n. practice: n. 1 With practice he could speak French fluently. training, drill, repetiti
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<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Foreword</td>
<td>Carla Swickerath</td>
</tr>
<tr>
<td>12</td>
<td>Playing (With) Rope</td>
<td>John Comazzi</td>
</tr>
<tr>
<td>22</td>
<td>Abstract Cartographies</td>
<td>Catherine Seavitt</td>
</tr>
<tr>
<td>30</td>
<td>Practice ad infinitum</td>
<td>Zeuler Lima</td>
</tr>
<tr>
<td>34</td>
<td>Notes on Almost Nothing</td>
<td>Kent Kleinman and Leslie Van Duzer</td>
</tr>
<tr>
<td>50</td>
<td>Museum and Memory</td>
<td>Edward Dimendberg</td>
</tr>
<tr>
<td>58</td>
<td>Phenomeno–praxis</td>
<td>Jason Young</td>
</tr>
<tr>
<td>72</td>
<td>Notation a v</td>
<td>Martha Skinner</td>
</tr>
<tr>
<td>80</td>
<td>Belief: Scatological Derive</td>
<td>Yolande Daniels</td>
</tr>
<tr>
<td>88</td>
<td>Finishing</td>
<td>Anselmo Canfora</td>
</tr>
<tr>
<td>94</td>
<td>Space</td>
<td>Other Space</td>
</tr>
<tr>
<td>104</td>
<td>kunst–zimmer</td>
<td>Janet Fink</td>
</tr>
<tr>
<td>112</td>
<td>Projected Coincidents</td>
<td>Christian Unverzagt</td>
</tr>
<tr>
<td>122</td>
<td>Characteristic Features, Decorative Construction</td>
<td>Mary McAuliffe</td>
</tr>
<tr>
<td>130</td>
<td>Fabricational Practice &amp; Construction Pedagogy</td>
<td>Charles Waldheim</td>
</tr>
<tr>
<td>138</td>
<td>City as Middle Landscape</td>
<td>Lisa Iwamoto</td>
</tr>
<tr>
<td>148</td>
<td>Reflective Practice</td>
<td>Mecanoo</td>
</tr>
<tr>
<td>156</td>
<td>Midnight* Ground(ed)</td>
<td>Elgin Cleckley</td>
</tr>
<tr>
<td>170</td>
<td>Family of Work</td>
<td>Tod Williams + Billie Tsien</td>
</tr>
<tr>
<td>178</td>
<td>Line+Lineament</td>
<td>Craig Borum, Greg Hanson, Elisabeth Perreault</td>
</tr>
<tr>
<td>186</td>
<td>Inherent Connections</td>
<td>Stacy Cahill</td>
</tr>
<tr>
<td>190</td>
<td>House in Trás-os–Montes</td>
<td>Robert Levit</td>
</tr>
<tr>
<td>198</td>
<td>Scanned Body</td>
<td>Metal Curtain</td>
</tr>
<tr>
<td>206</td>
<td>Author Biographies</td>
<td></td>
</tr>
</tbody>
</table>
foreword
The term practice in architecture most often alludes to the professional application of the discipline, *(He's only practiced dentistry for a year)*. Practice in the context of this journal is concerned with the infinite possibilities there are for an architectural practice. What are the consequences of thinking about practice in light of the word itself?

Most central to the definition of term is perhaps the verb form of practice which implies the employment of ideas, *(Why don’t you practice what you preach?)*. It suggests an obligation to an idea or way of thinking. It is an attempt to put an idea into action, to set it to work. In this case, any application of ideas is considered a mode of practice, be it building, drawing, writing, painting or criticism.

Contained within the word practice are habitual, or perhaps even ritualistic, implications, *(He practiced the piano every day)*. Work which is disciplined and constant. The dreaded, even painful, duty paid to a sport or talent. That duty, though sometimes grueling, is always pursued insatiably with the desire of an unavoidable obsession. It is a humble admission to the inevitable ability to grow and advance.

Practice is also a mode of operation, *(His shady practices got him a prison term)*. It describes a method, a particular way of acting. It implies an attitude with which to engage the discipline, inherently embracing the possibility for infinite modes of practice.

A particular procedure or custom is defined by practice as well, *(It was her practice to rise every morning at dawn)*. A way of working, a process in which to routinely participate. It is also the enforcement and usage of these practices, *(The new methods did not go into practice until last year)*. It is a direct execution of a particular procedure.

An important component of the definition of practice is the implication of hard work. *(With practice he could speak French fluently)*. It suggests not only the discipline of the repetition of work, but the reward of the completion of that work. It suggests a rehearsal, an exercise working toward a goal. What if practicing architecture was considered a rehearsal? A never-ending pursuit of perfection despite its impossibility.

Practice implies preparation and dedication in pursuit of an ideal. It is about varied modes of operation, hard work and the passion to make that work possible.

Practicing is obsessively engaging the world with intent while pursuing that intention with the hard work owed to the ideals of its inspiration.

What we are concerned with here is how can and how does one practice architecture?
ently; training, drill, repetition, discipline, preparation, seasoning, excercise, rehearsal. 2 The new methods did not go into practice until last
It was her practice to rise every morning at dawn.
Playing (With)

ROPE

John Comazzi
Working from a set of ideas, architects have the opportunity to transform and translate material into attitudes which, in turn, have the potential to recreate the work throughout the entire process of making. Yet in many cases, this recreation is, more or less, a simple reiteration. Contending with a seemingly endless set of formulations and 'restrictions', the practice of architecture seems to be moving towards managing simplistic extrusions of these 'constraints' into predetermined expectations of form and program. However, it is within these very 'constraints' where the greatest opportunity for practice in architecture exists. Regardless of its form – built or unbuilt, written, drawn, modeled or digital – architecture (and writing) is always constructed rhetorically no matter how it is constructed, to provoke some response (no matter how benign), but—and here is the difference—in ways that either attempt to directly address its own (rhetorical and social) construction or not.¹

To move, then, outside of the field of 'Architecture' in an attempt to problematize these assertions might seem a digression or an avoidance of the very 'realities' that this essay has set out to address, the 'realities' of practice. However, by looking inside Alfred Hitchcock's film Rope (1948) for its rhetorical negotiation of materials and techniques, it is intended not so much "to 'discover' in the work or the author something 'hidden,' 'profound,' 'secret' which hitherto passed unnoticed", but on the contrary to cover it as completely as possible by its own language, and "to take as a moral goal not the decipherment of the work's meaning but the recognition of the rules and constraints of that meaning's elaboration."¹ In filming Rope, Hitchcock pushed these very rules and constraints into the realm of 'practice as play', experimenting with the methods of elaboration throughout the entire process of making, thereby maintaining a continual interchange between process and content, narrative and form, control and experimentation.
Camera turns to exterior window with curtains drawn. Scream heard, camera cuts to close shot of victim's face. Camera draws back to reveal the culprits strangling life from victim. Victim's body goes limp. Culprits place victim's body in large chest. Pause.)

Brandon: "We don't have too much time. (Pause.) It's the darkness that's got you down, nobody really feels safe in the dark.(Pause, Brandon moves to rear of set and opens curtains to reveal panoramic skyline of Manhattan.) There, that's much better.(Pause.) What a lovely evening. Pity, we couldn't have done it with the curtains open in the bright sunlight. But, we can't have everything, can we? We did do it in the daytime . . ."

(Opening scene of Rope)

Two young men, Brandon (John Dall) and Philip (Farley Granger) have just murdered a third young man, David (Dick Hogan) in their apartment for the apparent thrill and aesthetics of the act. They have placed he body in a wooden chest and appear to be hurriedly assessing and disputing the ramifications of their action. Philip is entranced by the reality and severity of the situation, while Brandon is eager to reflect on the 'accomplishment' in apparent jubilation. Brandon's zealous behavior is, in part, due to the fact that he has planned and designed a party around the event, to which he has invited the victim's parents, fiancee, and other mutual friends. It is later revealed that the victim is actually an acquaintance of the perpetrators from preschool and that their philosophy mentor, Rupert (James Stewart), is one of the invited guests. With the body hidden in an antique chest, employed as a totemic altar for the layout of hors d'oeuvres, Brandon and Philip prepare for the arrival of their guests and for their 'play' to begin.

The screen play Rope's End, by Arthur Laurens, is an adaptation of a stage play written by Patrick Hamilton in 1929, nineteen years before Hitchcock made Rope into a film, and based on the actual events surrounding the Leopold-Loeb case. With the entire story unfolding inside the self-contained environment of a Manhattan penthouse apartment, the transformation from stage play to screen play carried the potential for a 'literal' translation into a linear spatio-temporal continuum as that of a staged performance. However, Hitchcock's method was typically indulgent in the use of short-take film sequencing and editorial montage.2 By exploiting the technique of filmic montage, Hitchcock had enjoyed working "a scene as a piece of raw material which must be broken up, taken to bits, before it can be woven into an expressive pattern."3 In this light, Rope's experimentation with the long-take sequencing stands out as an anomaly in Hitchcock's method of work up to that time. Hitchcock explains his use of the 'ten minute take' used throughout the filming of Rope:
"The stage drama was played out in the actual time of a story; the action is continuous from the moment the curtain goes up until it comes down again. I asked myself whether it was technically possible to film in the same way. The only way to achieve that, I found, would be to handle the shooting in the same continuous action, with no break in the telling of the story that begins at seven-thirty and ends at nine-fifteen. And I got this crazy idea to do it in a single continuous action... To maintain that continuous action, with no dissolves and no time laps, there were other technical snags to overcome, among them, how to reload the camera at the end of each reel without interrupting the scene. We handled that by having a figure pass in front of the camera, blacking out the action very briefly while we changed from one camera to the other. In that way we'd end on a close-up of someone's jacket, and at the beginning of the next reel, we'd open with the same close-up of the same character."

While this method of the short take is by no means particular to Hitchcock, it does mark the distinction of *Rope* as his only full-length film to be shot without any interruptions between scenes. Hitchcock was aware of the potential ‘limitations’ of such a proposal as is noted in his own essay entitled “Direction,” written in 1937, in which he reveals his fear of shooting such a long take. He writes, “if I have to shoot a long scene continuously I always feel I am losing grip on it, from a cinematic point of view,” and even later would speak of the film as “nonsensical because I was breaking with my own theories on the importance of cutting and montage for the visual narration of a story.” Yet, Hitchcock had also referred to *Rope* as “my most exciting picture” in an essay of this very title in which he goes into great detail describing, not the excitement of the film’s content and form, but rather its making and the processes undertaken. This simultaneous and contradictory rejection and exaltation can be read as Hitchcock’s own reflection of the film’s schizophrenic reception and criticism over time. In his essay entitled
"Twisted Writing: Rope as an Experimental Film," Thomas Hemmeter sets out to deconstruct the dual nature of the film's critical legacy by exposing the inconsistencies in the language lodged by film critics against *Rope*. He writes:

"These two groups of critics rely on a common critical construct: The film is either experimental (technique separated from theme and moral purpose) or non-experimental (technique integrated with theme and moral purpose). Confined by this dualistic structure of thought, critics see only two ways to approach *Rope*: either to salvage the serious, moral art despite its technical experiments, or to salvage the film as experimental and therefore without moral purpose or artistic value. Both positions need to invoke the non-experimental—the morally serious film standing as the polar opposite of a film like *Rope* to center and guide their judgment... In film discourse theme and moral purpose place dangerous technique under control."9

Hitchcock himself agreed with many of the critical assertions and denunciations of the film declaring, "I undertook *Rope* as a stunt; that's the only way I can describe it. I really don't know how I came to indulge it... As an experiment, *Rope* may be forgiven."10 Inherent to both his own criticism and that from outside critics is the condemnation of the purely experimental film as a flawed and irresponsible endeavor. Hemmeter continues his examination of the film's criticism by pointing to the internal inconsistencies within this chosen qualifier 'experimental' used by *Rope*'s detractors. Hemmeter again:

"The more radical implications of Hitchcock's film can be ignored only by repressing differences in the word experiment, which implies both the control of a laboratory method and the absence of control in any trial or attempt... in the very denial of the right to experiment is included a desire for the same control as that conferred by the laboratory experiment... Thus the need for experiment is a trace within the desire to escape from it."11

While Hemmeter ultimately employs this exercise of deconstruction to interrogate the screen play's futile efforts in controlling language and meaning and the narrative's final resolution, it is in my interest to use the internal duality of the term experiment to further highlight the manner in which Hitchcock's process entails a constant cycle from imposed constraint to composed practice and vice versa. In other words, my interests lie in Hitchcock's simultaneous 'plays' (both in and out of the camera's scope) which acted in a symbiotic exchange of production and reproduction throughout the entire process of making.

Before turning, then, to the practice of the 'ten-minute take,' there remains the question as to what initially motivated such a choice of method in light of Hitchcock's own skepticism of this risky technique. In the case of *Rope*, the process has been typically analyzed for its formal and cinematic results as a 'final' product, yet it is interesting to note that the long-takes style of film making was pitched early on by Hitchcock as a cost-cutting measure to the various distribution studios interested in taking on the film's production.
Being the first 'independent' endeavor after his split with producer David Selznick, Hitchcock found an even greater respect and responsibility to the investments of time and money granted his productions. Teamed with Sidney Bernstein in their production partnership Transatlantic, Hitchcock set out to entice possible investors and distributors with the incentive of greatly diminishing the schedule for principal photography. By shooting such long stretches of film at once, Hitchcock could reduce both time on camera and time editing, insuring great savings for those invested. Ascertaining the successes of his claims for fiscal acumen is, however, a difficult and, perhaps, moot exercise, yet what is most important is the manner by which Hitchcock entered into the institutional structure of exchange and used its own language to achieve in the end (or at the beginning) the freedom to operate within his desired formal and methodological process (a lesson quite appropriate for architects today). Furthermore, once securing that material and operational 'site' in which to work, Hitchcock could have chosen to merely extrude (or nowadays, click and drag) Rope into a consequential effect of that predetermined objective, yet instead he continued to challenge this self-imposed 'constraint'.

In his 1937 essay entitled Direction, Hitchcock discusses one of the great difficulties facing the film director of that time as being the adaptability of the 'players' to the techniques of film production. "Many of them, of course, come from the stage; they are not cinema-minded at all. So, quite naturally, they like to play long scenes straight ahead." However, by the time Rope was into production (1948), there seemed to have been a shift in the terms of adaptability required of those under the lens. "Some of our problems seemed, at first, totally insurmountable. James Stewart, our star, couldn't sleep nights because of his role in the picture. It wasn't so much the suspenseful drama as it was the bewildering technique that made him worry." Stewart himself recalled these same concerns regarding the technique. "All of us were thinking, 'Oh God, don't let me go up on my lines now! If I do we'll have to go back and do the whole thing again.'" It is apparent that the now 'all-too-cinematic-minded' players performing Rope had great difficulty shaking their expectation, and even dependence, on the directorial cutting of action in film making by this time, finding the production requirements of the long-shot technique rather unnerving. However the acting 'players' were not the only crew members.
beset by such afflictions. In fact, Hitchcock found himself harried by the tensions surrounding production as he would later recall in his interviews with Francois Truffaut: “I was so scared that something would go wrong, that I couldn’t even look during the first take.”

Implicit in all of these recollections is Hitchcock’s awareness of the on-set anxiety as a potential means to added tension in the playing and reading of the film’s narrative. He continued to play out these anxieties by subjecting the acting players to small, yet risky, stunts throughout the entire ten-minute take and thus jeopardizing the whole day’s work. For example, in the scene in which John Dall, playing Brandon, must synchronize, perfectly, dropping the rope into a drawer with the swing of the kitchen door, Hitchcock’s direction stakes the success of the entire take on the execution of a playful gesture. In this sense, Hitchcock, working within the predetermined constraint of the ‘ten minute take’, chose not to play to, but rather play with, the abilities and expectations of the cast, crew and himself to challenge the process and transform the ‘site’ as given. Instead of attempting to ameliorate the tensions arising from the technique and, therefore, smooth over its presence, Hitchcock turned the process back on itself to redirect and channel the unforeseen challenges into tools for exploitation and experimentation.

Playing (with) the Set

Hitchcock was undoubtedly aware of the inherent distinctions between film and theater space-time when undertaking the making of Rope, which therefore leads to another question regarding his chosen process: If he truly desired ‘to shoot Rope with stage technique’, why did he not simply set up camera in the pit of a stage theater, as was routine in the early history of film, and shoot a staged performance (the simplest extrusion of method no doubt)? The answer is most certainly in Hitchcock’s own countless iterations as to the power afforded the roving and cutting camera.

“What I like to do always is to photograph just the little bits of a scene that I really need for building up a visual sequence. I want to put my film together on the screen, not simply to photograph something that has been put together already in the form of a long piece of stage acting.”

However, if Hitchcock’s usual power over the visual narrative emerges from the use of montage, how he negotiate his desire for a continuous shot with the requirement for filmic manipulation is perhaps Rope’s greatest practice. Essentially, the camera had to move. Hitchcock explains the importance of the mobile camera.
in allowing for expressive characterization within the long take when he writes, "The mobility of the camera and the movement of the players closely followed my usual cutting practice. In other words, I maintained the rule of varying the size of the image in relation to its emotional importance within a given episode."¹⁹

But, if the camera had to move, then Hitchcock was left with a new 'constraint', that being the already claustrophobic space of the film set. Essentially, the set also had to move. Having worked out every movement of camera and actor/actress prior to shooting, the entire set floor was mapped, plotted and numbered for the exact placement of person and object. In this sense, a simultaneous 'play', outside the lens, had to be choreographed and executed as flawlessly as the one on camera. Again Hitchcock's own recollections of this tension-filled 'play outside the play':

"For a full nine minutes the roving Technicolor camera poked its nose into every corner of the 'collapsible' Sutton Place apartment. Prop men crouched on their knees beneath the camera boom moving furniture and putting it back. Lights dimmed down in one corner of the apartment, went up in another. 'Wild' walls slid silently on vaseline-greased rollers. Script supervisors, prop men, electricians, and camera crew wagged their fingers and made faces at each other in a series of soundless, prearranged signals. And the camera, which had started facing south, was now facing north."²⁰

In effect, these two 'plays' being staged (one off camera and one on) were each dependent on, and acting from, the other, or, perhaps more precisely, stage and back stage were fused into one 'play' of which the audience is shown only a fraction, a 'play within the play'. Ultimately, the success by which Hitchcock achieves his goal of 'shooting a stage performance', while maintaining cinematic control of visual narrative, is to do neither completely. Hitchcock's ability to play with (not to) his own expectations about film making marks his willingness to surrender control and power during the 'action'. This temporary submission, however, operates ultimately in the service of transforming the 'site' of play which, in effect, allows him to (re)gain direction in creating something between 'real' life and 'reel' life.

Playing (with) the Audience

In much of Hitchcock's own writings on audience motivations, he writes of the audience member's deep desire for the experience of fear and the ultimate tension arising from their knowledge of events within a narrative (identification) without any direct authority over these circumstances (ineffectuality). Hitchcock preferred the elicitation of suspense over that of mere shock and terror and in the case of Rope, the complicit audience is made to feel anxious not so much by the actual act of murder committed in their 'presence'(shock), but by the possible consequences facing the culprits, and themselves by association (suspense). This is essentially the result of the screen play and narrative structure, however, Hitchcock plays this narrative 'given' against his predetermined technical
structure of the ‘ten minute take’ to problematize both audience and industry expectations.  

As early as 1933, Rudolf Arnheim had pointed to audience familiarity and acceptance of the drastic shifts in the time-space continuum within the cinematic world. He wrote, “It might be supposed that this lightning juggling with space would be most displeasing. Yet everyone who goes to the movies knows that actually there is no sense of discomfort. For, as has already been said, the illusion is only partial.”

One can speculate that by the time of Rope’s release in 1948, this ‘comfort’ with the fractured space-time in cinema had reached a level of audience expectation and numbness, to the extent that, as with Rope, the absence of such cuts became a presence upon which audience anxieties could be played. The extended scenes of continual, uncut action that unnerved the aforementioned players in their acting, induces a similar tension in the audience through the denied expectation for a moment of repose. Hitchcock himself recalls the power over the audience afforded by the long-take sequencing:

“All told we had 10,000 feet of film, shot without cuts, and from beginning to end like a stage play. And I think that in editing Rope this way we achieved suspense and an air of mystery without transoms opening, creaky doors, clutching fingers, or a house filled with eerie shadows.”

In this sense, the medium, pushed to its limits of use, is thus impregnated with the message through its very ‘physicality’, and the present absence of the directorial cut is ‘played’ by Hitchcock to hang the audience in a cinematic free fall without resorting to applied shock or riotous action.

Playing (with) architecture?

Realizing the difficulties in translating cinematic space into the ‘real’ space of architecture (or writing into action, for that matter) and conscious of the pitfalls of prescriptive criticism, it is with hesitation that I have named this last aphorism. It is not the suggestion of this essay that architects set out to create spaces like those in Rope, nor to employ technical ‘tricks’ for a scenographic, or even cinematic, effect. Neither is it intended to naively propose that ‘the constraints will set you free’, for this fails to recognize the active role required of the person operating within those constraints in executing that freedom beyond simple extrusion and reiteration. In this illustration of ‘practice as play’, I have intended to highlight the straining of material, the ‘(mis)use’ of technique and the challenging of method as the greatest lessons to be transposed from Hitchcock’s Rope into architecture.

Architecture today is not being ‘played’, and the slack left for maneuverability is shrinking. Budgets, codes, restrictions, committees, materials, liability and institutional impositions are only a fraction of the potential ‘constraints’ facing architecture. The difficult task, then, is to transform these ‘constraints’, into tools, experiments and architecture’s version of the ‘ten minute take’ in order to play with, not to, the expectations of all those involved in the process, architects included. “Thus, in the end, in the finished work, there are no intentions left, only attentions. Attentions to ideas . . . and to their difficult and
problematic but critical development into form."24

Rope was Hitchcock's first American film as an independent producer, his first color film, the first of many films starring James Stewart and the first film in Hollywood made with a direct soundtrack. With all of this uncharted territory and so much at stake, one might assume Hitchcock would have taken a more conservative approach to the actual making of the film. He knew well the Hollywood formula for a box office success and had developed a distinctive 'style', in the eyes of his critics, from which he could have drawn; however, Hitchcock made the conscious choice to deny those critics, himself, the industry and the audience a simplistic extrusion of narrative into form. Instead, he played (with) Rope.

Images: Hitchcock and Bernstein, Transatlantic Picture, Rope, distributed by Warner Brothers.
2 Roland Barthes, "What is Criticism?" Critical Essays, Evanston IL, 1972, pp 255-260
3 Francois Truffaut, Hitchcock, Simon and Schuster, New York, 1967, p 131, Truffaut's note: "Occasionally—and this is particularly true of the highly precut Hitchcock pictures—there may be as many as a thousand shots; there were fifteen hundred and sixty shots in The Birds." Yet, with Rope, Hitchcock chose the technical challenge of shooting the entire film in one continuous reel. However, due to limited capabilities this was not entirely possible, instead, Rope had to be shot in ten minute intervals which was the full length of a camera magazine at the time the film was made.
5 ibid., p 130-131
6 ibid., p 266
7 Francois Truffaut, Hitchcock, Simon and Schuster, New York, 1967, p 131
10 Thomas Hemmster 'Twisted Writing: Rope as an Experimental Film' in Hitchcock's Rereleased Films: From Rope to Vertigo, Wayne State University Press, Detroit, 1991, p 254
12 Thomas Hemmster 'Twisted Writing: Rope as an Experimental Film' in Hitchcock's Rereleased Films: From Rope to Vertigo, Wayne State University Press, Detroit, 1991, pp 261-262
20 Francois Truffaut, Hitchcock, Simon and Schuster, New York, 1967, p 131
23 Rudolf Anheim, Film as Art, Faber and Faber, London, 1933, p 32
...the Maesian forest was taken from Veii:
Roman rule was advanced to the sea, and at the mouth of the Tiber
a city was founded, and salt beds established nearby...

Livy

Catherine Seavitt
Da Roma al mare is a study of the Tiber River – the River as vector, as trajectory, to be navigated in space, time, and direction. It is an exploration into the world of mapping practices, mapping as both abstraction and fiction, as invention... and as a very precise reading of landscape. The 396-kilometer trajectory of the Tiber River is the scope of the project, from its source in Emilia-Romagna to its confluence with the Tyrhenian, focusing on its urban course from Rome to the antique port of Ostia and the sea. The analysis evolved into a series of large-scale mappings of the sinuous course of the river, its flood plain, and the parallel transportation infrastructures, a reading of both the natural and manmade traces on the landscape. It is cartography as navigation/exploration: a study of the river as frontier and passage, from the point of Aeneas’ entry at the Mediterranean coast to the great, mysterious Etruscan cities of the north. The project draws from the practice of mapmaking – recomposition and abstraction– which historically questions notions of self/place/time/identity/direction/limit. An architectural trace of the path of the urban nomad, and the recognition of an historical desire for a connection with the sea, da Roma al mare is the study of a trajectory which gradually developed into a series of parallel roads with evocative names: Via Ostiense, Via Portuense, Via del Mare, Via Cristoforo Colombo. The project stems from a belief that architecture begins with intervention, with a mark in the landscape, and urbanism is a reading of these imprints, these systems of infrastructures, both natural and manmade. But it is more: da Roma al mare is the journey of a river, and of a civilization undertaking this same trajectory from the mountains to the city to the broad vista of the sea. There on the black sands of Ostia, one finds an understanding of this desire to reach the sea, and it is there that the abstraction of the Line becomes mysteriously clear, in the separation of the infinite, in the vast presence of the Horizon.

The drawings shown are selections from the project Da Roma al mare, completed with the support of the Mercedes T. Bass Rome Prize Fellowship in Architecture of the American Academy in Rome, 1997-98. Dimensions: 90cm x 84cm; media: pencil on mylar.
I whom you are looking at, hugging the banks

Ego sum, pleno quem flumine cernis
with my full floods and cutting into fertile fields.
stringentem ripas et pinguia culta secantem
am the sky-blue Tiber, caeruleus Thybris
a stream most pleasing to Heaven.
caelo gratissimus amnis.
Here is my great home;
hic mihi magna domus,
my fountainhead flows out from high cities.
celsis caput urbibus exit.

Virgil, *Aeneid* 8.62-65
Practice ad infinitum
what can we learn from Cezanne's doubt?

Zeuler Lima
Life is scary, Cézanne used to say. Life is unpredictable, despite all the efforts of our contemporary media culture to erase this belief from our perspective. Maybe Cézanne knew it— or better yet— maybe he felt it. This paper is an invitation to think about practice as an event of doubt and questioning, rather than as a guarantee of final or best definitions and answers. There are no final results in practice, only more practice, more questions, and more doubts. However, practice makes our questions clearer and our ability to respond to those questions easier.

No one better than Maurice Merleau-Ponty could unfold the tensions, the anxiety and the beauty of such a powerful subjectivity like Cézanne. In his work entitled Le doute de Cézanne (Cézanne's Doubt), Merleau-Ponty starts by reminding us that the artist needed one hundred working sessions in order to paint a still life, and one hundred and fifty for a portrait. He also points out that what we consider to be the painter's work, for Cézanne, was only the attempt at and the assessment of his painting. For Cézanne, painting was not only his world, but his 'mode of existence'.

Merleau-Ponty argues that “art is neither mimesis, nor a fabrication according to instinct and good taste. [Art] is an operation of expression.” He understands that Cézanne’s painting “denies neither science nor tradition”¹, as Merleau-Ponty does not negate rationality and history. As a painter, Cézanne expresses what has not yet been painted: “to express what exists is an endless task.”² Cézanne looked for the 'smell' of objects and things. His paintings are not about the unitary and full presence of things, but about an allusion to things. He sometimes meditated for an hour before performing one brush stroke, because, it should “contain the air, the light, the object, the composition, the character, the outline and the style.”³

For Cézanne, the practice of painting could not dissociate rational interpretation from visual perception, because he was in search of a kind of primordial experience from which all notions are formed and cannot be separated. Not satisfied with being an “educated animal”, the being of rationality, he plunged vertically into culture every time he painted, and recreated it as if it had never existed. This is an important point to Merleau-Ponty, because it corroborates his own philosophy:

“[Expression] can not be the translation of a clearly defined thought, since such clear thoughts are those which have already been uttered by ourselves or by others. ‘Conception’ cannot precede ‘execution’. There is nothing but a vague fever before the act of artistic expression, and only the work itself, completed and perceived, is proof that there was something rather than nothing to be said. . . The meaning of what the artist is going to say does not exist anywhere—not in things, which as yet do not have a meaning, nor in the artist himself or herself, in his or her unformulated life. . . Meaning only emerges in the work through the expressive act. . . Cézanne’s difficulties are those of the first word.”⁴

Merleau-Ponty carefully argues that life does not explain the work of art, it does not explain expression, but it is important to remember that they communicate with each other. In his words, “the work to be done demands [a certain] life,”⁵ supported by a present intentional, rather than past causes. This is the source of the sense of freedom for Cézanne and for Merleau-Ponty: the freedom of doubt, which makes life and work a project needing practice and choice. For Merleau-Ponty, the problem of freedom consists of the fact that it is not an inherent value, but it only exists in the living of a life, in overcoming a previous status without, however, stopping to be ourselves.

“Two things are certain about freedom: that we are never determined and that yet we never change. Looking back on what we are, we will always be able to find hints of what we have become. It’s up to us to understand these things simultaneously, as well as the way freedom draws in us without breaking our bonds with the world.”⁶

Merleau-Ponty also alludes to Leonardo da Vinci, to demonstrate his points. He criticizes Freud’s description of Leonardo’s Sant'Anna, the Virgin and the Child, not because of his psychoanalytical approach, but because the explanation is reduced to an originating sexuality. Freedom is lost in this analysis, because it excludes a priori 'all differential cases.' Psychoanalysis, according to Merleau-Ponty, has taught us to perceive echoes, allusions, and repetitions that are enchained in moments of our lives, but does not exist to provide us with relationships of cause and effect.

“The very decisions which transform us are always made in a factual situation. We can either accept it or we can refuse it, but it cannot fail to give us our impetus nor to be for us, as a situation ‘to be accepted or to be refused’, the incarnation of the value we attribute to it. If it is the objective of psychoanalysis to describe the exchange between future and past and to show how each life muses over riddles, whose final meaning is
nowhere written down, then we have no right to demand deductive rigor from it... Psychoanalysis does not make freedom possible, it teaches us to conceive of it concretely, as a creative feedback of ourselves, always in retrospect, faithful to ourselves." 7

Creation, expression and art are the centers of our activities as designers, architects, artists and educators. Merleau-Ponty argues about the need to de-naturalize human phenomena and describes Cézanne's experience as the "misery of his empirical life [and] his failed trials" as the place in the world to realize his own freedom.

"This is the reason why [Cézanne] questioned the picture emerging beneath his hands. . . . [and that] is why he would never finish working. We never get away from our lives. We never see our ideas or our freedom (ace to and most of the time we only see them through human actions . . .)

Merleau-Ponty’s philosophy works with the principles of internal differentiation and reciprocity, which is mobile and temporal, takes place in a situation, and implies a representation that is not a substitute for reality, but rather one of its constituting elements.

"We live among objects built by people, among . . . houses, streets, cities, and most of the time we only see them through human actions . . . We get used to think that they all necessarily exist and do not change. Cézanne's paintings lift those habits and reveal the backdrop of inhuman nature that sustains the human kind." 9

The notion of work in Merleau-Ponty refers to the active way of unfolding the Being and it implies the dissolution of boundaries and dichotomies like subject/object, distinctions between author and reader/observer/user and between existing work and work to be done. Any language — written, visual, musical, for example — presupposes intersubjectivity, i.e., symmetry between author and work and between author and reader/observer/user. In any kind of language, the work is part of a structure in permanent state of ‘becoming’. It is not something to be deciphered, but a vertical movement, a movement in depth, beyond the surface, an ‘incarnation’ into the infinite possibilities of expression.

"One does not write solely for oneself, or solely for truth, but not simply for others either. One writes. That is all, and in doing so all of these concerns are in play simultaneously. Those who write imply that all of this can somehow be reconciled." 10

In architecture we continuously deal with the notions of work and the notion of form. These notions are mediated by our practice. Even though Merleau-Ponty did not discuss architecture, we can look at his interrogation of the notion of form in the critique of Gestalt Psychology. Gestalt (form or structure) is a central element in his philosophy to overcome the dichotomy subject/object. Form is not a ‘thing’ or a sum of parts, it is the transcendence of parts, i.e., it is beyond parts, it is the expression of the ensemble with a different meaning. Form (or structure) exits with its own sense of history, which is responsible for the changes of meaning that always occur in the interior of its totality. Practice, seen as an analogy to Merleau-Ponty’s description of the writing act, opens the structure to new possibilities, because together they desubstantialize ‘the real’. And ‘the real’ is not only in the sphere of things. Practice in the expression of architecture, as in other art forms, is related to the essentially diacriti-

The minimal element of a form is a relationship and not an entity. That is why practice is, as I said before, an event of doubt and questioning, rather than the guarantee of final answers. There is no final answer to expression. There is no prefixed relationship. Practice takes place and intervenes in a relationship, opening possibilities and generating new questions, new assessments to Being, new expressions and therefore, doubt. Practice relies on the latent condition of elements to constitute another structure (or form) and other meanings. The ‘come-into-being’ of a work, which nurtures practice, is the balance in movement, whose own historicity is a potential to be explored.
Cézanne’s doubt can help us interrogate the practice of architectural design, because of its affiliation to traditional rationality, which reifies form and reduces it to the sphere of its materiality. Merleau-Ponty’s philosophy reinforces the importance of the ontological, and challenges the legitimization of rationality and pre-defined universals. He considers perception part of an enlarged sensitivity and criticizes the traditional cogito as the center of a world to be understood and explained: there is no intelligible world, only a sensible world, a world to be perceived and worked. The Cartesian expression ‘I think, therefore I am,’ based on the primacy of Reason, gives place to Merleau-Ponty’s ‘I can, therefore, I am.’ It considers the open possibility of work which transforms the condition of being in the world; and defines reality as contradiction and ambiguity, not as fixed representation or identity.

Doubt, apprehended this way, is an element that destabilizes the construction of reality according to rational thought, withdrawing its internal normative character. The criteria of aesthetic value that underlies the Modernist conception of Form and sustains the criteria of beauty (‘beautiful building’ or ‘good project’) with their historically rooted taste are still based on the notion of an objective foundation and do not suffice to open in depth the possibilities of expression in architecture. Architecture should reconsider the notion of work/project not as something that can simply be put into action or applied to a place as a ‘representational thing’, but as an attitude that responds to a critical commitment. It should be opened to the possibilities of ‘coming-into-being’ and also structure itself with arguments that regard the cultural meanings and traditions that constantly and significantly

modify and redefine its investigative work. Architecture can learn from philosophy, from art and even from psychoanalysis, by being aware of the values, allusions, echoes, linked elements, and relationships that structure our practice.

Even though Merleau-Ponty has not dedicated more than a few pages about architecture, his discussion about Cézanne’s work may contribute to architecture as we reflect about the meaning of form, present in our work of spatial expression. Form can only be apprehended in its own dynamic interiority, as opposed to the classic belief in an exterior rationality that thinks, and knows and explains the world according to the dichotomies of subject and object, work and author, work and observer. If life and work are a ‘becoming’ to be practiced with choices, inaugurating new assessments and expressions, then the practice of architecture, either as students, professionals, scholars or educators, should be seen as an open-ended operation, where meaning is not an inherent attribute of forms and material products, but a ‘vertical’ exploration. It is an investigation in depth in the act of expression, carrying together past and future dimensions that are not yet open in the present. That is why we practice ad infinitum. That is why we can learn from Cézanne’s doubt.

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2 ibid., p 118
3 ibid., p 120
4 ibid., p 121
5 ibid., p 122
6 ibid., p 123
7 ibid., p 123
8 ibid., p 125
9 ibid., p 119
10 Incarnation refers to the term ‘flesh of the world’, which, in his late work The Visible and the Invisible, is the ‘chiasm’ or ‘interwining’ as the ontological reformulation of his earlier description of the ‘body’ in The Phenomenology of Perception.
12 ibid.
14 ibid., p. 206
Notes on Almost Nothing Mies van der Rohe's Haus Lange and Haus Esters

Kent Kleinman & Leslie Van Duzer
Haus Lange and Haus Esters did not make Mies van der Rohe famous. Indeed, one might even say that the pair of brick villas built in Krefeld, Germany in 1929 have been understood as a threat to Mies’s fame, as double-damning evidence first repressed by Mies himself, and subsequently suppressed by his apologists. The suppression of Haus Lange and Haus Esters might be explained as simply the inevitable effect of major works upon minor works; chronologically, the Krefeld villas lie in the double shadow of the German Pavilion in Barcelona (1929) and Haus Tugendhat (1930). In this explanation, being slightly less Miesian, the villas yield to the iconic masterpieces.

But what exactly does it mean it be Miesian? Through all descriptions, one feature predominates: more than any other modern figure, Mies moved—albeit at radically varying rates—in a line. The operative model of Mies’s progress is that of Zeno’s frog, traversing half the remaining distance, incremental change becoming ever more minor to the point of stasis. The original terms of this calculus are all too familiar: material discipline, tectonic integrity, structural clarity, spatial fluidity, and formal ethics resulting in epochal statements of modernity. More recently, specifically since the reconstruction of the German Pavilion in Barcelona in 1986 which provided an occasion and a reason for rereading Mies, scholars have proposed new terms for what has been called the post-structuralist Mies: anti-formalist, anti-classical, contingent, paradoxical, literary. But these readings do not in any substantial way rattle the sense of progress in Mies’s output. The terms are new, the teleology is redefined, but the epochal statements, the Miesian canon, remains.

In mathematics, a limited domain refers to those values for which a function is discontinuous. The two Krefeld villas are just such a limited domain. Haus Lange and Haus Esters render any number of Miesian
formulae dysfunctional. The two villas cannot be said to pick up the line of spatial invention initiated by their forebear, the Brick Country House of 1923, nor as Kenneth Frampton and Wolfgang Tegethoff have suggested, to lie midway on the path toward the typological maturation of the columnar pavilion. The villas violate virtually every principle of bearing-wall construction and they are monumental evidence against the tectonic determinism promoted by Werner Blaser. The villas cannot easily be read in light of the paradoxical symmetries or contextualizing reflectivity described by Robins Evans and Detlef Mertins for on the surface of things where such qualities reside, these villas display neither. Even the foundational myth of the architect's uncompromising bearing is challenged by the story of Haus Lange and Haus Esters. At almost every turn, these works seem to undo Mies.

But of course, Mies cannot be undone, certainly not on the basis of these two works. Canons need not account for all possible elements or all possible instances. Canonical treatments allow one to separate, isolate, disregard, to state the general case. Individuum est ineffabile, to which E. H. Gombrich added "individuum est inexplicabile." The particular can never be caught in the network of general concepts. In lavishing attention on these two villas, we can neither destroy nor create a tale of Mies. Instead, we propose a project both more humble and more aggressive: we intend to read these buildings through the history of their future. In other words, we would like to propose that the very characteristics that make Haus Lange and Haus Esters so "unworkable" in terms of Mies, attributes which might be grouped under the qualifier "compromised," are in fact the very qualities which have supported the singular and fantastic future of these two buildings.

The future we refer to is the reuse of the villas (as of 1955 for Haus Lange and 1981 for Haus Esters) as exhibition sites for contemporary art. Loaded with Miesian weight, yet strangely unconvincing in terms of modernity's aspirations, the two villas have been foil and foreground for a large number of works by significant contemporary artists. Under the auspices of the parent institution, the Kaiser Wilhelm Museum of Krefeld, artists including Claes Oldenburg, Richard Deacon, Alan Charlton, Michael Asher, Sol LeWitt, Richard Long, Richard Serra, Yves Klein, Daniel Buren, Christo, Jan Dibbetts, and Jannis Kounellis have—albeit not according to any systematic plan—interrogated and reinterpreted these two villas.

Haus Lange and Haus Esters emerge from this engagement strangely inflected. While some residue of this future history is physical—there are marks and traces and in a few cases, actual artwork left behind—the transformation that most interests us here is the case that emerges for an architecture both powerful and weak, an architecture which stops short of the totalized environment and therefore, paradoxically, offers more rather than less. From the very inception of this architecture, Mies had to yield, or at least share, the field with art. It is therefore no coincidence that one feels in the presence of these two works a missing voice, an absent factor, a vacancy. More than in any other work by Mies, these villas desire occupation, not completion.
Eine Klein(e) Kammer

This is the story of a little chamber, the so-called "Klein Room," located in Mies van der Rohe’s underestimated work, Haus Lange. The story concerns a moment of resignation embedded within a larger context of “compromise.” We would suggest that the apparent weaknesses in both scales—that of the chamber and that of the building—have in fact resulted in two modes of dumbility: in the first case, a contingent architecture whose very lack of resolution has provided an ongoing work in progress, and in the second instance, a self-reliant architecture remarkably independent of, yet accommodating to, the flux and flow of habitation.

In 1931, the German magazine Die Form posed the question: "Can one live in Haus Tugendhat?" shortly after the building’s completion. Although in many ways this question went to the core of a central issue with Mies, it is important to rephrase the question’s implicit accusation. It was not, as is typically assumed, Mies’s minimalism that caused anxiety. On the contrary, the attack was leveled at an architecture that appeared to be too pervasive, too maximal; the parsimonious plan of Haus Tugendhat—a plan of few lines and points, of walls as thin as pencil shavings—necessarily extended the grasp of the architect into all domains. Mies’s excessive grip sparked the controversy, the perception that precisely the refined minimalism, thinness, and planarity of the fixed architectural elements legitimized the architect’s transgression into domains that an architect of, say, Adolf Loos’s persuasion, had proclaimed off limits: the furniture, the art, the flotsam of quotidian life. For no other work would Mies design more furniture. Hardly a plan exists of the main living space in Haus Tugendhat in which the furnishings are absent, and the minute variations in layout that do exist between plans indicate an uncompromising, compositional program.

One year prior to Haus Tugendhat, Mies built the two brick villas in Krefeld, over which it has often been said that he lost his grip. Mies wanted more glass and less wall, less enclosure, less thickness, less programmatic luggage. The transparent thinness of Haus Tugendhat is indeed absent from the plan of Haus Lange, in part because of the lack of separation between structure and wall implicit in bearing-wall construction, and in part because there are no exposed edges, no walls without corners, and thus, no unbounded spaces. There are, instead, rooms. What slipped through Mies’s grasp with regard to the plan of Lange was the totalizing control that characterizes Tugendhat. Phrased positively, one might say that the lack of absolute authority necessitated a more self-sufficient architectural paradigm, one that did not target the minutia of daily life.

Hermann Lange, a textile industrialist and a renowned collector of modern art, needed surfaces on which to hang his art. The art would rotate, the collection would grow; a degree of separation between container and contained was preprogrammed. Furthermore, Lange came to Mies with furniture. The furniture is not inscribed in any of the preliminary plans for Haus Lange; Mies apparently had no single conception of how the main rooms would be inhabited. He drew at least two plans, shifting the furniture into different configurations; a third arrangement, that was finally—or perhaps provisionally—adopted can be seen in a photograph from 1931. On the condition of the villas in 1985, Wolfgang Tegethoff observed that “the loss of the original furnishings, which were
kept by the former owners, is of no particular consequence, especially since there were scarcely any original pieces involved. Tegethoff's double use of the term original reveals a bias common to Miesian scholarship, namely that the authentic Mies environment is original to the degree that it completes itself with Miesian originals. But in Lange, the original state was most unique precisely because the "original furnishings" came (and went) with the inhabitants.

At some moment after the completion of the working drawings and before the completion of construction, Hermann Lange imposed an intractable demand. Lange, an organ player, required Mies to add a small chamber (2.0 m x 1.7 m) to accommodate the organ pipes and to cut a large opening in the west wall of the main hall to frame the keyboard and performer. The disfiguring chamber, projecting into Lange's study, was recorded in the as-built drawings and a photograph of 1931. While the lack of total control over the interior prompted an autonomous, and yet accommodating, conception of the plan, it is perhaps hard to see the virtue in, or even to be interested in, what amounts to little more than a large, poorly disguised closet. Virtue aside, this little room has a curious history, one that might be referred to as the redemption of marginal space.
The protagonist of this portion of the tale is the artist Yves Klein. When Klein came to the villa in 1961, it was on the invitation of the prophetic curator Paul Wember, director of a then relatively new acquisition: Museum Haus Lange.11 Klein was to prepare a major solo exhibition in the unfurnished building. The villa was essentially untouched by the passage of thirty turbulent years, with the notable exception of the little chamber, which had been sealed up, enlarged (to 2.0 m x 4.5 m), turned into a kitchenette, joined with a second door to the former woman’s salon, fronted with a discrete hallway, and then emptied again. The illicit, aberrant space must have seemed irresistible to Klein as an opportunity to be within Mies’s work and without simultaneously.

Klein’s work in the small chamber has alternatively been called the “Void Room,” the “Immaterial Room,” and simply the “Klein Room.” The artist coated the interior of the chamber—walls, ceiling, floor, doors—with white paint mixed with a granular additive. A single fluorescent fixture illuminated the space. Le vide was unarticulated, immaterial emptiness. Klein opted to operate in this marginal, surplus space precisely because it was marginal and superfluous; it could therefore serve well as a test-site for the transformative potential of his art. Turning stone into gold is ultimately more rewarding than turning one precious material into another. This is the source of the great appeal of marginal conditions to architects and artists alike. What is interesting about the “Klein Room” is that it has not—yet—degraded back to stone.

On the contrary, Klein’s room exists intact, lodged in the plan and in the history of Mies’s building. It has inspired subsequent work, such as Richard Serra’s 1985 installation “Klein’s Walls.” It has also provoked an ongoing debate regarding the present restoration of Haus Lange, wherein competing originals vie for priority, including an original that never properly existed, namely the condition as projected in Mies’s drawings before the irksome issue of the organ chamber, but after the removal of the “original furnishings.”

This brings us back to the question of durability. Haus Lange, because of its particular history of accommodation, is positioned both inside and outside the flux of the circumstantial. Kenneth Frampton, addressing the tectonic paradoxes of the brick projects of Mies’s so-called “middle-period,” identifies this work as “perhaps the most complex of his entire career, since here the conflict between avant-gardism and tradition attains its greatest intensity.”12 How telling that this conflict should now play itself out between the defenders of Klein and the champions of Mies; or between those who do, and those who do not, believe that paradoxes are infinitely more durable than answers.

The Art of Instructions

In October, 1969, Sol LeWitt was invited to draw on the walls of Haus Lange. The drawings, fifteen in total, were distributed throughout the villa. The drawings consisted of all possible combinations of four basic lines types: verticals, horizontals, and 45 degree diagonals left to right and right to left. 13 LeWitt’s exhibition in Krefeld took place near the beginning of a prolific career which produced over 700 wall drawings, or more precisely, 700 instruction sets for an array of assistants, school
children, museum staff, other artists, and gallery friends who executed the drawings on museum and gallery walls throughout the world. In 1984, the instructions were augmented with a published description of materials and techniques to be used in producing a wall drawing. More and more, it became possible for anyone with a modicum of manual dexterity and substantial patience to execute a LeWitt. In fact, in order to authenticate his wall drawings LeWitt issued certificates with signed copies of the instructions and accompanying diagrams. Almost predictably, the instructions themselves took on the deferred aura of the artwork.

1981, the renowned Fluxus collector Gilbert Silverman displayed his "original" LeWitt instructions at an exhibition at the Cranbrook Academy of Art in a show entitled "Instruction Drawings." This description of LeWitt's practice will be familiar to most architects, as his instructions are nothing but working drawings and his material lists the equivalent of specifications. Although it seems in general fair to say that LeWitt doesn't look like Mies, doesn't feel like Mies, and doesn't write like Mies (other than their shared aversion to writing much at all), there is an area that ties Mies (in particular the brick villas of Mies) to ideas that were developed by LeWitt and several of his contemporaries. We are referring here to the role played by instructions, to the art of deflecting the meaning of a work away from appearances and the originating concept, and directing it toward that gap between ideation and execution. The term typically used is "process." An architecture of process is ill-defined in the field, but the implication is that such work delays and perverts attempts at a priori figuration. The outcome is unpredictable formally, but recoverable procedurally. An architecture of process has come to mean a particular relinquishing of control by the maker to the imperatives of an operation largely closed to wilful intervention.

This taxonomy of process-driven works versus preconceived works is, however, largely bogus, if for no other reason than that it relies on a largely preconceived notion of aesthetic outcome for its assessment. A more sophisticated notion of process emerged in connection with the minimal art of the 1960s, and significantly, it emerged in connection with work that appeared largely preconceived, geometrically pure, and suffused with formal control. In the case of the Minimalists, it was precisely the foregrounding of a work's procedural machinery that was intended to break the grip of illusionism on the artwork and to signal a new site of meaning. The presence of a transparent and rigorous process of making was a kind of guarantee that the work would not be read backwards through metaphoric analogies to the human condition, but would instead be read forward, into real time, and into the space of the beholder. Michael Fried's complaint that minimal art had crossed genres from the fine arts, to the performing arts, to theater, was extraordinarily perceptive. Minimalist art did indeed do violence to the idea that art should be "present" rather than temporally extended, and that the beholder should be "denied" rather than implicated. And this violence was in a sense authenticated, documented, and certified by the step-by-step instructions that governed the formation of many minimalist projects. Thus LeWitt, always one of the more consequent of his contemporaries, insisted that his instructions be posted right next to his wall drawings. "How else would they know that there are ten thousand lines in a given area?"
This situation has parallels in the position staked out by, and subsequently granted to, Mies. Again and again, in Mies's own words and in the words of his commentators, we are reminded of the importance of bauen, of Mies as a Baukunstler, of Mies's reasoned assemblages, of the meaningfulness of "placing two bricks together in a significant way." Particularlly in his own early texts, those of the 1920s, Mies deployed descriptions of building as a barricade around his work, discouraging any meandering readings with tautological statements such as "our mission is to make building that which it should solely be, namely building." Bauen formed the ground for architecture: one could rise from there into spiritual matters—into the realm of Baukunst—but one could not get behind or around bauen into its metaphoric/expressive/symbolic sources, just as one could not get behind LeWitt's instructions. Was sollte bauen sein? "Bauen," Mies tells us. What are those horizontal lines? "Horizontal lines," the label next to LeWitt's drawing tells us. LeWitt was remarkably coy, offering only sporadic suggestions that there was an "idea" driving his vast enterprise. "Neither lines nor words are ideas, they are the means by which ideas are conveyed." LeWitt's relative silence on this matter has been hugely profitable in the sense that the field is left open for the speculations of any number of commentators. Mies was slightly less reserved—and left less to the imagination—in his statements about the relationship between what he saw as the raw facts of bauen and higher level aspirations, aspirations having to do with expressions of the epoch. He was quite clear about the priority of concerns that would lead to such expressions with the conditions of bauen being first and foremost, as if a recognizable Zeitgeist would necessarily spring from rigorous tectonics, but rigorous tectonics would not necessarily spring from a preoccupation with grandiose ideas. "Let us guide our students over the road of discipline from materials, through function, to creativity," was Mies's educational road map. The degree to which Mies trusted in the disciplining value of rigorous assembly is revealed in a statement to his IIT colleague Reginald Malcolmson, who was to become one of the most stalwart defenders of the Miesian ethic: "If I had to build a free standing wall in brick plastered on all sides, so that the bricks themselves could not be seen, I would still build the brick wall in English bond." How would you know it is English bond? Persuading the mind of that which the eye cannot possibly register is part and parcel of linking the authority of process to a set of effects. Indeed, a number of late twentieth century artworks exist on these two planes: as concrete fact, and as stories of their becoming. LeWitt is somewhat typical rather than exceptional in this regard. But architecture always seems less direct, more mediated, in a sense more fictional, and Mies's proclamation seems consequently more sturdily resolute and radical, even exaggerated, improbable, and fragile.

This fragility helps to explain one of the more curious aspects in Miesian scholarship, namely the "invention" of constructional imperatives for projects long after their conception. A case in point are the often reproduced brick coursing details and articulated ground plan drawn in Mies's office by Werner Blaser in 1964 for the 1923 Brick Country House project. The detailed information contained in these extraordinary drawings, in which every brick is drawn, have no basis in Mies's original delineations. The original drawings consist of two
images: a plan outlined in light pencil filled in with solid charcoal lines, and a perspective view which differs significantly in proportions and composition from the plan. The notion that this design was informed by a brick module, right down to the wall thickness, is of course, patently false. But more interesting is the fact that by the mid 1960s it was apparently clear to Blaser and to Mies that if the building had been executed, the instructions would have specified perfect bonding, English bond perhaps, and rigorous modularity, right through to the core of the massive chimney blocks.

Almost without exception, to the degree that Haus Lange and Haus Esters are cited at all, it is in connection with the above discussion. And understandably so. Both villas are bearing-wall construction, both are executed in English bond, and both are finished with plaster on the interior and exposed brick on the exterior. Furthermore, there is an abundance of drawings relating to the brickwork of both villas. At a large scale (1:20), Mies had all the elevations of the villas drawn, with enough bricks depicted to determine the exact layout of each brick on each surface. It is important to recall that the brick modules, and the pattern for their assemblage, are derived from the elevations only. There are no drawings indicating the corresponding arrangement in plan, nor are there sections in which the wall thickness is articulated in terms of brick units. Nonetheless, it is likely that the elevations of the Krefeld villas inspired Blaser’s three-dimensional bonding diagrams for the unbuilt Brick Country Villa. Undoubtedly, Blaser’s interpolation inspired other commentators, such as Kenneth Frampton, to have faith in the transparency of the surface information contained in the elevations, and to subscribe to the notion of a homogeneous wall of stacked bricks of a single type. This faith is necessary if one is to see with the mind’s eye the marks of a thorough tectonic discipline and the rigor of careful assemblage in the precise instructions contained on the elevation drawings of the Krefeld villas.

But the coursing patterns in the elevations of Haus Esters and Haus Lange are not three-dimensional instructions; they do not implicate building in its profound sense, as an activity with spatial consequences, or even as an activity that produces a product transparent to the process of its making. It is no coincidence that LeWitt, in compiling instructions for a fully three-dimensional work such as his 1991 “Cinderblock Piece,” drew plans and elevations. The Krefeld elevations are rather more like LeWitt’s wall drawings, rigorously constrained surfaces, made up of essentially two-dimensional modules. In short, the brickwork of Haus Lange and Haus Esters is a veneer.

It is a veneer in the most literal sense. The expensive, partially vitrified clinkers, with their purple-red finish, were used to face a masonry wall built up of more ordinary bricks. The interior of the walls, the structural core, was laid up in a cross bond, for which there were no drawings, standard masonry construction apparently being assumed by the architect. On any number of section drawings for the villas, the indeterminate relationship between the clinker facing bricks and the load-bearing bricks proper is surprisingly explicit: the clinkers are drawn stone by stone, the remaining wall is depicted with hatched linework.
So Mies's brick villas are apparently in need of the same type of explanation, or defense, that has by now become a standard addendum to any discussion of his work in steel, or his so-called "industrial" furniture, or his rationality, or the general issue regarding truth in architecture. After being told for decades that these works are materially and tectonically determined (they are not), that the bonding is rigorous (it is not), that the module regulates the whole (it does not), that even if it were hidden behind plaster, the rationale of masonry would be fulfilled (which it might be, depending on one's definition of masonry rationale), that these are in fact "brick villas" rather than "steel villas" (a topic to be pursued in the next section), after being told these things, do the villas teach us, offer us, a vision of these conditions regardless of whether they are actually in evidence or not? Has Mies achieved here what defenders have long claimed for his other work, namely, an expression?

Phrasing the question this way is not intended to let Mies and his apologists off the hook for having stated things that are patently not the case. But does bring us to the question as to just what happens when the authority of pure procedure is relaxed. Just what, for example, are we to think of Richard Serra's famous, and famously titled, work "One Ton Prop" when we realize that the piece is not one ton of lead but more on the order of 3780 pounds, almost two tons? What if there are only 9000 lines in LeWitt's drawing? What if Gaudi's much heralded catenary models turn out to involve many key decisions (the length of the cables, the shape of the plan, to name only two) that are utterly exogenous to the process itself.

What happens, in a word, is fiction. Or in more words, one can say that architecture proposes to us what ideas might look like. This is architecture's particular problem, and its gift. It gives form and material to ideas; it does not imitate an idea's form or material. Gaudi is thus not best understood as an exponent of procedure untainted by prejudice, of the kind of building practice that was once, in the early days of innocence, attributed to Mies. The case, with both Gaudi and Mies, is more complicated. Gaudi believed that the vertical dimension, the domain of gravity, was the axis of God, and the horizontal plane that of man. Gravity and the hand of man collaborated in his method. His models exquisitely fused the two realms into a process for forming material: he invented a procedure for giving shape to a philosophy about the nature of the world. He showed us what this philosophy could look like. This is the story of his work, and his gift as an architect.

Mies was an architect: he was no Baukünstler, despite his desire to be seen as such. The business of Mies's architecture is not to be either literally truthful to a tectonic procedure nor to successfully appear to be truthful, to express it. The very premise is wrong, like asking if Hamlet, while not actually an historical figure, is at least successfully portrayed as such. The only interest in successful portrayal would be that it allows one to get on with the business of Hamlet's all too human dilemma. And Mies's interest in portraying with such force, with great effort, the brickiness of these buildings is so that at almost every turn, in almost every instance, he can undo them, deny their qualities, subtract from them all that he has invested in them, so that in the end one thing cancels the other, and one is left with almost nothing. Mies shows us what almost nothing, in brick, might look like.
On January 20, 1985, the exhibition of Richard Serra’s sculptures and drawings opened in Museum Haus Lange. Serra conceived of all but one of the pieces expressly for the rooms of the villa: five works in steel located on the ground floor and six drawings for the rooms on the upper level. By the year of this exhibit, Serra’s attitude regarding the relationship between his sculptural work and their architectural setting had become the source of much critical attention and scrutiny. “I think that sculpture, if it has any potential at all, has the potential to create its own place and space, and to work in contradiction to the places and spaces where it is created. I am interested in work where the artist is a maker of ‘anti-environment’ which takes its own place or makes its own situation, . . . In my work I analyze the site and determine to redefine it in terms of sculpture . . . I’m not interested in affirmation.”

The concept of the anti-environment is central to understanding Serra’s site-specific sculptural oeuvre. Certainly one aspiration of the anti-environment project is that it would serve as a type of ideological litmus test, one that would precipitate and reveal a dominant hierarchy out of a given environment by positing a counter-reading of the site. This stance would frequently put Serra at odds both with those commissioning work and, equally frequently it seems, at odds with architects, whom Serra sees as natural allies to the power structure inherent in the very nature of architectural commissions. However, attempts to see Serra’s raw industrial materials and non-affirming stance as a materialist critique of capitalism and its institutions notwithstanding, Serra’s anti-environments were not only, and probably not even primarily, politically driven. What Serra does, or does best, is not dismantle the machinery of institutions, but the space-making machinery of architecture. The point is that to do his work, Serra cannot figure a counter environment without first having figured out the counter environment’s environment.

So a productive interaction between artist and architecture was all but preprogrammed, and highly anticipated, when Serra installed his work in Mies’s Haus Lange. Our interest here is not to elucidate Serra’s installation, but to allow Serra’s installation to elucidate Mies. Serra held Mies in unusual (since he was an architect) regard as one of the great constructors of the modern era, together with the likes of John Roebling, Gustav Eiffel, Henri-Pierre Maillart, and Antonio Gaudi. And while Serra’s exhibition was to be an exploration of the spatiality of Mies’s brick villa and not a direct interrogation of its tectonics, the two aspects—the spatial and the tectonic—were, as always and everywhere with Mies, held to be casually linked. In fact, this perceived linkage was the source of Serra’s respect for the architect. Just what this spatiality consists of—as understood through the contrast provided by Serra’s installation—was described by Marianne Stockebrand in her exhibition catalogue essay. “In Haus Lange one is repeatedly impressed by the generosity and transparency of the open and interlocking spaces . . . The giant steel plates on the ground floor of Haus Lange are positioned such that the expansiveness of the spaces is hemmed in, the spatial flow is interrupted, and the views through are displaced.”

In particular, Serra’s “45 Angle for Mies,” the two diagonal plates installed in the main hall, was understood as a direct opposition to the lexicon of the villa’s geometry, an ironic and aggressive counter-
geometry to the right angle. Moreover, it was also understood as a counterweight to the villa's dominant spatiality. The steel plates obstructed the "Überschaubarkeit" of the space, the ability to survey its extension. They introduced an acute angle and produced a "parallelogram" of space, an unstable, dynamic figure foreign to the obstinate orthogonal order of the villa's footprint.

"Klein's Wall" and "Mies's Corner Extended," both involved one unstable plate being supported by a second unstable plate, one reaching out precipitously in plan, the other tipped precariously in section. These surrogate walls were the antithesis of the sturdy load-bearing supports of Haus Lange. This is a repeated theme: the structurally rational and compositionally determined and perceptually stable presence of the brick villa was made more palpable by the structurally daring and compositionally contingent and perceptually osculating presence of Serra's counter environment.

Making these qualities more palpable is, however, significantly different than calling them into question. Serra's counter environment responds to Mies without actually interrogating Mies, and in this case, Serra corroborates a fiction by counteribling it so compellingly. For it is a fact that of all of Mies's work, Haus Lange, Serra's anti-environment's environment, is singularly unsuited for counter environmental treatment. This is not because it lacks a strong architectural character, but because its character is already preoccupied with its own self-denial. And this is our main contention: that both Haus Esters and Haus Lange (but particularly Haus Lange) are, in and of themselves, counter environments. In other words, the architecture proposes certain spatial and structural conditions, but simultaneously undermines them, much like a synthetic Serra installation.

The most extraordinary, although certainly not the only, example of this self-undoing in the Krefeld villas can be found precisely where it promises to do the most productive work (one is tempted to say "damage"): in the structural conception of the villas. Bearing-wall structures have a few basic conditions that discipline architectural decisions. These are simple matters that amount to three basic rules which must be factored into the work at an early stage. First, bearing walls should not be punctured excessively. Second, bearing walls should stack vertically to transfer the load. Third, the placement of bearing walls is conditioned by the structure of the decking system.

Immediately obvious to the eye, and to all commentators on these villas, is the structural implications of the window openings on the south facades of both villas, with spans that defy the conventions of bearing-wall structures. The brickwork makes no visual concession to the openings; no lintels are indicated, no head conditions marked. Upon closer inspection, the bottom flange of a steel angle can be seen to be supporting the brick cladding. But the angle is only one of an otherwise invisible battery of steel members rallied to the support of the expansive window openings. The angle is in fact suspended rather than purely spanning; it is strapped with flat steel bars to a substantial steel channel above that spans from jamb to jamb. A third member—a wide flange beam—helps support the bearing wall above, and a fourth member—a stocky wide flange—transfers the floor load. Sandwiched
between this array of beams is the barrel of the manually-operated retractable shutter that accompanies each window.

This structural ensemble of the fenestration is the nexus of Frampton's assessment of the villa's structural logic as "compromised." Frampton notes that "Mies's engineer, Ernst Walther, complained at length about the economic and technical problems involved in achieving such large spans in brick openings. In a letter to Mies, he complained of his liberal use of Reiner [sic] beams and other elaborate structural devices. However, such spans enabled Mies to provide large picture windows in both the Esters and Lange residences, . . . ."25 However, Walther was not principally complaining about the structural gymnastics involved in spanning the window openings, for the incongruity of large sheets of glazing in exterior brick bearing walls was not the only, or even the main, moment of structural gymnastics in the Krefeld villas. In fact, Peiner beams are not associated with the fenestration at all. Peiner beams are steel sections characterized by markedly large flanges that are almost as wide as their web is deep; they are strong yet, given their geometry, not particularly efficient; they conserve depth at the expense of massive self-weight. The liberal use of such members is an index of the simple fact that in both villas many large, eccentric loads are being transferred over long spans. In other words, the Peiner beams draw our attention not to the windows, not to the condition of the periphery, but to a condition more central to the general character of the architecture, namely the overall structural status of these works. In the Esters villa alone there are over 350 steel beams, over 110,000 pounds of steel.26 In Haus Lange there are sixteen concealed columns. The structural calculations for Haus Lange encompassed 88 pages; for Esters 124 pages.27 As these figures suggest, these are not simple bearing-wall structures.
To a degree, some of the structural complexity has to do with the scale of the spaces spanned. The main hall in Haus Lange measures 7 meters by 14 meters; clear spanning even the short dimension required more than the usual domestic muscle. For comparison, the spans in Haus Tugendhat are just 4.9 meters. The separation of enclosure from structure clarifies matters substantially in the Brno work, wherein large spaces are independent of large spans. But the architectural conception of the Krefeld villas effects the opposite: spatiality implicates structure. While this is the basic condition of bearing-wall construction, it is put under enormous tension in Haus Lange and Esters.

The fenestration is but one moment of this tension. More generally, the horizontal datum that separates the first and second floors is a site where numerous structural discontinuities are absorbed. Almost completely uninterrupted by dropped beams or headers over large passageways, the taut sheet of the first floor ceilings in both villas conceals the fact that there are virtually no continuous interior bearing walls to support the roof loads. In fact, the upper floor of Lange in particular is populated with interior columns. The columns, however, do not align with bearing surfaces below, but rather happen at rather inauspicious places, midway on the ceiling in the main hall, for example, or in rather thoughtless places, just a few centimeters from a bearing wall in Lange’s dining room.

There is also a vertical discontinuity at the perimeter, again in Haus Lange, again camouflaged by the continuity of the first floor ceiling plane. The south-eastern, second floor corner floats in space. A serious collection of beams, squeezed into the shallow floor cavity, is rallied to transfer the load to the south-eastern terrace wall, which itself rests directly above the 8-meter clear span of the triple car garage door.

Of course, the plans are not entirely without the formal alignments associated with bearing-wall systems. In fact, one of the more revelatory moments occurs where structural continuity is so close at hand that only a determined design effort could prevent its legibility. Both villas have these moments. In both villas, the south face of the upper story steps back from that of the lower story, providing a roof terrace for the bank of bedrooms. In both villas, the structural line of the upper perimeter wall impresses itself—necessarily—on the lower plan. The development of this structural line on the main levels of both villas is a veritable essay on the dissolution—experiential and actual—of a bearing wall. One can say that the distribution of spatial entities actively partakes in a general strategy of erasure, for we can find significant episodes of space staggered with respect to structure, deploying the geometry of the latter to eclipse the lines of the former. We are in the realm of so-called dazzle camouflage, wherein a structure (typically a battleship or a tank, but why not a plan?) is disguised by countering it with a non-conforming pattern.

One is tempted, as others have been tempted before, to resort to the oft-told tale of Mies’s unhappiness with his less-than-complete creative authority over these works. But why insist, as has always been the case with Mies and his apologists, on harmony between space and structure? One can move in precisely the opposite direction and find evidence of Mies’s career-long disinterest in coordinating the subdivision of space.
with the structural meter of a project. Indeed, one can go further and argue that the paradoxical negations that contemporary readers of Mies are beginning to discern and appreciate in the canonical works of this period (Barcelona, Tugendhat) are nowhere more operative than in the Krefeld villas, precisely because it is never possible in these buildings to apprehend any spatial moment without simultaneously comprehending a material paradox. In this light, recent observations regarding the German Pavilion's tectonic paradoxes (columns that negate their presence, walls that negate their non-structural identity) can seem a little like splitting hairs compared to the massive and decisive negation that permeates the Krefeld villas.

At stake here is, in fact, the question of canon formation, or, phrased more precisely, the question of canonical stability in the context of shifting evaluative ground. In the thinking of an art historian like E.H. Gombrich, certain peaks of creative output exist not so much as consequences of critical judgments, but rather, the other way around. Critical judgments are formed, and re-formed, in order to come to grips with masterful creations; critical judgments do no masterpieces make. In the context of canon formation, Gombrich has written that "... as far as the peaks of art are concerned, it is not so much we who test the masterpiece, but the masterpiece which tests us." To a degree, this explains the scholarly penchant for returning to the canonical well even if it is drier than other nearby sources. To be concrete, it explains why, in a contemporary climate in which Mies is under reconstruction as everything but a rationalist, the iconic works remain the source of (sometimes thin) evidence. However, if one believes that masterpieces do not and never did simply announce themselves, that they are not simply and suddenly there, like clouds or rocks, then one might alternatively argue that the paradoxical attributes of the Krefeld villas qualify these works for full membership in a reconfigured understanding Mies. Arguably, a shift in critical perspective should produce a corresponding shift in what is considered worthy of inclusion.

The situation with Mies is particularly sensitive to this issue of which works are included because it is becoming increasingly difficult to point to anyone other than Mies to uphold certain central tenets of modernity itself. And here one has to acknowledge that the art installations which are serving in this text as the entry points to the Krefeld villas oftentimes render a disservice to understanding this architecture. The case of Serra is one instance: Serra, as we have seen, needed a stable Mies as a pendant for his unstable installations. But his slabs do more than prop themselves up. They simultaneously prop up a Mies that is collapsing everywhere in Haus Lange. For Haus Lange, even more than Haus Esters, is a frenzy of contradictions, presented with, but not disguised by, silent dignity.


7 Jürgen Bier, "Kann man im Haus Tugendhat wohnen?" Die Form 6 (15 October 1931), 302–03.


9 Tegelhoff, Mies van der Rohe: The Villas and Country Houses, 65.

This and all subsequent information regarding the development of the small chamber is taken from the authors’ interviews with Dr. J. Heynen, Director of the Museum Haus Lange and Haus Esters in Krefeld in 1996 and from the authors’ correspondence with Dr. Heynen in 1998.

10 In 1966, the Lange family initially offered their house to the city of Krefeld for use as a contemporary art museum.

11 Frampton, Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture, 159.

12 The drawings are reproduced in Sol LeWitt, Sculptures and Wall Drawings (Krefeld: Museum Haus Lange, 1969).


18 Reginald Malcolmson, Centennial Lecture.

19 Blaser, Mies van der Rohe, 19-21.


21 Serra, "Interview by Alfred Pacqueme" and "Extended Notes from Sight Point Road," in Writings, Interviews, 164, 169.


28 Gombrich, "Art History and the Social Sciences," in Ideals and Idols: Essays on Values in History and in Art, 164.
Museum & Memory  An Alphabet for the Work of Daniel

Edward Dimendberg
It is frequently suggested that the institution of the museum has lost its former power and legitimacy. Yet are we not living through the golden age of the museum's influence, a force evident in the very struggles and conflicts as the line stretched between two points. In contemporary culture, the museum's role in defining its place is crucial.

A key element (perhaps even a spiritual armature?) of Libeskind's architecture is the bridge. "The bridge connects the finite with the infinite... as the line stretched between two points. It prescribes unconditional security and direction."

Georg Simmel, Bridge and Door, 1906.

How to represent them architecturally? The seesaw balancing act of Libeskind's structure and disruption by philosophers such as Walter Benjamin alludes to the crisis of modern memory. Should the museum not provide a laboratory for a type of experience made increasingly precarious and precious by the demands of modern life? What role could or should media technologies assume in our encounter with the past?

Erlebnis and Erfahrung are German words for experience whose juxtaposition by philosophers such as Walter Benjamin alludes to the crisis of modern memory. Should the museum not provide a laboratory for a type of experience made increasingly precarious and precious by the demands of modern life? What role could or should media technologies assume in our encounter with the past?
Freeport of ideas.
A desirable role for the museum in an age when together with the university it remains one of the few public institutions insulated (at least in part) from the logic of the freemarket.

Guggenheim Museum, Hans Haacke.
Fearing that it might offend its board of trustees, the Guggenheim Museum abruptly cancelled an exhibition in 1971 of artist Haacke's work documenting the real estate holdings of New York's largest slumlords. Curatorial freedom and independence, full citizenship, must be extended to artists and organizers of exhibitions who represent the present as well as the past.

Interpretations.
The building blocks of any historical exhibition.
The past is nowhere to be seen, as the absent present, it cannot be represented, only interpreted using verbal language and other media. Museums perform a valuable cultural and intellectual service by reminding their visitors of the provisionality of any historical narrative.

Judaism.
It pleases me to imagine Libekind's Berlin Museum remaining empty, or at least spacious. Is the prohibition against graven images an integral element of its program?
Kiss of Death.
A fatal encounter awaiting all museum architecture that aspires to blend seamlessly into the urban fabric. Successful museums transform their setting and remake our understanding of a city or region.

Line. linear. lineage.
Elongated forms and historical, cultural, and narrative trajectories co-exist in Libeskind's architecture. Lines broken by aporia. Could the Nussbaum Museum be among the first examples of a new genre: architectural biography? Linearly and teleology remain distinct, there is more than one way to experience the Museum without Exit.

Manchester.
City of Engels and the British working class, soon to become a cultural center of Northern England after the completion of Libeskind's Imperial War Museum North. Satellite museums, signature architects, and renewed life for peripheral cities are perhaps the most conspicuous elements of a newly emerging culture of globalization. What are some comparable examples of the museum’s ability to form a place?

Nostalgia.
The wound of returning to the past. Yet the predilection the world over for constructing museums and monuments suggests pleasure as well as pain. What drives our culture’s memory feeding frenzy?
Optimism
An unmistakable component of Libeskind's architecture and early indication that the twenty-first century may turn out to be more joyful and affirmative than many of us thought possible.

Public architecture, promenade, parks
Recurrent elements in the work of this public architect.

Representation
"The capacity to represent meaning in Architecture is a measure of domination. Conversely, domination is the most powerful thing that can be made visible in it. Paradoxically, this capacity of representation is a means of enlightenment no less than a vehicle of regression."
Daniel Libeskind, "The Myth of Site"
Space. Understood as a passive and inert medium, an empty container by most architects, but not by Libeskind. Space is actualized, dynamized in his buildings, as if the very act of walking through them constitutes the work of memory.

Tolerance. Competing interpretations of the past will often prove incommensurable. Consensus about them may be impossible to realize, and who is to say that it should be realized? The institution of the museum may well fulfill its most important function through the teaching of tolerance and compassion for opposing viewpoints.

Universality, urbanism. At the end of the twentieth century the greatest space of citizenship is the city, and the stakes for architects and urbanists are higher than ever. Museums and other public cultural institutions face the challenge of inventing new models of cultural rationality, new models of dialogue, and new spaces for conversation.

Victorians, voice, void. Daniel Libeskind's spirited championing of William Morris in his presentation of his design for an addition to the Victoria and Albert Museum leads one to speculate on what the twenty-first century museum might be able to learn from the nineteenth. The Berlin Museum with the Jewish Museum speaks with multiple voices but also provides a void where no speech is possible.
Walls and Windows. 
Conventional building elements are transformed in Libeskind's work. Rejecting the symmetrical, orthogonal box, relations between surface, transparency, and expressivity appear in a new light. History resides in the skin of the Berlin Museum with the Jewish Museum, not merely within its interior.

Xenogamy. 
Cross-pollination is a desirable state of affairs attained by flourishing museums in which civic, aesthetic, cultural, and political functions are served. Why is this so difficult for many American museums to realize?

Yarn.
A long, elaborate narrative. What stories do we tell about our museums and what stories do they reveal about us?
Zinc.
The cladding of the Berlin Museum
with the Jewish Museum.
As our memories and its exhibitions
change, so will this architecture.
I look forward to watching the building’s
color alter over the coming years,
tangible proof that with the work
of a distinguished architect
one can never step
into the same museum twice.

This was first presented as part of the panel discussion
"Museum = Memory" at the University of Michigan
Museum of Art, December 1998, with panel members,
Daniel Libeskind, Edward Linenthal, James Steward,
moderated by Lee Bollinger.
One possible mode of phenomena-praxis is deeply involved in mapping potatoes.
The Screamin' Cheetah Wheelies, a rock n' roll band from Nashville, Tennessee, play music not to make a living but to live. Attesting to this fact is the tireless manner in which they travel around the country playing their music in small clubs. Struggling to establish themselves in a business that revolves around the competition between artistic creativity and the "topsy turvy" logic of capitalism, the Screamin' Cheetah Wheelies play their music three, sometimes four nights a week. And they play it on their own terms— from the heart; served up with no expectations, no apologies, and very few regrets. Their music comes directly out of their commitment to the daily grind of doing well what they want to do most. An enviable blend of talent, skill, and devotion, their practice materializes seamlessly and immediately into a performance that by its very nature is transcending the work that goes into it.

Everyone has their favorite music and their favorite bands, and this is not the place to debate the differences. But for me, the Screamin' Cheetah Wheelies produce more than music. They produce movement. Literally, the energy produced at one of their live shows all but forces the body to move. An experience intensely physical and emotional, I have often wondered how architecture could produce an analogous movement all its own. Perhaps this is what makes me willing to admit, in an obsessed schoolboy fashion, that I have seen five of their concerts during the past three months alone. So intense is the transfer of energy, of movement, of a feeling that is all good, that I go out of my otherwise predictable routine to get into their world. After a recent show, I spent the night writing, sketching; working "things" out. Feeling like there was a whirlwind at my back, my body ignored its habitual need for rest and I pulled a voluntary all-nighter. With no worry for tomorrow, with no obligations, with no expectations, and with no problems to be solved, I initiated this essay hoping that it might initiate much more.

How can architecture do THAT?

Stumbling out of the club, body weary yet completely energized, I asked this question again and again. From the first Screamin' Cheetah Wheelies performance that I experienced, I wondered how I could do with architecture what this band had done with music. What would my practice look like? What form might the practice itself take? What would drive it? What would its imperatives be, and how would the practice be nourished so that it could advance them?

I don't mean to put architecture at a disadvantage by asking of it what is so readily achieved in rock n' roll music. It is clear that architecture moves much slower than the Screamin' Cheetah Wheelies and, regretfully, seldom gets its inspiration from the same places. But is there not a way to parallel the energy of the music within a practice of architecture? Looking at music as a form and then studying architectural form will only perpetuate the apparent differences between the two activities. There is little disagreement: architecture is not rock n' roll. But looking at them as practices might reveal some common ground and allow for a discourse to operate within one practice while being an analogous discourse within the other. Could an analogous intensity be found by doing with the practice of architecture what the Screamin' Cheetah Wheelies have done with the practice of making music; namely make it their life?
Make architecture your life. Is this the lesson of the Screamin’ Cheetah Wheelies? Not exactly. It is not enough to simply saturate yourself within the discipline of architecture. This is one of the worst forms of specialized irrelevance. Architects need to exert not a knowledge of form, but a form of knowledge— a disciplinary matrix that frames things in a particularly useful manner for architecture regardless of the architectural content of those things. In short, architecture needs all-purpose intellectuals who are skilled and talented at capturing possibilities culturally and are comfortable asserting their creative insight in all arenas of thought. Effective architects tomorrow will, no doubt, be skilled with the techniques of the profession. They will also need to put those techniques to creative use, and possibly even creative misuse, in order to realize the full cultural potential of the discipline of architecture. A facility for technique will not serve anything more than the continual streamlining of the discipline into a faster and cheaper service-delivery occupation. It would also be questionable to simply perfect a formal vocabulary at the expense of testing the limitations of the discipline. After all, it is not the mastery of technique (alone) that positions the Screamin’ Cheetah Wheelies as producers of movement. It was not a reductive act when the band made music their life. They did not master music to fill their life; they made their lives full in order to master music. I propose that we all attempt the same for architecture.

So, what if I re-ask the question, re-organize it a bit? Instead of asking how life can be made architecture, I ask, “how can architecture be expanded to be life?” That’s right, how can architecture be extended to life instead of life constricted into architecture? In the past, I have come very close to living only architecture. The result: boring. Instead, let’s expand what we think of as architecture so that it becomes a life force. Let’s make it more alive, more vital, more nourishing. Architecture can be taken to life. It can take its inspiration not from its own imperatives as a discipline, but from the everyday, the banal, the super ordinary, or even the fantastic, the unique, the imaginative. Architecture can be used as a medium for understanding how exciting it is to be alive. This seems to be the lesson of the Screamin’ Cheetah Wheelies for architecture.
The Situationists—a political, urban, artistic alliance—made no distinction between their process of reacting and the reaction itself. Working towards the abolition of class-stratified French culture, their efforts were directed toward constructing situations within the city that allowed for the expansion of one’s dreamlife.

What was to be transformed into a situation? At different levels it could be this planet or an epoch or a moment of individual life.

Art, architecture, and urbanism figured prominently into their efforts. Spearheaded by Guy Debord, the Situationists worked collectively between 1957 and 1972 from a position critical of the over-rationalized control of the city by urban planners and big business alike. The benign professionalism of architecture and urbanism, taken together with the aggressive movement of the spectacle of capitalism into every phase of life, had resulted in a sterilization of the world. The Situationists sought to take the streets back, to initiate play, spontaneity, and wonderment in the face of boredom, and to experience the “flip side of modernization.” Their practice is one that offers insights into how architecture might be seen as a medium for life.

Their personal politics, aspirations, and ethics were implicit in their practice—a practice that unified the process and the product in an incredibly efficient manner. For example, Guy Debord, in his essay, *Theory of the Derive*, simultaneously describes the city and forges a mode of analysis of it. The dérive, literally the drift, is a mode of inquiry meant to articulate perceptible psychogeographies of the city. According to Debord, psychogeographies are distinct territories of ambiance that are palpable within experiences of the city. Groups would stage dérives in order to submit themselves to the ‘pushes and the pulls’ of the city. Motivations were established, but an openness to the city itself would be maintained such that one was willing to drop predetermined intentions if the experience warranted it. This willful loss of power in the city produced an indeterminacy which ensured that all preconceptions and *a priori* notions would be critically challenged. The practice foregrounded the effect that the city had on one’s emotions. It also mobilized the role subjectivity plays in the formulation of one’s understanding. The city as fixed entity was effectively replaced by the subjective experiences flowing through it. Simultaneously, the role of the architect or urbanist was severed from the strict control-based role dominating mid-century and prevailing contemporary roles alike. Similarly, the psychogeographic maps constructed in response to the dérive were themselves psychogeographical. The drift was recorded in a document that required its own analogous drifting in order to make sense of it. There is a seamless connection between the intention and the action and between the action and the record of the action. Just as the section drawing in architecture is simultaneously a procedure and a document of that procedure, the psychogeography is a map and a process of mapping. It is the affect produced on one’s body by a territory and the study of those affects at the same time. Likewise, the drift constitutes the city. The city is the drift. Drifting is a mode of not only urban analysis, but of urbanism itself.

In order to map the psychogeographies of the city, one must be able to conceive of the city as being comprised of them. This is an important point. It underwrites all of the interesting fusions above. But it also sets
the stage for a shift from description (alone) to action. This is the importance of the Situationists for understanding how to establish a practice that is based on phenomenal transformations. If one starts by reading the artifact, the psychogeographic map, one inevitably ends up taking stock of the process of its construction and then must deal with the conceptual structures sponsoring it. The same can be said of the city. The same need not be said of, say, a road map of the city. Conventions of readership all but guarantee the legibility and the clarity of the map itself. If one starts by reading the city one inevitably bases possible courses of action on the nature of that reading. If disciplinary conventions of readership are deployed, disciplined actions are likely to follow and anything out of the known territory of those conventions is unlikely. Modes of description include possibilities and exclude others. Framing the world underwrites acting within it. The Situationists were successful at taking systems of description into the realm of procedure. This displaced the conven­tions of readership and inserted a more interactive, edifying relationship between their concerns and their operations. Their cultural actions moved seamlessly out of their modes of apprehending the culture.

Architecture plays an important role in the trajectory of the Situationists. In an essay entitled Formulary for a New Urbanism, Ivan Chucheglov positions architecture as an effective agent through which time and space can be articulated, through which reality will be mod­ulated, and by which dreams might be engendered. But Chucheglov expresses the full sense in which he invokes architecture:

*It is a matter not only of plastic articulation and modulation expressing ephemeral beauty, but of a modulation producing influences in accordance with the eternal spectrum of human desires and the progress in realizing them. The architecture of tomorrow will be a means of modifying present conceptions of time and space. It will be means of knowledge and a means of action.*

Here architecture is called upon not just in the formal sense. For Chucheglov and the Situationists, architecture is a medium for realizing the spectrum of human desires. It would be inadequate for architecture to be considered only in its fixed, static dimension as a form or a set of formal properties. It is not only a matter of its plastic beauty, but also its propensity to explicitly frame experiences, to sponsor the expansion of desire and joy, to make tangible a set of circumstances leading to a new definition of leisure time. An architecture is summoned here that is the projection of a set of situations that are constructed with the effects they will produce in mind. It is important to point out that for the Situationists these sought after effects are, above all, cultural. This is in contrast to an architecture that sets out to simply achieve formal or spatial effects. In other words, the Situationists saw architecture as a medium for achieving cultural differences and they positioned architecture accordingly. They were not satisfied with architecture being employed for architectural reasons alone. This constitutes a shift from architecture as an entity, or as a set of forms, to architecture as an activity or a practice. The concern for form lets up and a concern for (in)forming sets in. The significance of rethinking architecture through the variations of life takes seed at the level of forming a practice. “Where do you take your process?” Could this question ever be as important as “what do your forms mean?”
It is not that form is unimportant. In architecture it is inevitable. As for the Screamin' Cheetah Wheelies, their music is the reason for my interest in them. I am fascinated by their travel from town to town, but that alone without the music itself is not worth talking about for too long. And for the Situationists, form is often the start. Many times they would operate on pre-existing forms via détournement. Détournement can be thought of as the creative misuse of a given entity. A good illustration of the way détournement was implemented comes from the following example. The Situationist took the advertising slogan “Red lips are pretty” and changed it to read, “Pretty lips are red.” The change is slight but the effect is a significant shift in the message; which is now accelerated or exaggerated along the lines already hinted at by the advertisement itself. This type of purposeful misuse is widespread within the work of the Situationists, and it may, in fact, be the best way to approach the practice of architecture. How might the discipline be slightly re-organized so that it produces heightened effects along the same lines of those already sought after, yet now more aggressively and critically pursued?

In the first edition of the journal, *Internationale Situationniste*, published in June of 1958, there were a series of definitions published. Of particular significance here is the definition for the word, détournement:

*The integration of present or past artistic production into a superior construction of a milieu. In this sense there can be no situationist painting or music, but only a situationist use of these means. In a more primitive sense, détournement within the old cultural spheres is a method of propaganda, a method which testifies to the wearing out and loss of importance of those spheres.*
First, it is significant that the definition refers to painting and music as means. This alone is helpful for this essay as it tries to articulate the importance of framing things so that they are understood as not merely static and complete. Music is a verb before it achieves its status as a noun. More significantly, the definition articulates that there can be no Situationist painting or music, only a situationist use of those. To this one might add that there is no Situationist architecture, only a situationist practice of architecture. This assertion helps explain why Debord seems to be flattening his own discourse by looking for formal examples of an architecture of the dérive. His fixation on a literally mobile architecture is one version of his search for a set of labyrinthian forms that might help prolong the drifting. It also helps us further articulate one of the ramifications of expanding architecture as a medium through which life might be heightened. We could argue that the lesson of the Situationists stems from their own concern for getting the practice right by asking questions about its operational agenda and not by simply altering the forms that practice materializes.

In a famous tract entitled “New Theater of Operations within Culture,” a series of relationships are staked out between the various operatives deployed by the Situationists. The matrix includes 'construction of situations,' 'experimental behavior,' 'drift,' 'permanent play,' 'psychogeography,' 'détourment of prefabricated elements,' 'unitary urbanism,' and 'situationist architecture.' All of the celebrated activities of the Situationists are linked together in this drawing. In a recent reflection on the Situationists, Thomas Levin remarks on this nexus:

"Here, psychogeography, the construction of situations, and the détourment of prefabricated elements all feed into unitary urbanism which alone gives rise to "situationist architecture" after which there is — nothing. Situationist architecture in other words, is effectively synonymous with a transformed world, a culture beyond spectacle which would both result from and make possible for the first time a truly unitary urbanism and thus also a situationist architecture."

Like the Screamin' Cheetah Wheelies', the Situationist's production is a phenomeno-praxis—a desire to make situations, as opposed to passively recognizing them in academic or otherwise separate terms. Praxis, by its particular nature is much more than practice. Praxis is the unity of theory and practice. Praxis is a theory practically tested and it is a practice theoretically charged. A phenomenon is an occurrence that is directly related to the senses. Its perception is based on its impact on one's body. A phenomeno-praxis measures itself on effects and affects, on the atmospheric differences that it initiates and materializes. It is worldly, material, real. It moves towards constituting a milieu.

Phenomeno-praxis does not justify itself through recognition in its production of existing, historically significant operations. Its concerns are based on production. Qualification of action is more fruitful than justifying them in phenomeno-praxis.

There are no forms, sets of forms, nor are there any formal principles that bound phenomeno-praxis. In fact there is a lack of interest in form alone so that questions of forming one's practice can be magnified. Phenomeno-praxis strives for a fusion between its process and its products. It makes little, to no distinction between the two, asking serious questions about its operation and its impact alike.
One of the most exciting times in architecture is the transition of a project from a set of ideas thought, drawn, and studied representationally to an entity constructed in the world. This moment is a hinge. One can travel along the lines within the building that renovate and restore the intent of the architect. Or, one can travel indeterminately away from the history of the project as an idea and speculate how the building might be received and reacted to in the world. Phenomeno-praxis attempts to collapse that hinge and make both paths the same in an analogous manner.

Phenomeno-praxis works towards realizing architecture as a medium, as means for knowledge, and as a means of action.

Phenomeno-praxis calls forth a sensibility that is intuitive, creative, and cultivated actively as a project all its own.

A phenomeno-praxis does not advance out of the doctrine of a particular discipline. It is inter-disciplinary on its way to realizing itself as an inter-practical activity that shares pragmatic concerns and questions with a set of diverse endeavors that exist outside of the established categories of the academy. Specialization as a goal of practice is unsettled within phenomeno-praxis. The reverse is sought after; expanding architecture to the point just before it gives away its legibility as a discipline. Phenomeno-praxis remains suspicious of the specialist opting instead to develop one’s intellectual sensibility towards the many things that make a life livable.

Phenomeno-praxis involves constructing a common plane of immanence on which all bodies, all minds, all individuals are situated. To construct such a plane – a plane that allows all things to be seen in relationship to one another – we only need to conceive of it. That’s right, we only need to be able to think about all things in their connections in order to realize the way in which many different attributes, bodies, or ideas work together to build notions that are common to many circumstances. On this plane, things are not defined by their form or by their functions, but in their capacity to affect one another. It is important to understand the world as a complex relation between differential velocities.

*In the same way, a musical form will depend on a complex relation between speeds and slownesses of sound particles. It is not just a matter of music but of how to live: it is by speed and slowness that one slips in among things, that one connects with something else.*

Phenomeno-praxis, then, is not a subject, but a mode. It is a complex relation of movements and also an amplification of our capacity for being joyfully affected by the many encounters within a life. Phenomeno-praxis is a geography. Its longitude: a set of relations of speed and slowness. Its latitude: a set of affects that occupy a body at each moment.


custom, wont, habit, procedure, rule, routine, process, method, manner, fashion, mode, way, ritual, ways, condu
servance, tendency, modus operandi. 4
He studied practices and then a proven form.
method, action, deed, maneuver, trick, ruse, dodge, g
Notation $a|v$

Martha Skinner
Notation A/V is a work in progress. This project originated by looking back at Side Walk, a video project completed while a student at the Cooper Union in 1994. Side Walk is a recording of New York City's ground plane done by taking a walk through the city with a wide angle video camera draped over a shoulder as one would carry a shoulder bag. Forgetting about the instrument that was being carried around, a three hour walk / notation took place. The richness of surface in what we usually think of as a banal asphalt plane was discovered - the color, the texture, the materials, the changes that are constantly taking place on the ground plane beneath us as we walk. These subtle cues and guidance on our city's ground plane became evident. Side Walk has influenced several projects in our practice, hecker+skinner, as well as the approach for this notational course.

Notation A/V explores the possibilities of digital audio and video recorders as tools of notation - to study and document the city. Notation A/V takes these readily available devices and exploits them - using them as drawing tools. The course is focused on the different capacities of the medium through a series of short exercises that investigate a different condition of city while singularizing a specific feature of the tool. As the city is analyzed - taken apart, so is the medium at hand. The notations are collected on site by critical in camera editing - an improvised orchestration of takes and gaps led by the environment in observation. The context in which the notations take place has been left open for interpretation. The parameters and possibilities emerge from the individual's careful reading of each exercise and thus their specific way of coupling the city condition with the camera feature. The emphasis of the course has been placed on the act of recording - the act of thoughtfully collecting and combining sounds and images. In class, the completed notations are critiqued. The students are preparing seminars on various topics related to their interests and or discoveries in Notation A/V. With this research they are proposing a final notational project in which each student defines his or her own way of reading the city through recordings. There are texts in the following pages which are fragments of the student's thoughts and writings in progress.

The in-camera edited recordings will be taken to the lab to become a sort of found footage for further editing and for integration with contemporary representation technologies. Audio notation and video notation, which are being investigated separately at the moment, will begin to be recombined through post-production editing to create more complex yet concise notations. We are in the process of editing original notations into a series of thirty-second recordings that either reinforce or negate the intent of the original notation. This is a process by which the students learn the mechanics and capacities of the lab editing equipment but more importantly learn the capacities of editing. They learn the impact that removing and rearranging can have on the initial thought. This being not only an exercise in editing but also a way of shortening as we prepare for the installation of city readings into a class web site. The attempt here is to further explore the capacity of tool by incorporating it with one that communicates and interacts with a large unexpected audience.

The purpose of this course is to take advantage of this technology and use it as yet another tool for exploration in our practice of architecture. To learn to listen and to look carefully at our environment and to inform and or to question the way in which we see, document, study, and communicate through the use of other tools. Notation A/V attempts to make acute awareness of the senses of hearing and seeing by the recording of sounds and images independently of each other. This approach of isolating senses, isolating conditions of city, and isolating features of the tool is a way of looking at our environment through separate distinct lenses to facilitate a process of new discoveries. Various experiences of place emerge through the recordings as we deal with varying consciousness of body, to tool, to environment. The familiar, the banal something, the no longer perceived, is rediscovered. The city is listened to or looked at through a series of takes and gaps - an editing language of recording vs. not recording. Recorded as slices of life, sounds and images are literally collected to form a notation of physical and ephemeral realism of a particular place.

**recording one  stationary camera | intersection**

Record an intersection using video and sound independently of each other. You are to interpret the scale and or place where this intersection takes place. Your notations will be in camera edited to be 5 minutes long each. These should include a variety of viewing positions and variety of lengths of views. Frame your views carefully and do not move during recording. Movements will only take place in between recordings.
**recording two zoom** | threshold

Record a threshold condition with video and audio independently of each other. Your notations will be in camera edited to be 5 minutes long each. Choose one position and experiment with the speed of zoom and length of each frame. Consider approaching or passing through the threshold between shots.
recording three  camera movement | edge

Record an edge with your audio/video camera. You are to interpret and define the scale and place of this edge. Explore the position of the camera in relationship to your body considering the movement your body could provide. Record continuously (no cuts) and without using the viewfinder. The length of the recording is up to you but should be considered carefully.

Stationary Camera / Intersection  Carrie Piko

Camera Movement / Edge  Apurajita Basu
recording four  focus | void

Record a void condition with video. Your notations will be in camera edited to be a series of 30 seconds recordings of different frames. Using the manual focus mechanism on your camera, explore the emerging materiality of each frame. Consider carefully how and in what speed images may appear or disappear. You may decide that certain elements within a frame or even the entire frame could remain constantly in focus or constantly out of focus. You are to determine the length of the notation in order to best represent the void condition as well as the rhythm and structure of your recording.
The sturdy buildings and rooted sidewalks are only fragments of the city experience; it is the forces which affect this built environment, the people moving within that reveal its true purpose. This is where the real success stands for we are constantly in flux each day on different scales, from city to city, building to building, floor to floor. It is in this hoopla of motion that we spend much of our time, communally, in transition from one place to another. It is on these built paths and intersections that I would like to further explore the direct body relationship between our built environment and the people moving through, over, under and around it.

Candice Chang

Representation of architecture in the form of two-dimensional plans and sections seem inadequate when compared to filmic representation of space. One needs to move through spaces to truly experience architecture. Since our understanding of buildings comes from the actual experience of them, film is the only medium that can deliver the essential spatial dimensions of space/volume and movement/time. Issues of scale, perspective, depth, dimension, details in architecture are redefined by filmic representation.

Films not only take the spectator through a certain sequence of spaces but also describe events that take place in those spaces. Films are not mere illustrations of the city but weave stories or myths around it. Unlike other conventional representations of architecture like drawings, certain social and political conditions are depicted within filmic cities.

Aparajita Basu
To fully understand the capabilities of audio and visual in studying the social implications of architecture and urban form, I would like to investigate the use of film as a documentary tool in collecting data of lesser known areas of society.

Carrie Pike

Indeed, live, or at least uncensored video alone offers provocative possibilities. Home videos, video diaries, video confessions, and surveillance videos are distinct, focused views into the world in which we live. Accordingly the external observer is granted a privileged view and memories of events otherwise unknown to him or her. It becomes apparent that video offers the possibility of witnessing activities around us that we would normally have not known. Additionally, two or more video cameras suggest an opportunity for viewing separate but simultaneous events, allowing us “to be in two places at once”. Video then, ultimately suggests the possibility of taking a “living” section of the city (the buildings within). Images captured by multiple cameras (views) positioned along a section line within the city (building) are collaged into a single image. In this way a “living” section of the city has been documented, and the relationships between activity within the city can be visually understood in four dimensions.

Conversely, video must also be a tool for design. Should disparate video clips be analyzed and compiled in a manner similar above, new relationships among activities may develop, which ultimately lead to the discovery of new ways of living.

Christopher Lanzisera
Theory is social practice. It may be used to exclude in hierarchical structures which segregate or/and it may be used to speculate as part of an engaged political practice (that is a practice which is liberatory for someone other than the theorist) or/and it may be speculation for its own sake (liberatory for the theorist alone). The segregation of theory and practice is one of many neat bureaucratic and mercantile boundaries. The theorist is a practitioner.

The phrase theoretical practice in the context of architecture is an oxymoron. Architecture has been defined historically as a speculative and theoretical art in contrast to the practice or skill of building. Practice is theoretical when it ceases to be purely reflective of cultural norms and seeks through questioning to advance and build upon processes of discovery.

This scatological derive drifts through the analysis or processes of decomposition and assimilation of the valued and the valueless. Value may be added or subtracted; it is an attribute. Value is not inherent in the status of objects.

"Does the angle between two walls have a happy ending?" J. G. Ballard.

"To really appreciate architecture, you may even need to commit a murder." Bernard Tschumi.

These two quotes have come to meaning for me over a space of ten years as a student, as an instructor, as a practitioner of architecture, yet my connection between them has been made specifically within the context of the Body/Apparatus/System studio.
...serious play

...conceptual rigor

...intuitive thought...

The leap into the unknown

is a leap into ourselves

**Nomadic Ecologies**

Trazings | Manifestations

Site 1
Body/Space: The ecology of the body – A Mapping Device.

Site 2
Car/Body/Space: The ecology of the apparatus/extension.

Site 3
City/Body/Car/Space: The assembly of circulatory and reproductive systems.

Body | Apparatus | System
Method...daydream, read between lines, follow tangents, believe in non-sense, and take responsibility in constructing yourself.

"Fiction is a branch of neurology; the scenarios of nerve and blood vessel are the written mythologies of memory and desire." continues Ballard. And Tschumi, "Architecture is defined by the actions it witnesses as much as by the enclosure of its walls...".

The intersection of Ballard and Tschumi extends beyond walls which delimit space and the tectonics of intersections to emphasize the relation of walls to bodies and minds as constructing and constructs of social practices.

Architecture...Fiction. The well functioning construct (for example, architecture) sublimates Desire and regenerates it as Belief. One cannot talk about Belief without talking about the Proper: rules and regulations, admissions and suspensions, pass/fail... In this short drift through praxis and pedagogy, my subject is the field which shapes student/teacher exchange. If market and proprietary values dominate the exchange, the intersection of subjects occurs typically within hierarchical systems and is generally characterized by separations and prescribed intersections. Both Tschumi and Ballard suggest not only an intersection of subjects, but, an intersection between subject and object which has the power through juxtaposition to unsettle.

"Murder in the Street differs from Murder in the Cathedral in the same way as love in the street differs from the Street of Love..." Bernard Tschumi.

The play of Desire is realized through architecture in that Desire is a construct which not only objectifies, but, through objectification regenerates itself. Desire is an object relation which has no existence without a generative Self. It is a creative process. In creative processes, the murder that may need to be committed may be the murder of one's Self. Not in the destruction of ones own interests, but in the destruction of certain societal investments in the Self: the murder of the Selfsame.

Function...Fiction. Desire, the projection of the selfsame onto an other subject that reifies the subject as object through spatial and existential relations, is a process in excess of the object of desire. In that the excess or waste of the production of the object of desire is that which is not the selfsame and is therefore not useful. Waste is a by-product in excess of production. Debris is a byproduct that implies not only a wasteful process but a derelict intent that devalues. Trash, on the other hand may be recycled or reused and is cleansed in the process unlike garbage which is dumped or burned yet remains "useless". Excrement, as evidence of the end of a alimentary process, is a product that no meaning may be attached to, yet, it has the potential to reveal its process.

The fields of "cultural production" are scattered with debris: the nonsense and lost ideas of creative processes and constructs. Such are the hazards of conceptual
struggles and leaps into objects-of-desire or "products".

The criteria of products differ from the criteria of processes. The architectural product, is often a means to an end through practices of interrogation, practices of speculation, and practices of production. As a product, however, architecture has to sell.

The product is shaped by the local culture at the site of its production. The boundaries of the specific fields, which dictate specific Desire are porous and offer vantage points and sites of exploration. The design studio as with all locations of creative explorations has to operate as a place to explore perspectives, as a place to be out of place and to locate one's Self.

The leap from conceptualization into form, a crossing fraught with

Projecting Experience

Use
Experience
Change

soft
is a bridge between mechanism and organism, between artificial mechanical order and natural variety.

Andrea Branzi
collisions

risks. Sometimes the pursuit of an idea may strip us of the ground we comfortably stand on. The process of architectural production, in the context of the design studio, may be viewed as either a transfer or lapse in student/teacher Belief.

The measure of a creative process is in its ability to surprise and transform, in that, one learns to transcend internal limitations and through the process gains insight. Once the Self is sited the effect can be global. The student/teacher relation has the potential to be both reciprocally challenging, nurturing and engaging.

Never pose problems you know the answer to... The class is an opportunity for active intellectual engagement of both the instructor and the student. Both instructor and student have a responsibility to engage the subject of architecture through the formulation and exploration of a problem. Critical reflection exceeds reflective practice in that it engages the discipline and the Self in the process.

Intuitive thought is engaged through self reflection. This is often a hard task in disciplines which strive toward the scientific while forgetting that the scientific is based on originary creative moments that are somewhat irrational or of disciplines that encourage a loss or alienation of the Self – especially the Self who is non standard – i.e. does not function well.

In critical reflection, the criteria or logic is set by the student as guided by the instructor through purposefully vague or provocative instructions and intuitive explorations. Students assume responsibility of their processes through the ensuing explorations of concepts, representation, and form. This can be a contentious period, if students expect to be led by the instructor into the "right" answer. The right answer only leads to a deeper level of questions.

The teaching of information requires little reflection. What is right may be recanted. Any piece of information however may be traced to a conceptual thread which threatens its logic and therefore its integrity – its Self. Education is transformative and alchemical at its best.

Unstable Architecture

Animate | Inanimate

body | car

soul | instrument

"Which category would you place 'city' in and why?"

The marriage of matter and technology. In Crash, J. G. Ballard, author of the book, and David Cronenberg, author of the film based on it, posed unions of matter and technology that interrupt the seamless flow of subjects as objects and object-products through indiscriminate unions and generative acts across the boundaries of the animate and the inanimate.

The loss of the body, locational object, or commodity is referenced through the loss of perspective and the "pornographic" framing in
Motor Evidence

Device

changing time(s)  changing scale  changing activities
A Hole in Time

both the book and film. Through collisions and close-ups, the body/point of view is incorporated into the image or object imaged as distance is erased. The “in your face” aspect of images both textual and filmic are simultaneously obscene and “real”.

The familiar operates in Crash through a series of unsettling relationships: the alienated nuclear couple desiring through the coupling of objects as an instrument to reach some undefined transcendent state and the car/body coupling which unsettles through braking into and splitting the body open to reveal the matter or parts within.

Mechanical proximity breaks through the human machine as object lust and fetishization, technological unions, orgaism and death, are combined in a desire for transcendance. Collision, in Crash is revealed to be a form of communication, a form of forced human intimacy and contact.

Dangerous materials. Ballard’s creative method is perversely humanistic. The body leaves an imprint on the car, and this is Ballard’s contradictory intention—his form of technological intercourse focused on wounds, openings, penetrations, and the chasm within—to question the binary of mind and body through the construct of “animate/inanimate.”

In the film Crash, the alienation of exterior conditions is portrayed by using long shots of traffic on the expressway. In this manner Cronenberg establishes the positions of No space (the extreme close-up) vs. No place (the long shot). The two scales of operation are the detail and the system. In the film, each technique works within the filmic convention yet against the viewer’s expectations: the close-ups disarm due to a lack of critical distance and the long shots disarm due to their ability to overwhelm localizations.

Never trust anyone who gives definitive answers. Absolutes are produced within desiring ideological frameworks that naturalize, neutralize and universalize. Dangerous localizations...

The certainties of the present

Is it Architecture (yet)?

Beginning is forming a question. Ending is beginning again.

J. G. Ballard, from the collage “Sex: Inner Space” originally published in Ambit no.33 1967, as reprinted in Re/Search No. 8/9, (San Francisco: 1984), p. 149.

Bernard Tschumi, from the 1976 postcard series as reprinted in Avant June 1980.


On “the field of cultural production”, see the interview of Pierre Bourdieu with Karl-Otto Maué, in New Directions, entitled “The intellectual field: a world apart,” p. 140-149.

Nomadic Ecologies

References

Soft

focuses us toward the subjective and sensual qualities as opposed to the objective properties and quantities that define our environments.

Thirty spokes converge upon a single hub.
It is on the hole in the center that the use of the cart hinges.
We make a vessel from a lump of clay;
It is the empty space that makes it useful.
We make doors and windows for a room;
But it is in the empty spaces that make the room livable.
Thus, while the tangible has advantages,
It is the intangible that makes it useful.

Lao Tzu from the Tao Te Ching

Institution

1. The act of instituting (organizing/setting in operation). 2. A custom, practice, relationship, or behavioral pattern of importance in community or society. 3. One long associated with a specified place, position or function. 4. An established organization or foundation as one dedicated to education or culture. 5. The building(s) housing an institution. 6. A place or association (of places) for the care of persons who are incapable of living individually.

Given a set of perceptual effects or situations, create a Soft Institution to structure them...

References

The School of Public Health Computer Facility Design/Build Project was initially framed and approached through an experimental architecture course during the Winter Term of 1998 at Michigan. Architecture 509.094 was organized in two phases; the first a student design competition, second a fast-track project development. A group of eight students considered existing and projected pedagogical and technological conditions to develop a series of five proposals that addressed exact functional requirements, stringent infrastructural specifications, and the desire on behalf of the School of Public Health and the Information Technology Division to improve the spatial and formal qualities of a classroom and conference environment. The course, as a whole, managed the inherent dissimilarities between pedagogical and professional processes and aggressively sought out and accounted for ideological fissures and logistical shifts between academia and practice. The course was a pioneering endeavor at the University of Michigan as it considered the inherent disjunctures between pedagogical goals and the student. So, collaborative decision-processes exist with participation.

In this course the School of Michigan’s School of Public Health and Information Technology Division.
was the client, architecture students and faculty from the College of Architecture + Urban Planning were the design group and the University's Facilities Planning & Design and Utilities & Maintenance Services served as project consultants. In addition, the School of Public Health and Information Technology Division provided an invaluable body of computer systems information pertaining to instructional and conference functions.

The scheme designed by Alan Jones and Randy Whinnery was selected after a final design review of five projects held half way through the term. The winning design selection from the first phase was then developed with the participation of the entire class during the second half of the winter term.

The first half of the spring term was spent preparing a complete set of construction documents, extensive cost projection studies
as well as studies of material and tectonic alternatives.

The second half of the spring term and the subsequent summer session were planned as a designated period for the construction phase of the new School of Public Health computer facility. However, this was not realized.

As the construction bids were collected and assessed over the course of the spring term, non-favorable market conditions contributed to labor and material cost underestimations. This period of high contractor demand inflated bids submitted, in particular, bids concerning mechanical and electrical systems. The College of Architecture + Urban Planning proposed to delay the construction of the entire facility until additional funding could be provided.

In the spring-summer interim period, the College of Architecture + Urban Planning, the School of Public Health and the Information Technology Division agreed to construct a prototype of a portion of the overall design in an attempt to demonstrate the feasibility of the design and aid in searching for additional funding from other University sources. An additional document set dedicated to the construction of the prototype and its infrastructure and material cost analyses were prepared. A full-scale prototype was constructed in the College of Architecture + Urban Planning.
In turn, the prototype prompted further discussions between designers, project managers, clients and users.

The hard work and unwavering dedication of many individuals from different facets of the University of Michigan who participated in this project made the design-build class and its subsequent prototype construction not only possible, but an invaluable educational experience. The project did provide an ideological connection between ideas of teaching and practice in architecture. It also taught us that, as educators, students, builders and users of architecture, the desire to improve our physical environment beyond commonly accepted and expected standards is often times confronted with adversity. Fortunately, the challenges and promises that surfaced throughout the process of this design project were, in themselves, a reward.
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Students

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Salomon Frausto
Faris Herriz
Alan Jones
Joe Rom
Stephanie Wascha
Randy Whinnery

School of Public Health Project Team

Spring-Summer Session

Project Manager
Anselmo Canfora

Project Designers
Alan Jones
Randy Whinnery

Project Team
Kevin Aasderink
Jason Kuhnle
Stephanie Wascha

Prototype Construction
Summer Session

Consultants Part-time
Anselmo Canfora
Randy Whinnery

Project Team
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Jason Kuhnle
"According to Hegel, negation... can only be properly conceived when it is grasped as double negation... Double negation, in turn, is the structure that underlies all reality. As such the double negative is nothing less than the Absolute... When negation is doubled, it is no longer merely negative but becomes positive."

Mark C. Taylor, 1991

Michael Heizer's "Double Negative" earthwork sculpture of 1969, in the Nevada desert, like the syntactical and philosophical predicament it is named after, has inspired a wellspring of convoluted musings. Consider the following:

"This work is not an object but 'The implication of an object or form that is not actually there.' Neither simply present nor absent, Double Negative is the presence of an absence that is the absence of presence and vice versa... To represent nothing without ceasing to represent, Heizer must recast the ground of figuration by refiguring the figure-ground relation... The absence of ground is figured by the removal of earth. As ground withdraws or is withdrawn, figure appears... In this incalculable zero-sum game, figure figures the absence of ground, and the ground that grounds figure is groundless. The absence of ground is not, however, a simple absence. The groundless ground is, in Maurice Blanchot's terms, a "nonabsent absent absence" that nonetheless is a presence... The play of figure and ground staged in Double Negative creates a clearing that allows disappearance to appear... Disfiguring breaks figures without breaking from figuration. In different terms, disfiguration uses figure against figure to figure what cannot be figured..."
An artwork affording such complex readings must surely offer some lessons in space-making for the student of architecture. Following is a discussion of how such potential lessons, through a practice of investigating double negative space, have developed through a series of architecture studios taught at the University of Michigan over the last two years. Earlier in Taylor’s essay, the author posits that Heizer’s Double Negative “not only inverts but subverts the opposites that support the edifice of Western religion, philosophy, and art: primitive / modern, nature / culture, permanence / change, one / many, purpose / chance, placement / displacement, completion / incompletion, active / passive, time / space, speech / silence, sense / nonsense, visible / invisible, appearance / disappearance, form / formlessness, figure / ground, presence / absence, being / nothing, negative / positive... [It] cannot be decoded but must be read and reread without end.”

This assertion, and Taylor’s discussion of Hegel, if brought to bear on architecture and the city, opens up a territory of investigation rich with issues regarding the significance and translation of negation vis-à-vis its potentially constructive value to architectural practice. As Michael Hays notes: “Negation is not just nay-saying, but the active constructing of a new perception, the forcing of a new situation through form.” However, here we will look specifically to the pedagogic implications of working hands-on in studio, with space itself as a critically and subtractively explored medium – a practice which seeks a productive spatial instability, with which to engage the circumstances and contingencies of the urban condition.

The notion of spatially reading ‘double negative’ in architecture had been explored during discussions in a graduate seminar given by Preston Scott Cohen at Harvard’s Graduate School of Design in 1993, “Reading Buildings.” One compelling architectural example of double negative space explored in the seminar exists in the Vanna Venturi house, where three volumes intersect; as Cohen notes, “the hollow of the window and the solid of the chimney are carved through by the space of the stair.” Certain images of this local condition are particularly convincing in yielding the reading of two voids intersecting.

Toward the aim of the studio exercises given at Michigan, a potentially useful distinction begins to emerge between the specific nature of voids which comprise a spatial double negative. For instance, one can read Heizer’s earthwork as operating not only as two (double) cuts which align across the existing chasm in the landscape, but alternately, as one kind of subtraction (manmade incision) intersecting another kind (naturally eroded gully in the landscape). Accordingly, the Vanna Venturi house double negative can be read programmatically as two different kinds of cut – the cut of the body’s vertical movement and the cut of light and view.

The example of the Vanna Venturi House begs the question, what other examples of this phenomenon might there be in architecture? One of the clearest non-architectural examples occurs in space-making which is truly subtractive, such as certain marble quarrying operations involving incremental cutting out of cubic chunks of rock. While in constructed buildings, truly subtractive space is rare (one thinks of certain cliff dwellings, underground buildings or the work of Gordon
Matta-Clark), recent architectural examples come to mind of double negative conditions which can be read as artificially constructed, including the work of Siza, and OMA among others. Siza's Galician Center of Contemporary Art constructs a double negative at the ramp which is cut into the facade that meets another subtractive space above the ramp and behind the thickness of the stone skin, and also internally, at the cutout between lobby and main stairway allowing viewers to survey where they have just been, and which eventually makes its way through the roof as a skylight. In OMA's Kunsthall, the pedestrian-passage, ramp/void intersects the service road/void as a crossing of two modes of transport; it also intersects the angled roof garden access ramp to form the building's most dynamic spatial convergence.6

The issues engaged in the double negative studio exercise touch on questions raised over the last few decades regarding the limited value or reductiveness of figure/ground as an either/or method of thinking architecture and city. In Collage City, Rowe and Koetter propose a morphology of ambiguous or composite buildings, which afford different readings from different positions in space (i.e. an oscillating figure/ground or object/fabric reading).7 In Space and Anti-Space, Steven Peterson argued for a return to figured space, which had been destroyed or lost through modernity's proliferation of 'anti-space' (a condition originating after Copernicus, he argues). Furthermore, he argues establishing new terms of negative space and positive space to replace the solid and void of pre-modern space-making, as a means of exploiting the possibilities of poché made hollow, and thus habitable, toward the aim of countering the effects of modernist anti-space.8 Numerous texts since have made readings of the contemporary American city along similar lines, but readings often predicated on clear distinctions held between figure and ground. Within this model, the negative/positive space model or habitable poché/figured space model, there is an implicit hierarchy. Bernard Hoesli criticized the artifice behind this hierarchy for so strongly distinguishing between solid and void: “Space in terms of architecture is a conceptually continuous medium comprising the perceptually distinguished solid of mass and void of space. As soon as we see and understand solid and void as equally participating in or equally constituent of a figure ground continuity it is no longer necessary to insist on their perceptually antithetical nature”.9 Furthermore, he argues, “The concept of a figure-ground relation of solid and void in Continuous Space permits conceptually effortless oscillation between the two opposing aspects of space, solid and void, which are not seen as mutually exclusive but mutually presupposing each other and being of equal value, and enjoying 'equal rights' as aspects or parts of the same whole.”10

In a lecture from the winter of 1998 at the University of Michigan, Stan Allen described a movement visible in many spatial/compositional practices in the twentieth century from figure/ground to figure/figure, and on to figure/field – an assessment in line with many earlier readings of twentieth century aesthetic tendencies, as well as much contemporary urban theory, which promotes thinking urban space as ever more fluid, field-like and inter-connective to an expanding multitude of flows and orders.11 Stan Allen's argument is carried to the next logical step, field/field, by Robert Somol in his description of how some of Allen's own recent works actually operate in the city.12 By now, much current architectural production indeed seeks to consciously move outside any
simple condition of figure/ground, breaking down a clarity of reading, while often also attempting to move beyond fragmentation for its own sake. Sometimes driven by interests in complexity theory, post-Cartesian geometry or topology, or even raw data, this striving for complexity can at times be self-serving, or, it can serve as a means of operatively responding to, not just reflecting, complex program and site conditions. Whether the figure/field or field/field conditions manifest in such work can offer constructive tactics for architecture in the contemporary city is an important question taken up in these student investigations of double negative as spatial practice.

The spatial lessons of the double negative studio assignments have opened along two trajectories in terms of pedagogic value. The first involves the diagrammatic operability of the construct — in other words the pursuit of a line of inquiry which is more interested in how the double negative works as a spatial diagram over how it looks as a form (e.g. how a Klein Bottle acts vs. its specific shape.) Alternatively, the second trajectory may be equally valuable to the student in the formation of a space-making language; it involves reading the specific formal language of the construct’s spatial intersection. Critical to the discussion of this formal readability of double negative space is whether, at the voids’ juncture, there is a discernible lineament of intersection that defines a space whose structure is other than either one of the voids alone — an in-between condition which necessarily problematizes a simple figure/ground reading. The longer range pedagogic goal of either of these trajectories in terms of the building project following this introductory exercise is not imposed top-down, as a mandate of the exercise, but rather emerges from the individual student’s response to the exercise. As such, the double negative introductory studio exercise has become an evolving practice of investigating double negative space, which ultimately privileges space-making over form-making. The fundamental aim of this exercise is implicit in the procedural statement of the exercise handouts:

...to establish the beginnings of a space-making language, in an abstract spatial construct which explores the intersection of two voids. You are to conceptualize and construct a ‘double negative’ as defined in class. Begin with a solid, scale-less volume and make two voids through subtraction from the solid, which intersect to define a third condition. In the process, the voids should transform each other as well as the solid volume. One void should be read as cutting through the other and vice-versa...

Additional criteria about the nature of the two voids are given each term which serve to develop variations on this theme that address the larger mission of the main studio project. Meanwhile, the scope of the double negative exercise has begun to expand the spectrum from space, to site, to program, to building, to city.

The first studio in which this exercise was given, during the spring of 1997, had as its ultimate project a furniture workshop/gallery sited on a transitional edge of Ann Arbor’s downtown commercial district. This edge occurs where the central sixteen square block pattern begins to deform in section due to topographic changes, and in plan due to blocks which become elongated outside the sixteen square center and streets which bend diagonally away from the grid’s centrifugal order. Additionally, the act of furniture-making often involves the joining of
two different materials. The exercise stipulated a difference in the underlying geometric nature between the two given voids, in relation to the orthogonal framework of the given solid volume. This differentiation proved instructive in two senses: that the double negative could be thought as a conceptual analogue for the building program and that it could offer the beginnings of a spatial schema that could graft onto the geometric particularity of the site. In this studio, Collage City and Space and Anti-Space were given as readings which might provoke critique and counterforms of an other spatial order than the city's fabric/object dichotomy. In the process, a question was raised: could the double negative exercise lead to spatially thinking a productive looseness of fit between building, program and site?

The next student group to continue with similar explorations was a Professional Year 2 studio, taught in the winter semester of 1998. Here, the focus of the studio, informed by that year's Wallenberg Prize theme, "The institution and the commercial strip," was to engage the transforming condition of the American urban grid, specifically on Detroit's Woodward Avenue - the original car-driven commercial strip. Accordingly, more recent texts on the city such as Albert Pope's Ladders, Stan Allen's Distributions, Combinations, Fields, and Sola-Morales’ Terrain Vague were given parallel to this double negative exercise. This time, the differences ascribed to the two voids were more far-reaching. They attempted to examine the contrast in the contemporary city between what could be described as the happenstance void, produced through the ever-increasing erosion of a cohesive urban fabric, and the figured void, the streets and squares and defined by this fast-transforming same fabric.

The second phase of this double negative involved collapsing the exercise's constructed three dimensional object, through projective drawing operations, into a field condition. It was intended that in this phase could be offered a second-generation construct with which to abstractly and spatially engage the exurban site's textured fabric becoming field condition. 14

A studio based in Prague the following spring semester offered the opportunity to further explore ideas of double negative space in a place which has a very much intact and cohesive urban fabric. The presence of a network of interconnected passages leading to inner block courtyards within a strongly defined urban morphology of streets-and-squares-as-void, along with distinct topography, combine to yield a wealth of palpably intersecting voids. Projective drawing became the means with which to investigate the spatial intersection between the void of courts open to the sky, and the void of stepped or ramped alleys and vaulted passages cutting through the city.

During the current winter term, Professional Year 1 students have investigated the double negative as the beginnings of project for a Dance Studio in Ann Arbor, on a site not far from the Furniture Workshop studio mentioned earlier. Here the relationship between the two kinds of given voids is primarily a programmatic one: one space which 'houses' (or acts as a foil to) movement, and another space which 'embodies' movement - in other words, between a space of repose which enframes the event of the body's performed movement, and a space into which the body's everyday movement is inscribed, partici-
This conscious attack on the figure/ground dialectic has significant implications in the evolution of a double negative spatial practice. While the primary aim of these studio exercises has been to offer a way for the student to quickly delve into spatial investigation and begin the formation of a space-making language, a resultant lesson is how it may offer a way into thinking about an architecture which is able to engender new inter-connectivities between space-making, program and site. The sites engaged thus far in the studios display a complexity of urban situation which is not atypical, and which demand an architecture that is somewhat fluid; an architecture able to become embedded in the fabric-cum-field conditions it finds itself in, and simultaneously emerge from it for the better. As Mark Taylor’s word-play at the beginning of this essay suggests, the spatial double negative by its nature opens possibilities for both architecture’s figuring of the ground, and grounding of figure.

4 This was a seminar whose focus was the careful, analytical reading of particular phenomena, both in underlying structural logics found in architectural examples found in architectural drawings, and of more palpable spatial conditions in built work.
5 One photo of this condition is particularly compelling in offering double negative readings: The image is of Vanna Venturi’s stairwell published in Robert Venturi’s Complexity and Contradiction in Architecture 2nd ed. New York: The Museum of Modern Art, 1977, p. 121.
6 Other projects of OMA also have well-documented strategies of the void, such as their Melun-Senart plan, National Library of France and more recent Dutch Embassy for Berlin, as does MVRDV’s Villa VPRO, but in these it is harder to discern a legible, unstable ‘other’ space of intersection — Libeskind’s Jewish Museum on the other hand seems to offer such possibilities.
8 See Steven Peterson, “Space and Anti-space” Harvard Architecture Review vol. 1 Cambridge, MA: MIT Press, 1980, p.89. Architects like Kahn and Venturi had explored avenues of space-making with similar implications in their work, as had Le Corbusier earlier, in carrying forward his painting-driven space-making strategies into post-war work.
10 Ibid., p. 96.
11 This discussion as relates to Modern Art and Architecture, and the city, necessarily touches on a litany of texts and ideas far too numerous for the space available here to allow full exploration; these include, in addition to “Transparency: Literal and Phenomenal,” works cited therein by Kepes and Giedion, and El Lissitzky, Moholy-Nagy, and instances of field-conditions both in painting (certain paintings by Klee and Mondrian for example) and in architecture, such as Le Corbusier’s Venice Hospital and ‘mat-buildings’ by Team 10 and others, as well as theoretical hypotheses on the changes wrought on spatial conception and perception by such thinkers as McLuhan, Foucault, Jameson, Virilio, Deleuze and Guattari.
13 Certain recent works by Eisenman, Koolhaas, Gehry come to mind which display a range of takes on the notion of the “difficult whole” in response to site and program; as do works by a host of younger generation architects often even more inclined toward harnessing complex systems of order as spatial generators with which to respond to site and program (e.g.: in some recent works of Greg Lynn, MVRDV, Reiser/Umemoto, Stan Allen, Foreign Office Architects, among others).
14 Albert Pope discusses the ill-effects of this predicament of urban patterns transformed — what he designates the “ladders” phenomenon in his book of the same name, Ladders; while Garreau’s Edge Cities and Kunstler’s Geography of Nowhere make appeals to the populace to beware downsides to changes in the form of the city; whereas Sola-Morales in “Terrain Vague,” and Rem Koolhaas, in “Imagining Nothingness,” “Bigness: Questions of the Large,” and “Whatever happened to Urbanism?” in SMLXL and elsewhere, revel in the new possibilities opened by such changes which challenge the very idea of “city.” The range of such positions as these has been brought to the table in studio discussions on the implications of the double negative exercise in and on the city.
Janet Fink

kunst – zimmer

The Studio

Devina Agus Sudjito
Daisuke Doi
Simone Ghetti
Yau Shun Hui
Chung – Lun Kuo
Christopher Lantisera
Christopher Nogoy
Brian Tsang
Aaron Johan Vermeulen

The Metropolis strives to reach a mythical point where the world is completely fabricated by man, so that it absolutely coincides with his desires. The Metropolis is an addictive machine, from which there is no escape, unless it offers that too ...
This 1998 spring studio explored the spatial character of the density, contiguity, aggregation, and overlap of thematic and disparate program elements of the hybrid building in the context of multiple typologies, forms and spaces that thrive in captivity on the narrow island of Manhattan. The boundary of the island's perimeter, the permissive fabric of the grid, and the limitless extension to the sky condition the density of building and activity which so uniquely define New York: Work and leisure, commerce and culture occupy common territory.

Artist residency programs are typically organized around the idea of *retreat*—a withdrawal from the quotidian disturbances of the struggling artist's existence. This project, the kunst-zimmer, provides residences and studio work space for visiting artists from the United States and abroad in mid-town Manhattan, a place that is problematic when considered in terms of a retreat. Moreover, owing to its location in the midst of the metropolis, the kunst-zimmer accommodates disparate and unrelated programs in addition to those that support the artist. Thematic programs specific to the kunst-zimmer such as private residential and studio work spaces for artists, refectory, galleries, and administrative offices thus co-exist within the same building envelope as a public gymnasium and natatorium, a megastore, and an auditorium.
The intensive six week studio, which met daily, was organized around a series of assignments designed to encourage conceptual exploration. A collage about live/work/play/shop was the first assignment used to stimulate discussion and critical thinking about the program during the studio's initial days. Photographic studies of "conditions of density" were developed into formal studies that later became useful strategies for the project. A typological analysis of hybrid buildings yielded conceptual models that explored programmatic and formal distinctions between disparate functions. The site in the garment district of New York, was the subject of a weekend field trip and architectural tour. Upon returning to the studio, the students were encouraged to develop their project through study models which, together with the initial assignments, provided the groundwork and inspiration for conceptual and formal approaches to the project.
Develop an understanding of each of the four observed dense conditions with a three-dimensional maquette. The maquette must be a minimum of 6" x 6" x 12," but need not be a rectilinear form. Materials shall be of your choosing, selected carefully to reinforce the important ideas of each of the dense conditions.
Simone Ghetti
Brian Tsang
Christopher Jason Nogoy

live
play
work
shop
rehearse, drill, discipline, train, familiarize with, become proficient at, prepare for, qualify.
what you preach: perform, do, carry out, follow, put into practice, put into action, apply, use, utilize, live up to, turn
coin (koɪn), n.
1. a. truss. To make (money) by stamping metal.
2. c. spec. To frame or invent (a new word or phrase); usually implying deliberate purpose; and occasionally used depreciatively, as if the process were analogous to that of the counterfeiter.

coincident (koʊˈsɪndənt), adj.
A. adj 1. Occupying the same place or portion of space. 2. Occurring at the same time and occupying the same space of time; exactly contemporaneous.

coiner (ˈkoɪnər), n.
3. fig. An inventor; a deliberate or artful fabricator. † b. † A dissembler; false pretender. Obso rare.
The subject of this work is situated at the intersection of the simultaneous document — lodged between the recording and the construction. Its object: the practices of the counterfeiter, or more specifically, at the continually shifting center of their daily practice. The careful documentation of artifacts and phenomenon, coupled with the potentiality of material can yield what Hal Foster calls a "reinscription of representations." This work contends that by reinvesting in the record, and its subsequent transformations through projection, its potential shifts from being simply a historical document to being a propositional one.

Robin Evans writes about simultaneity and paradox within a 15th Century description of the universe as a sphere whose, "centre...was everywhere and...circumference nowhere." In *The Projective Cast* Evans charts the development of the architectural drawing — or specifically projection, which he calls the "universal ether of constructability" — and its relationship to building. He argues that the limits of the drawing played a far greater role in the development of architecture than the limits of building. Moreover, the development of the architectural drawing — what it could represent and how it could represent it — was linked to the advances in the ideas occurring outside drawing (i.e. the development of perspectivism and anatomy's understanding of the eye or the science of the lens.) Instances existed, however, where idea and material were coincident. Evans cites Sant'Eligio as an architecture complimentary to the spirit of the times rather than a mere representation of it, thereby striking a wedge between the representation and that which it represented, calling it a "successful merging of the forms of thought and the forms of things to which thought was applied, as if they were one and the same when they could already be seen to be different."

The act of recording involves the objectification of artifacts and their mediation via device, translation through structure, and representation across media. Baudrillard contends it is the artifacts themselves which should suggest the means by which they are recorded. Adopting this attitude as a strategy to challenge the traditional practices of the architect, the motivation of the artifacts themselves, or what Baudrillard calls "pataphysical irony," would aid in shifting the frame away from the subject in such a way that:

> The subject is no longer at the origin of the process, and no longer anything but the agent, or the operator, of the objective irony of the world. The subject no longer provides the representation of the world. It is the object that refracts the subject, and subtly, through all our technologies, imposes its presence and its aleatory form.

What is it then that can be learned from the processes of documentation — through the layers of translation and projection — that the making of architecture may benefit? Or, to say it more directly: how can the architectural drawing be put in the service of the architectural product?

As Jonathan Hill puts it, "Architects draw buildings. They do not make them." In adopting this principle, the drawing opens up as a descriptive and investigational tool. Challenging the conventions of the drawing (in place of abandoning — or perhaps worse — patronizing them) strategies can be articulated that project rather than prohibit the work.

There are several projects which approach the simultaneity I am referring to — that are both a record and a construct. Dan Hoffman’s *Recording Wall* is a project inscribed with its own making. The work, which is simply a wall composed of concrete masonry units without mortar, was photographed from two sides each time a block was lifted into place. Photoemulsion from these photographs was later applied to the surface of the block whose placement they register. Through this action, a "mediated layer" not only reintroduces the body into the processes of making (and unmaking), but indexes the anonymous unit to a specific time, position and orientation — no longer an interchangeable component, as each block has been given a precise identity within a wall of anonymity.

Rachel Whiteread’s casts of domestic artifacts and spaces invert their familiar meanings in denying their occupancy. One of her works, *Ghost*, was cast from a small domestic room. Reassembled within a larger space, the "room" can be inspected along its four sides but cannot be occupied, giving the spaces what Whiteread calls "an authority that they’d never had." Details, such as light switches and keyholes appear strangely familiar, as they pull away from the routine gestures of the hand, or what Bachelard calls, "the memory of touch."

The chronophotographs of Jules-Entienne Marey were ground-breaking for not only capturing time in the newly born space of the photograph, but for the propositional imagery that resulted. Specifically, the jump of a man was not simply a record on film, but a newly formed constructed image of the body leaping through time and space. Paving the way for athletic innovation, the marked image speaks not only of gravity’s ever-present tug but of the perseverance of the body in space.

How does an architectural discourse locate such "siteless" works within the sprawling landscape of Los Angeles? Firstly, in questioning presumptions made from a distance — those same presumptions that effectively blind the inhabitant in their own domain. The position I believe, could be of great service to the work, in much the same way Marc Auge, in his writings on "non-places" discusses this situation in terms of the anthropologist who finds himself suddenly working in his native territory:

> it matters little that to some extent we may be involved in these as interested parties, for as individuals we are far — very far indeed — from knowing them in all their aspects. Experience of the remote has taught us to de-centre our way of looking, and we should make use of the lesson. The world of supermodernity does not exactly match the one in which we believe we live, for we live in a world that we have not yet learned to look at.
Making currency is an act of marking in metal. The counterfeiter, I would argue, is the more artful fabricator, as the product they coin must attain the status of a product traditionally produced by a larger, more resourceful body. Let me put it another way and raise a few questions at the same time: It is the counterfeiter, without the industry of the legitimate producer, who is more skillful and resourceful. Therefore, who grants the producer authority? What is the authority of the artifact? What makes it legible? What (or whom) gives it value? While the counterfeiter might produce something considered to be "imitation" or "fake" in relation to a legitimate product, the artifact itself does exist in the world, and may exhibit a greater technical or generative prowess by the maker than the legitimate producer. Hill further discusses spatial and cultural productions occurring outside of architecture by "illegal architects" and their value to the profession of architecture:

Space is usually classified in two ways, as a perceptual phenomenon and an intellectual process. For illegal architects, the aim must be to design space and to think spatially, suggesting a spatiality of product as well as process. The former has a fairly clear meaning. The latter is a more complex proposition. By this I mean the ability to make unexpected, non-linear connections between diverse phenomena. ...the spatiality of cultural production suggests a series of distinct but dependent procedures, so that the form, site and materials of a project are selected because they are appropriate not merely expected.\(^{13}\)

As a practice, how might these strategies challenge common architectural motives as site, program and material? Can an investigation of the architectural drawing suggest program? Might program seek a site (or sites) otherwise neglected or overlooked by the architect? How might parallel investigations occurring at different scales reflect the presence of the other? How are decisions made early in a project later understood? How does the work take advantage of liability and constraint? As Ben van Berkel and Caroline Bos defend a practice of repositioning interests as entirely appropriate, even if "undignified,"\(^{14}\) this project should be seen as a work not in simulation of practice, but rather in pursuit of practice.

Architects are often viewed as marginal figures in the production of the constructed environment who labor over the design and production of meticulous one-off products. While I do not contend that the architect is a false pretender, by embracing this position alongside the practices of the counterfeiter (albeit one of pennies) – as a parallel production, challenging authority and questioning value – it is hoped the pursuit will prove useful as a critique of architectural production and the records of architecture.

This work is an abridged adaptation of a graduate thesis proposed while the author was studying with Jonathan Hill at the Bartlett and produced at SCI-Arc under the watchful criticism of Gary Paige. The drawings are presented non-linearly. They may be read chronologically by re-tracing their numbers.

3. Ibid., p. 357.
4. Ibid., p. 44.
15 A box for casting using one-half sheet of MDF reinforced with threaded steel rod and surfaced with a release agent.

16 A record of the marks made by the automobile operator over 903 miles on the highway.

21 Casting Box section. The form or guidework is constructed to be easily released and reused.

17 One-hundred cents flipped from a height of ten inches with a resultant of 51 "tails" and 49 "heads."

22 The Los Angeles County Thomas Guide stripped of its geographic information. The framed borders of the page system overlaid upon the city remain.
The three recurring sections were programmaticaly redeploled as vertical & horizontal domestic spaces (C, D) and spaces for counterfeit production (E).

Inspecting: Laminated glass creates a "light floor" behind the shading facade of an existing light-industrial building.

Areas were charted for their "Incorporated Cities" and "Communities" and selected to secretly site program within their anticipated "slack spaces."

"Here, take my penny."
Shopper
Helping out a fellow customer.

"Even pennies count."
Street person
Penny stamp, Venice, California.

"Leave a penny, leave a penny."
Need a penny, take a penny.
Plastic cup
Every store in America.

"I hate pennies."
Child: Unwittingly
Taking yourself to the cash register.

"A penny saved is a life."
Cashier
Responding to the negotiators of pennies and pennies.

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Edge ruled sheet from middle down with lead end. / Edge ruled sheet from middle up with eraser end.
The spaces of counterfeit production were sited on pages with the most "Incorporated Cities" (596, 675, 705, 733, 736, 737).

Page 766 - Riddling: Whenever basketball is played, boxes placed behind the vibrating backboards sort blanks of the wrong size and shape.

Page 767 - Striking: On weekdays, an imprinting mechanism inside a church cross strikes the blanks using its existing power source.

The counterfeiter's pattern of use. The sites were selected from the drawings, driven to and quickly identified in-between spaces were photographed.
Sharpened pencil / Depressed tip and walked counter-clockwise / Smoothing of wood decreased control / Lead remained sharp.
Pencil Drawing A1.12 - Lesson: Practice doesn’t always make perfect.

Page 683 - Reading: Books are stored inside a shed inside a fence inside a park. Graffiti will eventually resurface the exterior of the anonymous library.

Page 733 - Annealing: A series of slow-burning furnaces – which soften the metal for future work – mark the former location of three billowy shrubs.

Pencil Drawing A1.07 - Lesson: Previous actions interfere with future ones.

The Casting Box.

Page 595 - Bathing: Metallic water drains along a shallow drain, falling through a perforated manhole cover into the Los Angeles water treatment system.
Distinguished as he is for wonderful mechanical skill, subtle minuteness, and a keenness of glance, which takes in every bonding and every course of stone . . . he is no less remarkable for transparency of style, a fullness and freeness of explanation which would almost become colloquial, were it not controlled by the utmost logical precision, the strictest regard for scientific terminology, added to which there is a warmth and earnestness in his description, a power of identifying himself with his subject, which is most delightful to find in a technical treatise.

The Ecclesiologist, VI, 1846, review of Robert Willis's Architectural History of Winchester Cathedral.
Robert Willis (1800-1875) is best remembered by architects for a painstaking analytical essay on the construction of Gothic vaulting, published in 1842-more particularly, perhaps, for the exquisitely detailed isometric drawings which accompany his text.1 Yet this meticulous piece of research represents only a small part of his wide-ranging intellectual activity. Educated at Cambridge, elected a fellow of the Royal Society in 1830, and appointed to the chair of Jacksonian Professor of Natural and Experimental Philosophy at Cambridge in 1837, Willis was a scientist whose principal work lay in the study of dynamic mechanisms or kinematics (the name he himself gave to this developing field). His scientific aspirations were accompanied by an interest in history. He completed detailed historical accounts of several British Medieval cathedrals, and of Cambridge University, narratives which continue to offer an exemplary integration of textual expertise and architectural observation.2 His analysis of Medieval vaulting mentioned above was followed by a ground-breaking study of the nomenclature of Medieval architecture, and a new edition of the sketchbooks of Villard de Honnecourt.3 And it was preceded in 1835 by Willis’s first and less well-known foray into Medieval studies, Remarks on the Architecture of the Middle Ages. Especially of Italy, a book which gives us an early indication of his painstaking method of argumentation and the thoughtfulness of his analytical approach.4 The intention of this essay is to trace the early development of Willis’s analysis of Medieval architecture from this first book on Italian Gothic to his essay on Gothic vaulting, completed seven years later.

Willis’s Remarks... opens with a founding distinction, close to the heart of his own expertise, between the mechanical construction (or actual static organization) of a building and its decorative construction (the apparent organization of elements of support).5 On the basis of this categorical difference, he identifies as the central feature of Medieval architecture, the harmonious assimilation of the mechanical construction of the arch into a coherent decorative system. The definitive Medieval system, or “complete Gothic” as he calls it, presents multiple grouped independent props of slender proportions, in a style “remarkable for the skill with which all the ornamental parts are made to enter into the apparent construction.” (emphasis added)6 This distinction between mechanical and decorative construction allows Willis to foreground the phenomena of a building’s apparent organization in his own analysis. It also opens the possibility of more varied and flexible analytical models of the relationship between the static behavior and visual organization of architectural works than more judgmental contemporaries like Pugin and Viollet-le-Duc might permit. Both Pugin’s notion of Medieval ornament as the enrichment of essential constructive features, and Viollet’s related definition of Medieval architectural form as the embellished expression of its structure, presume, behind the rather vague terms of ‘enrichment’ and ‘embellishment’ a strong, automatic, and inevitable relationship between the mechanical and decorative construction systems of good architecture.7 The fact that Willis’s formulation is more indirect as to the motivations of the connection between the mechanical and decorative system robs his arguments of either Pugin’s emphatic indignation or Viollet’s energetic élan. However, his precision of tone and modesty of approach, if lacking their exuberance and excitement, yield subtle and unprecedented insights into the role of the arch in the system of Medieval decorative construction.

Willis begins his specific analysis of Gothic architecture with the archway, a term which includes both the arch and its means of support (piers, column shafts, or combinations of both). He then presents the simplest condition of such an aperture—a Romanesque Italian window—and proceeds to examine its impost, or the point where the vertical line of the support appears to join the curve of the arch. (Fig. 2, Illus. 3) Willis emphasizes here, using the masonry element at the base of the vault called the tasse-de-chargé as an example, that in Medieval architecture the apparent springing point of the arch may (and often does) differ from the mechanical springing point. Based on the apparent continuity between decorative elements above and below the impost, how the impost block negotiates and expresses the relationship between the arch moldings above it and those of the vertical moldings or shaft upright below—Willis develops a nomenclature which will allow each archway type to be identified. He also presents his understanding of Romanesque and Gothic archways as multiple planes of often-divergent decorative systems and apertures placed one behind the other. This observation allows the complex archways of Gothic architecture to be understood as nested overlays of simpler archway systems, and all archway types and combinations to be named and categorized.
Willis then proceeds to consider the role of the columnar shaft in both singular archway openings and serial arcaded arrangements. He divides these elements into simple bearing shafts which sustain all the superincumbent structural weight bearing on them, and shafts which partake of more complex engaged locations in wall construction, involving hybrid mechanical conditions. The second are defined, according to their respective locations with respect to the archway, as sub-shafts, edge-shafts, and nook-shafts (Fig 2. Illus. 6,7,8). Willis's analysis of the archway as an organization composed of multiple planes allows him to explain medieval tracery and foliation as the result of differences as to the archway shape and decoration between each relevant layer. At this point Willis completes his presentation of the archway elements by testing the precision of the nomenclature he has developed in describing several examples of compound Medieval apertures.

Having compiled a method for understanding the decorative system of the archway based on its impost and shaft elements, Willis then extends this elemental study to medieval rib vaulting. Distinguishing Medieval from Roman vaulting by the linear definition of its decorative system, in which the vault ribs play a part, Willis rejects any theory that would explain the Gothic application of the pointed arch or rib to vaulting as the direct result of structural expediency. He then adds to the family of uprights in his Medieval decorative system, the term rib-shaft and vaulting-shaft to denote the line(s) moving down the nave wall from the vaulting ribs. The rib-shaft may intersect the archway by coming to rest on a single larger bearing shaft, or continuing to ground as a cluster in a compound pier arrangement.(Fig. 3) This addition of the rib-shaft to the compound archway element extends Willis's assembly of elements to more complex three-dimensional arrangement of the spatial compartition of the nave or side-aisles. This set of elements and their interconnections completes what Willis terms the vaulting system, of Gothic architecture, by which he means "the scheme of connection between the ribs and the parts that sustain them, the shafts, piers and pier arches." An analysis such as this, which presents an architectural work as a complex interweaving of different elements, seems admirably suited to the delicacy of one stated aim of Willis's text: namely accounting for the many threads of influence which coalesce in different locations and give rise to local variation and differentiation. The examples of Italian Gothic architecture which Willis collected on a rapid trip through France, Italy and Germany in 1832-3, are integrated into his comparison with more well-known examples of French, German and British Gothic architecture, and organized into a useful list with descriptive annotations in an appendix to the main text of the book. However, we should not be surprised that in Willis's text the main role of the particularities of Italian Gothic he identifies lies in their contribution towards the increased definition of his central ideal model, the "complete Gothic." This becomes particularly clear in Willis's consideration of general plan and proportional arrangements late in his analysis, where, in a tone rather different from his usual careful modesty, the effects of verticality and grandeur produced by the Italian examples he has studied are judged to be rather unspectacular in comparison to Northern examples. His characterization, at the conclusion of the book, of Italian Gothic as a transitional style, sharing characteristics of both the ideal Gothic and Classical styles presented by Willis in the closing pages of the book, is his development and correction of a similar list published by Thomas Rickman in his fourth edition of his ground-breaking book on British Gothic architecture, An Attempt to Discriminate the Styles of English Architecture, first published almost twenty years before. Both Willis and Rickman agree on the importance of the arcuated and of vertical nature of Medieval architecture. Willis extends Rickman's list by adding the characteristic of multiple superimposed planes, so important to his presentation of compound arch openings, foliation, and tracery. He also contests Rickman's underestimation of the role of the shaft in Medieval architecture, based on its structural redundancy, and stresses its importance in the decorative structure of the Gothic style. While Willis's debt to Rickman may be seen in the basic features and sequence of his elementary analysis (from window aperture, to arch, pier and vaulting), the clearer analytic basis of his categories forges stronger intellectual links between one architectural element and the next. His concept of decorative structure foregrounds the role of shaft more than Rickman's analysis, and challenges the exclusivity of William Whewell's identification of Gothic with the pointed arch.
2 Medieval archway openings, from "Remarks..."
Willis's progress via the comparative method, from the minute observation of particular features to the identification of general principles is in keeping with the contemporary understanding of correct scientific procedure. The primary intention of such a method, however - the location of essential elements or distinguishing characteristics of a group or category (in this case the Gothic 'style'), with an emphasis on taxonomic power and clarity - although shared by Willis's text, is not its only theme. In the logic and sequence of his argumentation we can see a continuation of Rickman's emphasis on the wall and its compartition in Medieval architecture, and even the glimmer of a suggestive history of the decorative evolution from Romanesque to Gothic architecture. Willis presents Medieval architecture as the intersection, in the plane of the wall, between the lower system of subdivision of its arcades, and the system of ribs and shafts descending from the vaulted roof above. This emphasis on the wall, accentuated by Willis's understanding of its layered condition in Gothic and Romanesque apertures, contains important and provocative insights relevant to the context of both Ruskinian criticism and the design emphases of British Gothic revival architects during the 1840's and 1850's.

Willis's treatment in the Remarks.... of the role of the vault in Gothic architecture, so central to the analysis of theorists such as E. E. Viollet-le-Duc, is considered surprisingly elliptical by several critics. Neglect of this structural feature may be justified by the fact that the rib vault and the flying buttress are not major features of Italian Gothic architecture. However, commentators such as Robert Mark attribute the reticence of Willis's analysis in terms of the structural behavior of vaults (considered surprising in someone of his training) more to aspects of his own cultural background, such as the infrequency of the flying buttress in British Gothic examples, and the archeological correctness of the Ecclesiological Movement, to which Willis belonged for a time. His subsequent essay on vaulting, entitled On the "Construction of the Vaults of the Middle Ages," originally given in lecture form to the newly-founded Institute of British Architects, and published in 1842, goes some way towards redressing this balance.

Here Willis carefully examines the systems of Gothic vaulting in selected British Medieval examples through the lens of the stereotomical treatises of Philibert De L'Orme. This analysis uncovers the exciting evidence of geometric rules of procedure from the mason's incised marks on 'invisible' surfaces of operation in ruined Medieval examples, and on the intact horizontal upper surfaces of vaulted structures. Such evidence, Willis argues, evinces knowledge on the part of the stonemason of the geometry of setting-out in plan and section, and some anticipation of three-dimensional effect of complex curvature when built. Willis sets out an evolution, using a study of the curved underside and the upper horizontal surfaces of operation of vaulted structures, from a simpler rib and panel structure in early Gothic to the complexity of later fan vaulting: a development involving a crucial change from simpler plan and sectional understandings of mason's geometric rules in the earlier work, to the necessity of a full three-dimensional understanding of projective geometry basic to the system of stereotomy, evident in the later work. This discovery presents the fan vault, not as the decadent result of a proliferating network of non-structural ribs, but as another kind of mechanical structure entirely: the virtuoso outgrowth of a new method of understanding of complex three-dimensional surface geometries, now made possible only by projective techniques. An effective commentator on the intellectual focus of his own work, Willis writes toward the close of the essay:

I have endeavored to throughout to show from evidence the existence and employment of geometrical methods from a very early period, and have attempted to restore some of these methods. I have also ventured to assert the importance of certain forms and arrangements in imparting character to the buildings in question. . . I have said nothing respecting mechanical principles, and have confined myself to form and arrangement. But it appears to me, from examination of the works of the Middle Age architecture, that the latter considerations had an infinitely greater influence upon their structures than the relations of pressure, then very little understood, and about which they made manifest and sometimes fatal errors. . . 

Willis's sensitivity to the priority of a history of geometric practice as it relates to structural understanding here, combined with his interest in formal configuration and decorative systems, has been appreciatively if not extensively commented on by various critics. Both Paul Frankl and Nikolaus Pevsner appreciate the carefulness of his analysis and the breadth of his scholarship, and agree that Willis's model of mechanical and decorative construction anticipates early twentieth-century critiques levelled at Viollet-le-Duc's
Vault - archway combinations, from "Remarks..."
exclusive structural emphasis, by critics such as Pol Abraham,38 Reyner Banham categorizes both Willis and Viollet as practitioners of a rationalist-structural analysis, with Willis as Viollet’s British precursor.19 Robert Mark, on the other hand, in a comparative study of both men, draws attention to the difference of approach between them, by focussing on the question of vaulting and the flying buttress.20 Here Mark contrasts Viollet’s claim regarding the relevance of static understanding to Medieval architecture, to Willis’s formal and geometric emphasis, a comparison which suggestively depends on a characterization of Viollet’s modernity as opposed to Willis’s antiquarianism. While Mark’s particular distinctions between both men are carefully drawn, his extension of such distinctions into the opposition between progressivism and conservatism, architectural and literary Medievalism, structural and historical research, ultimately marginalizes the significance of Willis’s work.

For Robin Evans, on the other hand, Willis’s emphasis on geometric procedure and its relationship to formal organization contributes an important episode to his history of projective geometry as outlined in the recent book The Projective Cast.21 Evans summarizes Willis’s careful elucidation of the role of projective geometry in the later phases of British vaulting, and develops some of his insights with regard to the two-sided surface complexity and structural nature of the fan vault. Ultimately, the direction and scope of Evans’s narrative lead him, while giving full credit to Willis’s powers of observation, to emphasize, with Mark, his role as a historian of construction and geometric practice. Although this characterization matches Willis’s own representation of his intention, it misses some of the complexity of his relation to contemporary nineteenth-century circumstances and practice.

Willis’s lecture on vaulting was originally delivered at a meeting of the newly-constituted body of the Institute of British Architects, to an audience of architectural practitioners rather than archeological or antiquarian scholars. His appeal to his audience at the close of the lecture to continue and extend the research he had begun, reminds us of the deep involvement by British architects in historical and archeological study during the 1840’s. At times during his lecture he addresses the link between his study and important issues in current practice:

It becomes a curious and interesting subject of enquiry to trace, from an examination of the structures themselves, what geometric methods were really employed in setting out the work, and how the necessity for these methods gradually arose. Independently of the value of such investigations or the history of the science of construction, the knowledge of the methods actually employed would greatly assist us in the imitation of the works of each period.22

This quote, which has been taken by Mark to confirm the passivity of Willis’s milieu in regard to the correctness of the Gothic examples they analyzed, is followed by a passage which suggests something a little less servile:

For the forms and proportions of every structure are so entirely dependent upon its construction and derived from it, that unless we thoroughly understand these constructions, and the methods and resources which governed and limited them, we shall never succeed in obtaining the master key to their principles, and instead of designing works in the style of any required age, we must content ourselves with merely copying them.23

The link Willis makes here between ‘imitation’ and ‘design,’ understood as productive activity and procedure, and ‘principle,’ is important. Furthermore, it becomes clear that at several moments during the course of his essay, he departs from his role as a reconstructor of medieval practice and addresses present conditions directly. At one point, for instance, he recommends De L’Orme’s practice in his treatise of placing the elevation of each curve of the vault on the plan of its own rib, as a universally applicable (contemporary) method for setting out vaulted structures: a little later, he outlines a geometric method of setting out vaults which will furnish to nineteenth-century architects a general process by which they might imitate (and compare) various vaulting configurations from different periods, a recommendation he follows with this observation:

In the old time, one style alone was practiced in each period, and a few simple rules were sufficient for the purpose. The change or improvement of one or more of these rules introduces new features and new characters, but which still are alone employed as long as they last, and until they in turn are superseded. But we, imitators of all styles, must have more comprehensive and flexible rules, capable of imparting to our works the characters of every age in turn. This necessarily gives to the methods which we invent and employ a much greater degree of complication than is likely to have
belonged to the rude practical geometry of the Middle Age workmen; each of our constructions being in fact a general formula, which includes many particular instances, every one applicable to a separate period.\(^2\) (emphasis added)

This move towards the principle and the model by the generalization and streamlining of geometric method, following by an accumulation of historical example and study, is addressed by Willis as much to the geometric and constructive practice of nineteenth century as to any meticulous reconstruction of medieval practice.

Willis's activity of collecting and analyzing, both in his book on Italian Gothic architecture and in his essay on Medieval vaulting, involves detailed study of architectural arrangement and construction practice. While the former provides an elemental analysis of the decorative system of Gothic architecture, the latter develops Willis's insights into this decorative system in more procedural geometric directions, using more detailed studies of British cathedral vaults. Willis's growing appreciation, evident in these two texts, for the historical analysis of design practice, understood as an activity negotiating between geometric understanding, production processes, and instruments of representation, is not a preoccupation without architectural import. In addition to the histories of 'reason' and 'structure' for architecture, the related stories of architectural practice await urgent attention.

5. Ibid., pp 15-16.
11. Although his assertion that the characteristic of planar superimposition is not a feature of classical architecture is a little surprising.
13. Whewell, Notes..., op cit.
15. Willis, "On the Construction...," op cit.
23. Ibid.
The SITEmark Summer Construction Workshop is a Not-for-Profit Collaborative founded by three architects: Richard Blender, Michael Wilkinson, and Charles Waldheim, in 1991.

The collaborative practice brings together students, architects, and educators in the design and construction of a modestly scaled building or landscape project.
The Workshop is an intensive, hands-on, educational experience running for 10 weeks between May and July of each project year. Members of the Workshop live and work on site in a cooperative environment on a project by project basis and pursue the fabrication of the work in a collaborative manner as their availability, experience, interests, and abilities suggest. Teams are formed as required for particular tasks, and all aspects of the design, detailing, and construction of the work are pursued in a spirit of collective responsibility and opportunity.

In addition to the hands-on experience of the design and construction of a built project, the Workshop includes extensive educational programs dealing with issues of representation, fabrication, and the landscape. These programs include weekly readings, seminar and drawing sessions, a visiting lecture series, discussions with local craftsmen; and optional field trips which take advantage of the architectural resources of Chicago and the region.

Student members of the Workshop, both graduate and undergraduate, come from a number of schools; including the University of Pennsylvania, the University of Michigan, and the University of Illinois at Chicago. These individuals bring differing levels of experience ranging from students in their sixth year of architectural education with extensive construction experience to first-year students with no previous hands-on training. While these student members of the Workshop are not expected to have previous construction experience, a basic familiarity with the conventions of architectural drawing, measurement techniques, and basic hand tools (such as evidenced by completion of one year of architectural education) are useful prerequisites to the work.

Student members of the Workshop are given hands-on instruction through all aspects of the construction process including the proper use of tools and equipment, site surveying, excavation and foundations, frames, walls, vertical and horizontal enclosure systems including cladding, apertures, and finishes.

Throughout the Workshop, value is placed on the importance of safety, the communal and collaborative nature of the living and working environment, and an awareness of the various conditions of a project including the aesthetic, social/political, economic and technical. Students are involved in the detailing and fabrication of a number of constructive systems and materials including cast-in place concrete, concrete masonry, wood framing (both heavy and light); as well as various cladding, sheathing, and enclosure systems. By virtue of these experiences students are exposed to a number of other aspects of the constructive process including quantity surveying, cost estimating, project scheduling, construction sequencing, the delivery and staging of materials on site, and a number of other issues surrounding the transformation of a given site over the course of a building project.
The most recent Workshop consisted of the design and construction of a classroom/horse stable building on the grounds of Camp Tuckabatchee; a children's summer camp located just outside of Ottawa, Illinois. This 2000 sq. ft. structure houses the camp's riding programs including stables, feed and tack storage, an indoor/outdoor classroom space, and an outdoor bleacher/stand. This structure posed a challenging project both in terms of scale and programmatic complexity for the Workshop and was intended to serve as the centerpiece of the Camp's equestrian, educational, and recreational programs.

The cross programming of this classroom/horse stable/bleacher building is intended to accommodate the interaction of children and horses while problematizing the typological stability suggested by any of the three building types as they might stand alone. Additionally, the project afforded a range of scales, degrees of enclosure, and variety of material systems which posed limitless fabricational opportunities for student-members of the Workshop.

Building on this understanding, the Workshop conceived of the site as a series of nested territories at varying scales — the largest of these being the vast sea of midwestern agricultural landscape which surrounds the Camp. The boundary of the Camp proper forms the first of these territories within territories and is perceptually marked by decent from the boundless prairie into the relative enclosure of the hidden river valley. Within this limit and at the valley floor is the notional boundary of the children’s campus forming a territory within which most of the educational, recreational and living activities of the Camp are located. This boundary is marked by a densely undergrown treeline and occasional vertical rock faces forming the valley. At the next scale of enclosure and embedded within the children's area is the horse corral which is enclosed with a fence and contains several smaller areas for equestrian education and maintenance. The specific site for the Classroom/Horse Stable Building was taken as an opportunity to continue the notion of nested territories with the perimeter of the building itself representing the next smallest scale of containment. Within this 2000 sq. ft. boundary, the project constructs a smaller and similarly bounded territory (kiddy corral) to house the educational needs of the camp's riding programs and provide some sense of refuge for small children surrounded by potentially dangerous animals.

The Camp(us) site of Camp Tuckabatchee was initially developed for educational/recreational purposes in the 1920's and 30's. The Camp is set deep in a river valley 60 to 75 feet below the surface of the midwestern prairie within which it is embedded. Through the volunteer design+construction work of the W.P.A. in the late 1930's and into the 1940's, the campus was developed and improved; and these improvements included the walling, damming, and bridging of the primary water course which bisects the campsite. By straddling this tributary, the camp has been programmatically zoned into two halves which are joined by sharing the valley cut by the historical watercourse.
across the activity of the horses and toward the main structures of the camp. The insertion of this element is intended to exaggerate the cross-programming and cross-typing of the Horse Stable and continue the obsession with "super"vision which is inscribed in the historical development and present program of the Camp and its physical plant.

Perceptually, the building is first experienced from above as one descends along the route from the prairie above. Seen from the roof and subsequently from its north-west corner — the building is camouflaged in the context of "normative" barn buildings of the region. As one continues around the structure toward the center of the campus, the building transforms from an enclosed barn-like structure (north-west) to the increasingly revealed frame of an out-door grand-stand/bleacher (south-east). Secondarily, this configuration of enclosure to structure protects both children and horses from the prevailing wind and snow of its north-westerly aspects while opening a porch or loafing shed to the desired sun of the south and east. This relation between enclosure and disclosure in the formal development of the structure is additionally intended to problematize its classification as a building type and simultaneously respond to the "super"visory subtext of the brief.

Materially, the wood framing (heavy-light) of the structure accommodates a dialogue between horizontal (girt) cladding and vertical (stud) cladding. This juxtaposition of horizontal, vertical, and open framing registers and renders legible the various elements of the program (stable/classroom/porch) and is additionally intended to introduce student members of the Workshop to a variety of framing and cladding conditions.
The first Summer Construction Workshop involved the making of a modest summer house/hunting lodge on a wooded and mountainous site in southeastern Ohio. This project called for the construction of a small vacation home for a bachelor and his extended/adopted family. Working within several strict economies, the house located itself between two mutually conflicting goals. On the one hand, the desire to create a series of distinct interior volumes as well as minimize exterior surface area suggested a simple discreet three dimensional volume, much in the manner of the region’s vernacular agricultural structures. Simultaneously, this originary volume was accreted to and deflected by a desire to create inhabitable exterior spaces, engage in views to and from the site, and connect to the landscape at larger scales of inhabitation than would have been afforded by the simple structure alone.

The house appropriates a number of decentralized and low-tech strategies for its services, including on-site wells for water and natural gas, which afford a virtual self-sufficiency relative to the “natural” environment. The constructive system of girts and poles is appropriated from vernacular barn building strategies and proposes a set of relationships between structure, enclosure, and cladding which allows for the volume to be raised on piloti, opened with horizontal strip windows, and in other ways rendered critical of its vernacular origins.

**Construction Pedagogy**

The collaborative’s intention in offering this Not-for-Profit Workshop is to provide students of architecture and recent graduates with an appreciation of basic construction techniques, site conditions, and the role of fabrication in the work of the architect. Comprised of architects and educators the collaborative seeks through this experience to address issues of fabrication as inseparable from other forms of architectural knowledge. The Workshop’s pedagogy intends to pose fabrication, design, and theoretical speculation as equivalent and simultaneous concerns within the critical practice of architecture. In questioning the normative relationship between owner, architect, and builder; the Workshop seeks to locate other sites for architectural practice beyond those historically constructed by the profession.

This approach to fabrication pedagogy poses a number of questions at the intersection of theory and practice which might be useful in questioning our present assumptions regarding the relationship of fabrication to other aspects of architectural production. These might include:
The status and role of representation in the process of fabrication remains decidedly unclear. In present professional practice, the various representations describing the constructive act are construed so as to form a legal defense or case which preemptively defines the proper juridical relationship between the parties involved. This preoccupation with accountability has come to suppress notions of speculation and invention in the drawing process. What other forms of representation might be registered in the act of making?

discipline (Figs. 11-12)

The architectural profession might be said to have originated at the moment that theoretical knowledge was articulated as discreet from practical knowledge. In architectural education, this assumption is inscribed in curricula which separate theory from construction. What forms would a practice take which failed to acknowledge such a distinction between theoretical speculation and practical application?
gap (Figs. 15-16)

There exist certain indeterminate moments in the fabrication of any built work. In normative architectural practices these ruptures usually occur in the transference of the project from one specialist to another or between the various disciplines responsible for the work. What forms would a practice take which attempts to map itself across these "gaps" of fabrication?

duration (Figs. 17-18)

All material constructions are exposed to various conditions of duration, temporal/generational transformation and weathering as aspects of their phenomenal existence. What effects would the recognition of these conditions have on the conception, fabrication, maintenance, and re-appropriation of built works?
The site of fabrication can potentially be viewed as a site of theatricality equal to the spectacle of that construction’s intended use. What forms would a practice take that sought to locate, heighten, and represent these moments of choreography in the process of construction?

In present practice, the architect’s role in the construction process is limited to “observation.” This condition has been historically constructed by the profession so as to provide a juridical barrier between the responsible professional and the contingencies inherent in the constructive act.

In questioning the accepted (or appropriate) relations between theory and practice in the production of an architectural project, the Workshop postulates material fabrication and processes of construction as legitimate sites for the work of the architect. The first such sites which suggest this potential might be the gaps between the various material, trade, and specification divisions of the work. The Workshop’s practices and pedagogy attempt to locate, measure, and inhabit these ruptures as legitimate sites for architectural practice.
City As Middle Landscape
Lisa Iwamoto

This article is based on a graduate studio held at the College of Architecture and Urban Planning in the Fall 1998 term.
In *Making a Middle Landscape*, Peter Rowe talks about the merging of urban and rural landscapes in the formation of suburbia, and proposes an augmented vision for a modern pastoralism. On the one hand, he says, "we have the powerful image of Thomas Pynchon's printed circuit crisscrossing a valley landscape (a place dominated by flows of information rather than place) and, on the other, we have Thoreau's primitive hut out in the wilderness. By avoiding such extremes we can establish a more complex and inherently interesting equation between pastoralism and the modern technical temperament, one that can be used to critical advantage... It is the emergent dialectical relationship that is of interest, not simply the terms in themselves." It is important to note that he is referring to a way to address the rapidly expanding suburban metropolis. Detroit, though clearly not a planned suburb, in its current state exhibits many raw juxtapositions of the urban with the rural, offering us the possibility to look at this city as a revised form of middle landscape.

In a graduate studio taught last fall, it was proposed that the studio investigate what might constitute a kind of modern pastoralism as defined through the relationship between a site generated architectural project and the larger city fabric. Students were asked to produce architectural projects which critically investigated, and reconsidered through design, the present condition of 'city.' They attempted to define and develop design strategies for a site in a residential neighborhood in Detroit which has lost seventy percent of both population and building density, a characteristic now common in many de-centralized, post-industrial metropolises. In any metropolitan center, the housing fabric comprises the largest percentage of occupied land. In Detroit, areas allocated to single and multi-family housing occupy sixty percent of available land, largely
defining the urban character of the city outside the central business district. Over the past forty years, Detroit, the seventh largest city in the US, has lost one million people, half its post-war population. Each year, the city demolishes roughly five thousand homes in an effort to reduce incidents such as the widely publicized 'Devil's Night' fires each Halloween. Where the suburban communities surrounding the city are experiencing a growth rate parallel to that of the rest of the country, Detroit expects an eighteen percent decrease in population by the year 2020, leaving it a city with well under one million people.²

The physical effects of this population dispersal is overwhelmingly evident. The urban morphology of Detroit has rapidly transformed from one where block patterns and the urban fabric establish a sense of hierarchy, order, and figuration, to one where non-hierarchical fields are determined by the open grid of streets and landscape, punctuated by object buildings. The city is largely underoccupied with many vacant and overgrown lots, sometimes covering whole city blocks. While this indicates a certain loss, it is perhaps not as extreme as it might first appear.

Though the downtown core planning was partially a result of Augustus Woodward's baroque influenced design, the residential neighborhoods consist predominantly of detached single family homes. Detroit, originally planned as a single family residential city, has a history based on a lower density urban model common among middle American gridiron cities. Seen in relation to residential planning in America, which has consistently striven to capture garden city ideals toward the mediation of nature and civilization, the consistency of the built fabric is perhaps not so essential.
"Beginning in Jefferson's time, the cardinal image of American aspirations was a well-ordered green garden magnified to continental size. . . The buildings were placed on a 'new soil' rather than extruded from it and therefore preserved their objecthood. . . the autonomy of the building at the basis of the scattered pattern of the suburban city guarantees the dominance of the garden over the city by preventing the cohesiveness given by the European urban fabric."³

Mario Gandelsonas

In a conception of our spatial history, Leo Marx in the "The American Ideology of Space," traces the lineage of our imaging of space, and examines it in relation to our contemporary situation. Space for Marx connotes 'geographical space' and includes both architecture and landscape. And landscape, it should be noted, includes aspects of 'land, topography, terrain, territory, environment, cityscape, countryside, scenery, place.'⁴ For Marx, a single ideology emerges which fuses two opposing ones. The first, pastoralism, seeks the middle landscape and attempts to mediate civilization with the benefits of the countryside, of nature. The second, the progressive ideology, sees American space as limitless and inherently valueless unless somehow commodified. While these ideologies may seem incompatible, 'nature' as seen as both revered and inconsequential, they are shown to come together in practice.

For Marx, suburbs serve as an example. As he describes, the progressive ideology is characterized by centrifugal movement, initially east to west, and more recently, out of cities into suburbs. The proliferation of suburbs, seen as 'quasi-pastoral' settlements shows the dependence on both pastoral and progressive visions – movement out to achieve a pastoral ideal, though this ideal entails a profound transformation of the environment rendered possible through a tabula rasa mentality. Clearly, this depiction is supported in the pervasive production of the American metropolis.

Perhaps one of the most prescient architectural examples displaying the contemporary result of our collective cultural attitude is Frank Lloyd Wright's design for Broadacre City. Broadacre City, Wright's vision for a utopian community which united agriculture, industry, commerce, culture and residence, forms an analog to our current metropolitan condition.

"From 1932-58, Frank Lloyd Wright developed his project for Broadacre City. Planned as a module of the territorial structure of the Jeffersonian Grid, Broadacre represented Wright's version of the city for the machine age. With the aid of the automobile and the telephone, it would erase the distinction between urban and rural and thus make the great industrial cities redundant."⁵
Detroit might now be read as this type of mutated city. A common reading of contemporary cities like Detroit shows it to be becoming more and more like the edge cities and suburbs which grew up because of it. The condition of center to periphery, or city to suburb, has receded in importance compared to the actuality of the continuous metropolis as a pervasive and powerful form of urbanism in and of itself – one which addresses the ubiquitous use of the automobile, and which is structured according to lower density morphologies. As in many post industrial cities, the result of Detroit’s metropolitan expansion has been the disintegration of the city center. The erosion of the physical fabric attests to this dramatic shift. Viewed in relation to the city’s former self, or rather a conception of it as having been fully occupied, this is an unrecoverable condition.

However, seen in relation to the phenomenon of suburbanized urbanism, and in relation to Detroit as a city planned largely as a field of residential fabric, it is a place indicative, now more than ever, of prevalent cultural ideals.

It is possible to imagine Detroit as a city lightly laid over an expansive originary landscape. Urban infrastructures planned for a more densely populated city – streets, alleys, telephone poles, street lights, utilities – define block patterns and an extensive fabric that is now in many places largely green. The landscape in this scenario is necessarily produced through constructed negotiations. As much as early agricultural ribbon farms along the river determined the long thin block layouts, marking of property lot lines by trees, plot dimensions inscribed by urban infrastructures, etc. suggests that there is no simple recovery of ‘nature’, but an overlap of two kinds of physical environments, ‘civilized’ and ‘natural’, existing in one place. The premise of this studio was that a new mediated terrain might therefore be sited in the city center itself.
There should be no misunderstanding at this juncture of the importance of the city. No one is suggesting that a man-made environment is inherently unnatural; no one is advising a return to more primitive ways of living. On the contrary, the city is (or should be) an environment where certain natural influences operate unimpeded by others. If it is not 'unnatural' when creatures dig or build themselves shelters to provide the kind of small scale environment they need, then it is not 'unnatural' for us to build cities for the same purpose. There is merely one condition attached, a perfectly sensible one: that the man-made environment satisfy our native physical and psychological requirements. So the job of an urbanist and architect is essentially to design a man-made environment which is as natural as possible.\footnote{J.B. Jackson, "The Imitation of Nature"}

The studio took a twelve block area in Detroit to reconsider the possibilities of an urban middle landscape. The site, though specific, was seen as a prototypical swath. Situated on the eastern side of a series of large scale urban renewal housing redevelopments begun in the sixties and just recently completed, it is bounded on two sides by institutional and industrial edges, and on a third by Jefferson Avenue, a major thoroughfare running parallel to the Detroit River. Its block pattern and unit dispersal is representative of thousands of acres of underoccupied residential blocks within the city. In this case, the amount of vacant lots reaches nearly seventy percent. The context allowed for the site to be seen prototypically while the defined edges provided physical limits to the extent of work. Students were asked to design strategies for the site investigating the condition of 'city' beyond that of the constitution of a continuous physical fabric. As Douglas Suisman asked in reference to Los Angeles, "can a city be a city without appearing to be one?"\footnote{Students considered this question with respect to a contemporary reading of the city which breaks down the duality between figure and ground. That is, the city is made legible, not through the oppositional clarity of built form to open space, but through alternate readings made by the structuring of public ground. In "The American City: Ideal and Mythic Aspects of a Reinvented Urbanism," Alex Kreiger speaks of the American city as one which cannot be analyzed through traditional figure}
ground readings. In a particular comparison of two residential streets, the iconic 'Elm Street' and the Strada Nuova in Genoa, he suggests that a reversal of figure-ground is present. Where the palazzos along the Strada Nuova define the public space of the street and the internal courtyards, the single family residences along Elm Street sit as free-standing objects within an undifferentiated field, as if the houses took the place of the palazzo courtyards. He goes on to assert that while this analytical method reveals a clear distinction between the two, its technique, developed vis-à-vis the fabric of the medieval city, is sympathetic towards a predominant solid/void reading of a continuous urban fabric. Elm Street, by contrast, is 'held together' not by the built homes, but by the landscape. Taking a pseudo figure ground of Elm Street inclusive of the trees, paths, trimmed grass yards, and fences yields an alternate reading. The spatial characteristics of this pattern shows the street edge maintained by rows of old growth tree canopies, the 'built' edges delineated by fences and grassy planes. As Albert Pope states regarding the 'city of space':

"So significant is the urban spatial field that any discussion of architecture is irrelevant before its terms are established. This is another way of saying that architecture has been absorbed, if not outright precluded, by the spatial field of the contemporary urban metropolis."

The first investigation considered the architectural and urbanistic possibilities inherent in the making of an abstracted spatial field. This assignment asked students to investigate space making strategies and to develop a conceptual schema relevant, but not yet specific to the site. They were asked to construct a model and set of drawings that developed intensified spatial characteristics derived from the texture of the place; this led to a way to think about the structuring of 'site' through the reciprocity of open space and boundary.

Using these conceptual studies as a platform for design, the project involved developing a strategy for housing half of the original post war population, a percentage that would keep Detroit a city of one million people. This was supplemented by additional programs for community services given by the local community group, Messiah Housing Corporation, a faith based developer active in the neighborhood. Students were asked to develop specific architectural proposals which strategically used the public and housing programs to retain ideas of 'city' in terms of the construction of a social and urban landscape.
Kevin Klinger

Urban farming establishes the basis for this project. The residential fabric is conceived as alternating clusters defined and defining open space for individual or group agricultural use. This proposed a vision for the community is based on contemporary models, some within the city of Detroit.

Ha Yub Song

The strategy for this project is to reform the site through the densification of its edges. The center is left alone physically, but transformed urbanistically through its relationship to the site’s boundaries. The dimensions of residential lots are essentially stacked at the North and South edges of the site forming interlocking units arranged around shared space. The public program occupies the center acting as a generator for activity.
Speranza Octavia

This project assigns vacant lots a variety of landscape or ground textures that can be programmed flexibly and independently. Development is envisioned to occur on an incremental basis through traditional incentive from individual owners.

Juthathip Techachumreun

In Detroit, significant excavation would need to take place for any building to occur as previously demolished homes are typically left in unexcavated basements under vacant lots. This project uses the reality of this excavation process to employ a structuring of the ground plane to define property boundaries and set up a landscape infrastructure for future building. Each site allows for a direct relationship between the interior of the house to the front, side and rear yards. The design of the community center follows with the programming of the ground plane stitching together the two sides of the site across Grand Boulevard.
This project began with an attitude of making space through overlap. This translated into a formal wrapping of material, program and landscape, incorporating inside with outside. The proposal marked edges of the site and defined an interior public realm activated by recreational uses overlaid with existing programs.

Luay Bahnoorah

The idea of this project is structured around property ownership. Lots are extended across streets and alleys producing an interlocking of ownership. This creates additional adjacencies and an accumulation of neighbors. The attempt is to provide a sense of social density through increased negotiation with neighbors. Prototypical house types and lot types are conceived as a matrix of possibilities and adjusted to existing site conditions such as block layout, location of existing houses, and view.

Bianto Wirian

This project began with an attitude of making space through overlap. This translated into a formal wrapping of material, program and landscape, incorporating inside with outside. The proposal marked edges of the site and defined an interior public realm activated by recreational uses overlaid with existing programs.

1 Peter Rowe, Making a Middle Landscape, MIT Press, Cambridge, MA 1991.
2 Data obtained by SEMCOG and the Detroit Department of Planning and Development.
5 Alex Wall, 'The Dispersed City', The Periphery, Academy Group, 1994, pp. 8-11.
8 Alex Kreiger, "The American City: Ideal and Mythic Aspects of a Reinvented Urbanism", Assemblage
9 Albert Pope, Ladders, Rice University, Houston, TX, and Princeton Architectural Press, NY, NY, p. 49.
The Schröder House, the Van Nelle Factory, Villa Mairea and Johnson Wax are widely studied exemplars of early twentieth century architecture. All are admired for advancing the discipline in some radical way – through spatial and formal conception, the invention of building type, or technological innovation. Yet, for us, these buildings form a coherent group, not because of any heroic ideological common ground, but because each was the result of an inspiring relationship between client and architect. These relationships were, however, more than professional; based upon friendships, they were personal and often endured for a lifetime.

Times have changed. Although there are more recent examples of close collaborations between individual clients and architects – for example, the Salk Institute and the Menil Gallery – they increasingly tend to be the exception rather than the rule. Instead, many participants – often with conflicting interests – are involved in the design and building process. The client is typically not an individual patron with whom the architect can build a fruitful personal and professional relationship, but rather organizations with unclear structures and imprecise decision-making processes. The Rochussenstraat scheme is a good example of the organizational complexity which can be built into projects. The eight programmatic components of the building in fact represent five different clients, each of whom contributed to the cost of the project which was financed by a mix of private and public funding. The leaders of the initiative were the Rotterdam Housing Authority – which was a public agency that was subsequently privatized during the course of the project – and a contractor/developer. On this project, our role was to deal with the specific demands of each of the clients and to act as referee of conflicting interests, both practical and ideological. During the year-long design phase, we met with the clients as a group every two weeks. The project could never have been realized if each client had not surrendered in some measure its own interests in order to achieve a common goal.

The term 'client' now has a more complex definition than in the past. It may refer to a professional client who builds regularly – a developer, municipality, or university – or an individual or institution embarking on its first and only building project. In addition, the client is now understood to include, not simply the institutional patron, but also the future users of the building and the public who are actively involved in the design process. Finally, the architect typically coordinates the work of the many professionals who are essential in realizing a building. Fine architecture does not emerge from the laboratory of the architect working in isolation. A carefully designed project can only be achieved as a result of an inspired cooperation between clients, users, the public, consultants and the architect. It is critical that all people involved feel personally responsible for the final result, and it is only in this situation that the signature of the architect can most effectively enrich the design.
When, after an intensive search for an architect, Isaala College finally opted for Mecanoo remarkably quickly after the first meeting with them, we had no idea what was in store for us. We believed in the principle that while architects knew about building, we— the clients and users knew about education. It suddenly turned out, however, that Mecanoo also thought that they knew about education.

Mecanoo had to deal with a client who was not only a user but also one of those peculiar education people— people who cannot understand that yet again you’re late for a planning team meeting because even on your tenth journey to Silvolde you still get lost in dark German country lanes.

Building with Mecanoo is a long drawn-out process. After 2 1/2 years and twenty-four meetings of the planning team, countless phone calls, faxes and other contacts, we had completed the design for Isaala College. Then we had to wait and see whether the school could actually be built within the budget. We managed that, although the budget shrank a little because Francine Houben consumed kilos of peppermints during the process.

Cooperation got off to a sticky start. Couldn’t our program be quickly translated into design? Just present us with a couple of models and we’ll delete where applicable. Mecanoo didn’t like that idea at all and was most reluctant to work like that. Together we set out in search of the school’s perceived value and atmosphere for both pupils and users. In a continuing dialogue we explored the goals of our institution— goals which are in fact highly vulnerable, because we are dealing with growing children. Step by step, it became clear the your building can and must inspire these goals and that the program in the technical sense can be realized in any model.

As the client, particularly if you’re a team, you tend to return all the time to your hobbyhorses. Mecanoo continually indicated and recorded the decision points, and then we went forward from them. At the same time, they were always ready to discuss, or even put forward the oddest alternatives. Ultimately, the decision was always made jointly. We moved from being the client to being a partner in the design and building process. That gives you the feeling that you’re creating something together, that you’ve learned something about building, and that you’ve taken another look at your own views.

*In other large firms around us, we have seen a certain level of bureaucracy. As our office has grown to about sixty people, we have tried to avoid the bureaucracy.

We have a fairly young team. It is a challenge to make sure that these sixty people understand all of our ideas. Although those who have been with us for a longer time are aware of our history, those who have come to work with Mecanoo during the past few years do not know this history. Recently, Francine and I gave a lecture to the entire office. It was not just about history, but attitude. The effective architect’s attitude toward the client, users, and other people is important. Our staff have daily contact with clients, contractors, and consultants, so they must understand this spirit.

We try to not have too much structure within the office, but with sixty people you have to organize some things. An atmosphere of flexibility and improvisation is reflected in our work. Each project is treated as new.

The client wants something, you respond, a dialogue begins. Professional clients have said that with many architecture firms an initial sketch is presented which is very impressive and convincing, but through the process, the building gets worse. We try not to work in that way. Instead, as we arrive at new ideas along the way, and original ideas need some adjustment, we seek to find new directions for the project. We try not to be too dogmatic about our ideas, but rather, allow the project to grow. One of the things that stimulates this kind of thinking is the dialogue with the client.

The term style has more or less lost its meaning today. It’s a term still used by art and architecture critics and historians, but it is outdated.

At the level of urban planning, as architects we have an advantage. We are trained to act at different levels of abstraction. There is an experience of working at both the scale of the architectural detail and of the urban condition. Then there is the experience of shifting between scales. We discovered this when working on our first urban scheme.*
We studied at the Technical University of Delft in the late seventies and early eighties. Following the upheavals of 1968, universities had been reformed and more attention was paid to the social implications of academic work. It was an inspiring time to study architecture, a turning point because of the combination of social issues with architectural design and the incorporation of social and cultural concerns within professional practice. *Architecture and Utopia – Design and Capitalist Development* by Manfredo Tafuri and *Towards a non-oppressive environment* by Alex Tzonis were important texts, inspiring us to shape new roles as professionals engaged with – not cut off from – our society.

In another text, *The Reflective Practitioner: How professionals think in action*, the late Donald A. Schön examines five disciplines – architecture, psychotherapy, engineering, town planning and management – to explain how professionals approach problem solving. On the one hand, Schon sets out the tarnished concept of the professional as a technical expert claiming extraordinary knowledge, status, social mandate, and license. On the other hand are the radical critics who attack professionals as elitist instruments of the establishment who use their special knowledge to control the have-nots and maintain the status quo. Neither extreme, Schön argues, offers a satisfactory definition of the role professionals should play in increasingly democratic, pluralist societies.

Instead, Schön offers the model of reflection-in-action. Rather than problem-solving with technical expertise, reflection-in-action focuses upon critical definition. The problem is constantly revised, reshaped and reframed through interaction with this complex entity called the client – what Schon describes as a “reflective conversation with the situation.” In this way, the professional body of knowledge is no longer neat and tidy, but is opened up to include uncertainty, instability, uniqueness and conflict. Common sense and intuition are added to rationalism and allowed to influence professional decision-making. In a subsequent book, Schon says,

"Depending on the context and the practitioner, such reflection-in-action may take the form of on-the-spot problem-solving, theory-building, or re-appreciation of the situation...In all such cases, the notion of reflection-in-action goes a long way towards describing what we mean when we speak of a practitioner’s artistry. It is a capacity to combine reflection and action, on-the-spot, often under stress – to examine understandings and appreciations while the train is running, in the midst of performance...Competent practice, as we are increasingly coming to see, demands a marriage of problem-setting and problem-solving."

"
There is a Monty Python sketch in which Michelangelo - with the Last Supper which he has just painted under his arm - calls on the Pope. We are not shown the painting, but from the row that develops, it is apparent that it depicts not only twenty-eight disciples but also three Christs, several brightly colored puddings and a kangaroo.

Michelangelo begins by claiming artistic liberty and then suggests that the work might be called 'The Penultimate Supper' instead. The Pope is implacable, however, and insists on a painting with one Christ, twelve disciples, and not a single kangaroo. His memorable punch line is: 'I may not know much about art, but I know what I like...'

The most important moment in the relationship between you and the architect is when you as the functional client choose the architect. At this point the client is strong and independent, and the architect weak and dependent. You talk to a number of architects, you visit their buildings and finally you make a choice, with no other guide than your own taste. Once the choice is made, theories are reversed and as the client you are dependent on the architect. His succeed is your success. The idea for the design of a public building comes entirely from the architect, and the same applies to ninety percent of the realization of the design. As the client you are involved only functionally: you may propose changes to the layout and have a say in the choice of materials. But, that's all. Unlike with a house you're building for yourself, you follow the process from a functional distance.

Is it frustrating to be involved at a distance in the design and realization of a functional building? No. At least, not if you have managed to find a good architect who suits your taste and understands what you like. An architect with ideas, with a feeling for the building he has to design and for the functions it will have. And this is very true of Mecanoo. Mecanoo researched the functions the building had to fulfill, looked at the district to determine locations, talked to students and teachers, was full of ideas and shared the desire to create a striking building on a site where there wasn't a single attractive building. So as the client we were involved in the design in the most intense way and in the end a building was produced which was ours after all — a building where we could feel at home, a building to leave our children.

Urban planners work at the large scale, but we found that a lot of them don't know as much about the house. They know what a house is of course — but, not what to do with a house, a block of houses, or the entrances. For urban planners, these buildings are more abstract. It is the role of the architect not to be a politician, but to give politicians a vision, a view, to give them inspiration to solve a problem. It is their job to organize it. Architects have a visionary function, both at the scale of the building and at the scale of the city and region.

When we designed a neighborhood of 800 houses, we were talking and agreed that it was not going to be a real neighborhood without a school. So we went to the clients and said that there should be a school — and now there is a school in it. We do this, not because clients ask us to, but because we want to. I think that they respect us for it. They take us seriously.

To influence things, we must convince people. So long as we take their positions and arguments seriously, we are effective. We respect that developers are interested in making a profit, and accordingly we find them interested in developing good urban schemes. It may be their own self interest. Higher quality sells better, but nevertheless... If done in the right way, architects can achieve quite a lot."

When we ask clients, "What do you expect from an architect?" the answers vary but typically consist of three components: creativity, professionalism and communication. Creativity encompasses fresh ideas, the ability to give form to an idea, aesthetic sense, and inspiration. Professionalism implies, among other things, the ability to deliver buildings of guaranteed quality, knowledge of building costs, the ability to work within planning controls and building regulations, the ability to manage a team of professionals, and sound office organization. The term communication may be described more empathetically and comes closest to Schon's notion of reflection-in-action: developing an affinity with the project, listening to the client, having a critical attitude towards the views of the client, being able to translate those views into built form, and having a critical view of society as a whole. As professionals, therefore, rather than protecting the status quo, we become agents of change. By making a thorough analysis of and distinction between problems, wishes, demands and possible solutions, we engage in critical practice — that is, reformulating the problem, not merely solving it. As Ove Arup noted, "Why to build and what to build is a much more difficult and controversial question than how to build."

Our first project, housing for young people at Kruisplein in Rotterdam, was a successful design competition which we prepared while we were still students. For us, the transition from the relentless probing and questioning of the design studio to the pragmatism of practice was seamless. While much post-war housing had been built in Rotterdam, little attention had been paid to the many people not living in traditional nuclear families — for example, young people, students, single people and the elderly. These groups comprised a growing sector of the population in the city, but the existing stock of family housing did not address their needs.

The Kruisplein competition was organized by an action group of local residents backed by a housing corporation. The ambition was to develop a new typology of urban housing which offered varying degrees of privacy and community. Contact with the client was limited by competition protocol, but once we had been selected to carry out the project, we embarked on a series of meetings, debates and discussions with area residents and future tenants. With the Kruisplein project, we established a reputation for innovative urban regeneration on awkward sites and we developed a critical mode of working which became the basis for the several thousand units of public housing that we have designed and built since the early eighties. Our approach differed from other architects at the time. They had responded to the crisis of confidence in the profession by simply giving the pencil to the people. In contrast, we designed the projects, working closely with clients, residents and neighbors. We discovered that people wanted to live in well-designed homes which made good neighborhoods, but they did not want to hold the pencil themselves.
Working with Mecanoo is certainly not easy. It makes formidable demands of the professionalism, commitment and perseverance of the client. The personal aspect of enjoying looking for solutions together and respect for each other’s roles and expertise is decisive in difficult situations. This is promoted by joint visits to reference projects, discussion of inspiring examples recently completed and the quest for the right aesthetic, functional and technical realization of wishes and requirements. Because of our long cooperation, we both draw inspiration from such figures as Alvar Aalto and Bruno Taut. Modernism without dogma certainly applies to the Rochussenstraat. Client and architect must stick close to each other to ensure that during the process the broad outlines of the design remain intact, not least in the phase of consulting the future users.

The result is impressive! I’m entitled to say that as one of the users but also as an inhabitant of Rotterdam. It is now some years since I was head of the Housing Authority, but I still regularly pass the building in the Rochussenstraat and enjoy the experience. It fits into the city unobtrusively yet with an identity of its own, as if it had stood there for years. Amid the many monofunctional buildings from the age of postwar reconstruction, the Rochussenstraat complex has become part of a varied urban environment that is alive at every hour of day and night, proving that it is possible to bring together seemingly incompatible functions harmoniously. And this is one of Mecanoo’s great achievements.
It would be an exaggeration to say that inspired individual clients are a thing of the past. Although many of our clients are organizations, we have also been able to develop enduring professional relationships with individuals such as Rietveld, Van der Vlugt, Aalto and Wright did in their careers. The client for Kruisplein subsequently became a developer and, with him, we have built a number of innovative housing projects including Prinsenland in Rotterdam, an exploration of Ebenezer Howard's concept of the garden city in a multi-cultural society. Rijkerswoerd, a development of 1000 houses in Arnhem currently under construction, further develops the garden city with particular emphasis on the design of public space for children. Two further schemes with this client are currently being designed. Each project, like Kruisplein, strives to critically redefine housing to address the needs of our changing society.

With Almelo Library, we developed a strategy which we now use with all clients who are not familiar with the design and building process. Instead of simply producing a scheme at the outset, we started by traveling with the client. Together we visited libraries in Holland, Germany and England that were of interest either from an operational or an architectural point of view. Each building we visited provoked reflection, conversation and critical assessment both of what we had seen and what our client wanted. At the same time, we carried out a study of the Almelo site and its history; the typological history of the library together with recent evolutionary trends; and finally, a quantitative and qualitative analysis of the client's program. The purpose of both the visits and the study were to understand the ideas behind the program — that is, the vision of this particular client for this particular project. With this mutual understanding in place, design proceeded quickly and the concept remained valid, even though many detail changes arose as a result of discussions with the director and representatives of library departments during the design and construction process. We maintained a very close dialogue on operational detail and, as a consequence, the client gave us great architectural freedom — the freedom of our professional expertise.

The design of the library for the Technical University in Delft was another commission that was awarded to Mecanoo as a result of a design competition. During the competition contact with the client was obviously limited but, once appointed, a close working relationship was developed with the library director and staff. In this particular case, we did not travel with the client but instead brought the client and our professional expertise to the building. We have traveled extensively and, wherever we go, we look at buildings critically. Using slides and photos of what we had seen — beautiful and ugly, good and bad — we had many lively discussions with the client. This inspiring debate about 'our' library continued for five years until the building was complete.

The work of Mecanoo has been called "the flagship of modernism without dogma."3 At the same time, it is a modernism which some critics have dismissed as merely a question of aesthetic and form. We are indeed pragmatists, not theorists. However, Schon's model of reflection-in-action could be misconstrued to be entirely process oriented, and while this may be relevant in other professions, it is inappropriate for architecture. For us, the process has the character of a dialogue and is simply a means to an end. The artistry of architecture — proportion, composition, space, light, the craft of building, and the tactile sense of material — cannot be surrendered to well-meaning process. In architecture, it is the artifact which endures.

1 Schon, Donald A. The Design Studio: An Exploration of its Traditions and Potentials (London: RIBA Publications Limited, 1985) pp. 21-28
2 ibid., pp.27-28
Elgin Cleckley

midnight* is the code term for Detroit on the underground railroad
The midnight* studio is an ongoing project produced during a period as the 1998-99 William Muschenheim Fellow, which acts as a springboard for urban research, which also propels discussion in a graduate design studio in an attempt to form an architectural consultation of African-American Detroit, past, present, and future. The series of presented drawings and text are part of an excerpt / sketch project which also conditions the design work titled midnight*: “ground[ed],” exhibited in the College Gallery in the spring of 1999.

The present day conditions of black Detroit can only be understood following a studied realization of the eradication of over 140,000 people in the Paradise Valley / Black Bottom area of Detroit by several “urban renewal” projects such as the Chrysler Freeway, Lafayette Park, and the Medical Center. Detroit has an intricate history: It was a final point in the journey for African-Americans, primarily slaves in the Underground Railroad which lead to its nickname the “Doorway to Freedom” for slaves escaping to Canada. The term Underground Railroad refers to the network for escaping slaves from ravages of slavery. The term came into use after 1831, after fleeing slave Tice Davids eluded his master, Davids’ slave-owner later commented that Tice must have “gone off on an Underground Railroad.” The network was supported by black and white abolitionists of all social calibers, as well as churches such as Second Baptist Church at Monroe and Beaubien, which provided shelter.

Through the traces of this network may appear to be long gone from the fabric of Detroit, it is possible to unearth moments of the time worn journey. In a vein similar to previous research on Detroit’s Paradise Valley / Black Bottom area, where the journey has been replicated by several noted historians, this project too, travels the journey of the escaping slaves, and visits actual sites of the Underground Railroad in Detroit, all covered and part of the midnight* process.

**Current documented sites in midnight***

1. **William Webb house** – northeast corner of Congress and St. Antoine
   As the center for abolitionist activity in Detroit, William Webb once met here with Frederick Douglass and John Brown to discuss options to end slavery.

2. **William Lambert home site** – northeast corner of E. Larned and St. Aubin
   William Lambert acted as financial support for the Detroit Terminal of the Underground Railroad, aiding an overwhelming amount of fugitive slaves.

3. **George De Baptiste home site** – southwest corner of Larned and Beaubien
   A relation of Jean De Baptiste Du Sable (founder of Chicago), George aided slaves and created the First Michigan Colored Regiment during the Civil War.

4. **Soldiers’ and Sailors’ monument** – Woodward and Campus Martius
   Slaves would organize and meet at this site, which honors the sacrifices of Michiganders in the U.S. Armed Forces during the Civil War.

5. **Detroit River sites** – follow the embankments, or lots, or casinos...
   Several points along the Detroit River acted as jettison points for runaway slaves to Canada. Current residents of Southwestern Ontario can trace their actual ancestry to this occurrence.

6. **Finney House Barn site** – northeast corner of Griswold and State
   Several slave owner’s would actually be enjoying libations across the street at the nearby tavern while their “property” hid in the Finney Barn.

7. **Second Baptist Church** – 441 Monroe, Beaubien
   On an actual visit and tour of the Second Baptist Church by church historian Nathaniel Leach on March 8, 1999, the midnight* studio sat crouched in a narrow, stifling and confined space underground, piles of dirt transformed to concrete, imagining the conditions for slaves with no modern amenities, waiting for dusk to finally embark to Canada. Afterward, I hear students complain about how hot it was... I noticed I thought the same thing (an unsettling feeling set in). The oldest black church in the midwest, over 5,000 to 6,000 slaves obtained shelter via its underground network. Organized in 1836 by slaves, the church took on an important role in the integration of the Amerstburg Baptist Association, through which Baptist churches in Canada and Detroit bonded together to support fugitive slave families.

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**running dialogues**

All information is provided by the Black Historic Sites Committee, visits to actual sites, the Rearview Mirror historical accounts, The Detroit News, The Detroit Free Press, several dreams (day and night), the African-Canadian Cultural Committee of Windsor, Ontario, the Museum of African American History of Detroit, and conversations with residents of Detroit. I would like to add that this project is heavily impacted by 16 multi-faceted students of the midnight* studio for which I am grateful (listed in no particular order): Christina Pungenchar, Gina Brown, Eric Einhorn, Kyra Copeland, Elsa Chan, Deen Enell, Speranza Ochwie, Julie Taal, Woosook Yang, Amy Welkwitz, Haekyung Sung, Matthew Shao, Ken Neuhauser, Laura Leenhouts, Pamela Field, and Joseph Tang. A special note of thanks to Dr. Nathaniel Leach - for all of the questions raised.
I've decided to get on the railroad in Ann Arbor, an actual stop according to historical accounts. I'm going to draw, and build my way to Detroit, crossing to Sandwich First Baptist Church in Windsor, Canada.

Let's go.

The train's coming.

1

Hurry, it's almost morning. There's got to be a way around this.

See that wagon over there — climb under it and stay still.

1a
2a

It's as if I keep going and going –

do you see it yet?

There it is – the one on the left –

just knock on the back door.
3a

Down, Down! Hurry – I hear a noise coming!

Come on –

under this and in here.

Now quiet!
4a

The murky water appears to go forever – if you look at it hard enough.

I think we can make it across – I'm a little scared to be honest.

If you hold out enough, they won't see you.
5a
God, I hate going through this tunnel. It gets so backed up.

Just hold your breath and float –

it's easy – just act like you're a log. Watch me.
Get under here I tell you... this is the way I've gone before.

I think it's 2.25 american dollars – 2.75 canadian.
Take a look at that casino! Have you been yet?
We went and we loved it.

Wait here –

that light over there – the one bobbing up and down – that’s the T. Whitney.
Have you ever been on the railroad?
I have been a short distance.
9a
Where did you start from? The depot.

10a
Where did you stop?

At a place called safety.
Stockholders of the Underground R.R. Company: Hold on to Your Stock! The market has an upward tendency. By the express train which arrived this morning at 3 o’clock, fifteen thousand dollars worth of human merchandise, consisting of twenty-nine able bodied men and women, fresh and sound, from the Carolina and Kentucky plantations, have arrived safe at the depot on the other side, where all our sympathizing colonization friends may have an opportunity of expressing their sympathy by bringing forward donations of ploughs, farming utensils, pick axes and hoes, and not old clothes: as these emigrants can all till the soil. Stockholders don’t forget, the meeting today at 9 o’clock at the ferry on the Canada side. All persons daring to take stock in this prosperous company, be sure to be on hand.
utilize, live up to, turn to use, bring into play, set to work 7. He's only practiced dentistry for a year: perform in, work at, engage in
sue, be engaged in. (practice)
Family of Work

Tod Williams & Billie Tsien
Talking to some students recently, one of them commented on the trend of couples starting practices. We have to say that it is very fruitful and actually not so difficult to work together with the person you love. Of course, as everybody who studies or works in architecture knows, such a huge amount of time is spent virtually living with others in the studio, that relationships seem almost inevitable.

In many ways, we have both a family of work and a more conventional family. Our work and private lives are to some extent interchangeable. Our office is a one-room studio with no divisions, no separate offices. We all hear everybody else’s telephone conversations, so we all know everything that is happening at work and in everybody’s lives. This makes us work together as a unit and take responsibility not only for the work that we do on our own projects, but for the whole sense of the family in the life of the studio.

In addition, Tod and I have a 13-year-old son. We actually live in our former office studio.

We try in our work, just as in our lives, to find a kind of balance. It sometimes seems very difficult. One would naturally associate issues of engineering more with the male figure and decorative issues with the female. To some extent, that may be true, but we often reverse roles in order to appreciate the shadow side of one another. Likewise, architecture can be better integrated by beginning to think of the building in a whole way – not strictly as a matter of function following form, or of form following function. Architecture is richer when building systems and the process of making the building are integrated into design and specifically attuned to place. Just as the path serves as an analog to our life and work, many of our projects focus upon movement as a means of defining space. In this architecture of promenade, the building becomes less of an object and more a means of drawing out the inherent qualities of its particular place.
Architecture is the coming together of art and use. Architecture must be seen as the act of deepest optimism. Cynicism is an easy out because one need only be witty. Optimism, however, asks for belief and belief asks for committed action. Leonardo Da Vinci wrote in his journal that things are older than words. He was talking about the pre-eminence of experience over theory. While important theories are written about architecture, architecture is itself about the experience of the physical artifact. It is not about the experience of an idea.

We work collaboratively. On a project with the Elisa Monte Dance Company and composer Glenn Branca to design the sets and costumes for a performance called "The World Upside Down" the theme of Monte's piece was the idea of rejuvenation through social reversal. When a social order is transformed, the outcome is far from certain. That which is normally in the foreground retreats and its shadow emerges.

We designed costumes which were androgynous and could be turned inside out during the performance. One of the things that we saw on our son's sneakers was material that acquires luminescence when exposed to light. When the lights are turned out, the material glows. The costumes were black with white linings silk-screened with the glow-in-the-dark material. The dancers periodically went backstage to expose the inside of their costumes to light. Returning to stage in the dark, they were able to open up and glow. The set was a pair of screens 15 feet tall connected with a piano hinge which, when opened, made a translucent screen 60 feet wide. A single piece of fabric scrim was stretched over a painter's frame mounted on casters which enabled the dancers themselves to move it and to change both the site and the setting as the dance progressed. At some moments, the dancers were behind the screen and at others they appeared in front. The screen could even be configured to fully enclose the dancers. The screen was a surface that could receive light, so it too became a lantern.

We were not aware of the law which prohibits any projection past the proscenium. The screen was designed to cantilever out dramatically beyond the apron with only a small part supported on the stage. On the day of the first performance at City Center in New York, the dancers rolled the screen out over the orchestra during the course of the dance, and everyone was terrified because they thought the screen
would topple into the audience. It was far too dramatic. This is an important point: Although it is essential for architects to take pleasure in the wonder of making something, it is also important to make sure that whatever we design is in balance with its context. The sets got a much better review than the dance itself. Frankly, that is not the way it should be. It is much more important that we see ourselves in balance with the world around us, even as we endeavor to be outstanding.

As part of the project of the Phoenix Art Museum, the client asked us to create a so-called Star of Phoenix, a centering device for the city which might also be the focus of the activity of the museum. Accordingly, the museum is organized around a courtyard, and the focal point of the courtyard is the sculpture pavilion. The pavilion becomes on the one hand a lantern and on the other hand, a practical and very simple way to air condition outdoor space in this desert city. The pavilion sits on three legs which support a concrete ring beam seven feet above the ground. Passing under the beam, people can enter from any direction. Three hundred people can sit within the canopy, a thin membrane of fiberglass anchored to the concrete base. The membrane is perforated with some three thousand tiny holes, and the pavilion is open at the top. A small amount of water pressurized at 1,000 pounds per square inch is vaporized, turning it into warm air which exits through the top of the pavilion and cool air that drops through the bottom.
This sculpture pavilion will be ninety feet tall. Although the structural engineers originally envisaged a frame to support the membrane, we have jointly developed the concept to the point that the membrane will be only 1/2 inch thick and will require no structural frame. The fiberglass skin works like the shell of an egg.

In our work, we always make an effort to talk to the people who will actually fabricate components in order to learn from their skill and experience. One of the big industries in Phoenix - because of the great weather and the empty space - is the fabrication of fiberglass structures for theme parks. Magic Mountain, the Pirates of the Caribbean, and countless other fantasies are made of fiberglass which has to support the weight of hundreds of people and stand up to very heavy use. These fiberglass fabricators fully understand the capability of their material and their technology. They knew through experience that our pavilion did not require a heavy structure. Likewise, we originally thought that the panel joints would be screwed, but now we understand that they can be sealed together by dissolving the fiberglass resin itself.

In order to understand the fabrication process more fully, we had a twenty foot high mock-up of the pavilion made by a fiberglass manufacturer who normally uses this factory to make tanks which hold acid. In addition to studying the structure, we also used the mock-up to study lighting. Because of the ability of fiberglass to capture and diffuse light, the mock-up can be lighted with only one spotlight. We are very interested in developing the idea of the luminosity of fiberglass. The Phoenix pavilion will be lighted from inside so that throughout the city and even in an airplane above the city, this huge glowing lantern will be visible.

As well as learning from the makers, we are interested in seeing how ideas change and grow into new ideas as we are faced with different problems to solve and widely varying scales of work. In this sense, the sculpture pavilion is both new and a logical development of earlier projects. This is crucial to our way of seeing architecture, just as it was to Charles and Ray Eames.
In the design of the Cranbrook estate, Eliel Saarinen and his client George Booth established a strong relationship between art, architecture and landscape. In a similar manner, their shaping of the educational curriculum stressed a close relationship between academic and athletic — or mental and physical — life. Thus, the football field and running track are embraced by extended arms of the academic quadrangle. Although they are rarely used, the enormous doors of Saarinen’s multifunctional gymnasium and theater open directly onto the playing fields, making a giant portal framed by overscale sculptures of Grecian athletes.

Today, Cranbrook is coeducational and the population of the schools on the estate has grown substantially. Consequently, there is a need for new, larger athletic facilities. The program includes a triple bay gymnasium, a competitive swimming pool with audience seating, and support facilities including locker rooms, offices, laundry, an equipment dispensary, and parking.

In the early stages of design, it appeared that these large scale facilities could fit within the restricted site only by building on the existing playing fields. To avoid such a radical and disruptive move, it initially seemed more sensible to locate the new facilities away from the historic heart of the campus. Having considered the problem in greater depth, it was concluded that the academic and athletic aspects of life at Cranbrook should remain integrated. Instead of building on the playing fields or at a distance, the fields are preserved and the new buildings are sited to strengthen connections with existing academic buildings on the campus. In a similar way, the established system of footpaths is reinforced and extended.

The new multifunctional gymnasium is to be used for athletic contests, recreational purposes and for convocations. It must be capable of seating an audience of 1500 for all-school meetings, graduation, films and social events. In order to minimize the impact of such a large footprint and volume, the three story structure is set within the ground.

In this arrangement, the building itself becomes a gateway to the original campus, and levels within the new building connect to existing levels. The large and expressive roof structure, which brings natural light to the volumes within, remains below the heights of Saarinen’s roofs but relates to them so as to reinforce the texture, scale and character at this western edge of the campus.

Team rooms, offices and an equipment dispensary are wrapped around two existing structures to form an entry courtyard with a reflecting pool. A bookstore has been added to further connections between academic and athletic life. Parking and the road structure are reorganized to connect with Cranbrook’s new entrance road. The parking area — an important place for social gathering after school or during athletic events — is sunken in order to both establish a sense of place and to remove automobiles from the visual foreground. The first stage, which is under construction at present, is the
The building in the woods will be made of brick, both common and hand-glazed. These new buildings are not intended to be seen as objects but rather as discreet walls which form exterior spaces in the landscape. The walls become even more abstract at Cranbrook. Within, the pool is designed both for highly competitive swim meets and for recreational use. The conditioning of the building has been thought about as something that can change depending on the seasons. The pool is enclosed, heated and temperature controlled in the winter, fall and spring when the weather is cold. On a summer day, large doors open to the woods, breezes pass through, and swimming is outdoors. These generous openings enable the building to be comfortable without being air-conditioned. In the wintertime, the skylights are closed and opaque; the ceiling has cut out voids but no visible sky. Then, in order to completely change the experience, the roof is opened in summertime to suddenly reveal the sky. The pool is conceptualized both as a physical world and as an intellectual and sensual world. While the pool itself has lane markers and a scoreboard for competitive swimming, it is more than merely a useful facility. The sensual, the physical, and the intellectual are combined to make a richer experience. Students will be able to appreciate the rich mixture of possibilities which the scheme offers a place for reflection, for socializing, and for academic exploration as well as for physical expression. In this way, the new athletic complex at Cranbrook strengthens the principles established by Saarinen and Booth. Academic and athletic life, mind and body, develop in concert. Art, architecture and landscape are critically and inexorably related. The past is integrated even as the campus looks to the future.
The article is based on the inaugural 1998 Charles & Ray Eames Lecture at the University of Michigan given by Tod Williams and Billie Tsien. All photos of Cranbrook by Balthazar Korab.
The project was designed by Craig Borum, Architect and Assistant Professor of Architecture at the University of Michigan with architecture students Greg Hanson and Elisabeth Perreault. Project team consisted of Kevin Aaiderink, Jason Kuhnle, Christopher Nogoy, Raul Smith, Scott Stems, and Gretchen Wilkins, all students at the University Of Michigan College of Architecture + Urban Planning. The project would not have been possible without the generous support of the University of Michigan College of Architecture and Urban Planning, especially Brian Carter, Chair of the Department of Architecture. Ken Brown of the School of Art and Design, Mark Krecic and Gerry Weston of the Art and Architecture Shop, and last but not least the Director of the International Institute, the staff and design team.
lineament  "In his prologue, Alberti argues that architecture comprises two parts, the lineamenta—deriving from the mind—and the materia—deriving from nature—mediated by the skilled craftsman: he makes lineamenta the subject of the first book."  

lineament  "a distinctive feature or characteristic, esp. of the face. [Middle English from Latin lineamentum, via lineare 'make straight' from linea LINE]"
In *On the Art of Building in Ten Books*, Alberti builds on the Vitruvian discussion of the balance of both theory and practice by defining architecture as being composed of the *lineaments* (the abstract and intellectual) and the *materia* (the construction or the process of building). The process of a design/build practice provides a number of avenues for the testing of this balance to inform both constructive as well as theoretical positions which operate in the formation of the work of architecture. The goal was to achieve this delicate balance between the abstract and the physical work by projecting one through the other to force a simultaneous development of both. A number of ideas drove the design for the Reception and Gallery Space of the University of Michigan's International Institute.

One initial inspiration was found in the steamer trunks of an era when travel was an event. The gallery would ultimately accommodate art and objects from international locations for relatively short periods of time. The basic utility of a steamer trunk offered a starting point for addressing concerns of image, flexibility, security, and durability for the client. We developed the concept by exploring the possibilities of furniture at an architectural scale. Along these lines the steamer trunk became both wall and floor, door and window.

Like a steamer trunk, the wall is a simple rectangular volume that unfolds at various points to allow interior access. Multiple configurations of the wall can define rooms as figures as well as deny any fixed boundaries.
within the existing space. Doors in the wall hinge and unfold to reveal display surfaces and shelf spaces for exhibitions. At other times the skin delaminates to form planar work surfaces which slice and separate the space surrounding the wall. A continuous aluminum line drawn across the contours and surfaces of the wall becomes the line of incision which divides the wall into its distinct components. This aluminum line, analogous to the protective edging on a suitcase or trunk defines edges, carves interior spaces, and slips across the surfaces of the wall. Hinges and vulnerable edges are incorporated into the line, while the bench, desk, and display nooks are carved out by the line moving between these points. Formally we began an investigation into the spatial possibilities of the line as an autonomous element. The separation of line from edge, contour from profile, surface from volume, enhances the various readings of space produced by the interaction of line and wall. Knots of space and surface collapse at points and expand at others. Slippage of the line from edge gives the line autonomy from the definition of plane and provides a means to dissect the surface to reveal the internal volume of the wall which is lined with a dark red Finnform. This continuous line is used to define a thickened space which is carved and intersected by voids penetrating into the surface of the wall. Joints between panels of plywood continue various readings of internal space and exterior surface. The end grain of the plywood in combination with butt joints is used to form other
lines which move along edges but also slide across the surface of the wall revealing transparencies from one surface to another.

Initial studies of the scheme developed through computer and physical models as well as drawings. As a "design/build" project the constructive logic of the joint was integral to the design at every stage of the process. Both the articulation of the joint as well as the suppression of the joint were critical to the description of the line. Full-scale details of material connections, finishes, and assembly were tested throughout. Like the idea of the steamer trunk providing impetus for the design, plywood was the material starting point. The manipulation of its grain (both of the wood surface and the exposed laminated endgrain) resulted in the formation of secondary and tertiary lines. It is through the interplay between these lines and the aluminum that the knotting and collapsing of space occurs.

For this project there was no clear distinction between design and build. The two were intimately linked through material and abstraction. With the wall, we tested ideas of design against the construction method and material limitations. Given plywood as a substantial part of the project, details of connections and joints were developed that would reinforce and inform the overall intent. Each side limited and expanded the possibilities of the other. The interaction between the abstraction of the drawn line and the physical reality of material forms a type of practice or process. Design/build is not a methodology in itself, but rather the superposition of ordinarily distinct categories. The overlay allows multiple scenarios to unfold simultaneously beyond those of either method alone.

Figures
1 Photomontage following the aluminum line as well as secondary lines formed by the endgrain and Joint of plywood across two intersecting interior volumes where they have slipped from the contours of the surfaces and have become knotted. "Innovation trunk" from The Decorative Art of Today, Le Corbusier.
2 Axonometric showing the full wall with the aluminum line displaced below.
3 "Innovation trunk" from The Decorative Art of Today, Le Corbusier, MIT Press.
4 Folding Wall, photo: Christopher Campbell.
5 photo: Balthazar Korab
6 Interior of Study Cube #1, June, 1998. In the cube we attempted to explore a condition where line and contour are separated from each other. The divorce of line from profile creates a certain degree of autonomy for the line which then becomes a means to dissect the surface and reveal its internal volume.
7 Cube, photo: Christopher Campbell
8 Joseph Albers, Penetrating (B), 1943, Solomon R. Guggenheim Museum, New York. Photograph by David Heald, copyright The Solomon R. Guggenheim Foundation. The configuration of the line defines two volumes simultaneously intersecting and contradicting each other. The visual contradictions rely on the accepted conventions of axonometric drawings where lines represent the contours of three dimensional figures and the reality of the two dimensional canvas on which the line is drawn.
9 Le Corbusier, Le Soir, 1958. Foundation Le Corbusier. Our interest here is with the tension between the form defined by surface and the space defined by line. Le Corbusier employs the line in opposition to fields of color to imply a transparency of figures and achieve synthesis between painting and drawing.
10 Line/Space Studies, The continuity of a single line is used to define a thickened space which is carved and intersected by penetrating voids.
11 photo: Balthazar Korab
Stacy Cahill

"Lightness for me goes with precision and determination, not vagueness and haphazard...I look to science to nourish my visions in which all heaviness disappears."

-Italo Calvino Six Memos for the Next Millennium

The Inherent Connection
In "Six Memos for the Next Millennium," Italo Calvino devotes five lectures to certain values, qualities, or peculiarities of literature which he beholds as fundamental and must, therefore, be both cherished and defended: Lightness, Quickness, Exactitude, Visibility, and Multiplicity. These basic principles directly manifest themselves in certain aspects of both engineering and architecture. These manifestations coupled with the design of a glass staircase for the National Glass Association Competition that stimulates a provocative origin, allowing me and my colleagues on the team to contemplate and convey our beliefs: the connection between architecture and engineering is both inherent and fundamental and must, therefore, be both cherished and defended.

The process of design is a subjective practice, unique and specific to the individual. Various methods may be utilized to provide a means to an end, yet each artist embarks from the same starting point: a vision. It is a vision of potential infused with ambition, possibilities, and purpose. The writer, the architect, the engineer: all are continuously striving to harness their inner theories, conceptions, and perceptions, driving to reveal them to the outside world. In order to convey these immaterial visions, a physical connection must be made. Calvino draws upon metaphors, engineers look to science, and architects employ
engineering. Each design embraces a unique purpose and can only be successful if every detail embodies the overall concept. It is here that we can begin to understand the union of architecture and engineering.

The architecture of lightweight structures, for example, aims to evoke images of weightlessness, transparency, and the ethereal. Building materials such as fabrics and glass are used for their inherent physical qualities to capture these concepts. Yet, to utilize these qualities to their full potential, a knowledge of the material properties and capabilities is essential right from the beginning. It is this underlying responsibility to engineering throughout the conceptual design process that will allow the project to be realized.

The work of Architecture 509 "Glass & Fabric: Lightweight Structures" explored this union of architecture and engineering through the design of a glass staircase for the National Glass Association competition. The program called for an innovative use of glass as a building material in an architectural setting. The criteria included originality, uniqueness in the use of glass in a non-traditional role, and the overall aesthetic and visual impact of the project. Our proposal was entitled "3600 N/mm² (theoretical)"; Glass embodies lightness. Yet with the immense strength which is inherent to the physical property of glass, its use as a structural material is inevitable. The challenge is to convey the sense of lightness contained within this heavy, brittle material. This design for a staircase aims to exploit the yield strength of glass – 3600 N/mm² – and explore both the structural strength of the material and its aesthetic lightness.

The staircase consists of three elements: a curved wall, risers, and treads. All are made of glass. The handrail, a fourth element, is stainless steel. The structure of the glass stair is derived from the strength of its form. A curved wall is inherently stable, and by utilizing the compressive strength of its structure, the stair becomes a freestanding object. The wall, a laminated glass cavity wall, is constructed using pre-fabricated components. Glass sheets are adhered to a series of vertical glass fins. Horizontal stair risers are cantilevered out from the wall. To join glass with metal connections not only decreases its strength and its transparency but also ultimately jeopardizes this lightness. Consequently, these risers are joined to the glass fins in the wall through an adhesive moment connection rather than the typical metal connection. The joints are cured with the application of ultra-violet light and as a result, become transparent, and create a distinct sense of lightness.
Research in the United States and at the Centre for Window and Cladding Technology in England has demonstrated the potential that exists for the use of adhesives in structural glass with strength capacities up to 6100 psi. The designed fin-riser connection has been calculated to carry about 2201bs, the equivalent of a very heavy person. During design development, large safety factors have been applied, and as a result of a properly engineered load testing procedure, the strength capacity has exceeded the calculated loads. Combining the immense strength of glass with the adhesives demonstrates the inherent structural potential for glass.

Beyond this strength, the optical qualities of glass are encompassed within the design. The apparent lightness achieved through the laminate glass and epoxied connections is amplified with the manipulation of light. Through the use of translucent and transparent glass the wall utilizes the unique qualities of light to create an ethereal experience.

The technology of the epoxy allows the aesthetic qualities of glass to be realized, just as the practice of engineering allows the conceptual qualities of architecture to be realized. It is these conceptual qualities and aesthetic demands that push and test the boundaries of engineering. A structure cannot ignore its innate physical beauty. It must go beyond the initial technical solution and question other elements of the project. It is not enough for a design to "work". We can now see the underlying responsibility to architecture that will allow the design to succeed.

All art is joined through the strength of a vision. We are continuously striving to harness our immaterial visions and, therefore, look to the practice of design as the means of manifestation. It is apparent that there is an inherent connection: The abstracts of architecture are conveyed through the poetics of engineering, the abstracts of engineering through the hypotheses of the mind, and the abstractions of the mind through the possibilities of architecture.

"3600 N/mm²": 2nd Place, Specialty Glazing Category, National Glass Association Design Competition
Student Design Team: Stacy Cahill, Brian Kwekele, Paul Kouri, Andres Backer
Advisors: James Carpenter, Brian Carter, Chris Jofeh, Annette LeCuyer, Jane Wernick
House in Trás-os-Montes

Robert Levit
This is a weekend and summerhouse for couple living in the city of Oporto, Portugal who want to be able to spend time in the rural region of Trás-os-Montes in northeastern Portugal where they both grew up. He is a graphic artist and she is a writer and while the house is intended for their leisure, and entertaining the many friends they still have in the region, the house will also need to provide them a place to work.

The site, like all the surrounding fields, is part of a working agricultural landscape. Fruit orchards, olive groves and viniculture pattern the full extent of the visible countryside. The owners of this nine acre property intend to continue to keep the land under cultivation and have received a European Community agricultural development grant to plant eight hundred olive trees amidst which their house will be sited.

Although they wanted to be able to experience a strong relationship to the landscape from within the house, they did not want to interrupt the agricultural character of the surrounding terrain with a domestic landscape of lawn or garden. Absent such conventional techniques of domestication the agricultural landscape olive groves, like other cultivated fields, has a certain rough character. The ground is kept clear of all growth but for the trees themselves. The earth thus remains a porous shin-deep layer of dirt, beautiful and tame from afar, a deep bed of crumbling rough soil from up close.

Upon this undulating surface of ground the house sits boat-like. It looks out upon the pastoral panorama, but is contained within its blocky volumes and walls. It allows the surrounding ground to sweep right up to its walls.

Through the occasion of this site, and the attitudes towards it shared by myself and the client, certain larger architectural themes emerged. Placed ‘at-sea’ upon this landscape, the house was able to assume
qualities otherwise associated with the happenstance of the 'found object'. Whereas under ordinary circumstances the platting of sites; the order of streets and sidewalks; and mediating role of designed landscapes lend an apparent naturalness to the position and internal order of buildings, the abrupt presence of an object adrift in an 'unprepared' site leaves the conventions brought to the site more nakedly exposed.

The house does rely upon conventions of monumentality and figure as much associated with domesticity as with civic building. Windows are placed in a loosely symmetrical pattern, hierarchically arranged around larger central openings. In plan the design is quasi-tripartite with the forward half of the building enclosing an exterior terrace or raised courtyard. The house thus proposes a grand frontal figure, yet without taking up the implied themes of site organization. Rather than establishing an axis perpendicular to the house's centralized face, approach is along a "U"-shaped drive that sweeps up to the short end of the building. Entry by foot is from the short end adjacent to the garage, and draws one along a promenade that rises cross-wise up stairs that follow the underlying shape of the land. The right or southeastern corner of the house drops down to form the garage, while the whole building inclines its figure along a path of movement that is set contrary to the monumental logic of the primary tripartite form.

While from the front it is the volume of the house that seems to unfurl in the direction of the garage, toward the back of the house it is the line of a garden wall that swings out from the within the kitchen, establishes the figure the enclosed rear garden and then, curves in both plan and elevation towards a passage to the second floor. In both cases the contours of form suggest that closed figures are made through the trace of a mobile line or contour.
Thus the initial intuition that the formal decorum of architectural form and domesticity might be set adrift within such a landscape finds itself reinforced by the following: Promenade and sequence are drawn as a contrary order through the implicit symmetry of the building; while the stability proposed through the latent symmetry of forms seems to unwind in a mobile profile and in shifting relationships.

Given the rural setting of the house, arrival will almost always be by car. Thus the confluence of garage and foot entry in a single vestibule allows for the synthesis of these two manners of arrival in one threshold. Rising up the stairs into the house it is possible to see light coming from the terrace to one's left, and to see the edge of the living and dining room. Above a slot rises through to the second floor where it is overlooked by a built-in work surface belonging to the second floor library. A large window which offers a view from the second floor slips down in this slot suggesting that the scale of arrangement visible in exterior windows is somewhat at odds with the scale of domestic spaces within. The linear space of this passage contrasts with the horizontal volume of the living/dining room and kitchen. This latter group of living spaces to the rear of the house slip horizontally into the building's vertical volume. The horizontal proportion of this volume establishes a link to the distant horizon of rolling fields seen beyond the front terrace and to the artificial horizon of curving walls enclosing the back garden.

On the first floor, in addition to the primary living spaces is a guest bedroom/den. Stairs to the second floor lead to a landing sighting back along the entry drive and arrive at the head of a long tall passage to be used as a library and work space. The back wall will be lined with books, while a two person desk at the front overlooks the first floor, front terrace and gives out onto a spectacular view of rolling landscape. There is a small and more intimate reading room that overlooks the landing and front terrace. The master bedroom is set at the far corner of the second floor, while the whole suite of second floor rooms connect back to the rear garden via a run of exterior stairs.
The spaces of this house are diverse in character, and differ in quality from first floor to second and from front to back. The library of the second floor is narrow and vertical, and inhabiting it should give some sense of occupying the compressed space of a building’s facade while the ground floor’s primary rooms are horizontal. The angled plastic volumes of the front of the house contrast with fluid sweep of the linear enclosing line to the rear.

The rural character of the region means that construction techniques are unsophisticated. The house will need to rely on standard practices and material finishes. It is to be poured in place concrete frame using non-structural in-fill bricks, with stucco exteriors and plaster interiors. The exterior walls will have pale granite bases, the interior wall bases will be of marble—both stones are locally quarried and cut. The surface of the first floor will be of polished concrete, while the second floor will be of wooden boards. Window frames are to be of painted wood, the roof will be of metal standing seam.
Scanned Body | Metal Curtain
Between and Beyond Gender Dimorphism in Architecture
"Nature and desire could differ: and while nature would have its way--it could not deny the desires of others including the Gods."

Gilbert Herdt, from preface to "Third Sex, Third Gender" 1

From a post-feminist perspective, gender is determined by nature and desire. And yet, the existence of androgens, cross-dressers and transsexuals has traditionally been ignored in the wide-ranging debates on social diversity and freedom. While feminism has at least ideologically undermined the male biases of contemporary life it has unintentionally substituted in its place an equally narrow discourse based on duality and opposition. What must now be reconsidered after feminism are the analytical polarities that result from a purely biological determination of gender. In this way the relationship between "Sexuality and Space" 2 is complicated by a rejection of dimorphic principles—principles whose apparent universality are challenged by the existence of transgendered groups like the Native American "Berdache" or the "Hijras Caste" 3 in India. A "third sex" or multivalent notion of gender prompts us then to reconsider the body and its relationship to architecture. The bathhouse became an ideal site for this reevaluation inspired as it was by Hermaphroditus, (the son of Hermese and Aphrodite) a mortal united into one body with the nymph Salmacis while bathing.

In this light the architectural segregation of the sexes seemed a liability driven by the prejudices of convention. And yet, it is through the dichotomies of a typical facility—its doubled amenities, its divisive architectural elements (walls, passageways and signs) — that a more timely and inclusive space can be imagined. It was therefore important from the start to search for a way of exceeding these limits without sabotaging the amenities which serve conventional users. The problem was how to encourage the reading of an ambiguous in-between condition, one whose gender would be decidedly hard to locate, an in-between that would act to destabilize the established gender dualities without obliterating them.
Toward this end consider Marcel Duchamp's "Rue De Larry Ready Made". If we imagine its empty frames as opposite terms (male and female) the hinging threshold of the "Ready Made" is at once the register of an exchange between the sexes and a conflation of their differences. Since this partition is actively a part of two opposing terms one, can say the work transcends sexual dimorphism by forming a third type or hybrid order. And yet Duchamp permits closure and partial access for only one opening or frame at a time. While the gender of Duchamp's "Rue de Larry" door is determined by its position, this position is never fixed or absolutely static. The work thus guarantees a reading of oppositional pairs as well as an ambiguous in-between. Like the mythical Tiresias who changed from male to female to male in one life-time, the gender of Duchamp's door is made androgynous through its physical mobility.

A similar effect is produced by superimposing Lacan's famous semiotic diagram of sexual difference from "Agency of the Letter in the Unconscious". When both halves of this drawing are overlaid, their legibility as signs remains unchanged. When the labels "Ladies" and "Gentlemen" undergo a similar transformation they preclude a clear determination of the genders which both labels signify. In this manner the architectural drawings/signs themselves remain functionally unaltered. The ambiguity of the final diagram is thus established primarily through the obscuration of text. The door then in union with itself becomes the singularity upon which this lack of certainty is staged.

Located in Long Island at the far end of Robert Moses State Park, the bathhouse occupies a small beach on the Atlantic ocean. The project exists as two casually segregated pavilions created from three-dimensional scans of an infant's forearm. In a computer the scans were distorted and cut into small fragments. The form of each building was then produced by manipulating a single scan selected from the chopped-up pieces. In this way different shapes assigned to the needs of either male or female bathers have their origin in a single body fragment whose gender is left unspecified. The pavilions were then placed apart on the site in order to accentuate their autonomy. A chain mail curtain suspended from the entrance of each building forms a permeable ribbon though which bathers pass. By joining opposites this curtain re-presents the androgyne of the initial scan and acts in plan as a non-rigid boundary between the parking lot and the sea. It also forms a broken mobius strip whose outer surface, hung from the entrance used by male bathers, becomes the inner surface of the entrance dedicated to female bathers.
The intersexuality of Duchamp’s door and the gendered uncertainty suggested by the superimposed Lacan diagrams are here reproduced in a sinuous architectural mechanism whose singularity enfolds difference. The gate can thus be read in several ways: 1. as the ligaments or connecting tissue joining different organs of a single body or 2. as an interstitial device with its own transgendered identity, one that moves freely between the sexes or 3. as the binding of two clearly articulated dimorphs. In each case the gender of the gate is “undecidable” (4). Its tensile strength visually restricts the disunion of both male and female halves of the design while in the same turn suggesting (through its weakness in compression) the possibility of an aggregation or collapse. The gate therefore mirrors an exchange recreated anamorphically in real space through a process of perspectival transformation. In this way the initial stretching process done on computer is reversed by views which run nearly parallel to the curving facades of each building. The visual compression of the female pavilion produces the tower like image of the male pavilion while the male pavilion is compressed horizontally into more a womb-like and feminine shape. Both forms contains their opposites, both forms are recomposed in time by the shifting perspective of the bather.

As brother and sister they were joined at birth by an ever-growing mane of auburn hair. Thus connected head to head not by flesh or bone but through a supple anatomy of flowing proteinacious fibers, both were granted an autonomy denied to most Siamese twins. The diets of both were identical in substance and quantity. Holidays often found the pair eating the same caramelized apples while tied up in a towering knot-like coif weaved together with ribbons of marble paper and rare feathers. The exact geometry of this structure would certainly change over time. Simple variations for the twins were derived from a sailor's manual containing instructions for the tying of ropes and harnesses. Styling a Carrick Bend, a Figure Eight, a Timber Hitch, a Stevedore or a Cat's Paw required a tireless and athletic dexterity. In later years as their now grayish-white hair grew so did the physical distance between the twins. Retiring at night to separate houses both enjoyed a tenuous solitude. The flower garden now blanketed in the silence of a newly-fallen winter was marked by the tracks of a lone mongrel. Two fires burned in two fireplaces, their intertwining plumes of smoke dissolved slowly in the air. The long white hair of the twins so stark against the dark wood floors inside each house, was nearly invisible in the fallen snow.

1-9 Computer manipulated body fragment
3 Berdaches are cross-dressers. Hijras are eunuchs.
Jeffrey Kipnis, "In the Manor of Nietzsche" Calluna Farms Press, 1990
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