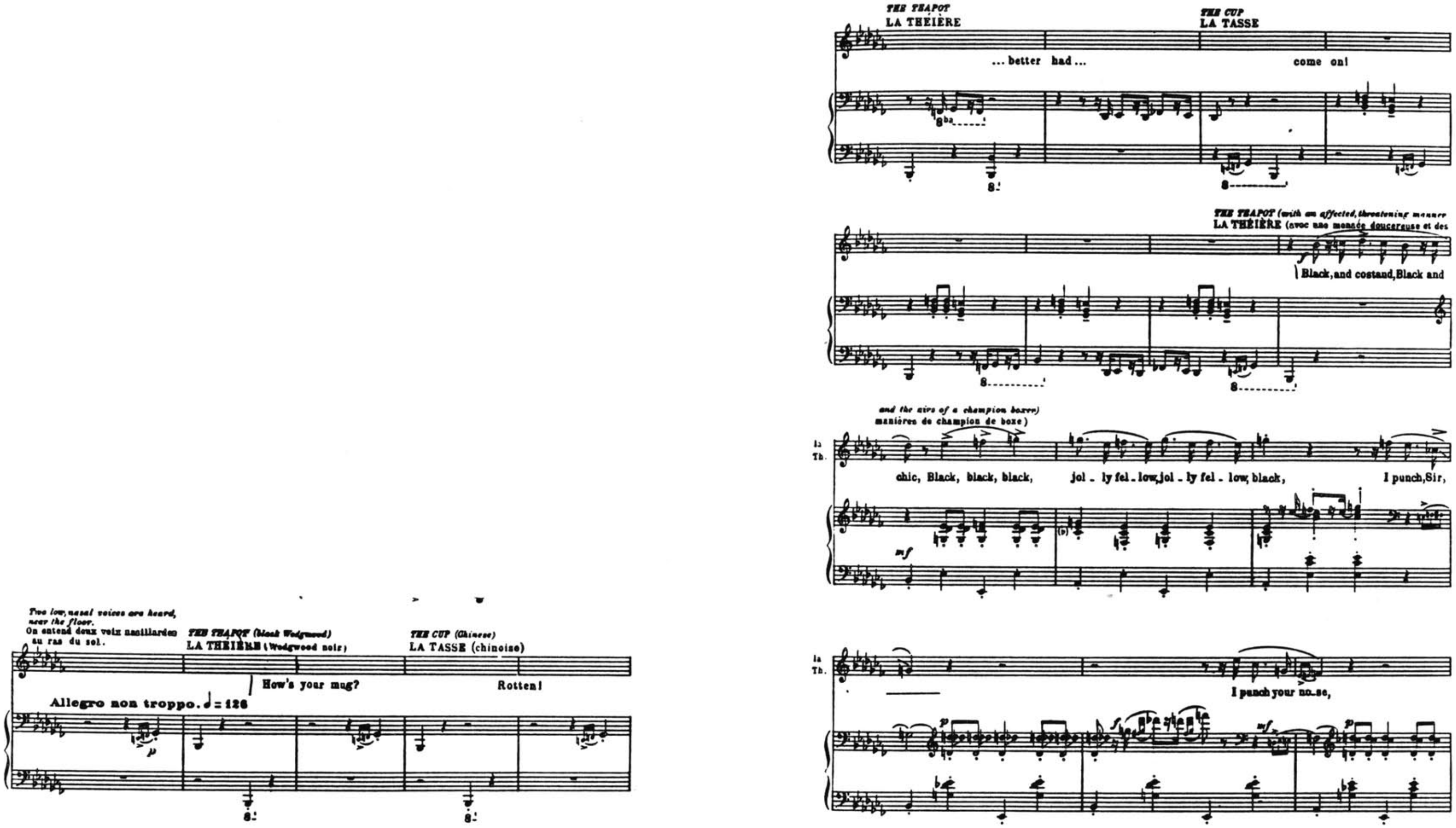
[7] *None of my projects turns away from the past, perhaps because I have never been able to express all the joy for the future which a project, an object, a journey, a person could possess for me.* p. 72 Scientific Autobiography

[7] *The lack of evolution in my work has been the source of some misunderstanding, but it also brings me joy.* p. 12, Scientific Autobiography

[8] *Ravel was a master of an enchanted world, peopled by children, gods, fairies, compassionate animals, turbulent puppets, clockmakers without souls and immortal clocks.* p. 125, Roland-Manuel

[9] *...the secret of his profound nature and the soul of a child who has never left fairyland.* p. 53 Roland-Manuel

[10] *"Bebe a ete sage? Il a fini sa page?"* p. 3 Ravel and Collette


Two low, nasal voices are heard, near the floor.
On entend deux voix nasillardes au ras du sol.
THE TEAPOT (black Wedgwood)
LA THEIÈRE (Wedgwood noir)
How's your mug?
THE CUP (Chinese)
LA TASSE (chinoise)
Rotten!
Allegro non troppo. 𝅗𝅥 = 126
p
THE TEAPOT
LA THEIÈRE
... better had ...
THE CUP
LA TASSE
come on!
8ba
8
THE TEAPOT (with an affected, threatening manner and the airs of a champion boxer)
LA THEIÈRE (avec une menace doucereuse et des manières de champion de boxe)
Black, and costand, Black and chic, Black, black, black, jol - ly fel - low, jol - ly fel - low, black, I punch, Sir,
mf
I punch your no - se,

...part of score... L'enfant et les Sortileges

I think you should have the benefit of it for a little while. Notice, of course, the very simple motifs which endlessly repeat themselves go nowhere, no development, no future, no adulthood.[11]

(plays excerpt of the opera)

To the naughty child's great astonishment, after a brief fit of anger, the objects in this room assume a sort of fantastic life of their own, and perform a kind of dance like in a magically animated still life.

(plays excerpt of the opera)

Now perhaps, the piano suite *Mother Goose,* 1908–1910, best represents Ravel's interest in the curiously static presentation of limpid musical motifs in an almost archaic guise.

Ravel's music contains two elements, readily identifiable, in an odd kind of combination and contrast.[12] One is this return to modal melodies, which are like the church motets, that simply begin on the scale: E, E, F, et cetera, as if there were only white keys on the piano. And the other, is the highly evolved continuously developmentally active chromaticism, which knows modulation, which can get you through a process from one key into another. And these two worlds are present. One, the chromatic world present there, is the most obvious grand recognition of the modern world. And the other one is that of the desired object, of these very simple melodies. In other words, you couldn't say if this is a major or monor key. This is from before the age of major and minor keys.

From the opening of Mother Goose:

(plays excerpt)

---

[11] *"The reduction to essentials is carried to extreme." -Ravel,* p. 89, Roland-Manuel

[12] *Again Ravel made play with the contrast between modal melody and diatonic harmony.* p.617, Hopkins

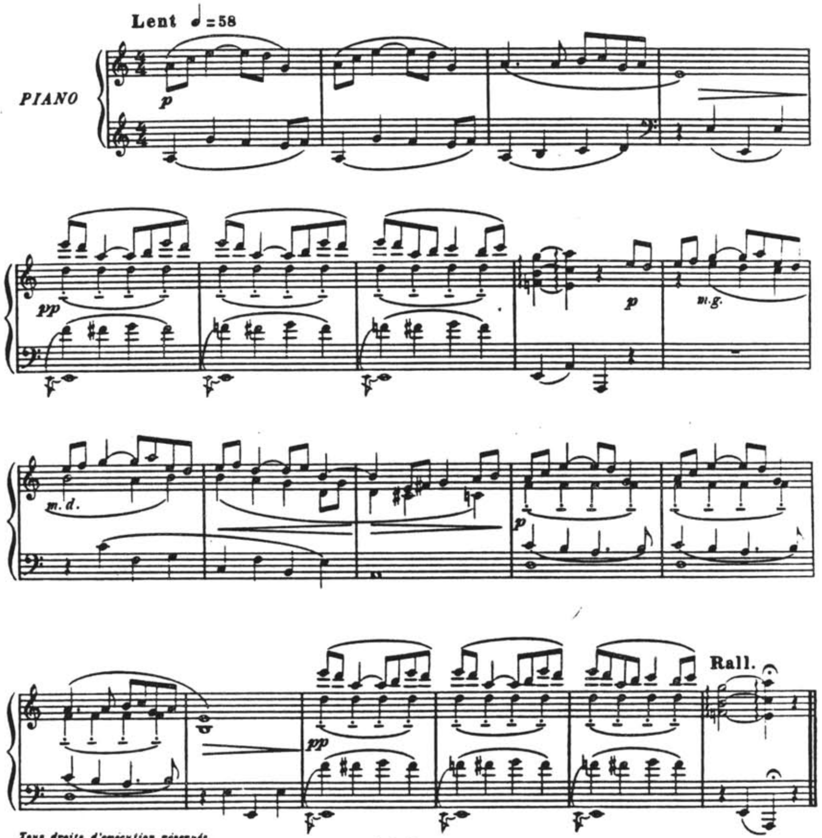
A MÈRE L'OYE

5 PIÈCES ENFANTINES

Transcription pour Piano à 2 mains
par JACQUES CHARLOT

MAURICE RAVEL

I.- Pavane de la Belle au bois dormant.



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Paris, 4, Place de la Madeleine.

...part of score... Ma Mere l'Oye

Now Hopkins has succinctly characterized Ravel's procedure when he wrote:

"Since the object cannot actively participate in subjective functions, (those normally associated with musical exposition and development), its temporal extention must be constituted either of stasis or of some form of "objective", (i.e. mechanical, automatic) movements.[13]

Therefore, you have the reiteration of the same thing which doesn't get you anywhere, as it were, or you have that pendulum, for instance, or the motion of objects that we encountered in *l'Enfant et les Sortileges* simply exhibit and move through their own mechanical predetermined notions.

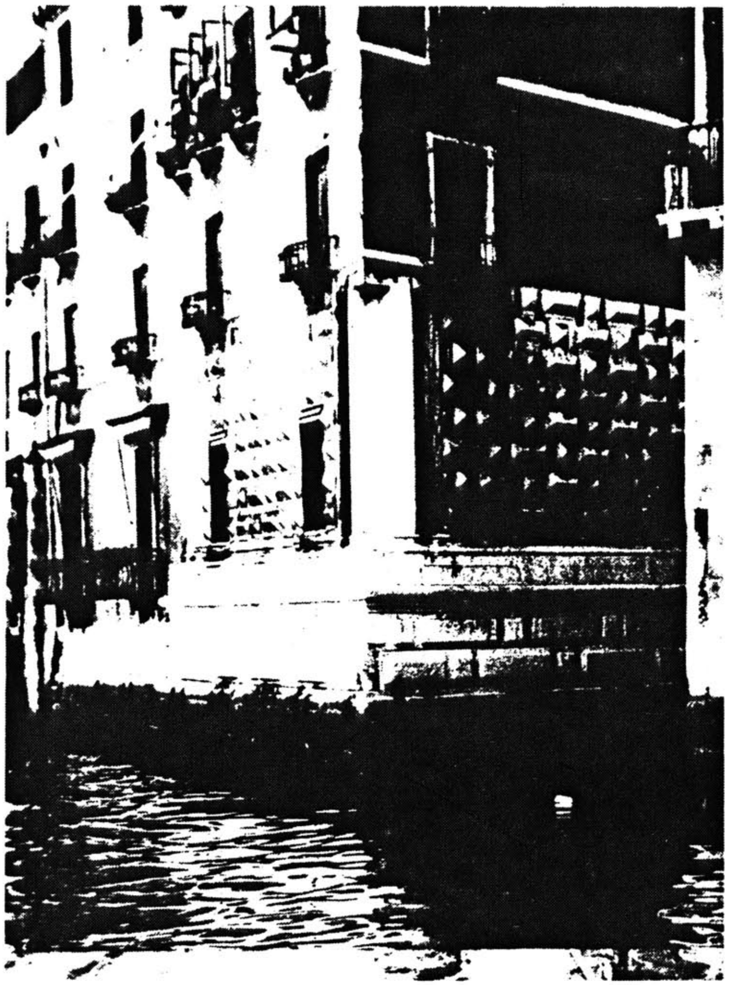
This statement about Ravel's music might be compared to Rossi's own reflection on what attracted him to the *Sacri Monti* of northern Italy where he states: *"I was, as I now am, attracted by stasis and naturalness, by the classicism of architecture and by the naturalism of people and objects."*[14]

Beyond any personal and perhaps insidiously private affinities, there is an objective historical connection between Ravel's and Rossi's response to modern art. Ravel reacted to it at the time of its most forceful advance from the turn of the century to the First World War. And Rossi to its eventual decline after the Second World War and of course a rather dramatic decline and challenge in the sixties. So in a way we can look at Ravel and Rossi as illustrating to us a recognition of certain things about modern art that you mainly locate between the First World War and the nineteen sixties. From two totally different perspectives that can not only tell us a lot about what it is, but can in turn, tell us very clearly what we have to make of Ravel and Rossi.

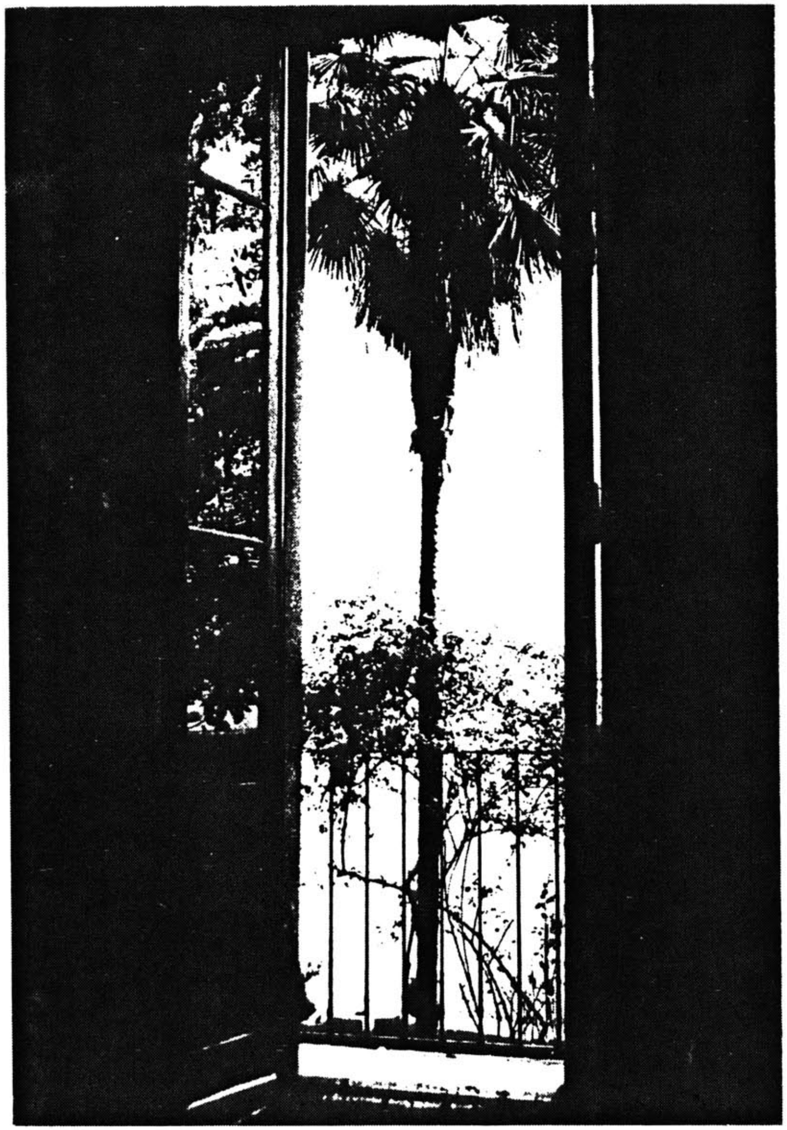
I now want to turn to Rossi's thought and work, drawing equally from his writings

[13] p. 615, Hopkins

[14] p. 5, Scientific Autobiography



Filarete's Column, Venice



Palm Tree out of Window

and projects in order to understand his search for what had been called with Ravel, the "exactly right thing". Among the motifs illustrated with photographs in the *Scientific Autobiography* are some that Rossi reiterates again and again in his drawings and indeed in his projects and buildings. I single out just four:

1. Filarete's column in Venice
2. The tree growing through the open frame of a tall window
3. The giant statue of San Carlone, Arona
4. A photograph showing his huge Teatro del Mundo floating in the Venetian lagoon.

To quote from Rossi's *Scientific Autobiography:*

"One morning, as I was passing through the Grand Canal in Venice on a vaporetto, someone suddenly pointed out to me Filarete's column, and the Vicolo del Duca and the humble houses constructed where the ambitious palace of this Milanese lord was to have been. I always observe this column and its base, this column that is both a beginning and an end. This document or relic of time, in its absolute formal purity, has always seemed to me a symbol of architecture consumed by the life which surrounds it."[15]

In the column, Rossi identifies both this relic of the past, and an essential element of architecture itself: quite literally, one of its building blocks.

Let's turn the pages of Rossi's *Scientific Autobiography* and consider for a moment the photograph of a french window open to reveal the tall trunk of a palm tree rising beyond its transom. The tall balcony door frames the view from a nearly dark

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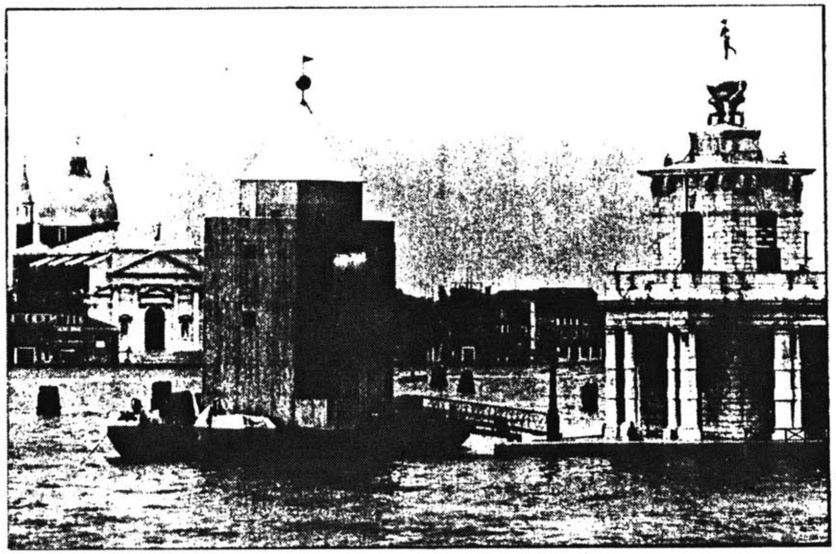
[15] p. 6, Scientific Autobiography

San Carlone



Rossi: Teatro del Mundo, Venice

room towards the diffuse light of the sky, with the palm tree dividing the opening. An image of complete calm. Not a branch swaying in the wind. The low point of view as if taken from a bed, and the darkness of the room suggest a viewer inside a kind of camera obscura to whom the outside world appears as a miraculously upright image. An image of architectural starkness. An open frame, and the columnar trunk of a palm tree beyond.

Both couldn't be more elementary. A frame, open and vacant, and a single object, discreet and solid. Rossi recreated this encounter between the frame and the tree in his rendering of various projects. Take this shot from the Elementary School, Fagnano Olona in Northern Lombardy where the tall smokestack rises through the window, here replacing an element of nature with one associated with industry, fabrication and in fact, one might say, worse like with crematoria.

To quote Rossi:

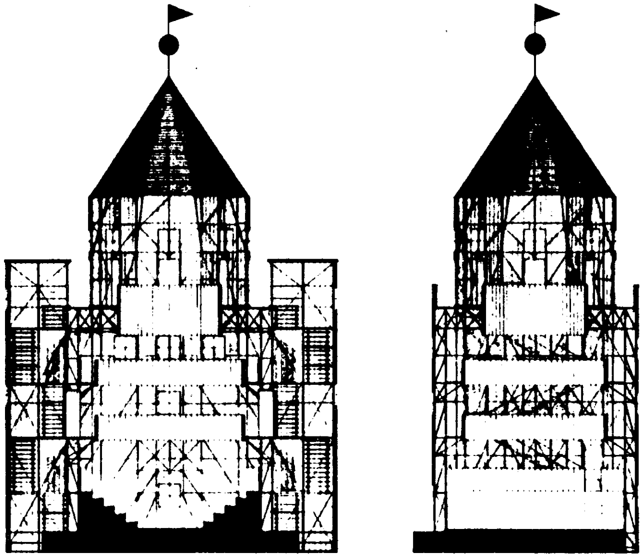
"The interior/exterior aspect of architecture, was certainly first suggested to me by the San Carlone at Arona. A work which I have drawn and studied so many times, that it is now difficult for me to relate it to the visual education of my childhood."[16]

So this giant statue, overlooking the diocese of Milan from the northern boundary in the foothills is an object, a machine, a building, a tower which seems to hold the key to an issue that every single architectural decision in one form or another raises again and again.

One climbs up and up and finally can look out through the eyes of the statue.

Rossi's recollection of the San Carlone is worth quoting at length, for Rossi discovers

[16] p. 2, Scientific Autobiography



Rossi: Teatro del Mundo, Venice

in the giant statue two other decisive aspects of his work in architecture: the building as utensil and machine, and the relativity of scale.

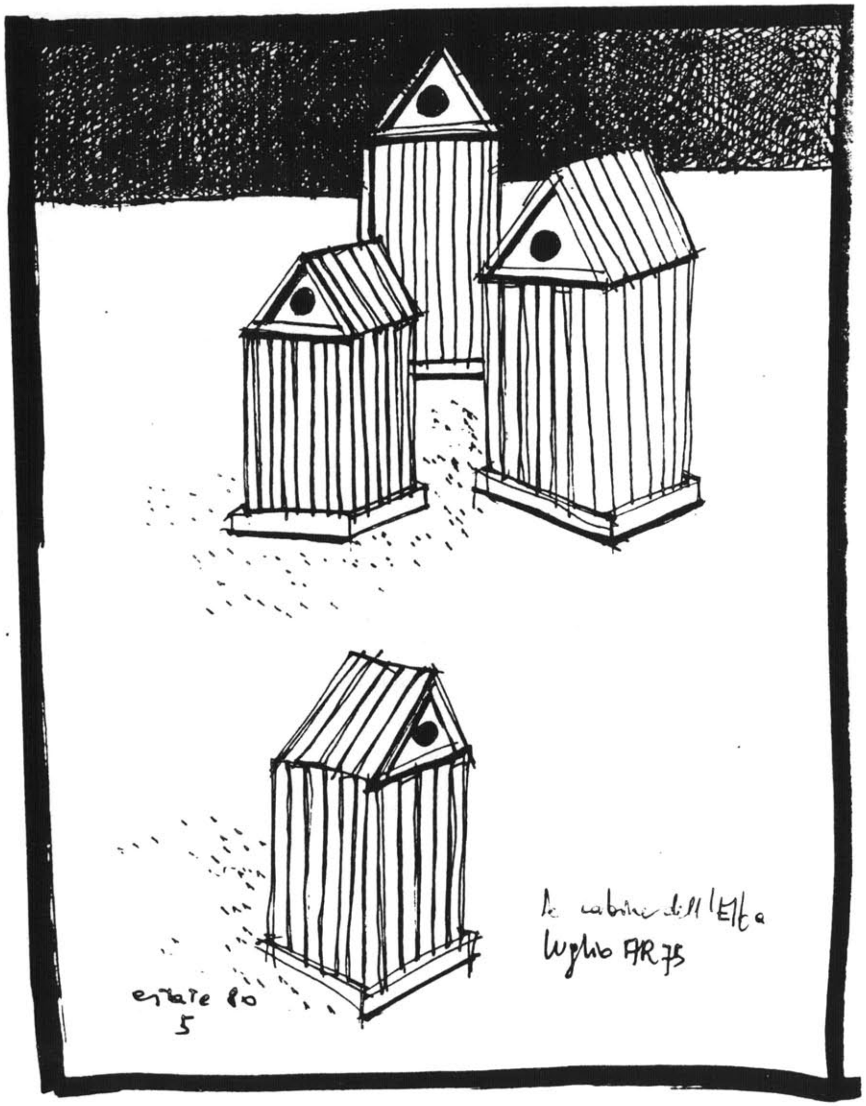
"As with the Homeric horse, the pilgrim enters the body of the saint as he would a tower or a wagon steered by a knowing technician. After he mounts the exterior stair of the pedestal, the steep ascent through the interior of the body reveals the structure of the work and the welded seams of the huge pieces of sheet metal. Finally, he arrives at the interior-exterior of the head; from the eyes of the saint, the view of the lake acquires infinite contours, as if one were gazing from a celestial observatory."

"A sensation which I had not felt since childhood: that of being invisible, of being on the other side of the spectacle."[17]

The theme of spectacle, or theatre enters the tower. Perhaps the earliest manifestation of what became many years later the enigmatic *Teatro del Mondo,* the *Floating Theatre Tower* for the Venice Biennale of 1980.

As we hear about Rossi's memories about his recollections from childhood, about the association of certain very early experiences and moments with fundamental issues in architecture like inside and outside, motifs, stasis, or development and so forth, we must also remind ourselves that while these childhood memories in his, as well as probably in our and everybody else's recollection, have a curious atemporality about them: As if they were of no time and of all time. As if they were so old that it doesn't matter how far back in the past they are. Or as if they are so at our beck and call and emerge into our consciousness, that they pass through our consciousness just like that famous platinum thread held in the gas to ignite the gas without in any way changing in the process. As if they are immune to time, and therefore beyond history, from before history and destined to outlive it.

[17] p. 11-12, Scientific Autobiography


le cabine dell'Elba
luglio AR 75
estate 80
5

Cabine dell'Elba

If we look at our memories in that way, as indeed we are always tempted to do, we tend to forget something else about them. And that is that we and Rossi and everybody else lived their childhood at a particular historical moment. And that these experiences, if ever cut loose from the stranglehold of calendric time, are nonetheless, and having occured in the past, are nonetheless tethered to a real moment in time. And what is that moment in time in Rossi? It is of course, the world of the thirties and forties. So at that moment we observe the extraordinary amalgamation that takes place between something that has no ancient origin, except in the subjectivity of the person recalling the event, and something that has at the same time the most precise locus in history.

But before we can grasp the meaning of "theatre" as the site of rituals, after all, not just as a box, one must follow Rossi in one of his characteristic mental excercises of *reductio ad absurdum.* When he discussed the relationship and the contradictions between interior and exterior as fundamental to architecture, he went on to connect this idea with the small beach cabins.

"The idea appeared in the drawing of the cabins as little innocent houses" (that is really as child's houses) *"--as the innocence of undressing by repeating old and familiar movements."*[18]

It is a little bit like a house, so small that you could hide in it, like in a cupboard. And it appears in a number of contexts which greatly emphasize its role as the representative, as a kind of cipher for the individual all by him or herself. As opposed to larger buildings which inevitably have to accomodate many and many things, and are therefore not amenable to this kind of simple repetition and reduction. Here then, is the smallest house, barely large enough to change from street clothes to bathing trunks, but large enough to have the appearance of a house, with roof,

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[18] p. 26, Scientific Autobiography

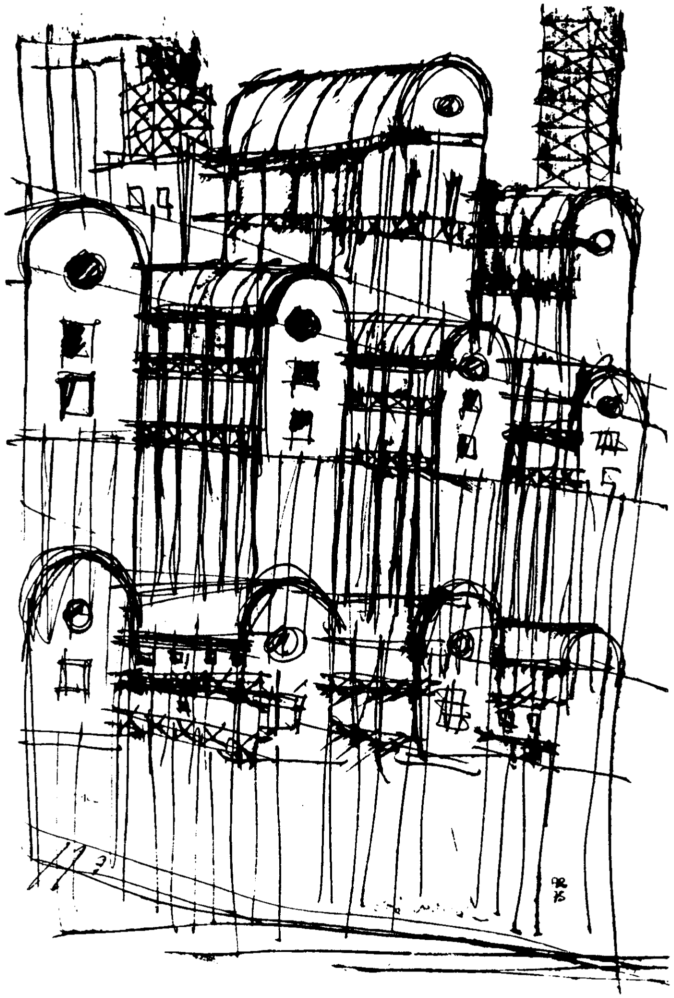
pediment, gable, oculus. The site of something even children have done many thousands of times: dress and undress. And the place of a fantastic reversal, not the small boy inside the giant saint, but the big boy inside a tiny cabin.

The idea of the house type deserves some attention, even digression. On page 44 of his *Libro Observo,* Rossi recorded a passage from a book compiled in New Orleans in the summer of 1732. He copied the chieftain's hut in a drawing adding in characteristically spontaneous fashion *"sometimes I regret to have discovered these things so late."*

This is a secret symmetry in his pang. The sudden realization that memory not only brings back origins, but also provides a yardstick to measure how remote from us the remembered objects can be. The extreme reduction of form that recommended the beach cabins as an aboriginal house type for Rossi's speculations reveals both the dimension of historical recollection and synthesis, and an ahistorical quest for architectural form and origins.

Indeed, Rossi travels a familiar path. Already well known to Rennaisance writers on architecture like Serlio, and of course frequently traveled by nineteenth century students of building, like Semper, and Viollet-le-Duc. A path, through sort of function/form dialectic. That can be illustrated by a juxtaposition of John Wyatt's famous recording of an Indian settlement in South Carolina, where a house type essentially composed of wooden posts and vaulted over by woven building materials in a kind of tunnel vault, is adapted to very different purposes from storage, to assembly, from merely a shed against the weather, to a protected enclosure. And recorded along with others just in the manner that Rossi copied over that record of a chieftain's hut from Louisiana.

And of course in these houses near the Ticino Valley he has tried with this low vault



Villa and a Pavillion in Borgo Ticino, 1973 over the entire house, the exposure of these posts, and these recessed walls, to bring all of these things together: The kind of self contained closure of the house reduced to a sign. A sign helped along by such things as the oculus under the vault, the exposure on the one hand of the colonnade giving you a sense of how this entire thing is constructed, and the recessed wall to make a distinction under the volume of the vault between what is closed and what is open. And all of this excercise is really conducted in order to recover in the simplest possible reductions all those elements that we have touched upon by a choice of Rossi's own photographs as he evoked their reality through what is essentially a memory of the past.

Now, reduction and repetition determine the character of habitations and no better realization to be had of that than through an investigation of late fifteenth and early sixteenth century thinking about the evolution of building.

Here from the Alberti, something which is not at all discussed in the text, but is here recorded in the context of the beginnings and elements of structure: one of those familiar open cubes with a roof carried on corner posts and the possibility of lean through additions again replicating and reducing further what makes the basic vocabulary of building, a vocabulary predating the arrival of stylistic elements.[19] Predating the presence of anything that could be given a sharp, specific location and date.

It's of course, a quest which has by no means come to conclusion. In fact, it increases dramatically in the nineteenth century. It even makes Le Corbusier, 1915, from a train in Normandy quickly sketch down one of those simplest buildings. You'd think Corbu doesn't need to sketch such a building. Any one of us can imagine that, I mean, what's the point? The point of course is precisely that in the seeming unselfconscious, inadvertant and unpremeditated appearance of these elements they seem to at once contain and lock into themselves that fundamental essence about building

[19] *I was amazed at Alberti's persistence in repeating the forms and spaces of Rome, as if a contemporary history did not exist.* p.2, Scientific Autobiography

which consists of things like a closed cube and an open cube.

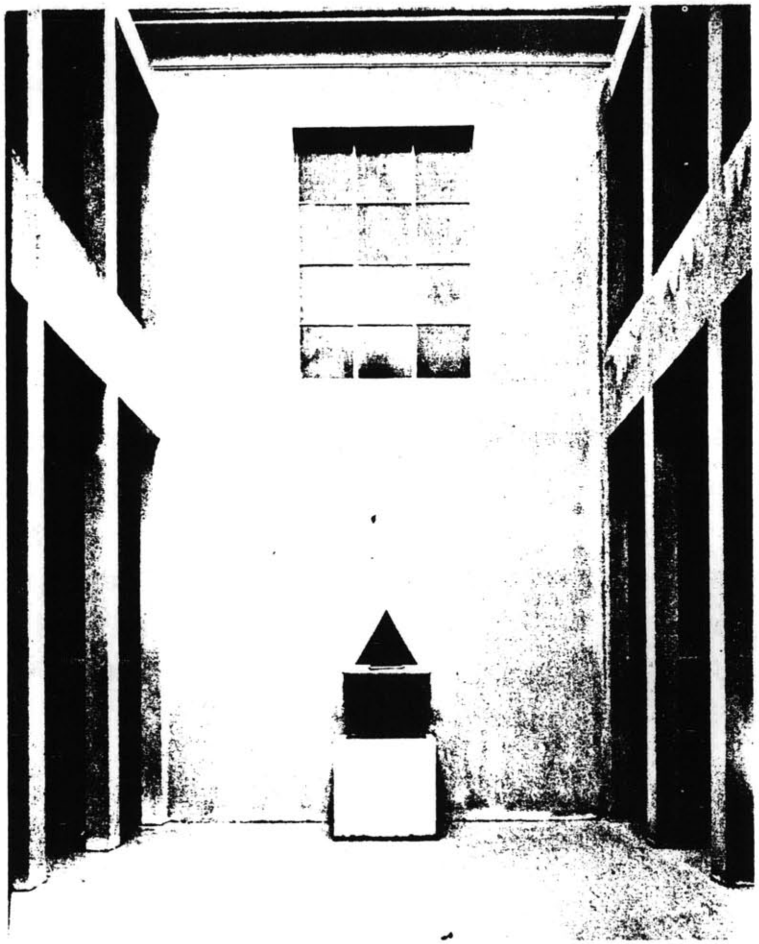
Reduction and repetition determine the character of habitation, and Rossi can sound like almost an unreconstructed functionalist when he observes that. *"I think it is better to stick to a unique type which is repeatable, varying only in accordance with the conditions created by the environment."*[20]

But one must not be misled into thinking him a mere decendant of the Dutch and German functionalists of the twenties and thirties. On the contrary, his relentless search for the most essential, the most typically true form of the house, namely making of *l'objet juste* based on what he terms repetition and fixation serves ultimately to record the immoveable elements of architecture, its true substance. From the historical search he merges not a pragmatic catalogue of variety, not a historicists dillemna where you endlessly flap through the pages (a la Robert Stern) to finally fix yourself like by chewing gum on something lifted from its otherwise unrelated context, and like a nosegay, stick it on your own face. But what emerges from this quest is a mythical unity and originality of formal type.

The two axes of reference intersect in a mythical point of origin in history, which really never was, in the youth of building like finding the main spring, and in the recognition of the present condition and of Rossi's own moment so removed from that origin that the intersection of the two can never be as it were, under your feet. The dual reference, on the one hand, to the historical beginnings in the hut, and the other hand, to the canonic reduction of formal type in the cabin, this dual reference coincides with classicism. Classicism fixes the essence of building recreating in historical time the elusive moment of timeless beginning.

Look at Friedrich Schille's drawing exposing under a wide open sky and sillouetted against the sea and the remote outline of the bay under the clouds, these simple

[20] *I have always considered change a characteristic of cretins, a kind of stylishness -a stylishness characterized by inconsistency: as in the case of those who call themselves 'modern' or 'contemporary'.* p. 53, Scientific Autobiography



Rossi's fountain at Scola Edmondo de Amicis di Broni, 1970 volumes in the stark light of this water color as objects which seem to have one mission: To hold their own, forever against all the forces that have shaped what the rest of the world is like.

We praise nature. Of course these mountains were once totally different, mudslides, catastrophes, downpours, eruptions, and so forth have transformed them. This sort of domesticated House and Garden view of nature as an eternally benevolent setting, if left alone will make granola grow on the trees. Right? It's just such an abysmally ahistorical and primitive view to hold up when we have to fight creationism at the same time.

It's the equivalent of creationism. *"It's always been that way, God made it himself and he put in the shrubs and we should really keep it that way."* When in fact, of course it is, the creation is also its own gigantic graveyard where it feeds off some of its earlier stages of destruction which truly daunts us so that even we can't think of no worse term than call the post-atomic condition the "nuclear winter". To call it a winter is a reminder of that.

Think of Schille, 1799, and Kahn's famous fountain. Indeed, if you think of that trough here and the surface with the sheet of water falling on these objects are truly exposed to the same life. If you pirouette on your heel here, this is what you see: the San Diego basin and the sea, right out here. If you're very lucky you can have a hang glider in an icaric motion glide through the open theatrical stage of the building by Kahn itself. But think of this as the American *unbehalte Mensch,* the unprotected creature. What is missing, to make it Rossi, is the little roof.

Such canonic definitions and formal reductions congeal in building blocks, literally building blocks. Here is the Rossi version of the Kahn fountain, with obviously very much less water, you know. That's why when you go to Rome don't stay in a hotel

which is on the hill, because sometimes the tap doesn't respond.

Now Rossi's building blocks, however, are not identical with the classical elements of orders. They retain a vaguely preclassic indeterminiteness revealed at once by their fragmentary nature.

Building blocks, as they became popular just before the turn of the century, illustrate this primitive aspect of a formal reduction to type elements. This is the famous Ankor building blocks made of an agglomerate artificial stone described in detail in the booklet which is included in six languages, (including Dutch). A worldwide marketing success of the 1880's and early 1890's. And notice the extraordinarily intriguing contrast between the surface of this madcap late Wilhelminian ornamentation, where you think all this is made up of an endless system of columns and niches and scallop shells and trabiations and capitals and so forth, and then you open it up and what you get is really sort of the cold pasta of building reduced to its most elemental stereometric abstraction. And, this being a German product, it "comes mit ze book" showing you in great detail and in properly pedagogical sequence, how you are going to do this. You are going to learn it after all.

I claim to you that I'll build you almost any Rossi product with these blocks. So the extreme reduction and formal fixation of such buiding blocks determines the repetitive character of their assembly. Scaleless and endlessly repetitive, the miniature structures piled from elementary blocks nonetheless set a stage for imaginative transpositions. Transpositions which have to do with a reiteration of all those fundamental component parts and the various conjunctions that can be made between them. And therefore the building block, even a toy, returns to an exercise so compellingly engaged in, in the late 18th century.

One can build these miniature "Rossis" for imaginary rituals as he did himself.

"Rituals give us the comfort of continuity of repetition compelling us to a bleak forgetfulness."[21] That contradiction between the repetition which at once recognizes that what you repeat has to be reaffirmed and restated again and again is also recording in the same gesture the fact that it seems so precarious in recall. If you don't state it again it will go away. It will be, in a sense, lost forever to oblivion.

That kind of restatement finds its direct analogy in Ravel's *Entre Cloche,* in which what we hear is the tolling of the bells. And this brings out most compellingly all those elements of the reduction to single sounds which boom at you again and again.[22] The repetition of these otherwise unchromatically coordinated chords and on top of it the kind of din of memory.

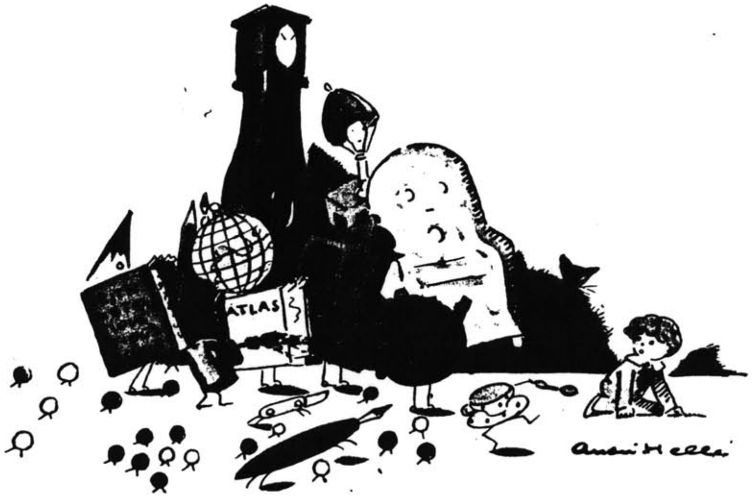
At this point, we must return to Rossi's *Teatro del Mondo* and the dollhouse like *Teatrino* for they now encompass all the other elements as well as the unique relationships among them. They are at once simple unified houses. Be it an observatory, like in the *Teatro,* or a tiny box of a house, like a puppet theatre. Whether the city itself is dwarfed in the view from the *Teatro,* floating on a barge through the lagoon, or magically enlarged in the encasement of the *Teatrino,* in which the still life of the architectural elements turns into a set of abandoned utensils for the conduct of life. It is almost as if Rossi were taking seriously what he said about the San Carlo Borromeo: a kind of utensil, machine, house.

The theatre is the original site of reenactment, of repetition. Rossi knows this most precisely. *"Architecture becomes the vehicle for an event we desire, whether or not it actually occurs."*[23] So in a sense, the theater is the empty stage and in architecture he creates that empty stage, which is there almost like fork and knife and spoon laid out for a meal to be had whether you're going to have it or not. It gives you the tools for the ritual that is conducted. And in fact it proffers them in a kind

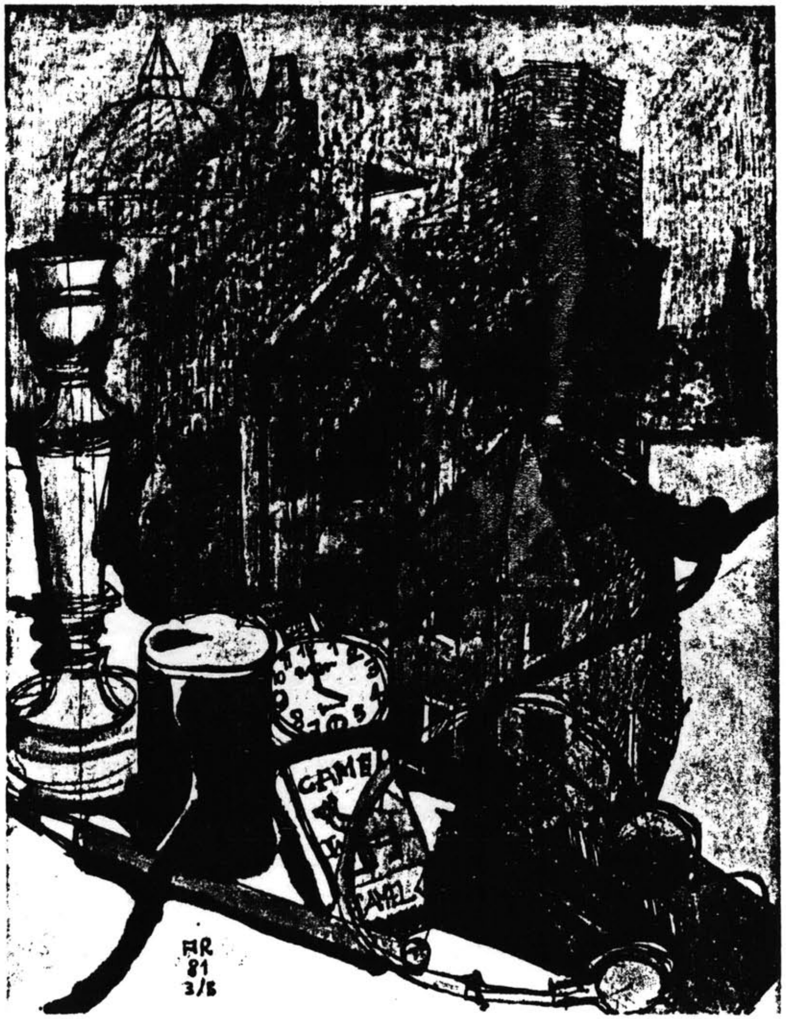
[21] p. 37, Scientific Autobiography

[22] *The use of the repeated note was to become a hallmark of Ravel's style.* p. 617, Hopkins

[23] p. 3, Scientific Autobiography



Frontispiece of score of L'Enfant et ies Sortileges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Rossi: Still Life

of still life like reduction, be it a variation on the *Cabine dell'Elba* with that little shrine and the clock.

In Bergmann's *The Field of Strawberries* there is a clock which has ceased to register time. It merely leaves you with the anxiety that there *was* time. The theatre, therefore, miniaturizes the city. The two are united in their common nature as a stage. A stage which always looks abandoned when represented as a stage alone. Only the enactment of life can temporarily redeem their recuity. Their almost morbid emptiness. *"For many reasons, this void is both happiness and its absense."*[24]

The huge structures of public institution, by contrast, assume a scale altogether of an impersonal world by contrast to the cabins. It is the same fundamentals, but given a completely different reality. The little *cabine* are almost like a flock of individuals in a forecourt to a giant public structure.

The city shrinks to the dimensions of a still life. Utensils and implements, like the coffeemaker, grow to the dimensions of a tower recalling the enormous dimensions everyday objects assumed in Ravel's *l'Enfant et les Sortileges.* This could almost be a direct stage set.

Rossi confesses that he *"strives to achieve the silence of things repeated or stated for eternity."*

Let me remind you of Ravel's interest in orchestrating his piano compositions often years after their original creation, in a gesture of both repetition and transformation.[25] In a sense, exactly as Rossi did.

Rossi's architectural forms assert their presence even in as complex a structure as a modern theatre, where you'd think that the technical requirements themselves would prevail so heavily upon architectural intention. And the conventions and uses of the

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[24] p. 24, Scientific Autobiography

[25] *It is reported that once the long and secret labor of creation was over Ravel tended to lose interest in the work he had produced.* p. 614, Hopkins

place as a ritual would be so powerful as to break the architect's will to conduct the quest for these essentials and substantial forms.

But this is actually not the case. Compare the *National Theater* in Berlin of 1800 by Friedrich Schille with Rossi's *Genoa Theatre* renovation. So that to the extent that built architecture is capable of assuming such irreducible elementary shapes, it conveys not only the autonomy of its creation, but also a kind of ageless originality. By its deliberate avoidance of technical and historical detailing, Rossi preserves the still life like integrity of shapes and volumes. He shuns historical inflections to the point of impeding practicalities. He privileges always pristine presence over articulation, as if the pristine presence were keeping volumes and shapes in a state from before history set in and started to corrode, transform and articulate them.

Against the constant flux, the change, the evolution, transformation, mutation, or for that matter, in musical terms, against the entire process of modulation, transposition and contraction and expansion and so forth; in the process of transformation which articulates itself in an infinite variety of developmental stages and species, Rossi's shapes appear again and again as static, still and even serene objects. They appear to have been left behind, from a time before the rush of development. Untouched by the mechanisms of transformation. Their solidity makes them appear solitary and ancient. Solitary because they are like nothing else. Ancient because their origins seem so remote. And if they are associated with historic stages, it tends to be classicism. For their pristine presence invokes a canonic form of being. A being in which substance, and being, and serving something seem, in a surreal fashion, to coincide.

The image of Rossi's architecture is always tinged by a feeling of mourning, a sense of loss, or even death.[26] Not just a vague kind of nostalgia, but a recognition of loss. So acute a sense of the preterital nature of these objects that only memory seems able

[26] *The houses of the dead and those of childhood, the theatre or the house of representation --all these projects and buildings seem to me to embrace the seasons and ages of life. Yet they no more represent themes than functions; rather they are the forms in which life, and therefore death, are manifested.* p.69, Scientific Autobiography

to recall them. Only the insistent repetition can suppress their disappearance, can shore up their presence with us.

As soon as these ideas and objects are put forward, as soon as they are stated, they slip away into a silence of their own. The eyes of a child peering through the pupils of the giant statue of the saint seem to perceive houses in the landscape as only their final abstractions.

"All my drawings and writings have seemed to me definitive in two ways: first, they concluded my experience, and second, I then had nothing more to say. Every summer seemed to me my last summer, and this sense of stasis without evolution may explain many of my projects."[27]

These projects, then, I propose to you are like childhood memories, like toys that survive every traumatic experience. They resist change, they don't know change, and they refuse resolution in adult thought. Instead of being shattered or dissolved they survive in their inanimate, helpless, but complete state. The *Teatrino* is their home. The senataph, their final purpose. Rossi's espresso maker in the shape of a tower and his *Teatro del Mondo* floating on a barge in the lagoon are only two vessels from the phantom fleet Rossi has launched on the ocean of architectural imagination.

Thank you.

No questions

[27] p. 1, Scientific Autobiography

In the end, despite what I expected, I was so displeased with what Michael wanted us to design (or maybe he just wasn't expressing himself well), that I could hardly bring myself to draw the building, but that was my problem. It seems that except for a few instances everyone felt that they were participating. -J.A.A.

MICHAEL HAYS (2 Feb)

The project presented itself to us with a problem of the relationship of this new technology to humans. The way we saw the technology was not as some sort of primal cause in its own right, or some sort of fact in its own right, but rather as a result, and to put it in Marxist terms, it was the result of the development of capital.

What we see in this new technology, then, is not the same sort of technology. It is different in time from the technology that caused us such excitement in the previous machine age. I'm talking about the excitement which Marinetti and the Futurists or the Constructivists or the German Functionalists had about the productive technologies of the previous age. They saw it as visible emblems of a new kind of energy.

It was our idea that what we're faced with now is a new kind of technology, that no longer shares or has the capacity for representation that that previous technology had. I'm talking about grain elevators, factories, turbines. The kind of technology we have now no longer shares the possibility of visible images.

What we wanted further to suggest, as a criticism of, perhaps, other approaches is that any attempt to give a unified image to this new cultural condition that the technology is part of ends up by really figuring, making

HAYS STUDIO

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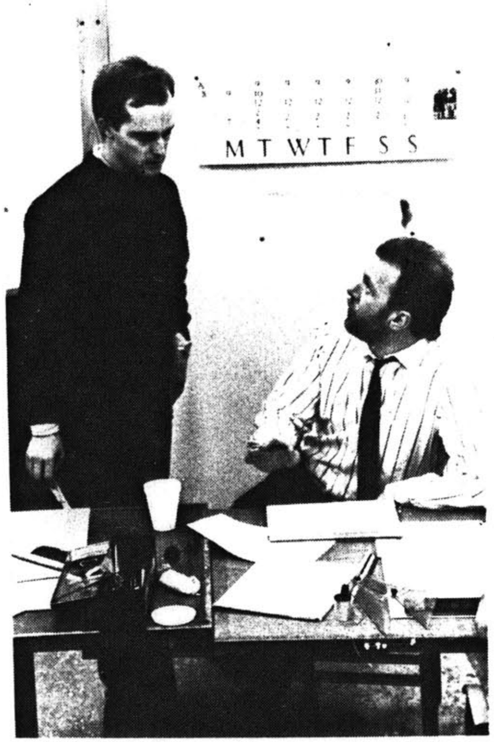
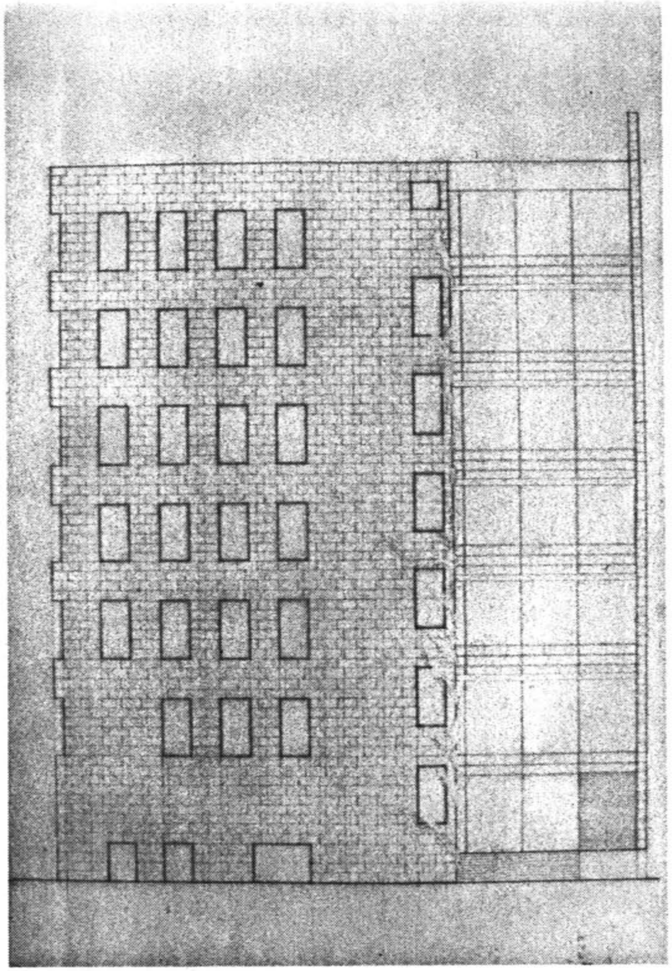
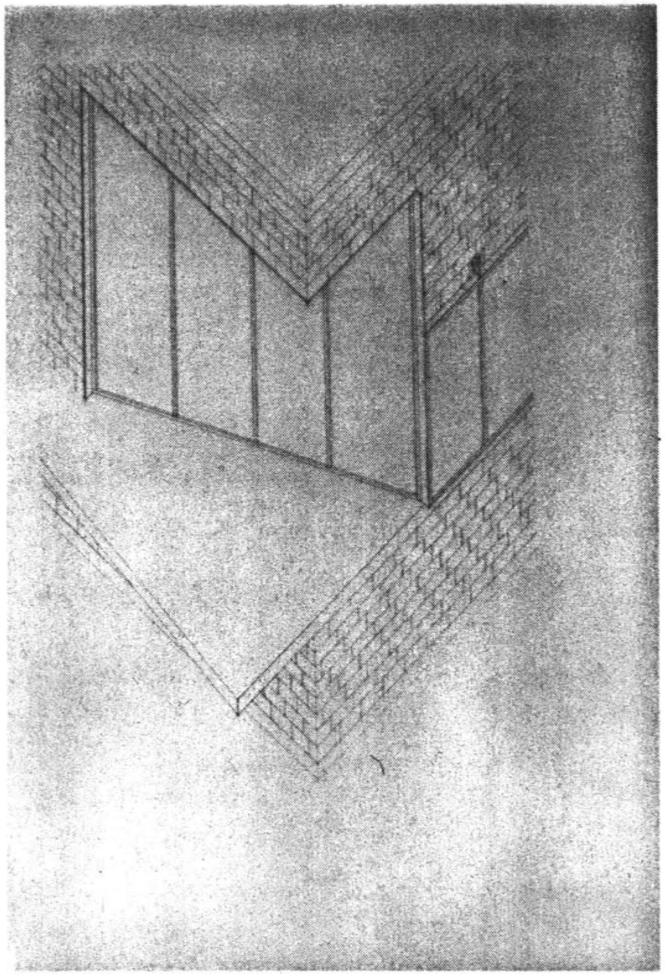




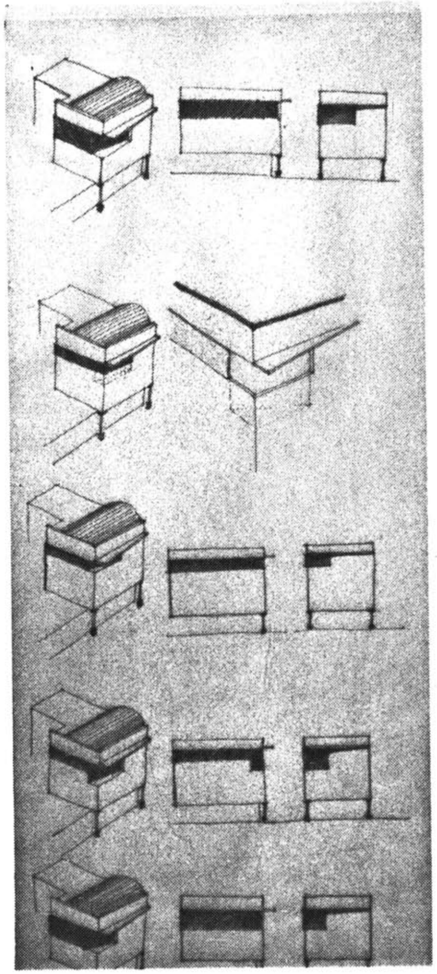


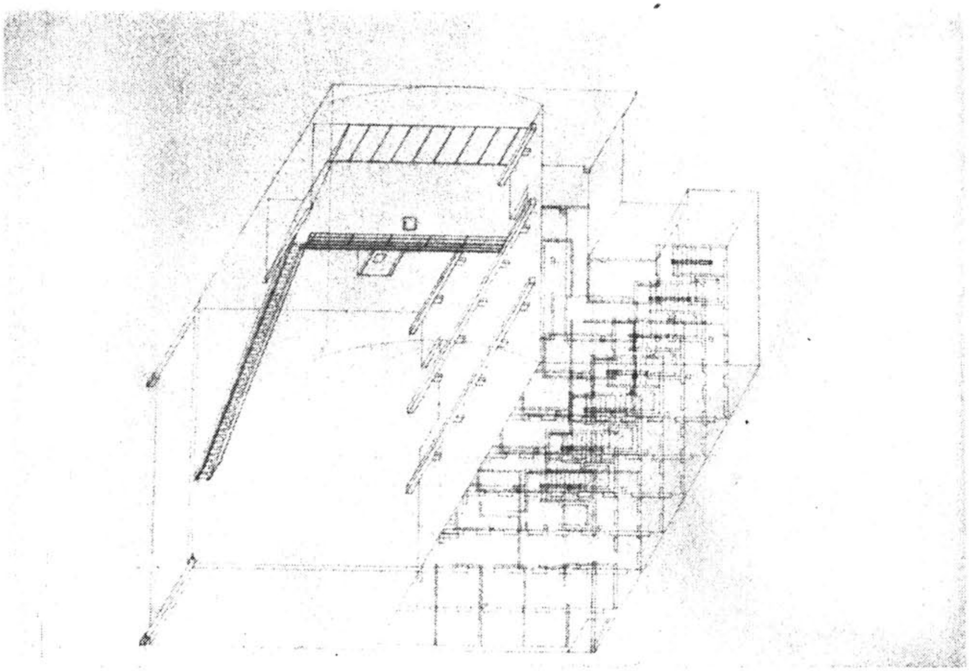
figural multinational capitalism itself.

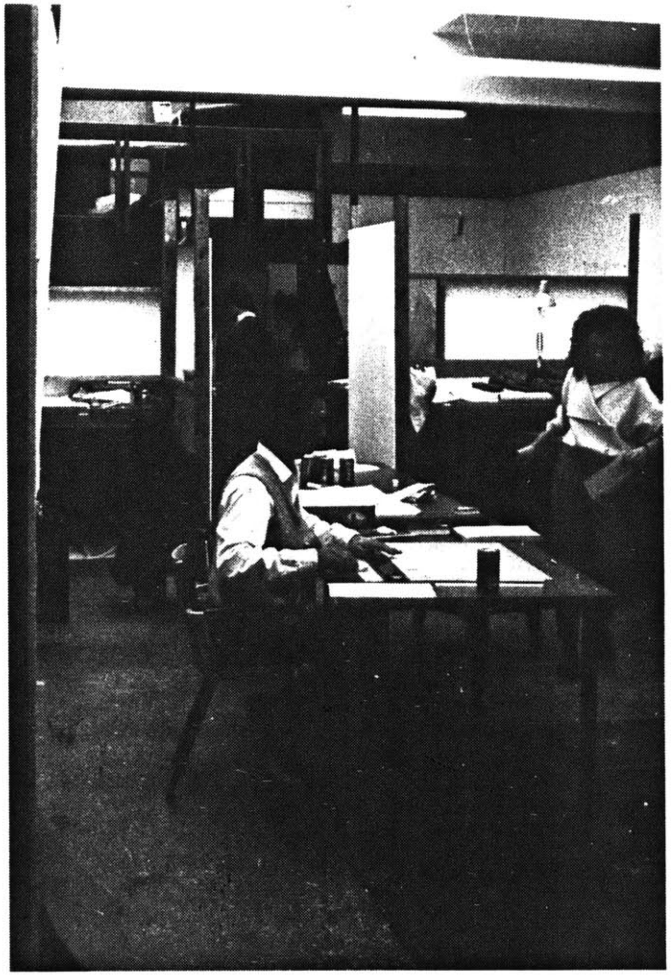
We wanted to recognize that any sort of architectural system, however modest, however formal it claimed to be, in the end is legitimized and validated by certain kinds of authority. We tried to recognize that any kind of unified image may well be a metaphor for the kind of unified authority.

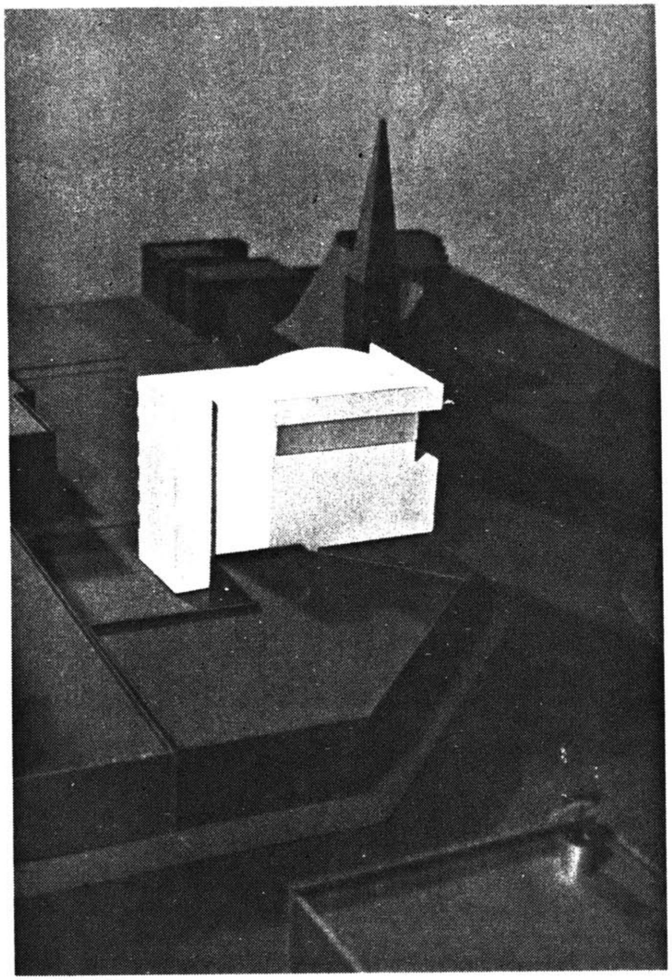
So in contrast, then, our concern was to stress the heterogeneity, the multiplicity, the profound discontinuities in the work. Trying to bring those in to the work of the body of architecture itself. It was a modest enterprise. Bill Porter pointed out that although he respected the, perhaps, cynicism or critical attitude it wasn't a very eloquent statement of that attitude, and I think I agree.

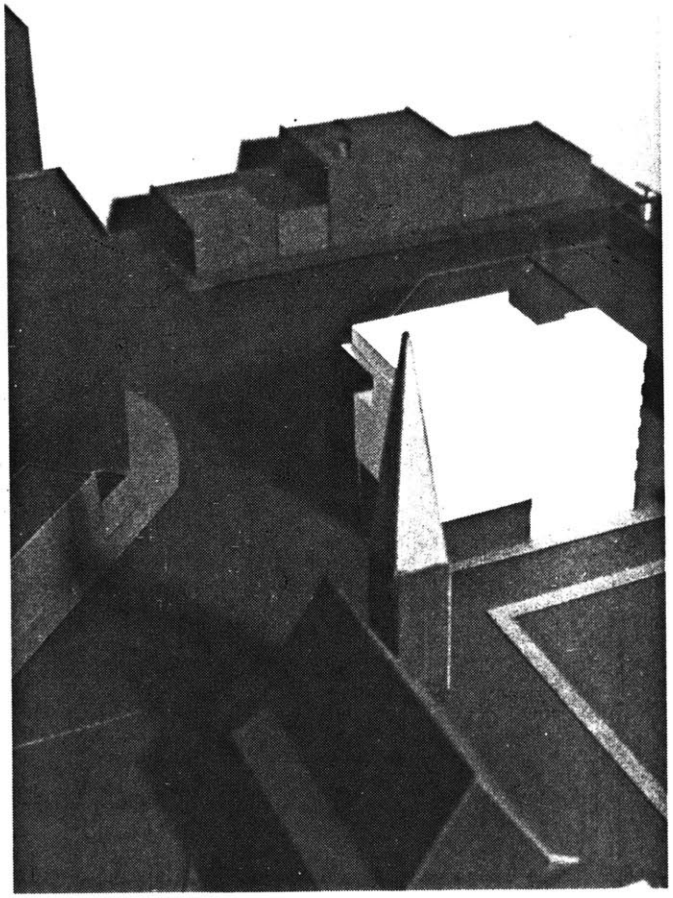
What we hoped to make was an architecture which made it difficult for an individual to understand the building in a single moment. To force the individual to walk throught he building and to get contadictory readings of the building. Therefore to only come to understand the building in real time. By walking through it, by experiencing it. And to always understand that finally architecture is just a kind of artifice. And it can recognize its own artifice by building into its own body contradictory spacial systems, or contradictory architectural systems.











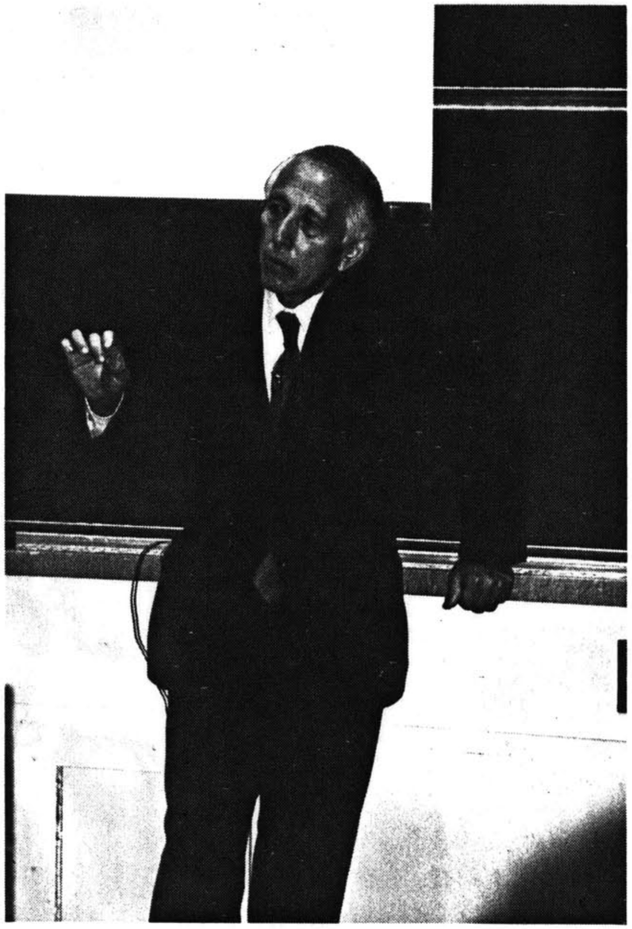
FUMIHIKO MAKI

currently heads the Department of Architecture at Tokyo University and is the principal of Maki and Associates. As a theorist and builder, his work focuses on the relationship of a building to its component parts. His buildings, well known and widely regarded throughout the world, have been described as "the tension of two cultures, which display a warmth of excitement and surprise rarely found in contemporary architecture."

City, Materiality, Image

AN
ARCHITECTURE
OF SUBSTANCE

2 Feb. 1986



Fumihiko Maki
2 February 1986

Introduction by Kim Sammis

Thank you very much for the introduction. I feel very honored to be invited to this very important symposiun to speak for the final session. I have been around Cambridge for many years, but always on the wrong side of Central Square. I'll never forget one incident I had many years ago when I was a student. I was taking a course at MIT, and I drove up to one of the parking areas limited to MIT people. So I just raised my voice: "I came from Harvard!" The Guard at the entry shouted back "So what!" But he did let me in. This typifies the kind of friendly competitiveness that exists between the two great institutions. And I'm always very pleased when I relish this memory.

When some of the students wrote me a letter inviting me to participate in a conference titled "An Architecture of Substance", I responded quite enthusiastically because this substance is something we are always looking for, but yet without answers to that. But nonetheless this is one of the very important issues.

I've just listened this afternoon, to the discussion at the final review. Although I was not quite acquainted with the program I became aware of the kind of issues and concerns raised in that session. And although my talk this evening will be "City, Materiality, Image", I'll try to relate my talk as much as possible with those issues and concerns.

City, materiality, image are simply three words more or less juxtaposed, so you can interpret it as you wish. This is the work of collage, and you can make your own answer from those three words. But yet, when I mention the word "city", mostly it means my city, Tokyo, where I was born, raised, educated, married; where I live, teach, practice; except for the useful and formative years I spent in the United States.

Tokyo now, has about twelve million people and my years with them go back more than fifty years. I'd like to make a brief, very close, look on the city of Tokyo in relation to my interests before I present two of my, I limit it to two, projects that I've been doing. And with that, I'd like to talk about the title issues.

As you might know very well, before the Meiji Restoration, about one hundred and twenty years ago, Tokyo, (at that time it was called Edo), looked like a great garden city. Most of the houses were, very much, in this tradition, and only punctuated by a few publicly reknowned buildings like shrines, temples, or occasionally big edifices.

After the Meiji Restoration, we quickly started modernization. One of the first attempts was the series of expositions the Meiji government provided to not only open the people's eyes to what the westerners, mostly Europeans at that time, were doing, but also the arrangement of buildings already looked like some of those that we see today. A building done in 1870 looks similar to the Crystal Pavillion of twenty years earlier.

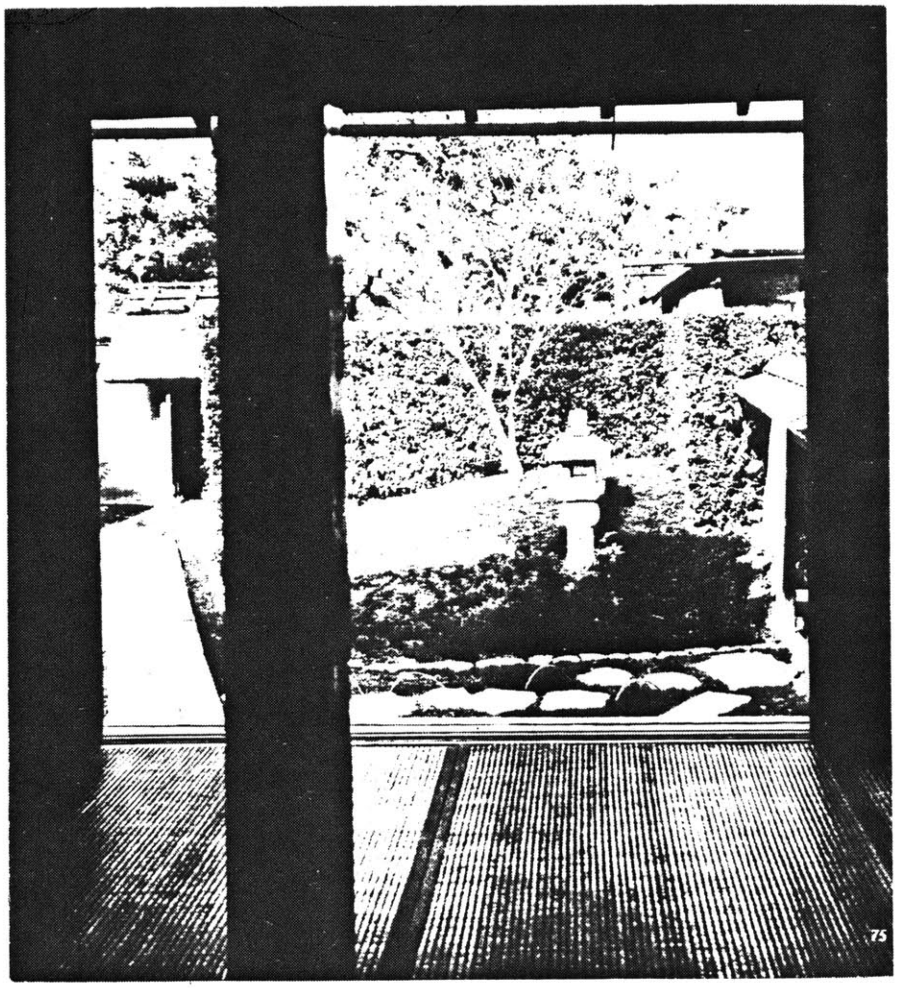
Already there was a kind of geometric arrangement of the buildings. From that, one could see the attempt of the Meiji government to quicken the modernization process.

And after that, we have a number of neoclassical buildings all coming into the existing fabric of Edo, or Tokyo, and announcing their own importance as a piece of western, though not modern, architecture. And as for the institutions and detached palaces, they were some other type of buildings.

This building was one designed by one of the oldest living architects in Japan, Kameki Tsuchiura. The picture, unfortunately, was not the one taken when it was built, but just by accident I happened to be in this house when I was about seven years old, fifty years ago, when a person, who happened to be an architect and a friend of my family was working for Mr. Tsuchiura. And I remember very clearly the time I visited this house. I never forgot the kind of materiality expressed in this way and also the kind of space which I had never seen before. So this was my first introduction to the world of modern architecture. Mr. Tsuchiura is now 85. He's not quite active anymore, but nonetheless I'm very grateful for having been able to have had this occasion.

We jump to present Tokyo. You can see the whole skyline of Tokyo looking out the Sh______ skyscraper groups. But also when you have a telephoto lens you can see the amazing insertion of the buildings into the available land. It looks just as industrialized as any other city you can find today. Particularly so, since during the Second World War many buildings were demolished. Therefore we have very little trace of the old Japanese city today. Perhaps, in this sense, Tokyo is one of the most industrialized or industrially built cities of the world.

Yet the Japanese way of making the building is quite incremental. It is different from the western way of perceiving the order and trying to align the building in such a



Private Garden

way. Instead, we are always trying to intervene and bring in the buildings or projects in a more ad hoc way, but with a certain care about the interrelationships. In order to do that we need design strategies which are not necessarily to be read in the western way. But also techniques which require special high context relationships. This was the reason, perhaps, we are still having a very resilient invisible order for the city of Tokyo.

Outwardly, it doesn't look in any way attractive, but once you go down to the small presence, you find a microscale order. The consolidation, or a succession of, small refined orders make the city a humane environment. There has always been intervention and a local relationship to whatever you do and also to a given place.

Perhaps, the European city can be simply explained in terms of figure/ground, which I don't have to explain. And in America, a more or less figure/street. Street was one of the dominant form givers, or suggesters, along which you make the freestanding building.

But Tokyo having been a garden city to begin with, still today, the fabric is much more complex. And with that, the greenery, and small gardens, and small resting places.

Yet, as I mentioned to you, the industrialization of Tokyo is still going on. Quite often, you don't see the green, you don't see the old streets, but a kind of industrial landscape which is quite similar to what you might see in any other place. But again, when you scrutinize, look more carefully, even the industrial society, or industrialized city has its own identity.

This seems to me quite interesting, because in only one hundred years of industrialized history, already we are developing a special past, or memory, of an industrial society

Sense of Space

which can reflect into a kind of a character of a city. And Tokyo is not an exception. The picture will not serve to justify or support my view. In order to really understand, you've got to be there.

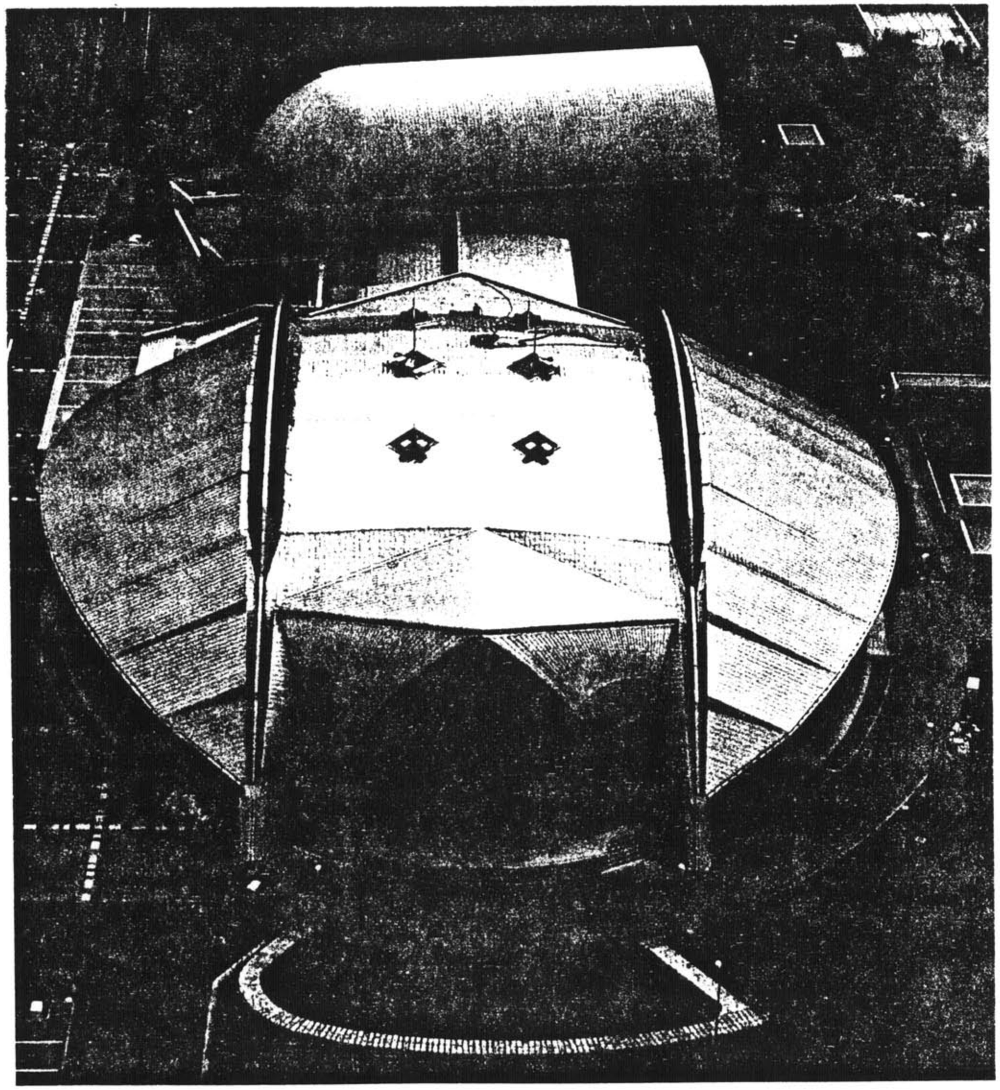
But anyway, this is something we are finding out. The new kind of sensibility, or sensitivity which is coming out from our buildings and streets, and our amalgamation of artifacts, though they may not look quite Japanese nor attractive.

So in Tokyo we can still find a few spots where a certain sensibility or sensitivity to the space can be seen. One of them is a shrine, and I think, this kind of arrangement begins to suggest a kind of a depth of space within a limited scale. Tokyo, being quite labyrinthian, we have never had a long distance or a great view where you could express the length, distance, width, etc. Instead, our history is probably involved with the different kinds of expression of the spatial feelings.

Walker Art Center in Minneapolis is going to have a show on "Form and Spirit, Tokyo and Edo". That will be a quite massive exhibition of the city. I was invited, together with a few other architects, to make an installation. My installation consists of seven pillars, or piers, named "The City Internalized with the Seven Episodes". And one of them is abstractly expressing this notion of the sense of depth, the property of the space to denote the sense of depth.

When you look at just one segment of Tokyo, one of the houses designed by an architect friend of mine has a small garden. Here you can feel the sense of depth created within a limited space. So, outwardly the Japanese cities look very much made out of the present materials of concrete, steel, cement, and glass. But when you get inside, perhaps you find a different world.

In a way, we are trying to make a smaller world of our own, inside the shelter. So,



the same kind of order does not go straight into the final places. There is kind of a breakdown. The breakdown is provided by a theory we call boundaries. Boundaries, sometimes visible, sometimes metaphorical, but nonetheless, this layering of open space, which one can reach in a city like Tokyo, making the places habitable.

We also have to observe that the modernization is going on and forcing the ever increasing neutralization of space. Where is the craftsmanship and the concern for detail which exists? I don't know for how long this can survive. Yet the care will always be taken for the minute details. When we are coming to an industrialized city, which is not avoidable, still the same spirit for the care, for the details seems to be quite essential for maintaining a certain quality for the environment.

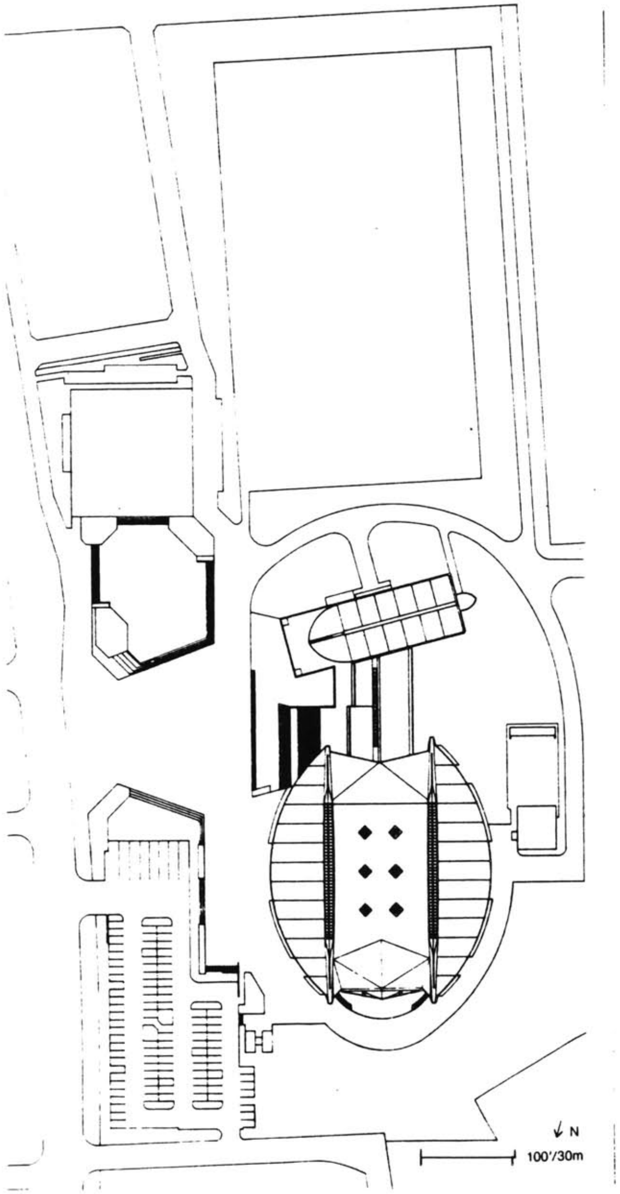
Now with this introduction I'd like to go into the presentation of two recent projects.

One is a gymnasium I completed two years ago outside Tokyo about 30 kilometers from the center. The building site was on an almost no-man's land in one of the satellite towns.

The building consists of a large arena, and a small arena, with a connection between, and large steps going up for spectators. It contains 42,000 seats. Since there were no visible restraints, except the program, my idea was to produce a form which would enhance the richer, interior world.

I have done a number of gymnasia, but my feeling is that if the space can be enhanced by three dimensional curvature, a more satisfactory space is created.

My early sketch shows the series of curves, or increments of curves. I always liked the distended sort of volumes which are well expressed in one of the Japanese pots. This kind of distended form seems to indicate a kind of richness for space.



Site Plan: Fujisawa Municipal Gymnasium

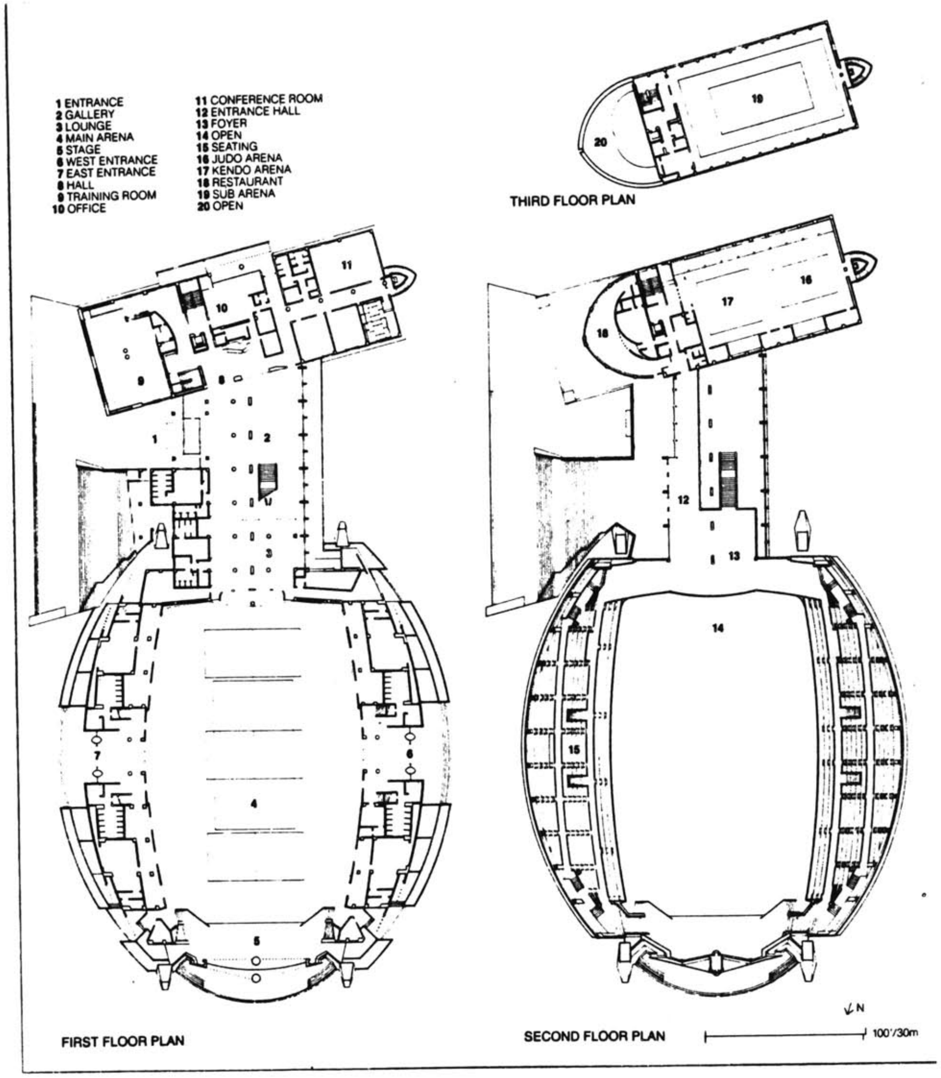
We make quite a number of models from the outset in order to study the building carefully. In this particular case, the series of models in the different scales were very much required from the beginning because the drawings just could not express what we wanted to make.

At a certain point, before we made our drawings, we made models. Then looking at the models, we translated the conditions to the drawings, particularly when it came to many elements coming together at one point. It was almost impossible to make a design out of pure drawings.

In my office we have about 25 people. Whenever we have a building of this size, we set up a field office where we can have more space. We send the core members: the designer, model maker, draftsmen, and also the supervisor, to the field office to execute the building to the very final end. It takes some people four years, from the very beginning of the design to the end of the construction.

In this building we used many facilities including personal computers to check the critical points. There is always feedback between the drawing and models.
We constructed a 30 scale model which we hung from the ceiling since it could not stand, and we looked at it from below when we discussed the ceiling design. The engineer was always with us whenever we had a very difficult engineering problem. Also, one of my members made most of the complicated models and drawings. Currently he is assigned to the new gymnasium that we have just started to design.

Both models were set up in the field office and we continuously designed. We have less intervention by lawyers, so we can still continue to design the building to the end. Like the old cathedrals, we are designing and making buildings to very much the end of construction.



1 ENTRANCE
2 GALLERY
3 LOUNGE
4 MAIN ARENA
5 STAGE
6 WEST ENTRANCE
7 EAST ENTRANCE
8 HALL
9 TRAINING ROOM
10 OFFICE
11 CONFERENCE ROOM
12 ENTRANCE HALL
13 FOYER
14 OPEN
15 SEATING
16 JUDO ARENA
17 KENDO ARENA
18 RESTAURANT
19 SUB ARENA
20 OPEN
THIRD FLOOR PLAN
FIRST FLOOR PLAN
SECOND FLOOR PLAN
N
100'/30m

Floor Plans: Fujisawa Municipal Gymnasium

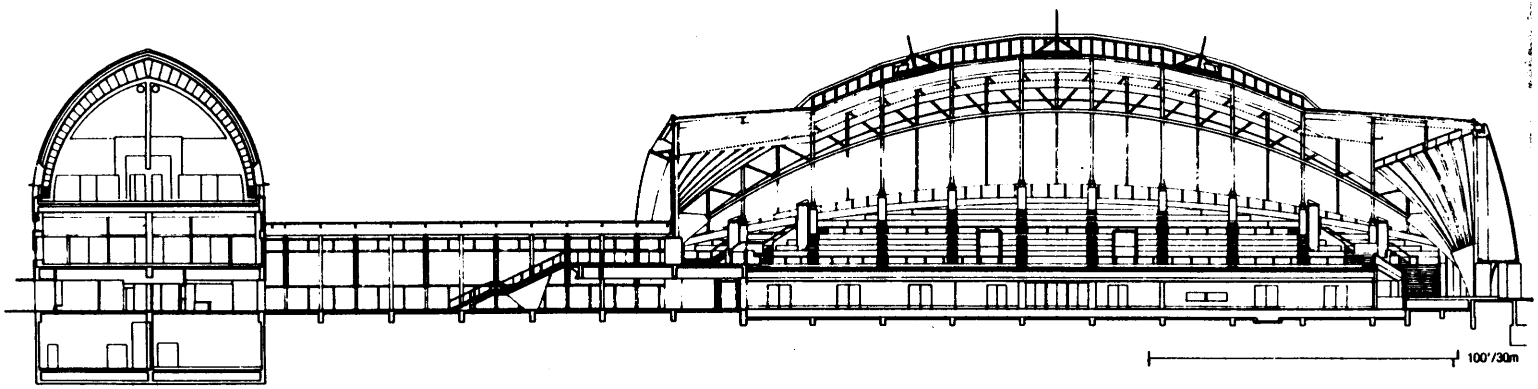
The first few skeletons went up for the smaller arena and it was one of the most exhilirating moments we had. Finally the building was taking shape. Then we had a series of pointed arches and the whole construction took just about two years.

In the beginning we wanted to encase the roof with stainless steel since the location was quite near the ocean and carrying salt air. We felt that the stainless steel would meet certain requirements, since it is light and strong and also better for weathering. Therefore, together with the contractor and manufacturer we did investigations of how to craft the thin strips of stainless steel.

As the skeleton of the small arena was taking shape we started to construct the large portion of the main arena. Some of the large elements could be drawn and fabricated in factories and brought in segments to the site to be assembled. The small pieces were almost impossible to draw exactly. Therefore we brought those pieces at the approximate length to the site, and then we fit them and cut them exactly to the needed length. It was a very manual process and I think in Japan we could sometimes find some manufacturers and contractors to go along with this difficult process without making extra charges. I have been in places where first they send the lawyers and then complain about it. But fortunately without the lawyers on site we can proceed a little more peacefully.

The process was always exciting but also demanding. For instance, when we made the large girders which support the roof, I wanted to make the profile of the girder like the special curve we find in a Japanese musical instrument. It is not necessary to say that when you say the curve is paraboloid, or circle, or cycloid. Instead, we might be able to use our eyes to try and make those curves.

The process of the stainless steel covering was also quite challenging. The thickness of this stainless steel is only .4 mm. So if you are going to try and bring this stainless



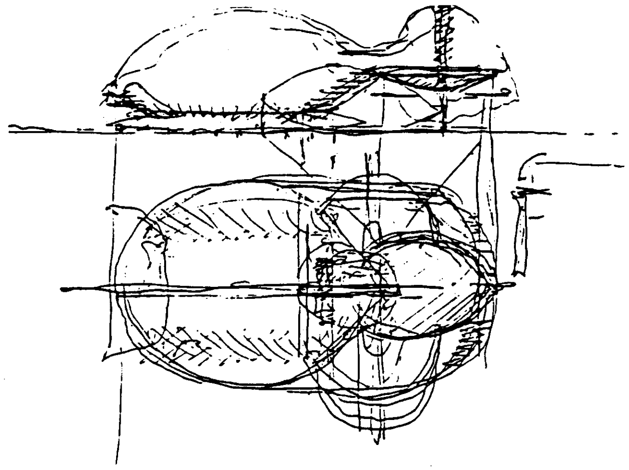
SOUTH-NORTH SECTION

steel up piece by piece, it buckles. So what we have done is to make a jig, the profile of which is exactly half of the subarena. Then we put several pieces together. The second jig came over this, and we lifted several pieces together. Meantime, six or seven workmen, standing or lying at the edge of the roof, waited for the lifted pieces. We placed several pieces in certain intervals, then the jig itself became part of the scaffolding. It took quite a bit of time and investigation to figure out how to construct and how to place those metal pieces.

The other problem we had, was that being very thin pieces, stainless steel always has a wrinkle. I don't want to make any comment on Mr. Erskine's building, but if you're not careful, they wrinkle and stainless steel appears this way, which is almost unacceptable for my standards. What we have done is to set up the small wrinkles regularly by machine to make it more visually homogenous. The result was slightly better than what Mr. Erskine did.

We had to use automatic welders to join those pieces together. As you know, an automatic welder always has a heavy transmitter, so it goes automatically when you weld on a flat surface, but when it bows like that, it must be sustained by hands. When it is too hot, you can't do it, you get sunstroke. When it is too cold, no good. Windy, too dangerous. Unfortunately we had a heavy snow that particular year and we thought we could finish the stainless steel covering in four months, but in fact it took almost one year until the very end of the construction of the building.

With the steel frame in place, we set up those pieces together. In certain cases, we didn't know exactly how to do it. So everytime a problem occured, the project architect, manufacturer and contractor all went up to the spot to decide how to place the stainless steel. This particular man was a good mountain climber, but he was too busy here and he didn't have any time to go. But he was still climbing every day all over this gymnasium.



Sketch: Fujisawa Municipal Gymnasium

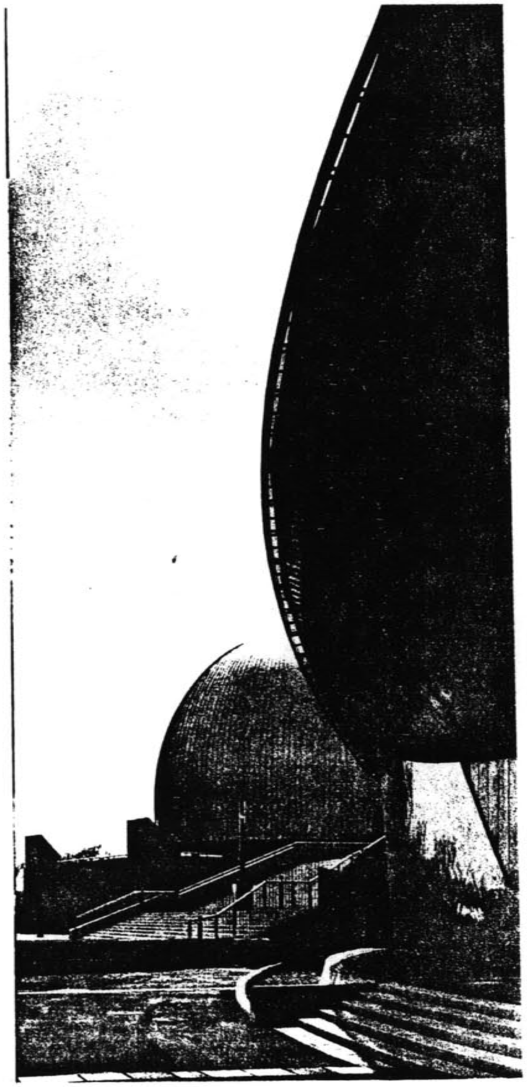
I find what is interesting about working with metal is that it is not really modern. Metal has been in our history for more than a thousand years. The message you get is exactness, sharpness, etc. So when the building was completed, the official nickname was the "Beetle." Somebody said it was a crab, somebody said it was a UFO, or a spaceship. But nonetheless, probably some section reminds us of some medieval knight, samurai. So the metal transmits some image of the past, the memory of the past. But also a hint of the future.

I find this ambivalent message interesting, particularly at this age when we are not talking about just spaceships, but something about architecture. Yet in order to produce this image, you have to work very carefully about the details. Because the details in modern architecture are the equivalent of ornament in past buildings. You may have a very interesting building from a distance, but as you get closer, as in many of the high rise buildings today, they do not give you any more information or things to look at. There seems to me that a hierarchy of scale in a building is very important, and even more so in a modern building. The lack of detail, the homogenization, the systemization, all kill any result.

I'm not going to say this is high tech since it is not a system building. As I mentioned to you, it was done with the hands of my people. We used computers to analyze the structure, strength, and distribution of stress, etc. But in the end, I think the architecture should reflect the quality of craftsmanship. This, I was very much interested in.

To give a certain image of metal you have to be particularly careful of the details of the edge. Because the sharpness of the edge only gives this image of exactness associated with our memory of metal.

So some people say that the end of the building looks like a samurai helmet. This is



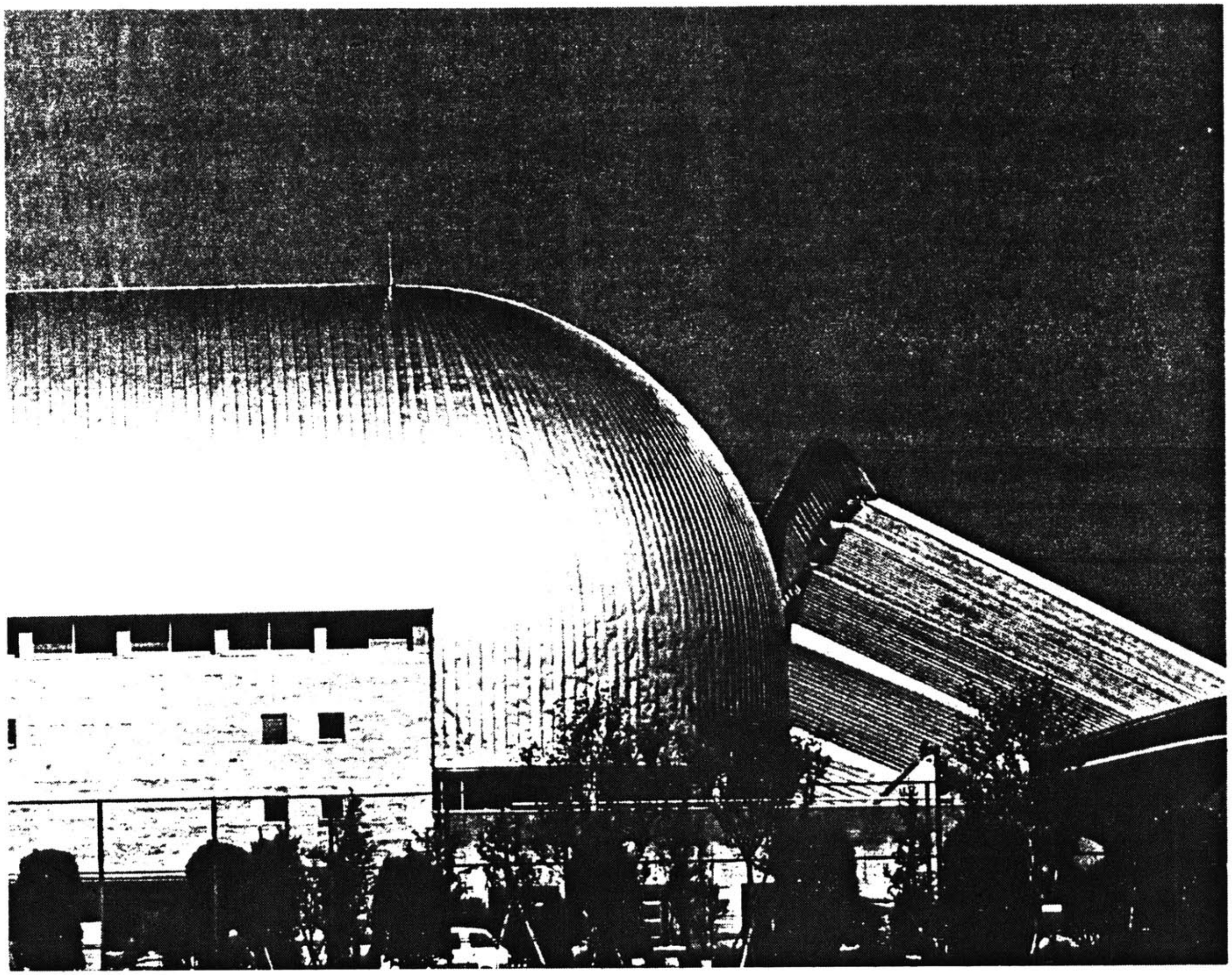
only an afterthought. We never thought, "We are going to make a samurai helmet". Sometimes without any intention, without any consciousness, when we construct a building the result may become an object that transmits certain images.

This edge should not give a sense of heaviness. It destroys this ethereal feeling which this metal cladded building should have. So the details must be carefully thought out. There's an almost transparent screen edge, so when you are looking at it from below you can see the sky. And also, in metal buildings, in certain light conditions, this edge almost disappears. It becomes very romantic without giving up any assertiveness of its existence.

Also, the building changes its profile constantly. Two years ago, before the building was completed, Aldo Rossi and I were on a jury for a Japanese competition. One day we had a free day, so I took him to the site. He was interested very much in this aspect of buildings: That the building's profile constantly changes as you walk. He was very interested in this because he's a rationalist.

The building has a quite different profile as you walk by. I was also very interested in the juxtaposition of sharply defined elements, or segments, to make a loose core. I am going to talk more about this in the next building. I think the notion of the interrelationship of the parts and the core seems to be an eternal problem presented to architecture. In this moment I am interested in a loose core with very sharply defined segments. Somehow it gives me a feeling of this age.

Yet as you look at the details, here again, we have to give a scale to the elements. It is always difficult to conceive those details on the working drawings, for the merit of designing continuously on the site adds opportunity to rethink and to remake those details.



It is a very simple building using only concrete, steel, metal and aluminum, and basic materials.

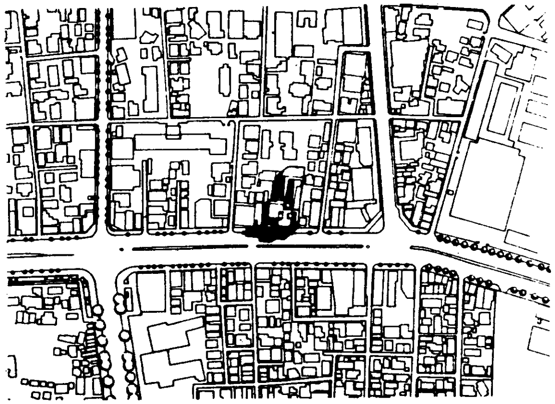
The entrance junction is a very difficult place to determine its character since it has its only very powerful form. We wanted to give a very ethereal feeling to this connection. So we have used heavy columns cantilevered from the foundation and then put a very light ceiling over it. To give, again, a very ethereal feeling even for a rectilinear space.

Professionally, this is a very sophisticated structural system. We are very pleased with the results because this kind of consideration in modern architecture today is quite often neglected. I think if we want to use a sophisticated structural system, it must always try to produce a certain end product that is architectural, not structural. The structure is simply a means to achieve that, instead of making an expression or effect, although, in a certain cases, we do. But here, again, we have to make very careful consideration of the relationships between the use of structure and the consequences.

This whole structure was sustained by two big girders articulated by the skylights which act as a place for maintenance and also for venting the hot air out in the summertime. But also, those two girders are held up by prestressed concrete below. We hung those beams from those two girders. Then we set up tension rings around them to make a balance. This stress was then transferred by a cantilever pullion to make the building as under one equilibrium. This was the basic concept of this particular gymnasium.

In the evening, the skylight shows the roofscape. The building is for the community, so the people in the community can use it for local and national competitions.

I arbitrarily disected the elements, always resisting to make a very smooth whole. For



2

Site Plan: Wacoal Building

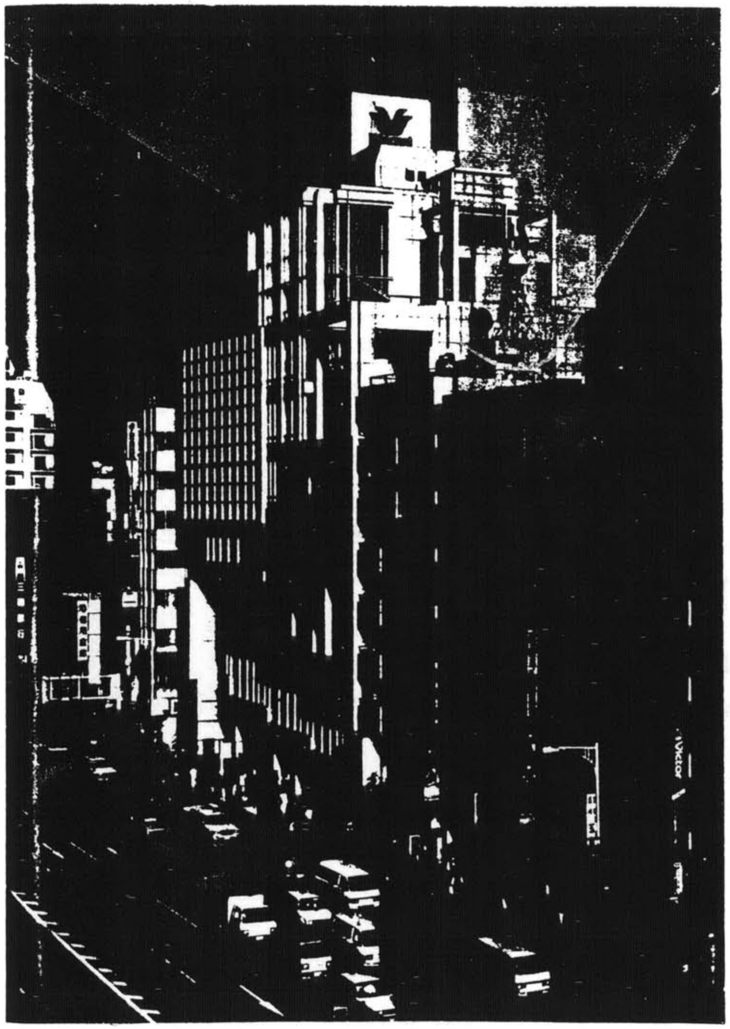
instance, the cantilever at the back side of the spectator deck was supported by a silver tire, very sharply. Or, the concrete was suddenly transformed to the steel frames.

When you are working with metals, the creation of a skyline can be done with small elements, like an antenna. It is like the dancing aliens on the space ship, yet I think, as Venturi used an antenna for his old people's house, all kinds of elements can be used for the total expression of the building. The insides of the skylights can be big enough for people to be able to walk in.

I'd like to go to my second building. This is the **Wacoal Building** built at the center of one of the most busy, fashionable streets in Tokyo. It's a commercial building, and my client is one of the largest lingerie manufacturers in Japan. They wanted to get into a little Culture, with a capital C, and wanted to have a building with an image.

The building is quite often in Tokyo in a very irregular site. The profile of the setback regulations is such. You can build only to a certain height in the front, the rest would be like a sphinx, to be under the twenty meters. The building must face only to this street, so that our other worry was how to bring people into the end. Before we went into construction, the site was surrounded by anonymous buildings and was being used as a parking lot for a food store.

The section reveals the atrium which has direct daylight to the end, therefore, when you enter, you can see a light. We set up the space to be quite flexible for a number of uses, but mostly for an exhibition going around the atrium and gallery space, but also to be appreciated more informally, by setting the cafeteria at the center. The stores are here. Beyond that, is a theater and a video studio, a private club on top, and a roof garden associated with the restaurant. So it's a complex of a number of functions for commercial uses.



Street View: Wacoal Building

With these quite difficult constraints, I decided to again develop the building with very sharp image of elements, segments, but attempt to make a loose core.

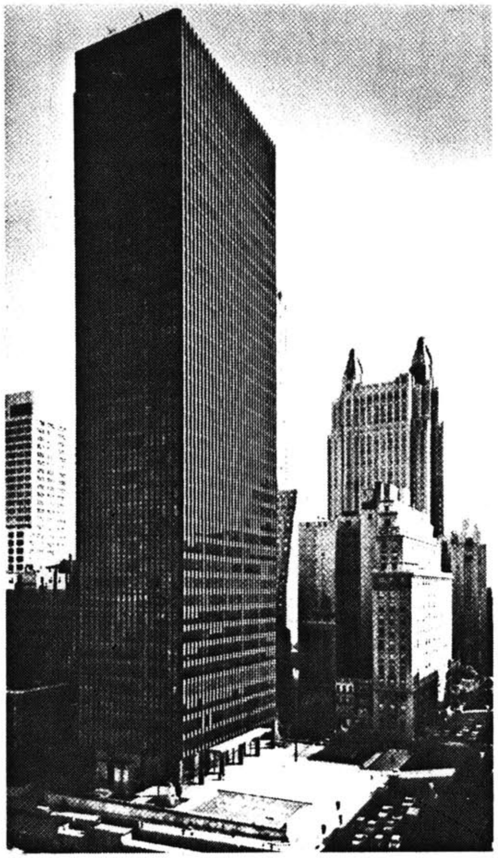
We sketched, and made a model as usual. Of course, the model was a quite important vehicle for further study. We made probably five or six 100 scale models, maybe a few 50 scale models, and many segments at the 20 scale to 10 scale.

The building now stands on Aoyama Street. There is a subtle consideration in the facade. Since the street bends this way, irregularly, which you always find in Tokyo, we set up the facade in two angles, so that this angle can be more visible from this direction, and that angle from that direction. Instead of conforming to the street, we made very subtle changes in order to make the building have a certain character.

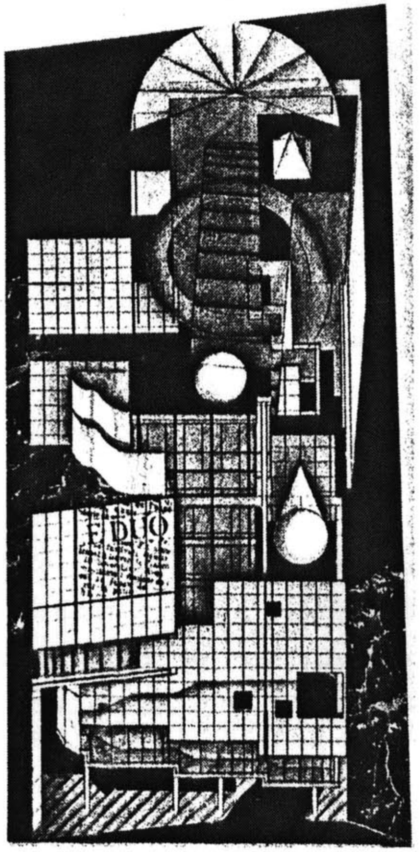
The result is this facade. This facade is basically cladded with aluminum with a thickness of 5 mm, transparent glass, and translucent material. By setting back the main structure for seismic forces behind the facade, we could free the front of the skeleton for only the structural load.

By doing that, we could make much thinner columns, which are otherwise very difficult in Japan. When you look at this column, it doesn't come down since we have a parking garage exit which we couldn't make straight since there is a subway exit. So sometimes, we have to work with this kind of a constraint. We are not dissatisfied with representing fragments of the white column as such.

Also we have sharply angled the two juxtaposed frames and quite clear volumes reminiscent of the modern art in the early twentieth century. Cone, free form, (the homage to Le Corbusier), and the window mullions are worked with geometrical progression to a give a rhythm of movement. Also we have several squares at strategic points to express the interiors. So it is a collage of a number of loosely associated



Mies van der Rohe: Seagram Building



Drawing: Wacoal Building

elements.

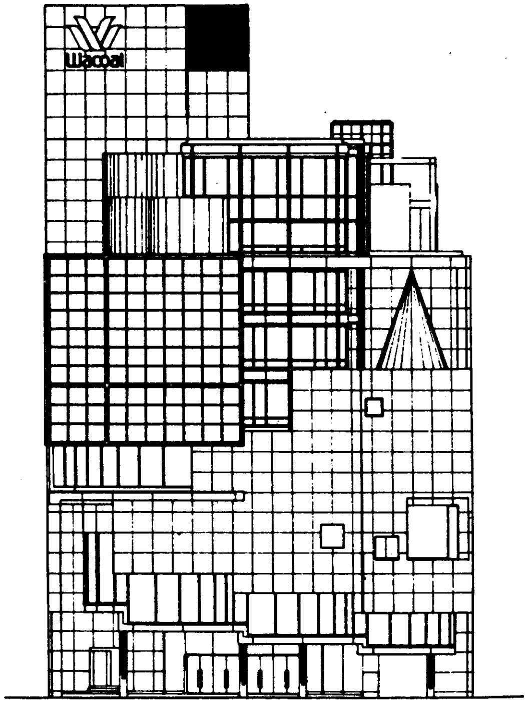
We intended to make the building with a spiral movement ending at this lightning rod. Since the neighboring buildings are mostly expressed in a rectilinear forms, I thought this would give a certain gentle intervention to the city skyline. When you are looking at the building from below, you can see the roof garden and also the atrium.

The entrance was scaled down to human scale so that you don't feel you are getting into a big building. We made a collage using a number of elements: tetrahedron, square, circle, cube, cylinder, zig zag, and so on.

The detailing required quite a special consideration. The 5 mm aluminum was given a 10 mm opening dry joint so the water would be taken care of by the elements behind. In order to give this kind of strength into those joints, this required very careful detailing and craftsmanship. There was the same care in setting up the mullions.

Mies van de Rohe's *Seagram Building* is an old classical building, but that it gives pleasure to us is not just the square rectilinear form, but the carefully worked out details of the mullions. The energy of the building comes out of those. It was with the same considerations, and although the language we used is quite different, the spirit for detail is the same.

This is the entrance. We made a number of models, and since the building faces only to a facade, we internalized the exterior for the interior wall. So the walls are made of stone veneer, but express a tripartite composition: roof, body, and base, to give you a sense of this exteriorality. Yet it is an interior space, so it gives a very ambivalent feeling.



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Elevation: Wacoal Building

This is the cafeteria for people to have coffee or tea as they watch the art activities. We worked out the atrium in model, and again worked out the scaffolding, cat walks, and mullions at the 20 scale model before we went into construction documents.

The materials were both rough and smooth.

We painted the underside of the ramp red. The ramp is supported at three points to give a gentle geometric form.

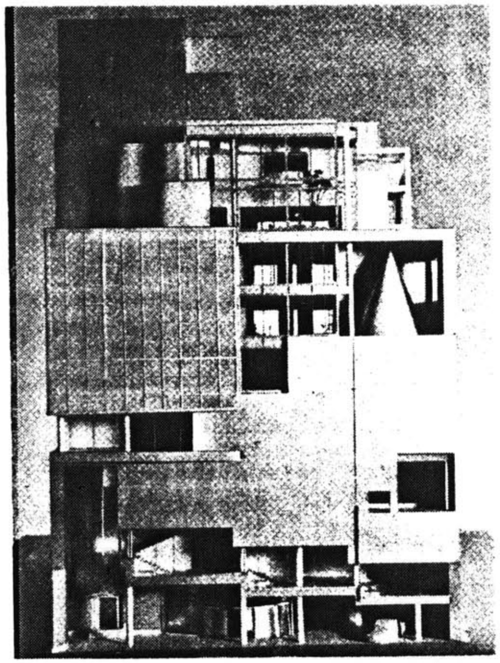
For the opening, an artist from New York came and made an installation, and vernacular expressionist paintings were also brought in for the show. It is not museum, it is not really art gallery, but a sort of amalgamation of cafe, viewing, etc.

As you come to the front of the building you ascend to a theatre. Just like in old theatres, we thought that the procession of approach would be quite important. As you go up gradually, you can see the street outside, halfway up you can go into the second floor, and proceeding, you can get into the foyer of the theatre.

We also designed the lighting fixtures and worked out all the details. These were only designed about a month before the completion of the building. We looked at the space first and then decided what kind of lighting fixture would be good.

In the evening the wire sculpture in one of the big square openings can be seen from the outside, so we used this particular opening as a sort of show window as well. Since it is a commercial building we thought a certain delight must be given not only by the facade, but also by the elements associated with it.

The theatre contains about 300 seats, quite flexible. There are only two independent columns in the foyer, so I decided to use a ceiling like a depressed mushroom. Very art deco. In this building we used quite a number of themes of modern architecture,



Elevation: Wacoal Building

so art deco was not exempted. We used Aldo Rossi's chairs. There was a bar for intermissions. Inside the theatre, it was a bit more austere. We decided to use a monocolor theme.

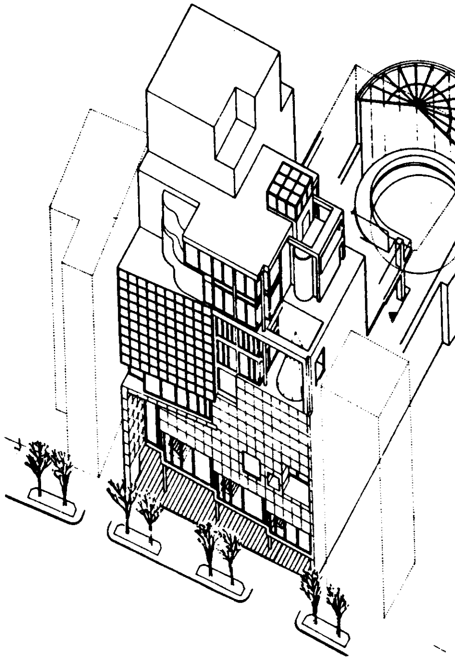
This building has different architectural motifs as you move up instead of controlled under the one design theme.

On the roof there is a bar and a dining room and a kitchen. We also worked out the roof garden in such a way so that a certain distance could be shown. For instance, the strips of granite were place on a geometric progression to give more of a sense of distance. There is a fountain clad with a stone veneer. Tetrahedron, sphere for roof of bar.

As you know, when you go up to the roof in any city, you only see the skyline of the city without any hint of human activities. It's dead in a way. It gives a very surrealistic feeling. This was one of the themes of this garden. A de Chirico picture transmits this silence, this death. In the same way, when we designed this roof garden, having taken advantage of nobody on the skyline, we used a theme.

The trees looked like *Last Year in Marienbad.* I saw this picture in Cambridge when I was teaching here twenty years ago. We have this kind of a tree in northern Japan, and the shadow was perfect when we took this picture.

Before we know how we are going to design, quite often we use a key word. In this case, the key word was *Acropolis.* It is not really the Acropolis. When we were working on this building, there were several people involved. Sometimes the key word can give a different interpretation to the models and the drawings according to the individual. It gives a greater cross section of ideas from which we can fertilize a certain image. So often in the onset of design we do this.



Axonometric: Wacoal Building

I am always interested in how to finish the building at the top. One of the problems of modern architecture is that when we introduced the flat roof it became very disassociated with its relation to the sky. I think this is a fundamental issue of architecture, regardless of whether traditional or modern. And to me, a revitalization of the relationship of the building to the sky seems to be very important. So this is one of the reasons why we sometimes get very involved in how to finish, and even how to place the lightning rod or antenna.

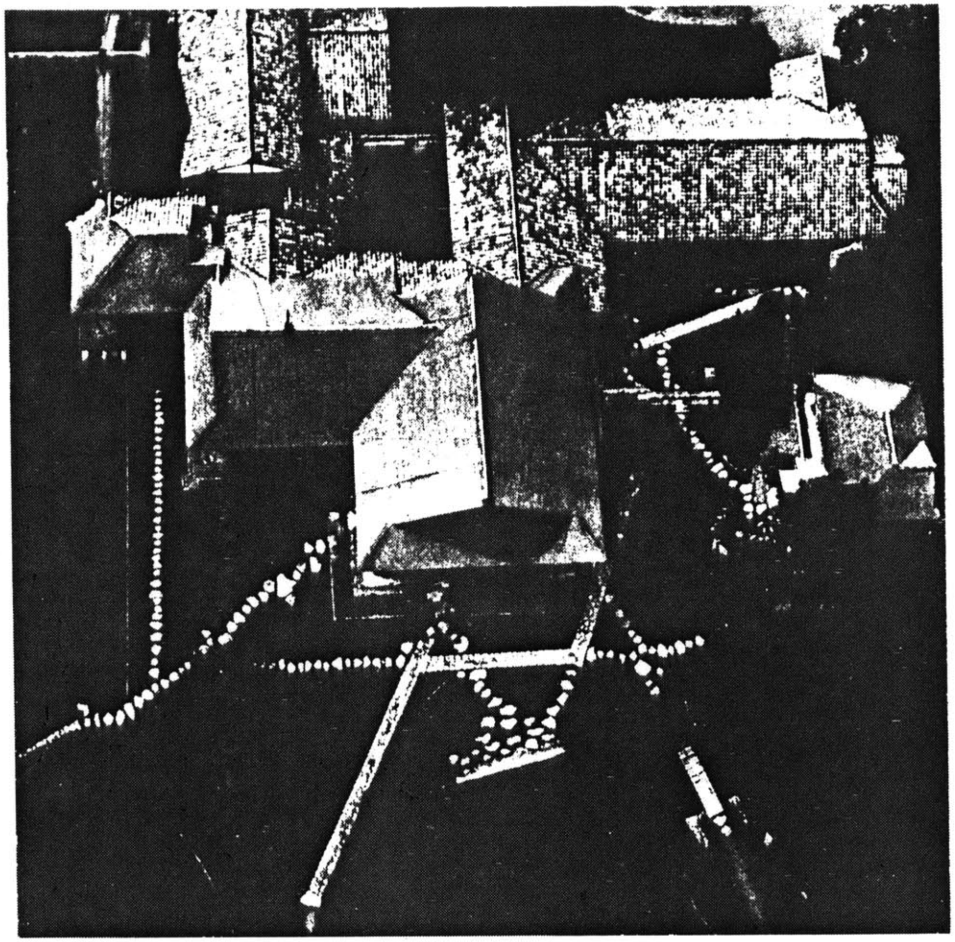
And so those are two recently completed buildings.

I am now working on the Science Museum in Tokyo, not far from Wacoal. The first two floors are for the science museum; third, flexible exhibition; fourth, conference; and the restaurant here. Always clearly showing the segments. By having the protruding cantilevered roof, we hope that the edges of the building will give an undulating line instead of just a square box.

Finally, we are working on the Tokyo Metropolitan Gymnasium, which is about four times the size of the other gymnasium. It's a huge undertaking. It contains 60,000 seats, a swimming pool, a small arena. Here again we are using a different kind of geometry, and we already have a 200 scale model of that. Each segment has its own roof. This particular small one has a two way structural system and we made it like a ziggurat.

Sometimes we use plastic for study models. It composes the exterior, but you can also look into the interior. Using the plastic, you have a simultaneous view of exterior and interior.

As in the previous gymnasium, we are working out the details of how those different



Katsura Palace

elements meet to give a certain strength to a loose core. If the budget permits we are going to use titanium instead of stainless steel because it is to built in the center of Tokyo, and the glare would be too much for the nearby buildings, so titanium is a better material. Expensive, but less glare.

Geometry seems to have both universality and regionality. On the right, is the famous Katsura Palace. It is composed of geometry, but looking at it, it is a bold juxtaposition of the basic geometry. But by having a certain manner of using it, it can express the specificity.

And, I think, modernism started with this process. Somewhere we have diluted this. But by bringing back this strength of geometry to transmit not only the particular condition, but a kind of universality to be shared with the present society, I think there is a great promise.

Putting my two projects together, one is a public building, a gymnasium; the other is a commercial building, but the way I use geometry is pretty much the same. I articulate the elements, then compose a loose core, to try and make an ambivalent image. Secondly, I think this must be supported by a kind of care of details and construction exactitude to give a strength to the building.

We are getting into a very industrialized environment, yet we are getting a sensibility, an image, from this society. I am not alone in this. Some of the other Japanese architects are working on this direction; some lighter, some heavier, but with sharply defined elements. And I think this called, and I don't like jargon, *post-industrial vernacular*. Don't quote. I might change my mind. This is my own intervention and reflection to Tokyo, the city I love.

Thank you very much.

Questions

Q: This is a symposium about the substance of architecture, and you acknowledge that fact. Your whole lecture seemed to talk only about the formal aspects of architecture, only what we perceive with our eyes and allegedly make out of that. Do you think that the substance of architecture indeed lies in that?

FM: I'm sure that it is only one of the aspects. Depending on the type of the buildings, perhaps the promise of substance may change. In those cases, I very much contend that if the building is very well used under the program, not exceeding budget, etc. But let's say in the case of social housing we also are doing, I think the parameters of substance would be radically different. With the limited time given for this symposium, I arbitrarily limited myself to this particular aspect of architecture.

Q: In your gymnasium you worked with industrialized production techniques as a response to the particular kinds of craftsmanship you show here.

FM: We have presently a spectrum of industrial products and processing of metals. Japan is now a very unique country where we have both technology and craftsmanship. Certainly, for certain buildings like a factory I make a different use of this technology. At this moment, if I have a chance, I'd like to use both the craftsmanship and the technology because it expresses a certain state of culture. As an architect, I have responsibility to do that while it exists. It may go away, like in the United States. And so before it disappears, I'd like to do it and leave a trace of that attempt to the next generation. The next generation may criticize. I don't know, but nonetheless it seems to be my personal preoccupation. But while it is available, why don't you use it?

Thank you.

EPILOGUE

JACK MYER (2 Feb)

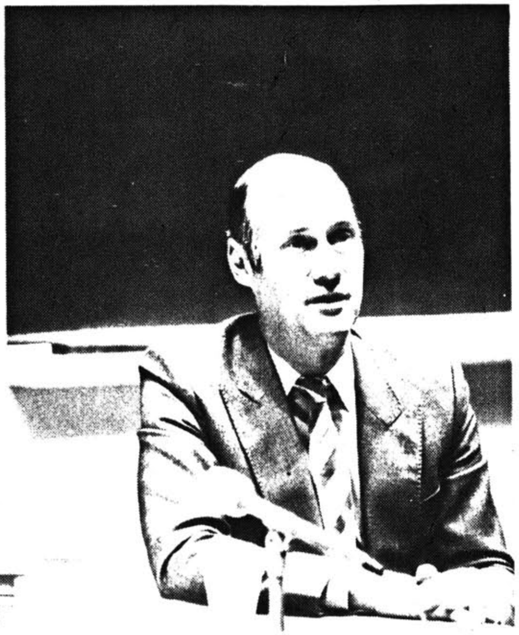
One thought that occured to me rather strongly as I saw several of the projects, had to do with how it is that we Westerners or Americans deal with the change that is so much on us. I was trying, as I was looking at the schemes, to find a metaphor for what I was finding there. Do we only embrace some kind of a new thing wholly, or do we color it with the past totally, or do we find some kind of middle range to which we come to an adjustment with respect to this changing new potentially very powerful thing? Which may be as powerful, for example, as the car when it came to us.

With respect to the car, we called it the horseless carriage for some time, but we gave that up after a while because we no longer had to think of the absense of the horse in front of the carriage to think about it at all. But in the beginning it was called the horseless carriage. It occured to me also, that maybe that was why the drive was often put in the rear, because those were the legs that moved you forward more powerfully than the front legs.

And so, we interlard in that something of the prior, the nearest thing, in the new event to somehow make it more approachable, to get alongside it. To be more knowing of it or affectionate toward it. To not have a psychic distance between you and it.

JOHN DE MONCHAUX (2 Feb)

It seems to me, when everyone goes away from here, they won't be here anymore, but they will have had an experience about gaining, and learning, and exchanging, and that's what that building, it seems to me, needs to be about. Fundamentally, it needs to be about being able to go away and remember that experience.



WILLIAM PORTER (2 Feb)

On the theme of Substance, I was very much struck by noticing that where·materials and ways of making things were engaged, the diagrammatic ideas that might have begun it, the metaphor that might have begun the design process, were a more serious challenge. And conversely, that where the materials and structure were somehow in the minds, there were new conjectures about what all this meant, about meaning, that seemed to emerge.

It made me feel that an "Architecture of Substance" was a fine title for this enterprise and the notions of substantive and substantial were somehow very closely tied together. One as a very serious check on the other.

JOHN WHITEMAN (1 Feb)

Then there's the almost breathtaking assumption that what persists is important. There's actually very good philosophical evidence that what persists is unimportant. That's why we make it persist. That in fact the ephemeral and the transitory might be actually very important.

KURT FORSTER (1 Feb)

There is a serious question whether the nature of the tool, the nature of the production of something, leaves what is being produced simply alone. In other words, as if they were completely neutral. Word processors have done absolutely extraordinary things to text. By now the laser printers are the closest thing to actually printing something on a surface. I find working with a word processor completely deprives you of one thing which, even if you just jot things down on a page, took several hundred years to develop to a level of refinement and conceptual consistency, that is now virtually gone, and that is the *page.* What the page is.

Word processors are like a giant text loom. And it runs on and on and on. In the end, pagination is a purely editorial function, in which you choose the format for, and you lay it in the way it works.

Just like the line. Your most important word in that one line may be the one that is broken. It's very clear.

Obviously it would be idiotic to claim that the introduction of the word processor has only brought this to many people, rather negligible harm. If you're handing off text, while you can write to all of your friends the same letter!

The one interesting thing about it is I think it has made more ancient in its practice, the creation of text. Text is a kind of knitting.

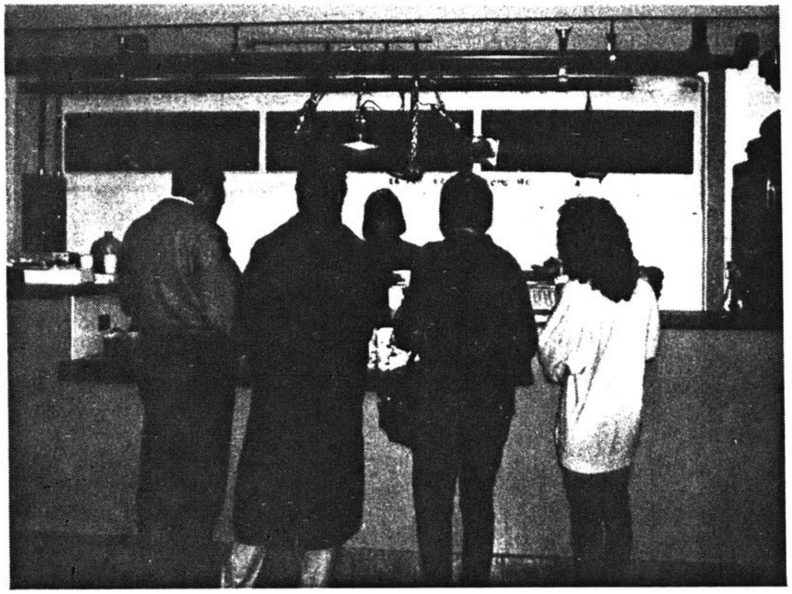
PB: What has it done for MIT?

MM: Well, one thing it's done, it's sent thirty people back to other schools, or it's sent all the different people who came to the lectures...Maybe one thing, it heightened a lot of people at Harvard's attitude about MIT.

JG: I think that it also got our own faculty picking their heads up...

MM: That's the issue at MIT, is it's so small. Personality becomes such an overriding factor. And you're in school, personality shouldn't be that big an issue. You shouldn't be AFRAID to take...that just shouldn't be the atmosphere. If people feel strong enough in an environment, and in this instance we let people feel strong enough because we provided them with, you know, LUNCH, then they won't be afraid to talk and discuss, and bump heads because they have some basis. They know their feet are on the ground, they know they're being taken care of in some fundamental way.

MM: This was not an event about continuity, at all. It was an event about Whoosgh! explosions.



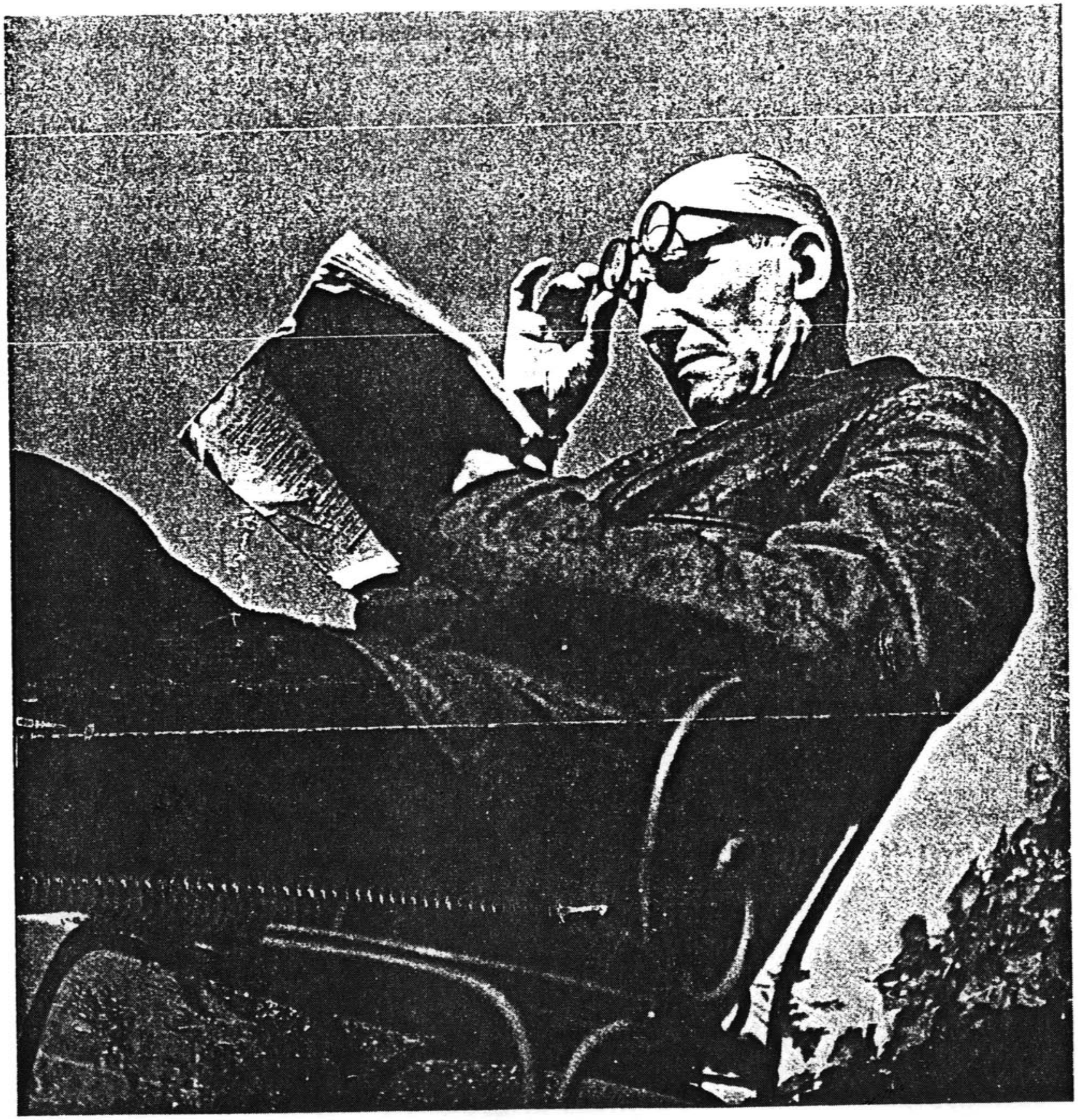
LH: I think what was difficult was that at the end, we were all so exhausted that we couldn't participate in most of the discussions. We were barely holding it together enough to stand up and direct the next thing that was going to happen, much less get in the middle of an argument.

MM: I kept thinking I was counting heads, like "It's a great crowd, we got a great crowd, I don't know what they talk about, but it's a great crowd."

PL: It was like we set off this bomb, you know, and you don't know which way it's going to go or its projectile.

Three and a half months have passed since "**An Architecture of Substance**" occured at MIT. Traces of it linger still: The exhibition columns grace the bulletin boards outside of the Architecture Department headquarters. Odd boards and model parts have metamorphosized into other projects. Rotch Visual Collection possesses videotapes and slides. This thesis will sit on the shelves of Rotch Library and wait. Peter Prangnell said that *"a library should be the most patient thing in the world. A book might not go off the shelf for a hundred years. That's the price that one should properly pay."*

Thank you.



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