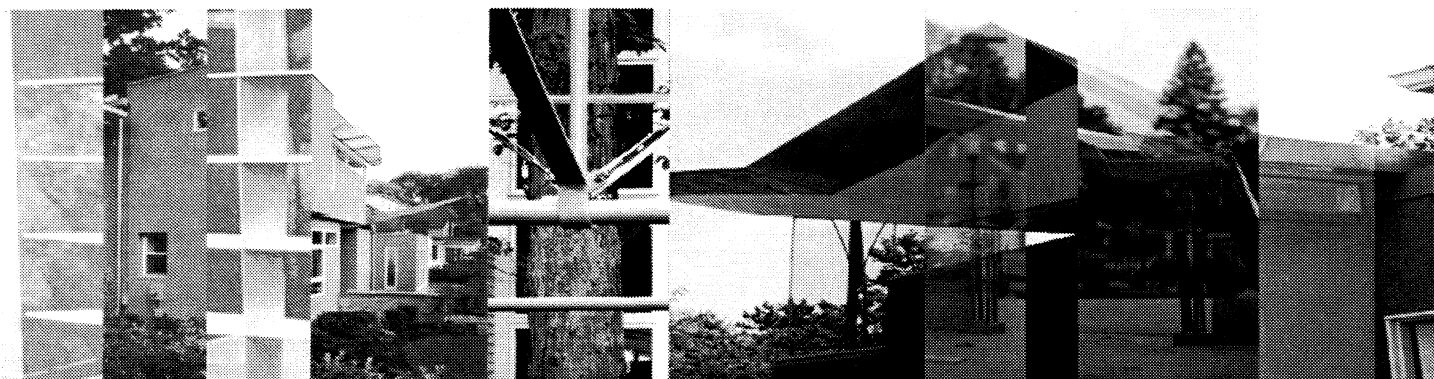


(Un)Concealed Tectonics, Concurrent Constructions

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[un] CONCEALING

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PREFACE

"Do not now seek the answers, which cannot be given you because you would not be able to live them. And the point is, to live everything. Live the questions now."

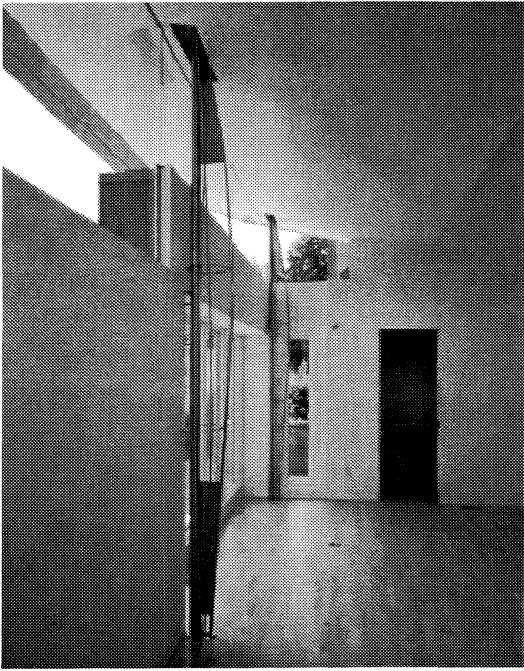
—Rainer Maria Rilke, *Letters to a Young Poet*

Architecture is about abstract concepts and pragmatic methods. The **concepts** behind *[Un] Concealing* originate in the writings of Martin Heidegger and Gaston Bachelard. In Heidegger's assertion, a work of art is "an expression of being, emerged into the unconcealedness of his being." By unconcealedness Heidegger means truth.¹ Bachelard observed that the poetic image has no

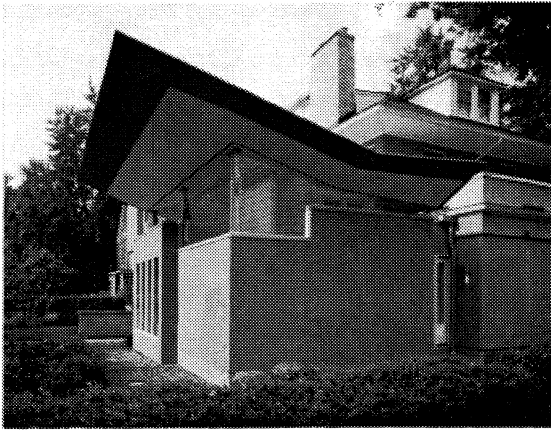
past, that in a particular work of art something appears for the first time or rather is created.² What art is should be inferred from the work. What the work of art is we can come to know only from the essence of art.³ Bachelard stops, however, at calling this unique appearance a poetic image, whereas Heidegger helps one to understand this image as truth, or the unconcealedness of being.⁴

The **practice** of *[Un] Concealed Tectonics: Concurrent Construction* is derived from the work of Carlo Scarpa, Louis Kahn and Adolfo Natalini. References to the poetic image and to truth and being are inherent to a tectonic language in Louis Kahn's poetic writings of implied Order. Design habits leading to the concealment of structure have no place in this implied order; rather structure is unconcealed, that is, revealed in the technics of construction and representation. I believe that in architecture, as in all art, the artist instinctively retains the marks that reveal how a thing was fabricated.⁵

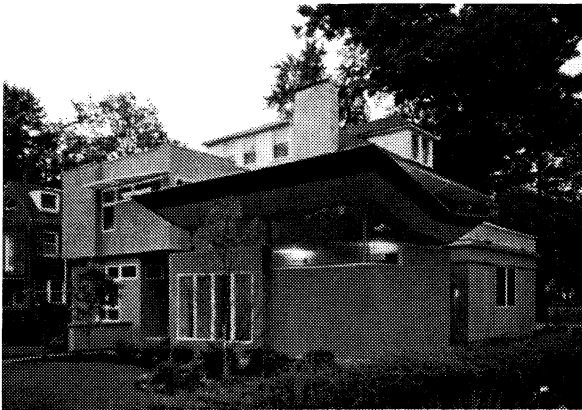
The thesis of this paper and the presentation of our work assert a consciousness of construction-mediated representation in the realm of tectonics. Conceptualizing and constructing architecture leads to the crafting of elements, details and finishes to form the essential tectonic dimension of our work. Tectonic language is realized through direct and constant engagement in making: representing the process through construction is our *modus operandi*.



Wang Addition



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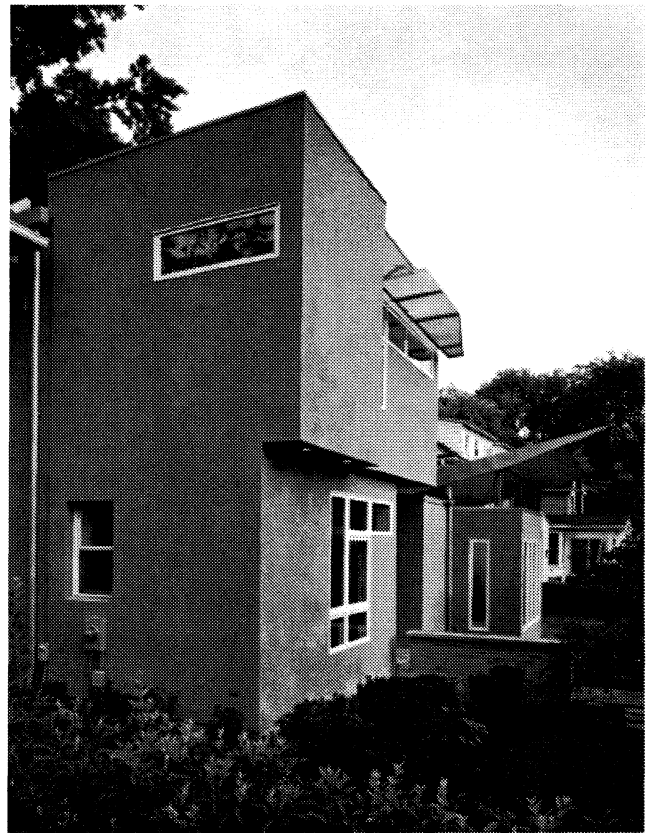


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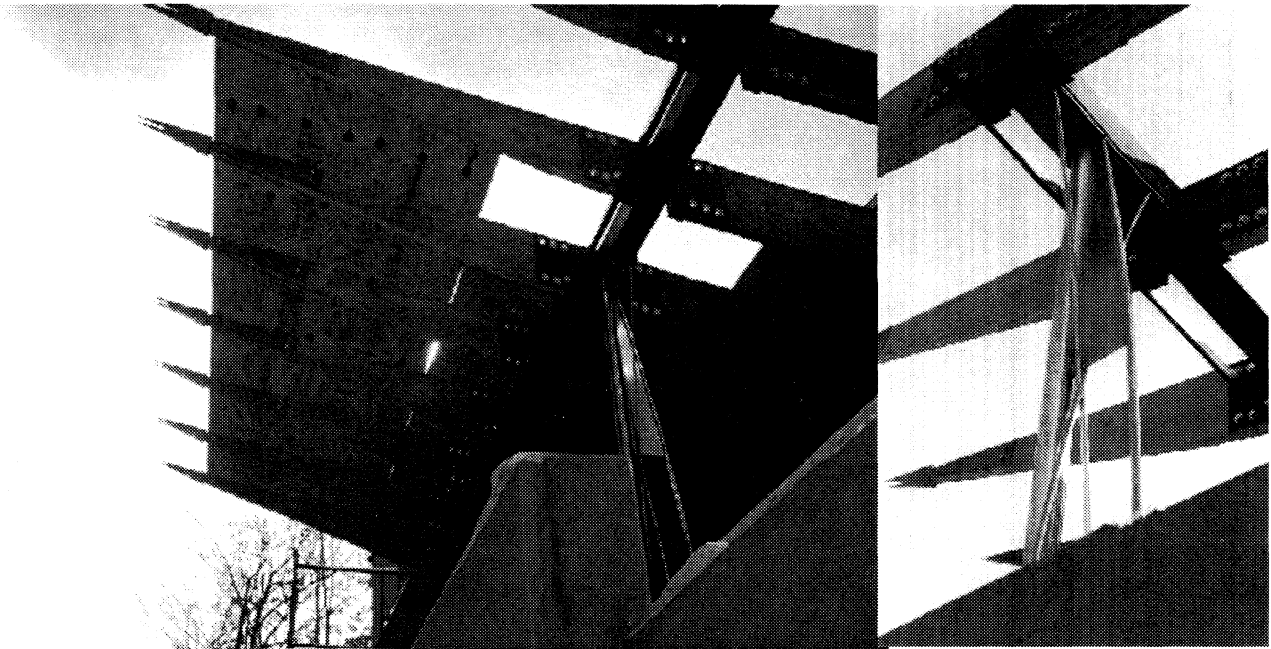
Our predilection toward the assembly of selective components results from the realization that the building industry (contractors, suppliers, and subcontractors) is resistant to change/advancement of its methods of general construction. What is missing from general construction is the **tectonic realm of building**. A commitment to design detailing concurrent with construction can extend the expressive content of architecture well beyond pre-construction detailing.

What we have experientially confirmed is that the tectonic domain belongs fully to the architect, and that this domain cannot be disengaged from the artist/architect's responsibility in the orchestration of detail and finishing. I am describing the lived experience of constructing tectonics.

The philosophy embracing this is phenomenology - form given meaning through experience. Poets, painters and architects are phenomenologists. As the meaning of *unconcealed tectonics* embraces the question, what is the origin of concealment?, the architectural construct that results would consider lived experience crucial to its significance. Moreover, experience factors into related issues, to wit: What are the necessary questions to be lived in contemplating the tectonics of architecture and what is the relational form of tectonics to the poetics of form and how does conceptual form become measurable? As Kahn poetically considered, a good question is greater than the most brilliant answer. This is a question of the measurable and the immeasurable.⁶



Wang Addition



Wang Addition

I. INTRODUCTION

The historic centers of northeastern Ohio are indebted to their architects, civic planners, and local industrialists for their collective contributions. The Beaux Arts formality of the original Moses Cleaveland plan, the Burnham Group Plan of 1903, and the Terminal Tower Complex are in visual opposition, but conceptually related to the industrial architecture and infrastructure shaped by the Cuyahoga River. All are dependent on the requirements and representational of industrial production. The picturesque plans for the residential communities of Shaker Heights, Cleveland Heights, Lakewood, and Rocky River were designed as referents to English and European precedents for the same industrial, elite urban community as it represented and produced its spaces and places of leisure.

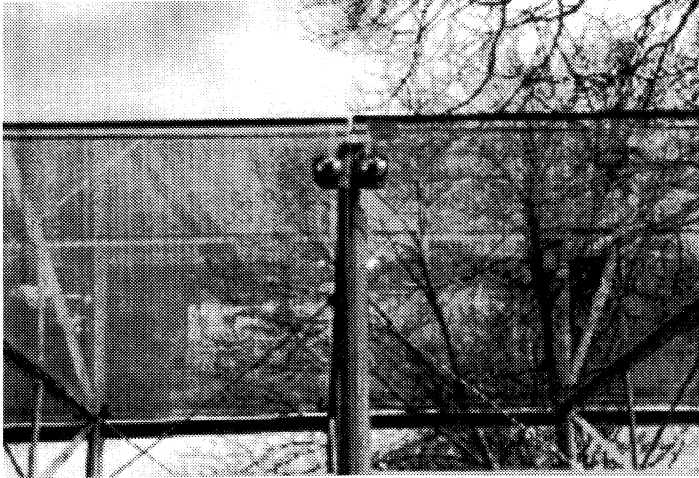
The cultural moment of the 1990s in Cleveland has been that of a decade of construction of major public projects, the reuse of nineteenth-century industrial structures, and the redefinition of lakefront and Cuyahoga Riverfront for a new, more demographically diverse culture of leisure.

The current tectonics of Cleveland architecture have failed to recognize a language of new cultures, economies and building trades. Understanding our legacy of production and the manufacture/fabrication of brick, stone, glass, rubber, steel, and polymers is essential to becoming knowledgeable about and sensitive to the **nature of materials**. Likewise, understanding our legacy of leisure in reflections of past cultures and present demographic dynamics is essential to becoming sensitive to the **representations of architecture**.

Construction, materiality, joinery, and fabrication are an **engagement in making** which architects originally failed to negotiate when Leon Battista Alberti parted from his friend, Filippo Brunelleschi. Alberti's commitment to his atelier and Brunelleschi's continued presence at the construction site, designing, drawing, modeling and constructing in-situ signified a critical dividing moment in the history of architectural practice. Concurrently, architecture was being defined as conceptual, mathematical, and theoretical as well as experiential, worked out through construction and practical.



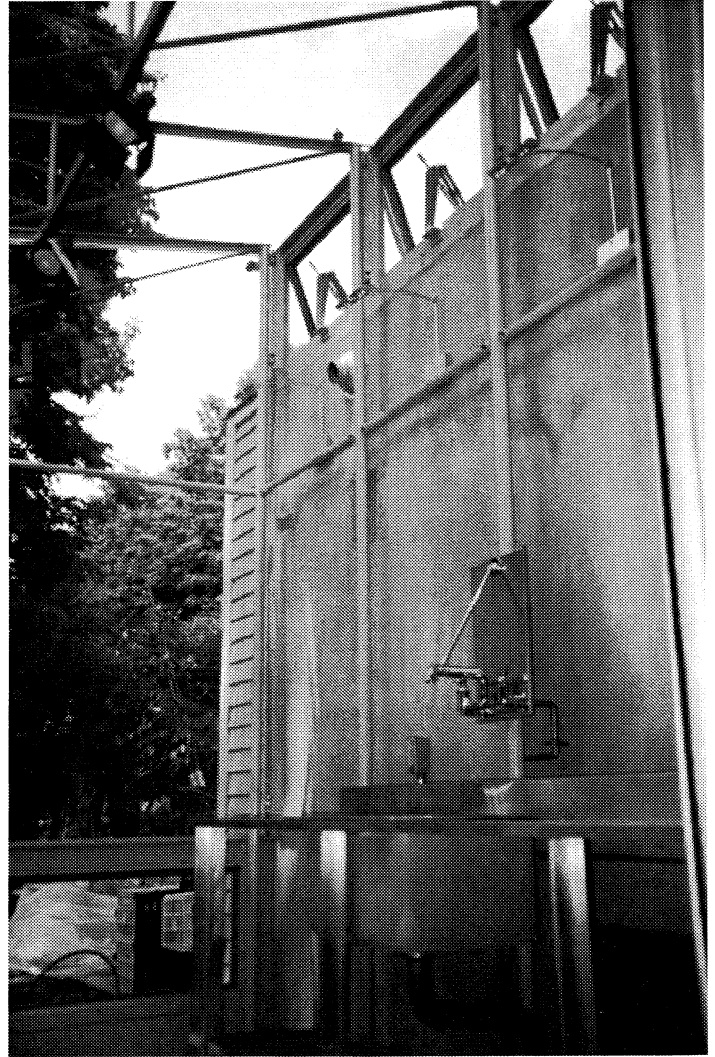
Nestor Addition



Nestor Greenhouse

Following this disjunction, the **historical** separation of (Albertian) architects and (Brunelleschian) constructors has yielded a high, yet barren ground of **repetitive** and **conventional detail**, uninformed by the knowledge of artisans and detached from the experience of making. The active engagement of the architect in refining detail - the selection of materials, fasteners, fabrication, and finishing - dispenses with the reliance on conventional detail as well as the reliance on constructors for costly, labor-intensive, customized components and processes. The architect returns to the craft of construction as an installation/builder [as opposed to a master builder], delegating the volume of communications, specifications, and construction administration to others allows the architect to orchestrate the dynamic and complex conditions of construction toward unexpected, unforeseen, and unpredictable details. Yet, up to this moment, architects have not regained the trust of artisans and tradespersons to contribute to this radically redirected and reconfigured aesthetic of work.

The importance of substantial, relational architecture cannot be denied. Tectonics is essential to the objects – its substance, narrative meaning, and formal character as present in its place. Architecture makes place. Architecture cannot form places without the tectonics of making. If architecture is to escape from the endless cycles of use and progress, it must place itself in opposition; it must come from *within*, from a more original conception of the nature of technology itself.⁷ This is verified by key theorists and practitioners of our generation.



Nestor Greenhouse

Most recently Herbert Muschamp, the architecture critic of the *New York Times*, has stated that

“The cultural responsibility of the container is at least as great as the contained. We cannot dispel the impact of architecture on the imagination, the metaphoric and functional value.” (Herbert Muschamp), August 13, 2000, Arts and Leisure section, New York Times Newspaper.

The forms of tectonic intentions are expressive of inherent and relational architectural elements. In his book, *Figures of Stone*, Adolfo Natalini, the distinguished architect and professor of architecture at the University of Florence, has stated, "We may speak of architecture as primary elements, morphological elements and constructional elements." The active construction of specific elements is focused on the tectonics of selected installations and details.⁸

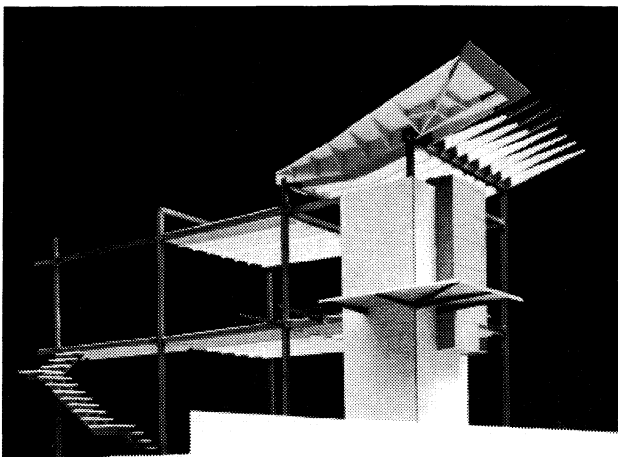
The tectonics of detailing refer to an architectural idea and theory, but may also be expressed experientially through knowledge of tectonics. Notwithstanding, the fact that normative tectonics are masked by veneers and surfaces with a loss of connection to expressed structure, material and detail, tectonics is not about representing the visible, but rather **rendering visible**.

In bowing to constraints of budgets and schedules, corporate building campaigns have resulted in a generic morphology of architecture. Our work proves that this is not a necessary corollary of twenty-first-century practice. Recent architectural installations presented here have utilized the construction process concurrently in use in technical design. An ethos of subjectivity through objectivity has attempted to retain/extend the art of concept and craft of building within the requirements of current technology, systems, costs, and schedules.

II. UNCONCEALED TECTONICS

Realization of what the *Existence Will* may be is the meaning of feeling and thought – the source of what a thing wants to be.⁹

The revealing of architecture is an encounter between what has been idealized in drawings and models [us] and what is [actual construction].

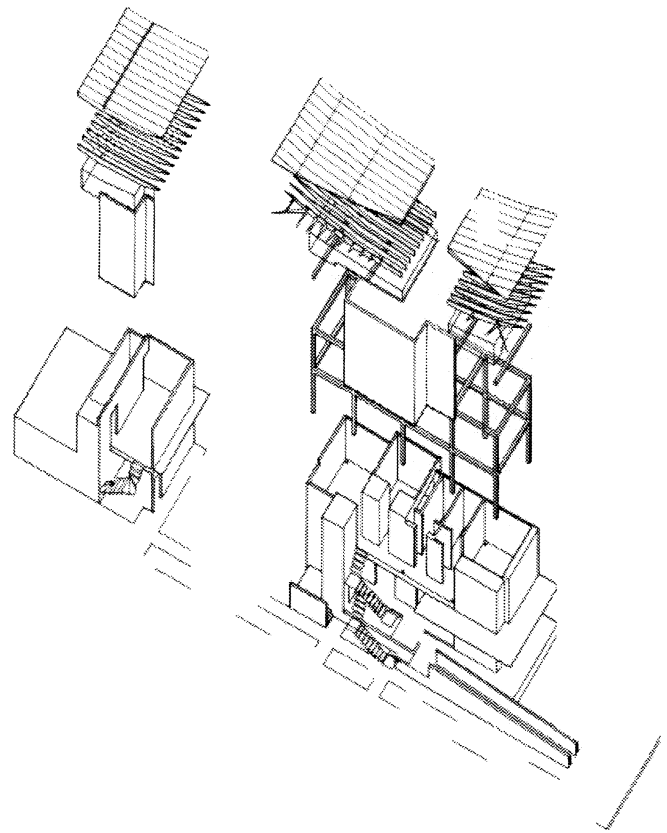


Tremont Housing - Construction Model

Contact with things is full of meaning – you know where you are, you have something that exists. It should be important to have some identity with phenomena. One has to start on the concrete

and slowly converge with the abstract, but always keeping one's eye on how the symbolism works with the fact. Observation should be the companion of intuition. I tend to rely on the test as the companion of intuition. As if to propose welding torches to Plato. (Robert LeRicolais)

The neutrality of a completely finished mass/space lacks acuity of detail to engage sensory aesthetic experience – a mental construct. The extremes of minimalism fail to capture the cultural and constructional phenomenology. Thus a compassion for the nature of materials combined with a passion for the craft of making advances beyond minimalism. Architectural tectonics is about bringing the earth into appearance.



Tremont Housing - Construction Axonometric

Un-concealing is about the refinement and selective detailing of tectonics to expose and keep exposed - through revealing the beauty and clarity of selectively informative conditions of construction. The tempering of concealing through the act of unveiling and the manipulation of surface afford the opportunity to explain the inherent qualities, complexities, and logic of structure as well as the craft of construction.

The decision to unconceal requires a commitment to envision the finished expression of a detail prior to its making. The presence of unconcealed details and elements in a space is essential to tectonic language as the essential morphology of architecture. The concrete detail explains the environment and makes its character manifest.¹⁰



Dunn Addition

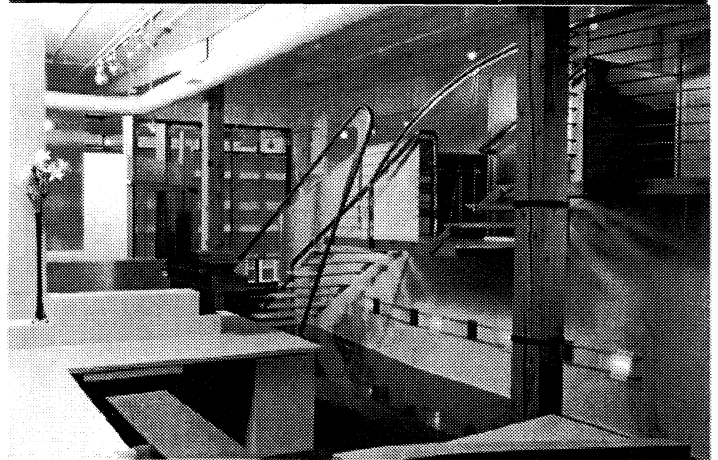


Dunn Addition

Our affinity for steel and wood joinery is twofold. The economic and cultural dominance of steel making and the original wood framed architecture of the Connecticut Western Reserve, together with the massive masonry construction of industrial architecture, form our dominant architectural precedents. The rigor of developing comprehensive details prior to construction requires extraordinary foresight, design genius, and **determinism**. **Predetermined** details become less speculative, more ordinary, and more generically derived from precedent details. **Postdeterminism** in detailing accommodates the life of the construction – the art of making,

the experience of the constructors, and the original processes of fabrication.

The postponement of absolute choice, a sort of giving up to the process of making, allows us the possibility to discover and master the detail. Engagement with the process of making, of constructing, offers a privileged stance, a special knowledge of the construction experience and becomes an essential dimension of our work.



Skunta Interior/Stair

III. CONCURRENT CONSTRUCTIONS

Concurrent construction is to be interpreted as the overlap/blur of detailing and installation design. The making and the installation of specific elements, [frame, glass house, roof, stair, canopies, screen] in three residential additions and three corporate interiors were informed by an active engagement in the pragmatics of material fabrication, the detailing of joinery, and the processes of construction. These additions to substantial buildings are representative of the traditions, memories, and tectonics of mid-to-late-twentieth-century construction in Cleveland; a composite of exposed steel structure, glass wall, and wall bearing masonry continuing, in a

small way, the industrial architectural legacy of Albert Kahn. A re-engagement of construction technology and human experience in the making of tectonics, as a language of connection, expresses the inherent **structural** and **enclosing** concepts of this architecture.

Concurrent constructions are, in essence, **availabilities** in our work, which require primary and constructed elements to be in place for the morphology of detail to inform concept. The pursuit of the poetics of construction is the distinct realm of the architect. Understanding the meaningful, poetic nature and attributes of materials, and crafting expressive joinery in the workplace and the home narrate architectural intentions.

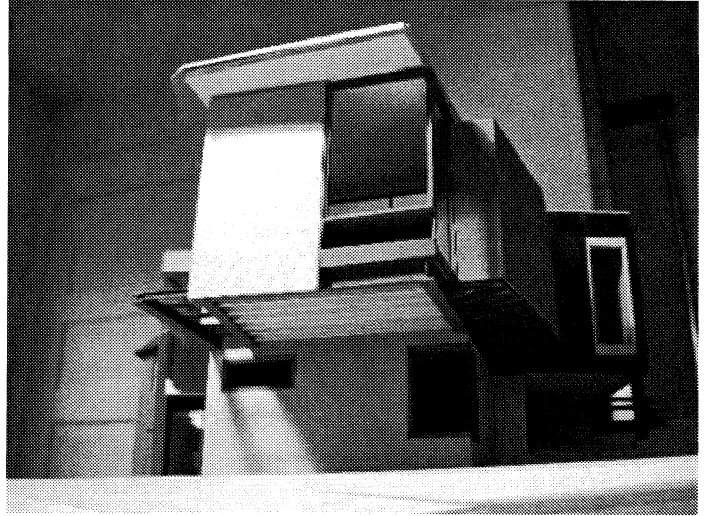
The possibilities of tectonic investigations early on in our pursuit of construction knowledge came through gallery installations and furniture. These constructions allowed an immediate experience of materials, structure, connection and dimension that was never completely represented by drawing or modeling. "If we were to train ourselves to draw as we build, from the bottom up, when we do, stopping our pencil to make a mark at the joints of pouring or erecting, ornament would grow out of our love for the expression of method. The desire to express how it is done would filter through the entire society of building, to architect, engineer, builder, craftsman."¹¹

The sub-contracting of special elements allows the contractors to accurately estimate the general work, which is clearly documented and this mitigates the uneasiness of dealing with challenging unconventional installations and details. The general contractor defers to the architect for tectonic detailing of essential morphological elements. Architects must commission themselves as sub-contractors for the construction of specific installations, which require rigorous large-scale maquette studies, fabrication drawings, and structural design, occurring simultaneously [concurrently] with general construction.

Concurrent construction accepts tight schedules and impossible budgets. It remains a challenge to achieve innovative and expressive tectonics within tight budgets. This is far more difficult than deferring to conventional structures, details, and materials. A maquette stage is added to the process of transforming details from drawing to building. Large-scale modeling and full-scale templating allow for exact jointing, precise perception, and representative fabrication.

Concurrent detailing requires the artist/architect to be present in the resolution of line, texture, and finish, as surfaces and materials become "illuminated" and revealed in place. The continuous resolution of detail as informed by technology and the actual experience of construction is a way of revealing, as stated by Martin Heidegger, "...in terms of letting appear."¹² The expediency of detailing throughout the duration of construction is essential to forming an inherent **tectonic language**.

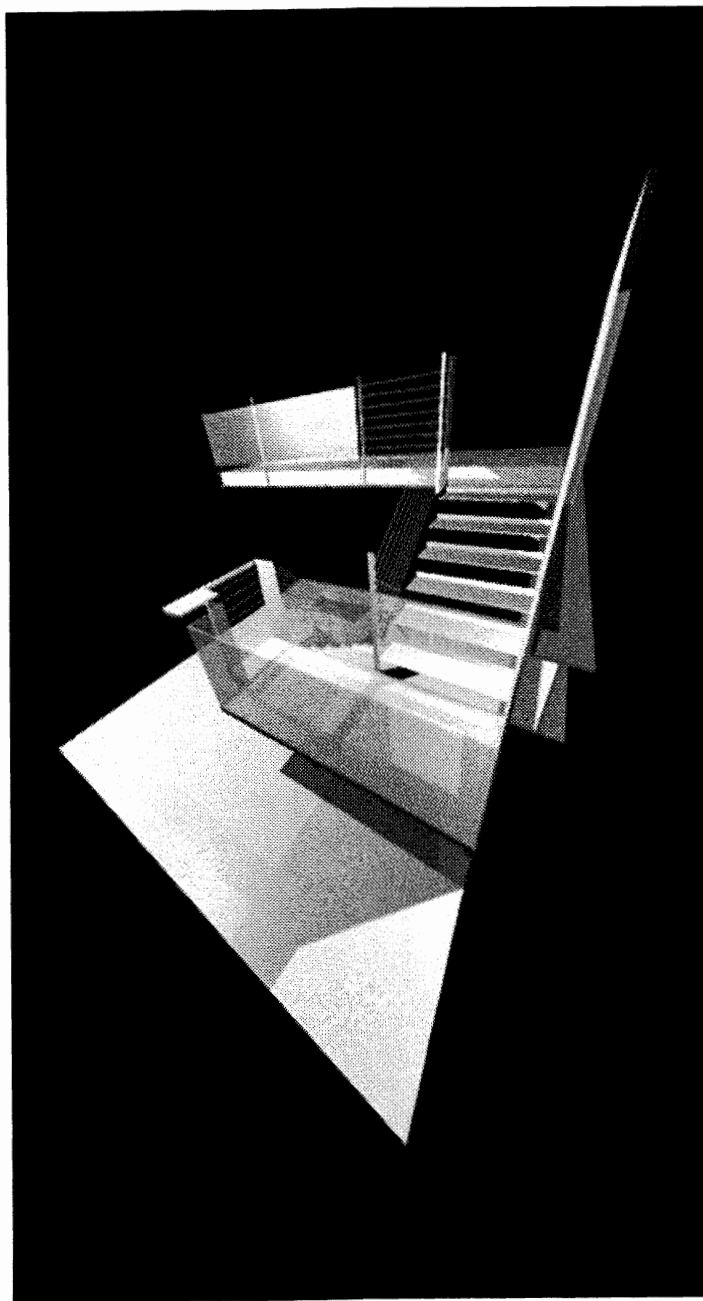
Concurrent installations attempt to resist and oppose economic and utilitarian determinism and absolute pre-construction detail. The standardized, optimized production of building components, construction methods and costs has required us to (re) think the primary elements of roof, wall, floor, window, stair, column, and beam in the forming of tectonics.



Knutsen Addition



Knutsen Stair Construction Model

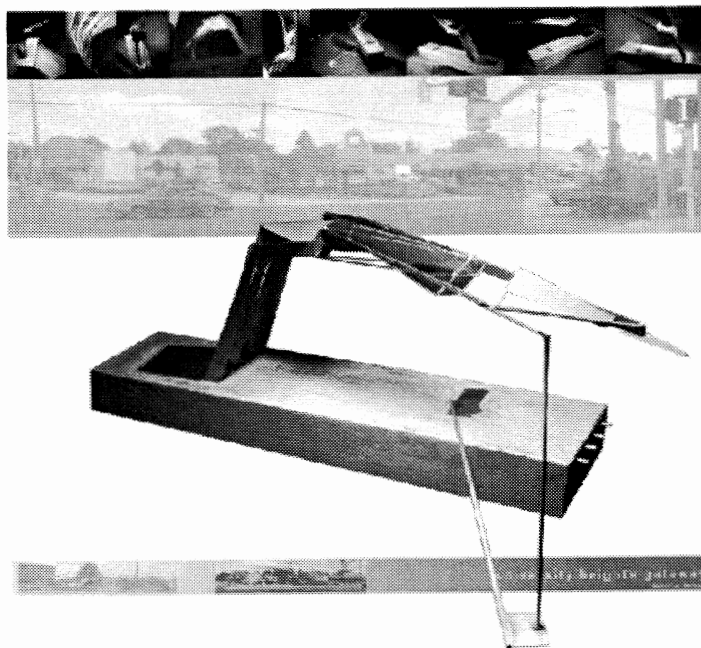


Knutsen 3d Computer Stair Model

IV. FUTURE PROSPECTS

We are proposing a re-engagement of construction and production to allow for the investigation of a more thoughtful, meaningful, and relational tectonic architecture.

Acknowledging that architects are the masters of making and the masters of production, the possibilities of expanding responsibilities through design and fabrication make for a précis of rigorously designed installations and details.



University Heights Gateway. University Heights. OH

ENDNOTES

- ¹Jeanine Russell. "Questions Concerning the Artist." *Architronic*. Kent State University p. 3. V2. N2. 1. 1993.
- ²Ibid, p. 4.
- ³Ibid, p. 4.
- ⁴Ibid, p. 4.
- ⁵Louis Kahn. *The Notebooks and Drawings of Louis I. Kahn*. p. 26. 1973.
- ⁶Ibid, p. 60.
- ⁷Robert McCarter. "Escape from the Revolving Door." *Architecture and the Machine*. Pamphlet Architecture. no 12.
- ⁸Adolfo Natalini. *Figures of Stone*. p. 35. 1988.
- ⁹Louis Kahn, p. 60
- ¹⁰Kate Nesbitt. "Introduction." *Theorizing a New Agenda for Architecture, An Anthology of Architectural Theory 1965-1995*. p. 29. 1996.
- ¹¹Louis Kahn, p. 26.
- ¹²Jeanine Russell, p. 18.

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