SUBURBAN HOUSE

(The Language of a House)

by Samuel Dillehay

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Master of Architecture

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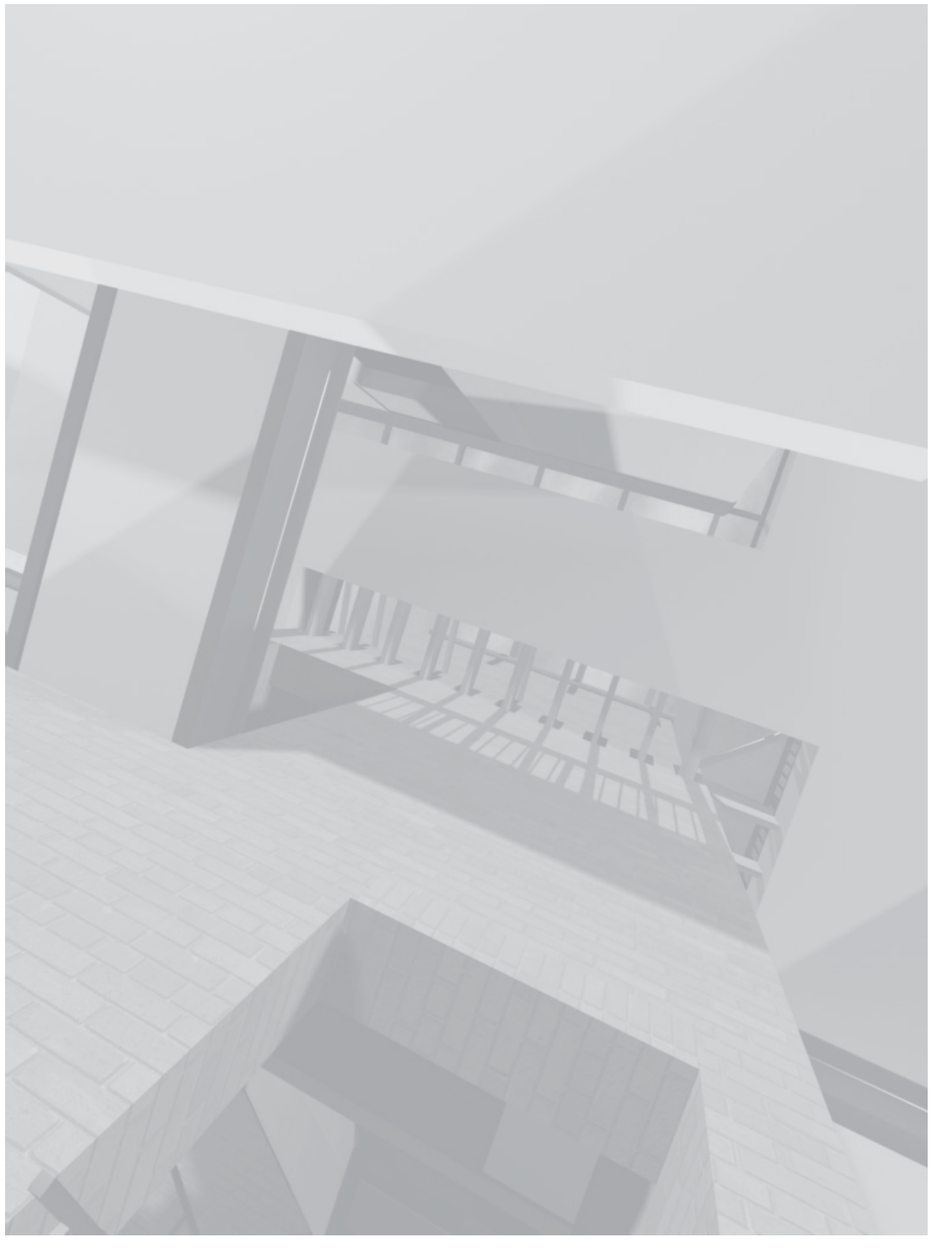
Abstract

Houses convey meaning and invoke responses in people both architectural as well as social. While a traditional-appearing home may invoke social nostalgia, the impression one has is soon infected by the material deception that holds up a confused linguistical display. The typical house is not traditional, it just looks that way from a certain distance.

In designing a house in the midst of this mediocrity, what approach should be taken? Does one engage the language of ‘house’ and attempt to ‘get it right’?

We can take a different course, and choose not to engage the language of traditional building that has been shoddily represented in the semantical dimension. Through an articulated syntactical interaction between the primary elements of a house, a unique place for living, which adds something to the community, can be created.



Dedication

This book is dedicated to my wife for all the wonderful things she brings to my life. I love you.

Acknowledgements

I would like to thank the members of my committee for their efforts in helping me through this process. It was a great pleasure to work with Jim Jones, Heinrich Schnoedt and Bill Galloway. Additional thanks to Hans Rott and Steve Thompson who sat in on many discussions and provided great insight. Finally to my classmates for their support and engaging discussions, thank you.

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Introduction

Architecture is much like a language. It has the capacity to communicate meaning. Meaning as simple and direct as the sight of a door implying entry and exit. Different parts of a building may communicate different meanings.

People's most intimate and direct relationship with architecture occurs with a house. As such, it embodies people's perceptions of themselves, and their dreams.

The combination of parts of a house, and their cumulative effect can convey meanings such as cultural locality, great wealth, transitory living, size, or situation (signifying, for example, that a family, or an old couple whose children have grown up and left live there). Additionally, places have local customary aspects to houses, due to a combination of factors including culture and geography.

The project undertaken for this thesis is to design a house in Blacksburg, Virginia. Blacksburg is a small university town in southwest Virginia. Due to its coexistence with the university, it is not a typical small town. Its tendency is toward the suburban (this also being a function of its proximity to Roanoke, VA, a city of small-scale.) Other than its relative isolation and the university, one would be unable to distinguish it from a suburban setting. This allows the investigations undertaken within this project to relate more to the idea of a suburban condition than a small town condition (though the evaporation of any discernible difference between the two could be a discourse of its own).

Introduction

The site to be developed is located on Kabrich Street. The lot is approximately 80 ft. by 160 ft. It is oriented west by southwest, has ample tree coverage, and is surrounded by a variety of small houses and more recently constructed duplexes. A study of the language of these houses is an essential first step in establishing a direction for the design of a new house.

View of site facing northeast.

View of site facing north

Architecture As Language

In Charles Morris' essay "Foundation of the Theory of Signs", he describes language as consisting of three components; "the sign vehicle, the designatum, and the interpretant."[1] We can relate this simply to a word (S), the object described by the word (D) and how the word is understood by a person (I). Morris's exploration of these elements, and the relationships they develop comprise the science of semiotics. Analogies to Architecture as a language can be useful.

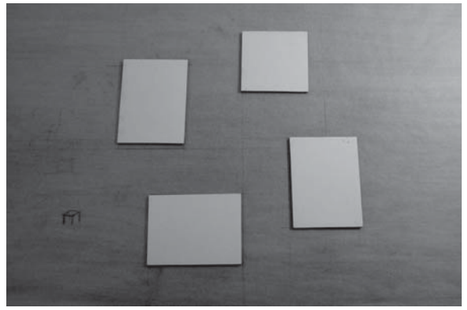
The components relate to each other in three different dimensions; the Semantical dimension, the Pragmatical dimension, and the Syntactical dimension. The Semantical dimension consists of the relation between the sign and the designata (the thing designated). "A sign has a semantical dimension in so far as there are semantical rules which determine its applicability to certain situations under certain conditions."[2]

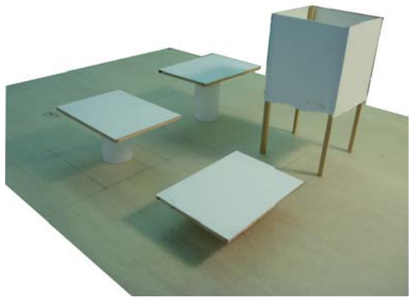
We may understand this as the relation between the word "chair" and the corresponding object we would point to express what this word "means."

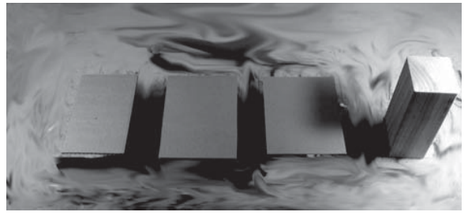
The Pragmatical dimension involves the relation of signs to interpreters (through the interpretant). "The interpreter of a sign is an organism; the interpretant is the habit of the organism to respond, because of the sign vehicle, to absent objects which are relevant to a present problematic situation as if they were present. In virtue of semiosis an organism takes account of relevant properties of absent objects, or unobserved properties of objects which are present, and in this lies the general instrumental significance of ideas. Given the sign vehicle as an object of response, the organism expects a situation of such and such a kind and, on the basis of this expectation, can partially prepare itself in advance for what may develop."[3] We can say that our relation to the word "chair" invokes in us the ideas of sitting, resting, solidity, or any such ideas. We "respond" to the sign.

The Syntactical dimension involves the relation of signs to other signs. "Syntactics is in some respects easier to develop than its coordinate fields, since it is somewhat easier, especially in the case of written signs, to study the relations of signs to one another as determined by rules than it is to characterize the existential situations under which certain signs are employed or what goes on in the interpreter when a sign is functioning."[4] We can see this as how words interact with other words, how nouns interact with verbs, or other nouns. It is akin to a grammatical relation.

Morris' work on semiotics can inform us in our investigations of the language of houses that surround the site chosen to develop.







1 Morris, Charles W. "Foundations of The Theory of Signs" Writings on the General Theory of Signs, The Hague, Mouton, 1971 p. 19, Ch II, sec. 1
2 ibid, p. 37, ch. IV, sec 1
3 ibid, p. 45, ch. V, sec 1
4 ibid, p. 30, ch. III, sec 1

Architecture As Language

There are certain distinct ‘signs’ designated by the majority of houses in the area of Blacksburg. The signs employed are not isolated to this area, and are in fact ubiquitous throughout the United States. For our purposes we will concentrate on the local condition to inform us on the prevalent language of houses.

House, generally, corresponds to a wooden or brick-clad structure. Houses have pitched roofs. There is a symmetrical layout of shuttered windows facing the street. There is a front door, often reached through a front porch. The porch roof is held up by columns. Inside (we may speculate) the space is divided into rooms, some designated to be private, such as bedrooms, bathrooms, others to be public, such as living rooms, kitchen, etc.

The combination of these separate designata relating to their given signs create the more complex object that we call ‘house’. We respond to this with other associations; we think of home. We may think of the idea of neighborhood, of family, perhaps our own childhood. The house of this sort invokes the idea of traditional building, and our response to the sign ‘traditional building’ appears quite powerful.

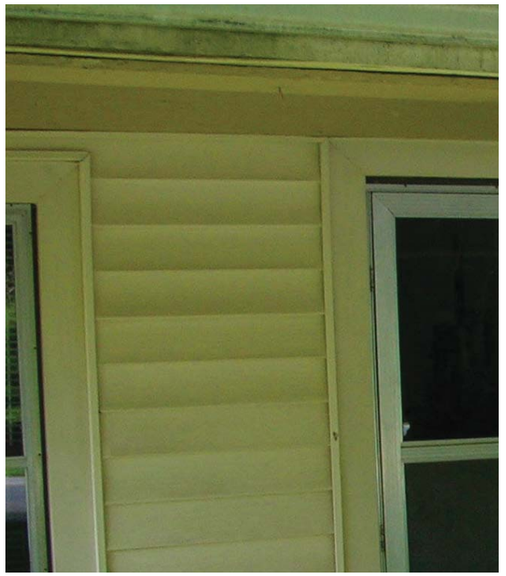
> ”Unfortunately, there is a mundane denouement to the story of the Modern Movement. When we drive through towns and suburbs we notice that not all new houses are “Modern.” This is curious because, for instance, in the Georgian or Federal or Greek Revival periods of architectural history, most houses, big and small, looked Georgian, Federal, or Greek Revival. Now every suburb and town has at least one or two “Modern” houses, but they are the exception rather than the rule. Most new houses are “traditional” and look vaguely like “Williamsburg” or “French Provincial,” or they are “Ranch Style”...Many are a strange combination of all these things at once.
>
> Possibly this is so because most families are anxious to cultivate images in their house of their real or imagined ties with the past rather than face uprooting visions of the future.[1]

We can withhold judgment of this tendency of people to “prefer” a house which invokes traditional building, and simply examine the objects designated by the sign ‘house’, and the objects that compose house.

1 Moore, Charles; Allen, Gerald, and Lyndon, Donlyn. The Place of Houses, New York, Holt, Rinehart and Winston, 1974, p. 79-80

Architecture As Language

The first semantical relation we can study is that of “wood siding” to its corresponding designata. In appearance, if we are anywhere closer than 100 feet or so away, we can quickly determine that the wood siding is not in fact wood. As we get closer we can see the wood grain imprinted on the material, but the visible joints in the siding, the lack of a true corner, and generally anywhere where the siding interacts with another element, the mirage dissipates. The object relating to the term ‘wood siding’ is made of vinyl. It lacks a complexity of material appearance as exposed in the details and joints. It is flimsy to the touch. It does not respond to weather or to age in a way we can relate to wood siding. In the pragmatical dimension, the reaction invoked by the sign becomes altered. Set-design may be a concept invoked. Deception. Imitation. Cheap. Our pragmatical response is not what it is supposed to be, for while we intellectually can invoke the notion of traditional building, our response is much more clouded and impure. We must begin apologizing to ourselves and making excuses, telling ourselves that it “looks” like such and such.



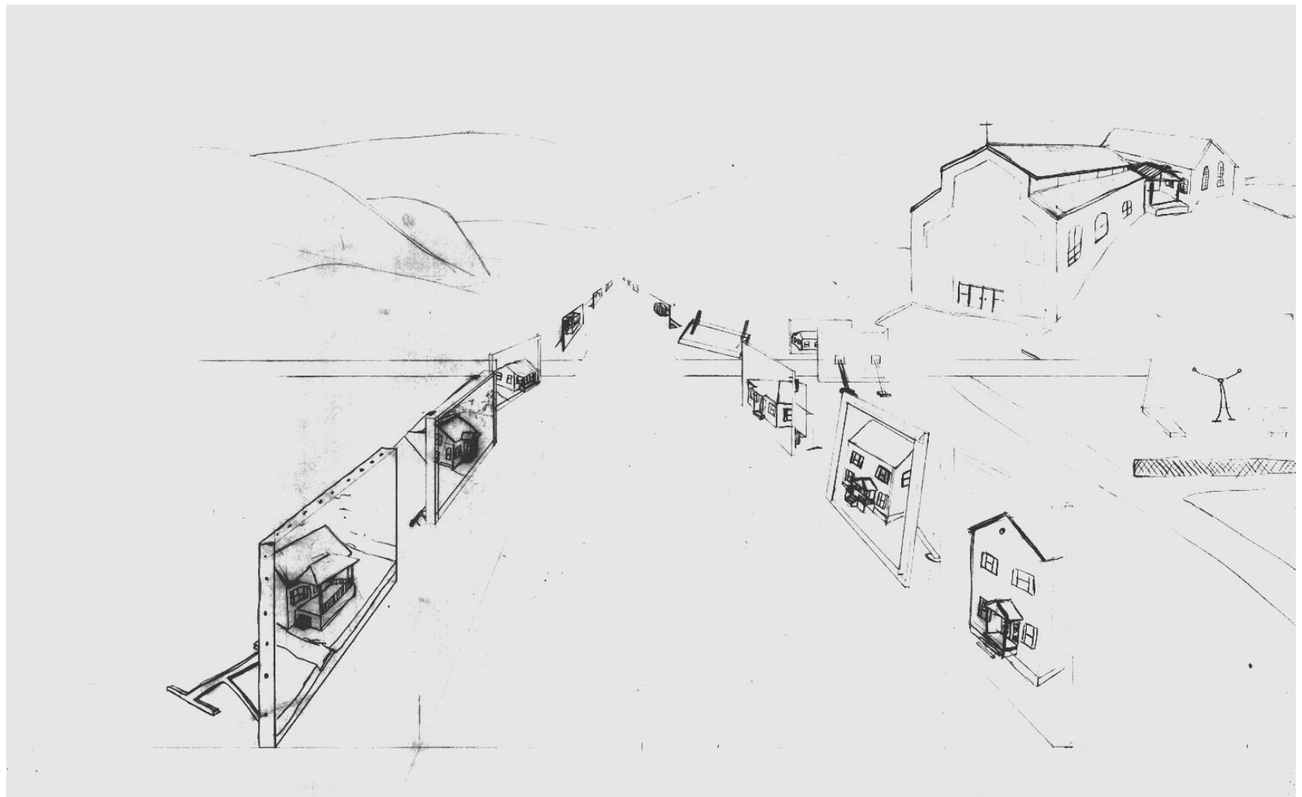
Architecture As Language

The shutters surrounding the windows have a similar disconnected relation. ‘Wooden shutters’ as a sign certainly invokes the idea of traditional building to us, even when we are cognizant of their sheer ornamentation value. Ultimately they work to define the perimeter of a window, and in that role serve to complete the sign ‘traditional window’. So that while even with a shutter made of wood, which serves no function of shutting but is rather a sign with ornamental purposes, our response is altered from its pure intent. Yet the shutters on these houses are made of vinyl, and all of our responses to vinyl, and the disruption of the relation of sign to object return as they did with the siding. The idea of traditional building recedes further.

This same reaction occurs again with the columns supporting the pitched roof of the porch, and with the balustrade surrounding the porch. The intended interpretation of these signs is removed from our actual interpretation. For while the interpretation is intended to invoke the idea “tradition”, it is sadly followed in these instances by the feeling “it is not.” Our response negates the intention. The object does not relate to the sign.

Vinyl is a useful building material. It is lightweight, highly water-resistant, easy to mass produce and comes at a low financial cost. Other than potential chemical degradation and off-gassing (issues we will not explore), nothing is inherently wrong with the material. Yet when pushed into a semantical mimicry with the objects we relate to the sign ‘house’ through ‘siding’, ‘column’, ‘fencing’, etc., the material invokes the idea of cheapness and fake, shoddiness unworthy of our homes.

Architecture As Language

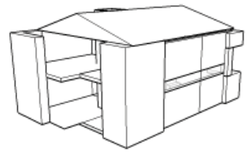


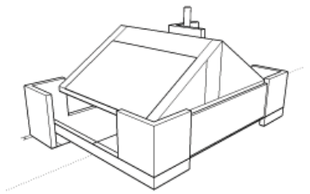
The distortion of the semantical relation presents a large problem in developing a house in this area. If we were to recognize this distortion, and attempt to repair the relation of signs to their objects in a newly designed house, it would be unable to raise itself above the mediocrity. It would be, at best, a house with more ‘house-ness’. A house where the notion of traditional building is not disturbed. Even in this scenario, the unintended responses created by the vinyl impressions of traditional building would exist, even if only to be negated. We could view this at best as a case of honesty amongst thieves, in that we are not so moved by a given thief’s potential honesty.

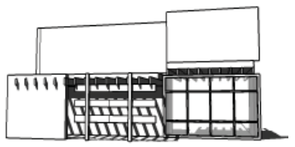
This makes the development of a house difficult if we explore only in the semantical dimension. A different approach must be taken.

Architecture As Language

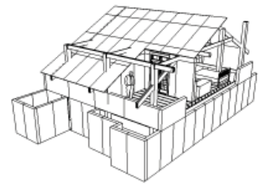
It is proposed that the nature of a house exists with or without its external signs. A house, even a poorly designed one, still has certain essential aspects. These aspects can be taken as signs, and can have relations to each other in a syntactical dimension. The intention, then, is to derive the essential aspects of a house, relate them to each other through given rules, and through this relation of elements develop a house that is in contrast to the houses around it. This contrast will at once both distinguish the newly developed house, and expose the semiotic confusion that exists in the surrounding typical houses. It is in one sense a condemnation, but more specifically it is to express that our responses in the pragmatical dimension (not to be confused with the philosophical term ‘pragmatic’ insofar as it relates to ‘practical knowledge’) are distorted, and not what they are meant to be; that this condition of negation within our response is not proper, and ultimately decays our notions of tradition, house, and community.

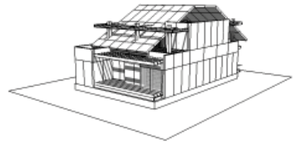






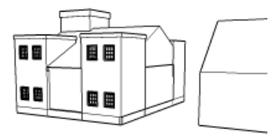
Architecture As Language





In exploring a house in the syntactic dimension, one must address the works of Peter Eisenman. Eisenman's investigations of the syntactic are presented in his book House X, and further discussed in Mario Ganelsonas's article "On Reading Architecture". Eisenman's rigorous approach to syntactics concerns the "architectural system itself, unrelated to any exterior reference."[1] Additionally, "The relationships between units are based on complex systems of oppositions which develop from line, plan and volume. These elements, meaningless in themselves, become a system of equally weighted elements."[2]

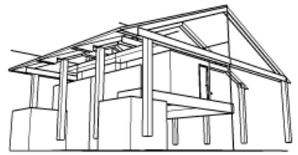
The development of a house on Kabrich Street will diverge from Eisenman's work. While he is concerned with the "architectural system itself", the Kabrich Street house will be an investigation of the system of house itself. A leap beyond line, plane, and volume must occur to establish general conditions of a house. It is tied to external reality in so far as one can distinguish the necessary components of a house existing. It is not, as Gandelsonas claims, "...the architectural system as the generator of architectural form...,"[3] but specifically the house system as a generator of architectural form. Whereas in Eisenman's work "there seems to be few or no references to client, user...,"[4] the idea of house implies a user, homeowner. A house exists with people inhabiting it. Additionally, the pragmatical dimension, or the relation between the sign and the interpreter is not unaddressed. The house is meant to create a response different from the response created by the surrounding houses. The pragmatical dimension unequivocally involves people, or at the very least, as Morris claims, "organisms."



1 Gandelsonas, Mario. "On Reading Architecture." Progressive Architecture 53 (March 1972), p. 80

2 ibid, P. 82
3 ibid, p. 82
4 ibid, p. 80

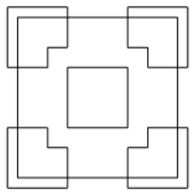
Architecture As Language

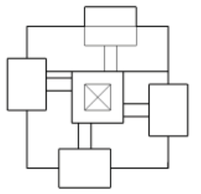


As opposed to plane, line and volume as the generators of a house, the generators of the Kabrich Street house are public space, private space and transitional space.

In House X, Gandelsonas describes a house as such, “It is a system and a sequence of elements that provide a fine gradation of public, semi-public, and private spaces, separated and connected in sequences which go from purely public-the entrance door-to purely private.”[1]

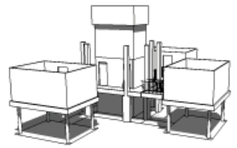
The declaration of public, private and transition as well their interactions will provide the gradation between fully public to fully private. Their embodiment in the elements of wall, room, and tower, will create ‘house’.



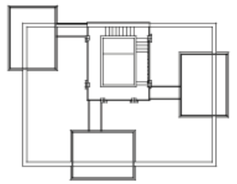


1 Eisenman, Peter. House X, New York, Rizzoli, 1982, p. 10

Architecture As Language



With any language, before we can communicate effectively, we must have a rudimentary grasp of the rules determining the sign-interaction. In written language this would correspond to the grammatical rules.

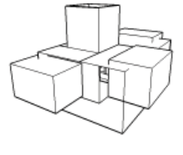


If we had the set of words, “man, tired, runs, the, haggardly”, nothing is being communicated. Yet placing these words into a determined relationship of noun, verb, adjective, adverb, they develop into a sentence which can be understood.

“The tired man runs haggardly.”

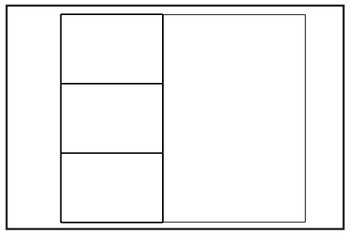
Without a determined relationship between the signs, no communication can occur. In their established relationship, however, not only can we understand the sentence, but our understanding of each element is enlarged. A man is a thing which can be tired. When tired, one may run haggardly. Running haggardly is a result of being tired. A man can run while tired, though he may do it haggardly.

In the language of the Kabrich House we have the set of elements, “Room”, “Tower”, and “Wall” with a mediating element of “Path”, corresponding to the relationship of public, private, and transition. This relationship must be determined in order to give the elements significance, and to allow their more complex existence to be understood.

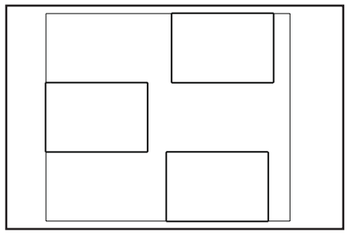


Architecture As Language

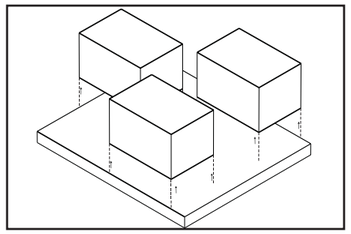
We begin with an initial relationship of public to private. 3 private spaces beside 1 larger public space.

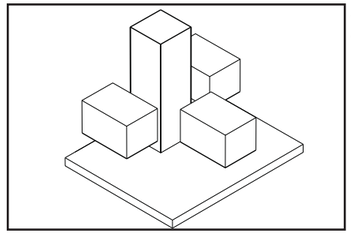


The private spaces are removed from each other to augment their private character.

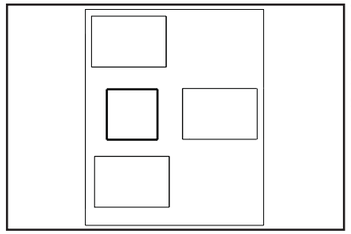


They are elevated above the public area.



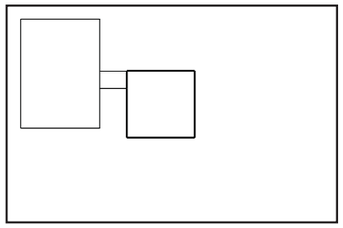


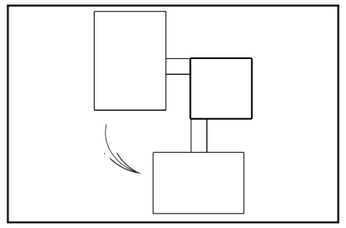
A vertical transition is added to complete the relation of public to private.

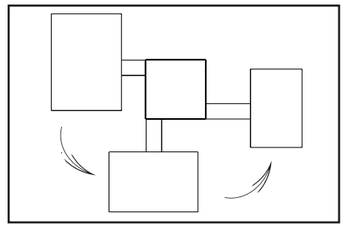


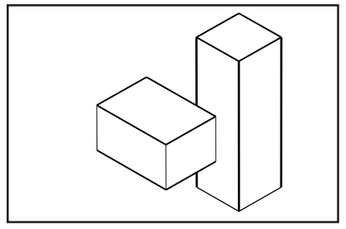
We have then, the set of grammatical elements, akin to noun, verb, etc. As in a sentence, their spatial relationship must be further determined.

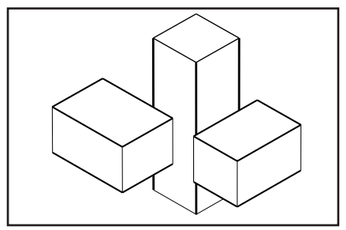
The private spaces rotate around the vertical transition element. As they turn they recede further from the vertical transition element and diminish in size.

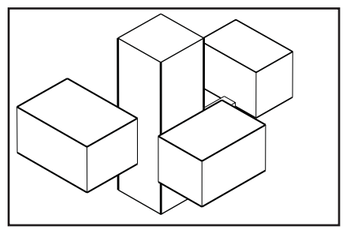


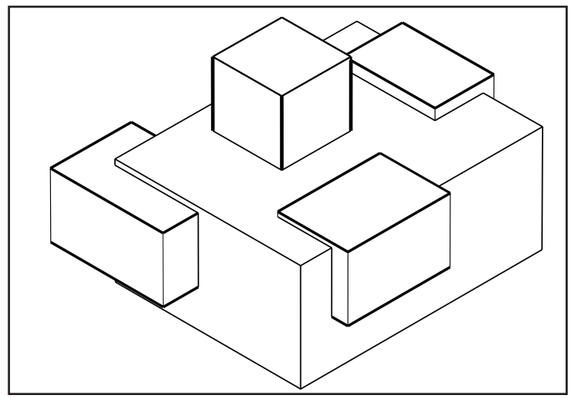








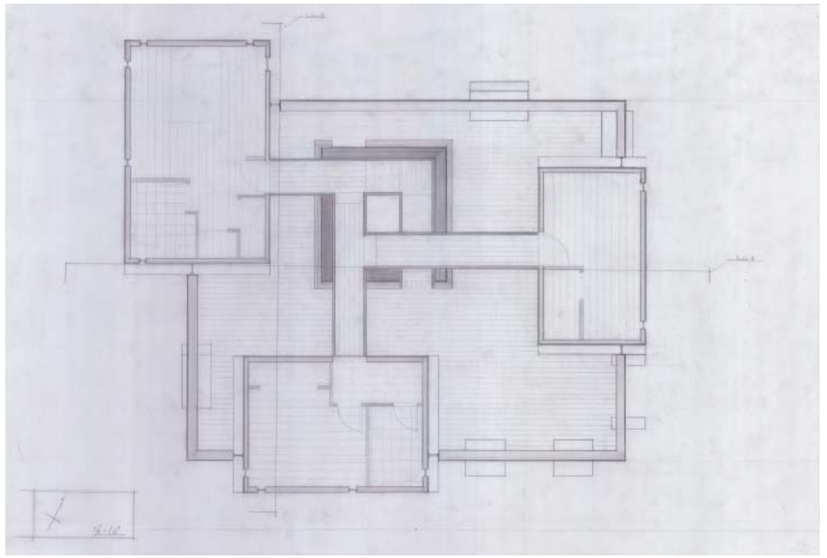


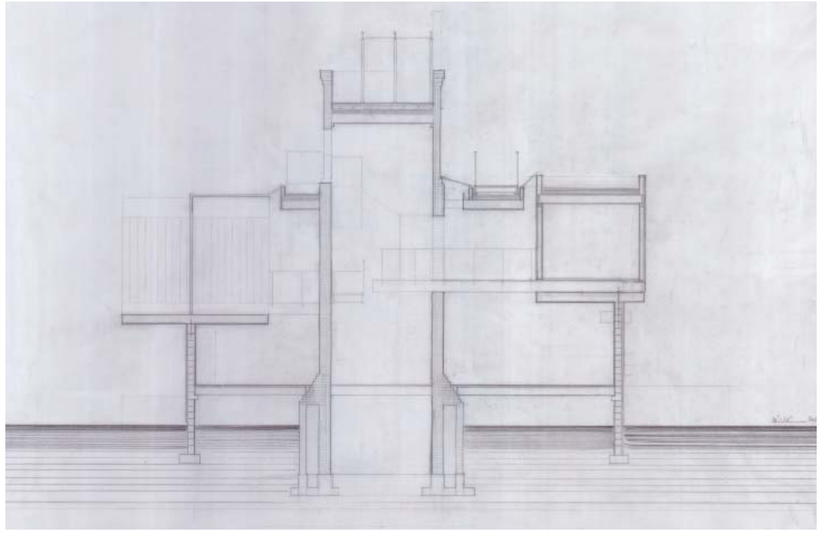


The elements of Wall, Room, Tower and Path exist in a grammatically determined relationship, and the ‘house’ can begin to be apprehended.

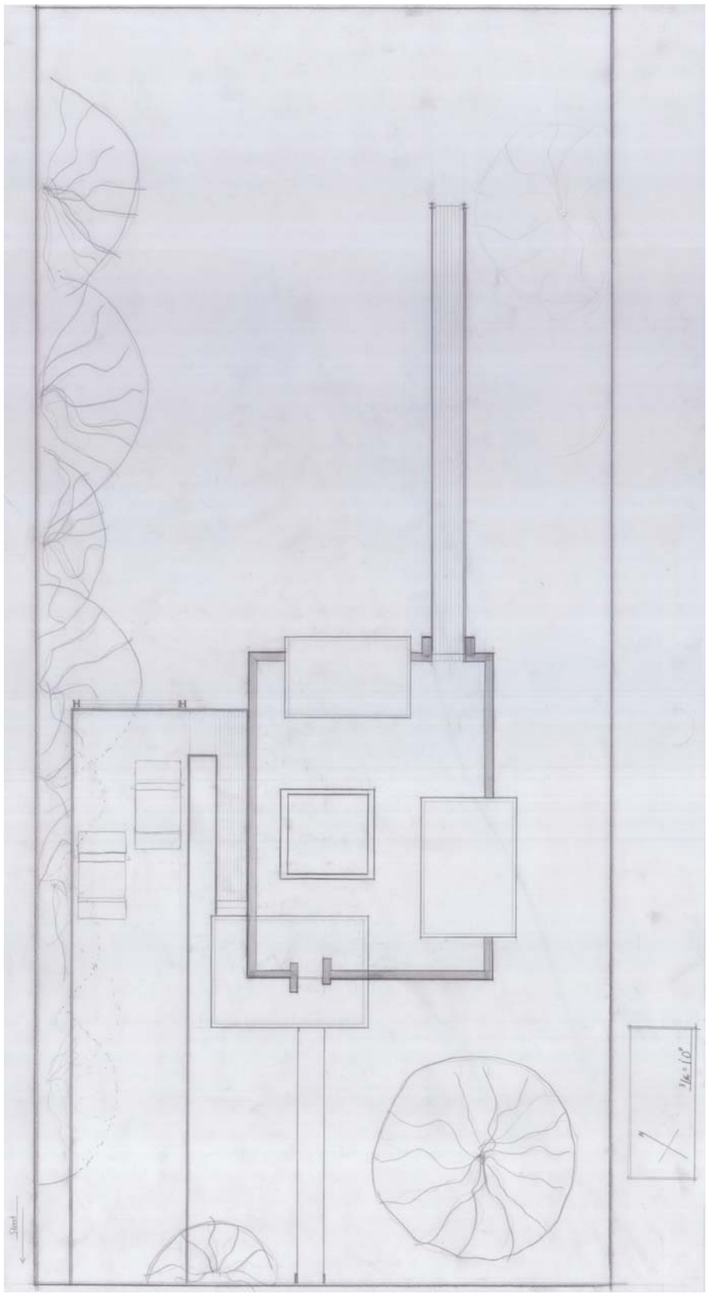
Kabrich House

The primary elements of Wall, Room, Tower, and the mediating element of Path are all presented in the street-facing elevation. The house is composed of an enclosing wall pushed through by three elevated private rooms rotating around a tower. These elements constitute the embodiment of the articulated division between public space, private space and transition.





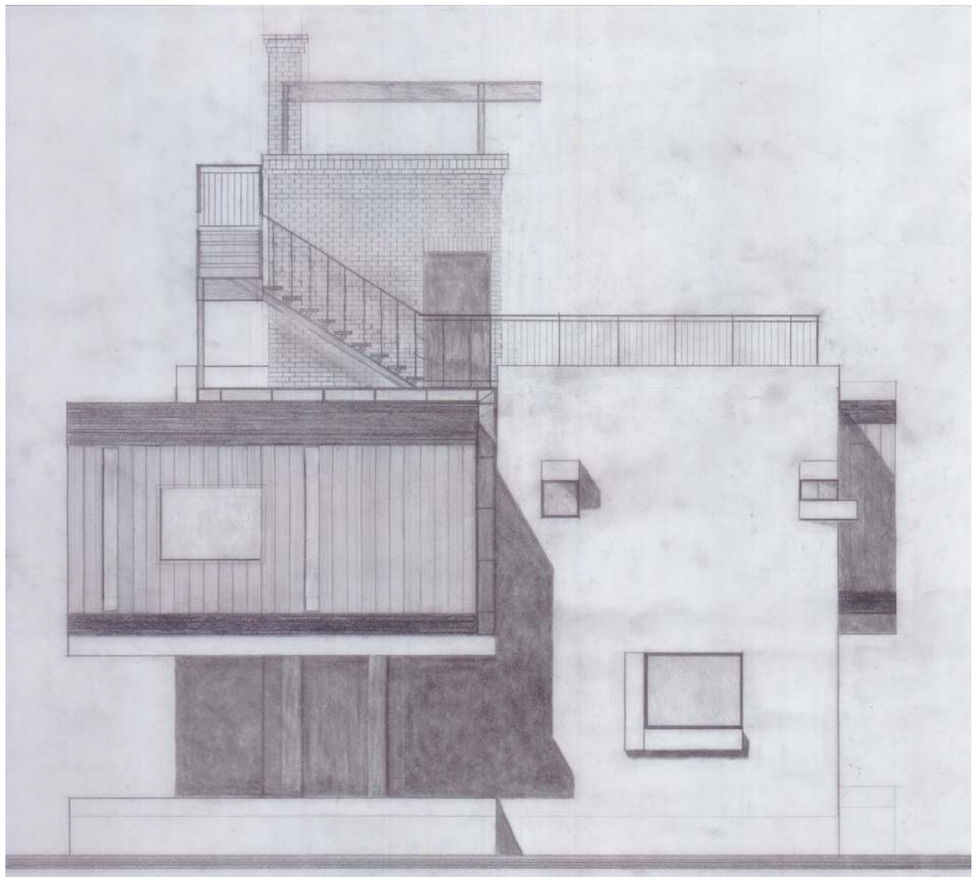
Kabrich House



Wall

The wall presents itself as heavy and massive. Its external character is one of solidity. Though the wall defines the public space, its presentation to the street is one of a very private nature.

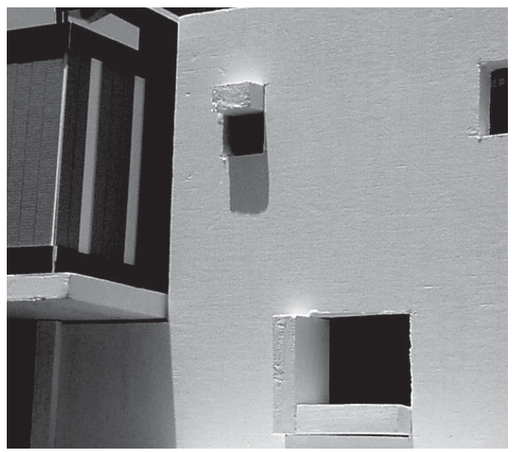
The abstract materiality allows a liberty in determining how and where openings in the wall occur.



Wall

The monolithic mass is carved out to allow movement from the outside in. The rules determining the nature of the openings is that what is cut away to create an opening is retained. The removed mass is further manipulated and reestablished within the wall to define the openings.

Front entryway

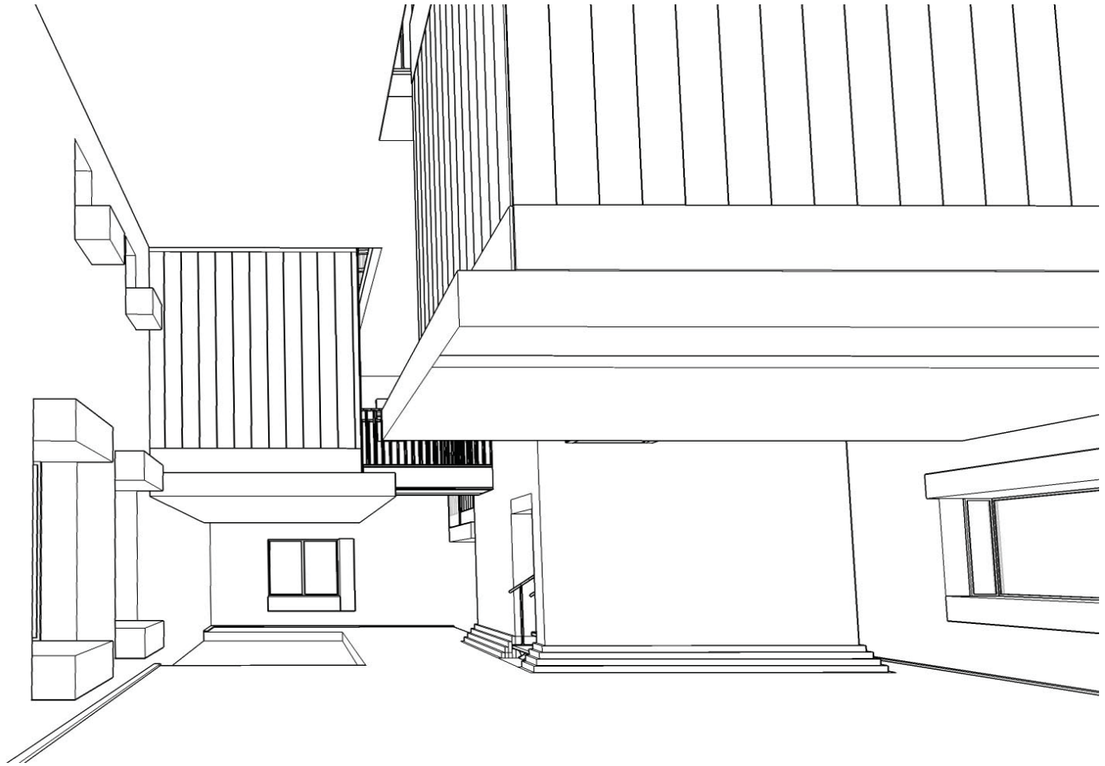


Front window

Side window

Wall

Within the wall there is a great sense of internal openness. Only the perimeter of the tower creates any additional wall surface. The resultant space is a large unencumbered stage for the public drama of a house.



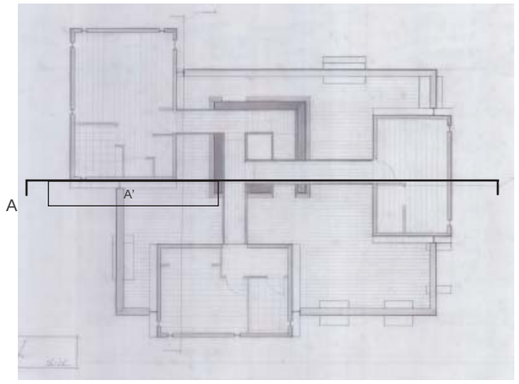
Interior perspective facing southwest.

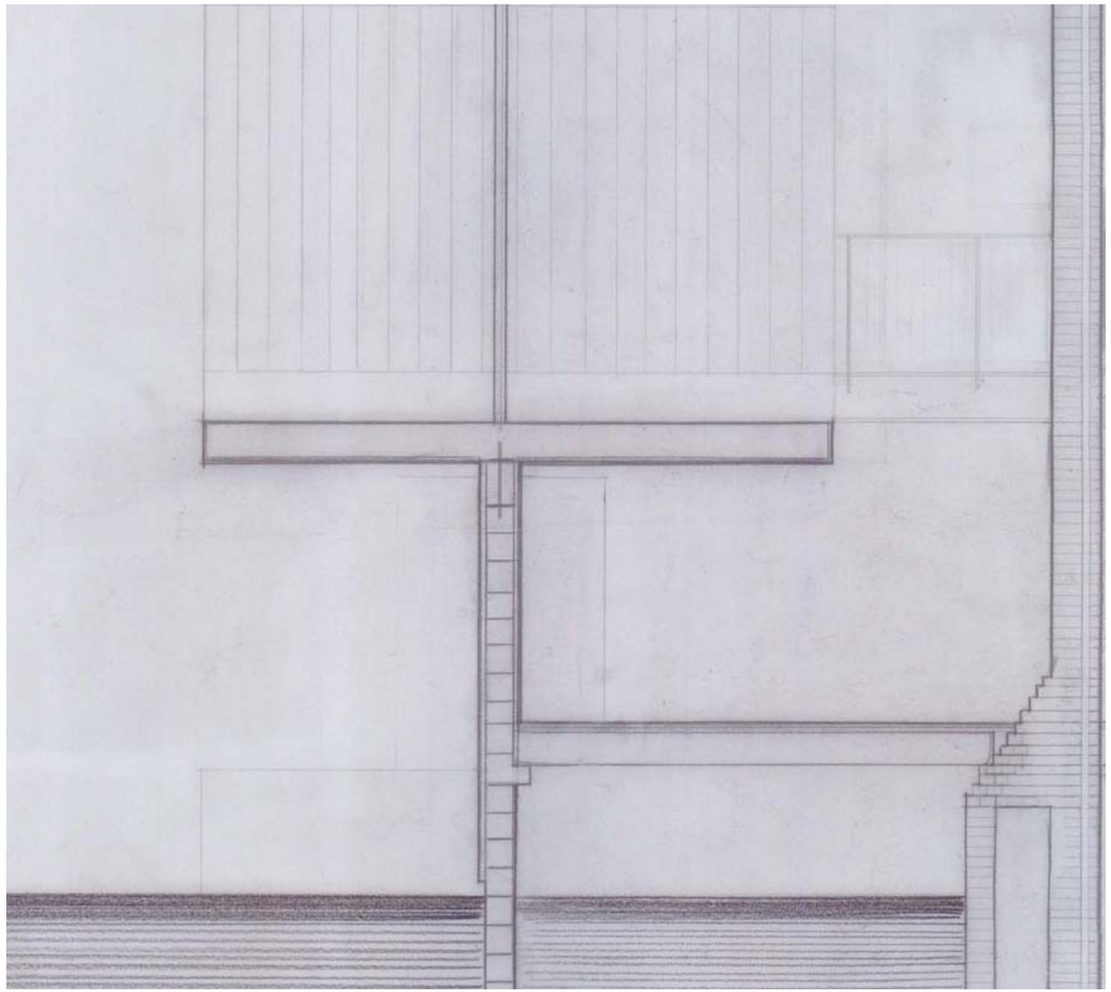
View from entryway.

The language of openings in the wall creates the opportunity for window seats and sunshades.

Wall

The wall is constructed of stucco-faced CMU’s to convey its mass and solidity in defining the border from public space to private space.

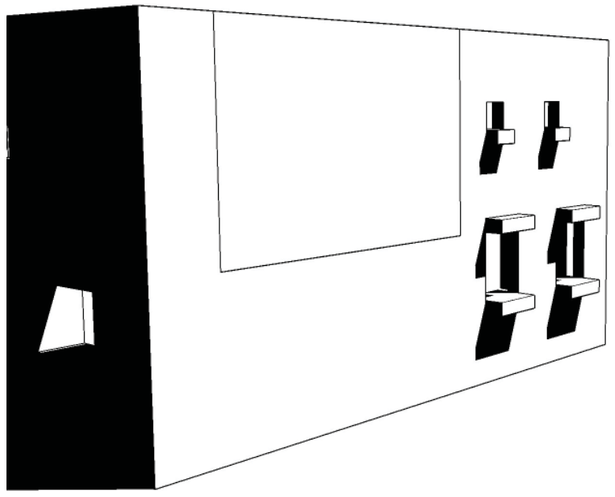


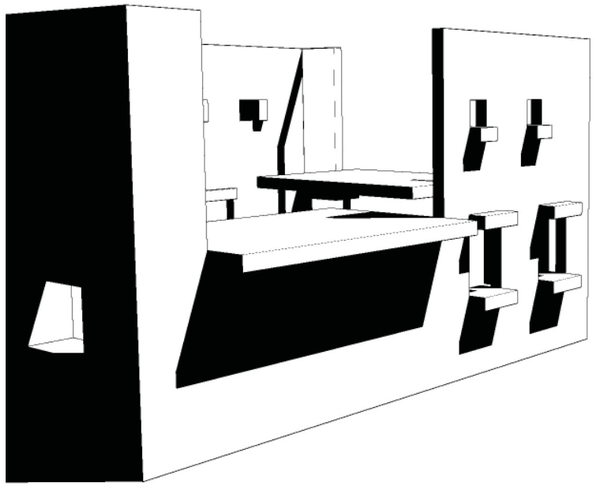


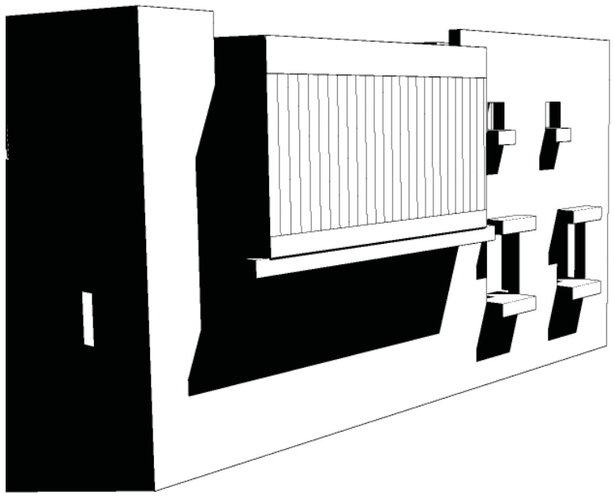
Section A’

Wall

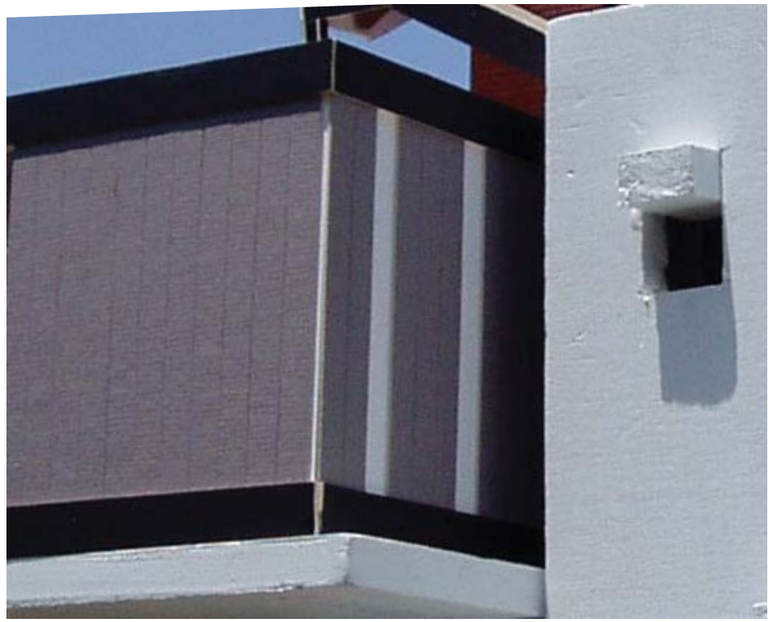
A piece of the wall is carved out and turned horizontal to act as a pedestal for the room above.

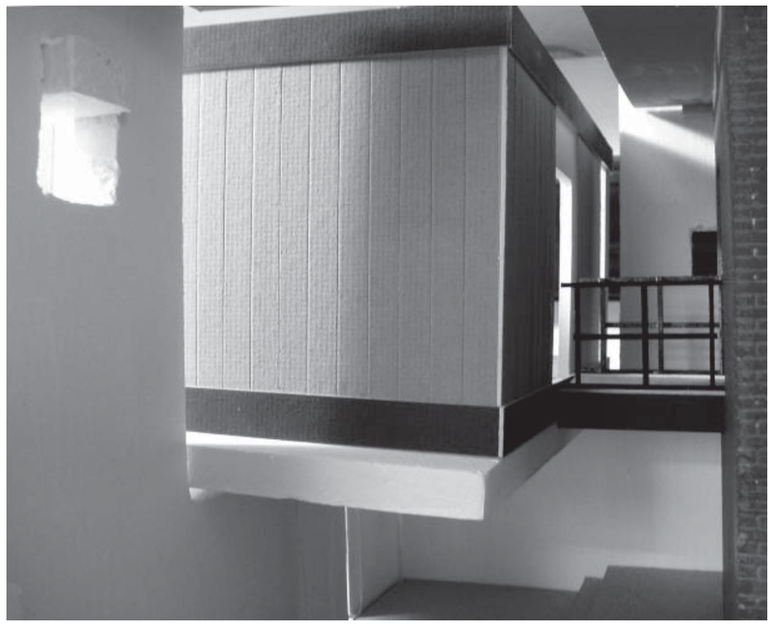


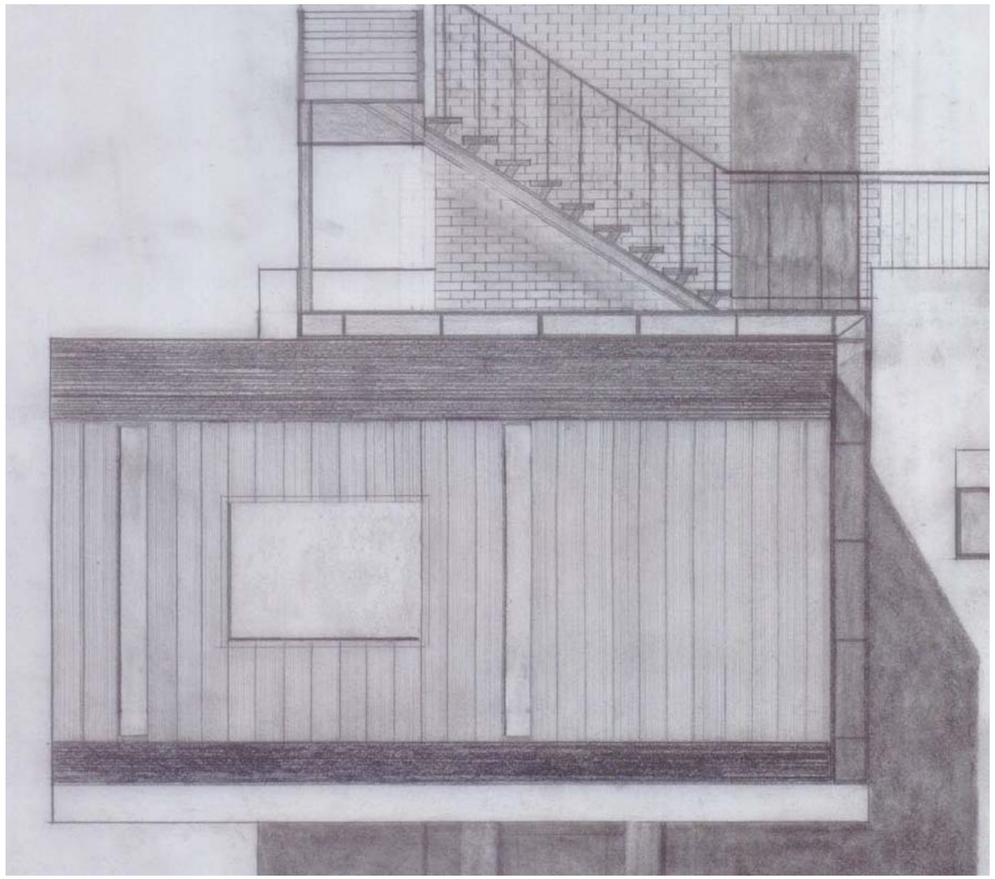




Rooms







The rooms, perched on the pedestal created by the wall, are wooden volumes which move through the enclosure. Their materiality is informed by their relation to the wall. They are light objects relative to the heavy wall, and thus are meant to be read as such.

Rooms

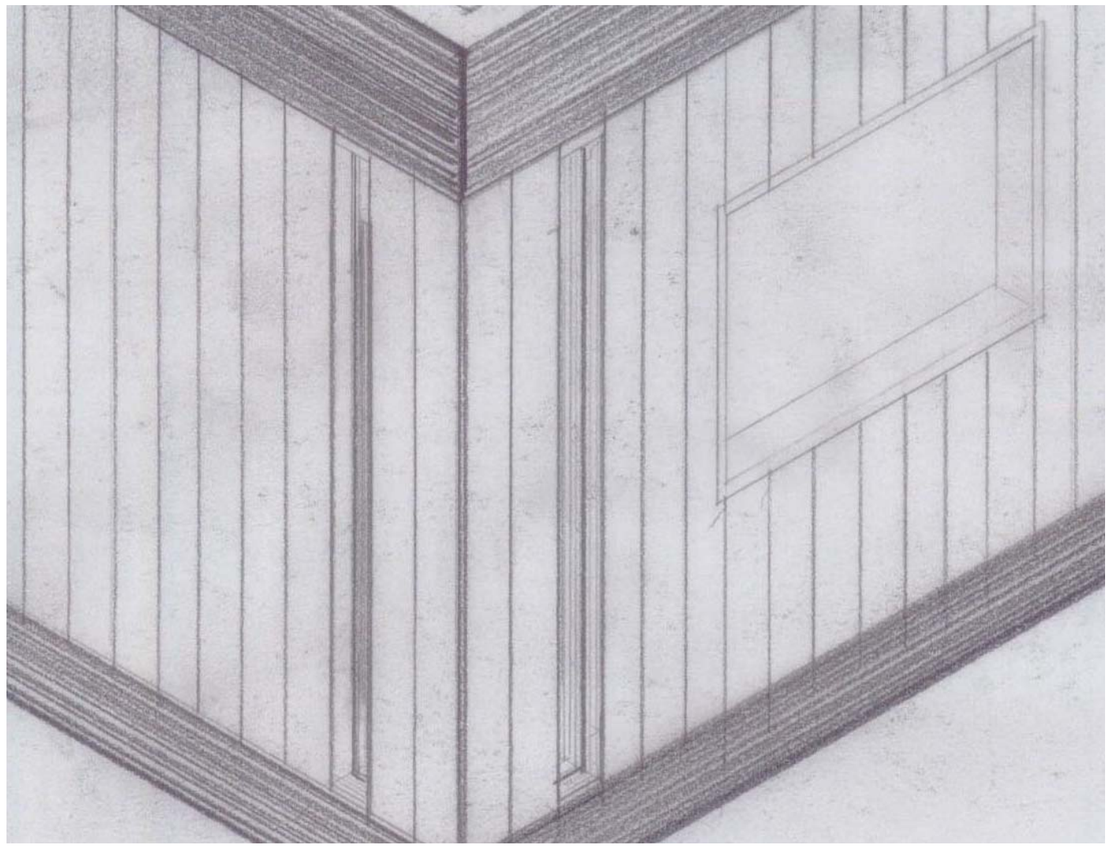
Isolated from each other and elevated above the public space, the rooms become a public declaration of privacy. From outside and in they announce themselves as places of escape. In this way the rooms' relation to the public space is akin to the relation of houses to the street.

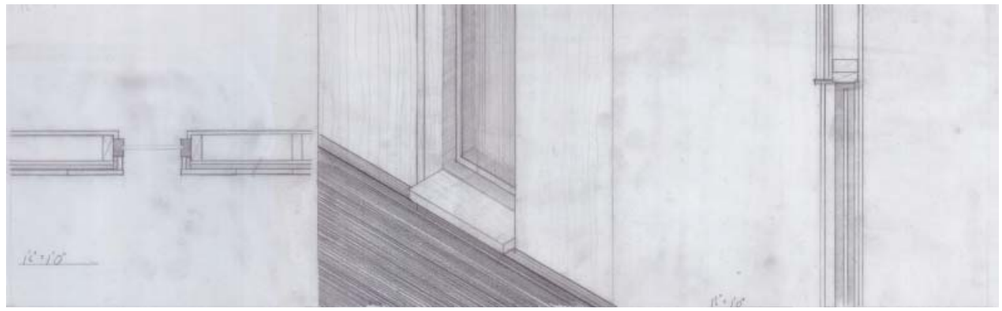
Rooms

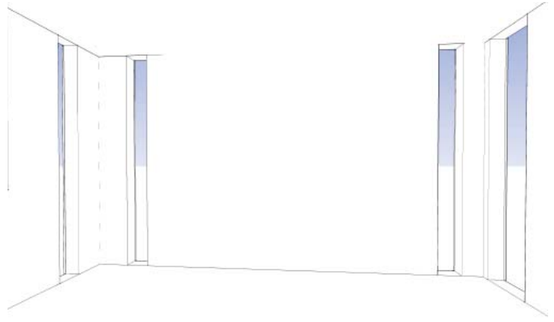
Openings for light in the rooms are created by removing a vertical wooden siding board. The resulting slit of vertical light created, floor to ceiling, allows one to experience the elevated nature of the rooms.

The syntactical rules determining the openings in the rooms presents a complication. A window is not just to bring light in, but is the visual bridge between the outside and in. A person needs to be able to sit and gaze out a window. Conventional windows suit this purpose adequately in their ability to allow a view, yet being of a scale where one can retain privacy. The question of whether or not to introduce a window loaded with semantical concerns into the language of the rooms is to be considered.

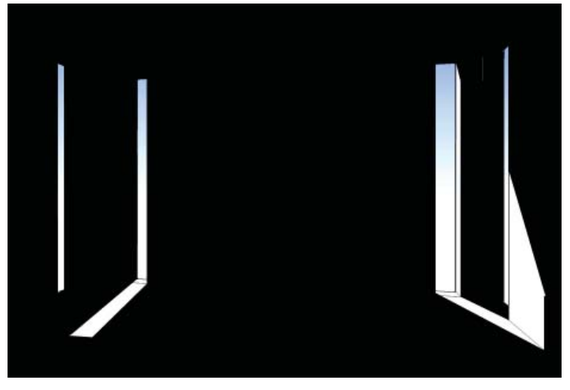
The notion of the rooms existing in relation to the communal space as houses to a street enhances this consideration.



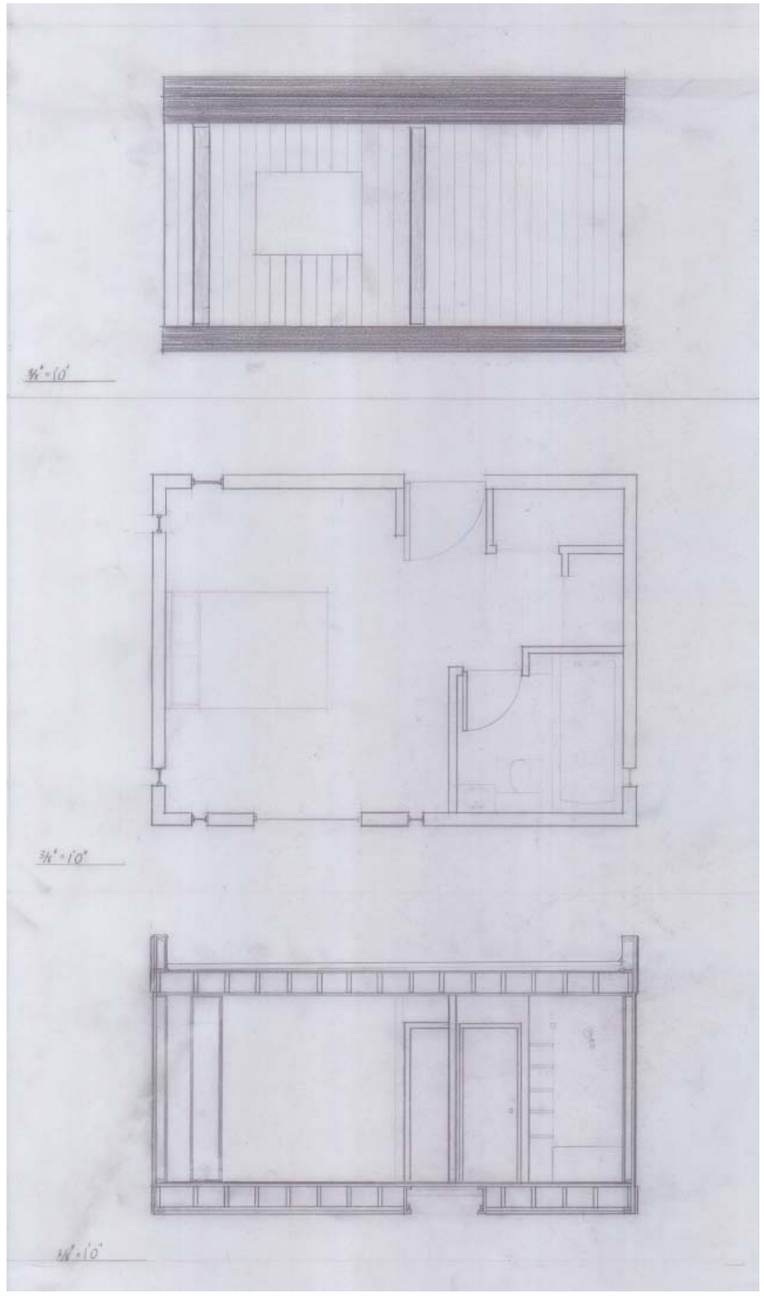


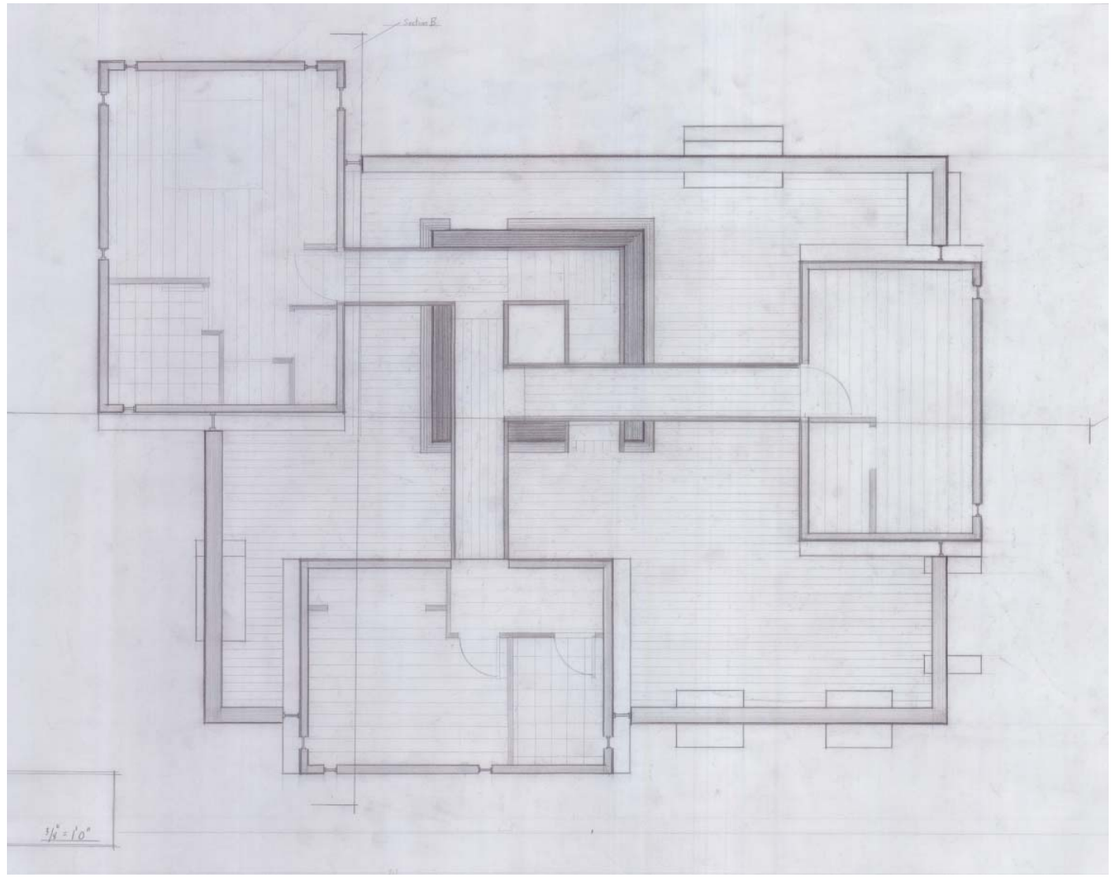


Interior perspective of room.



Rooms



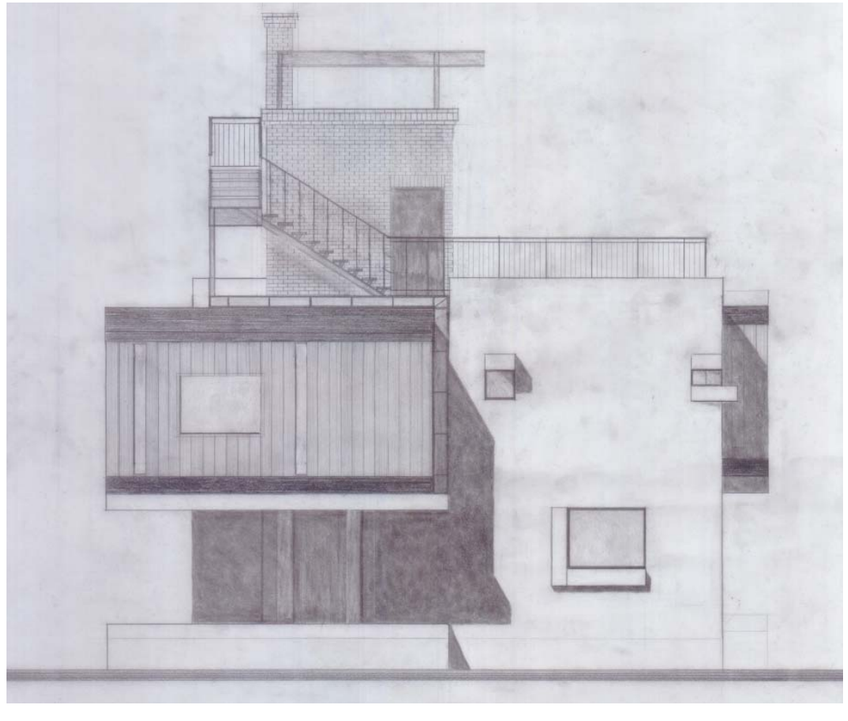


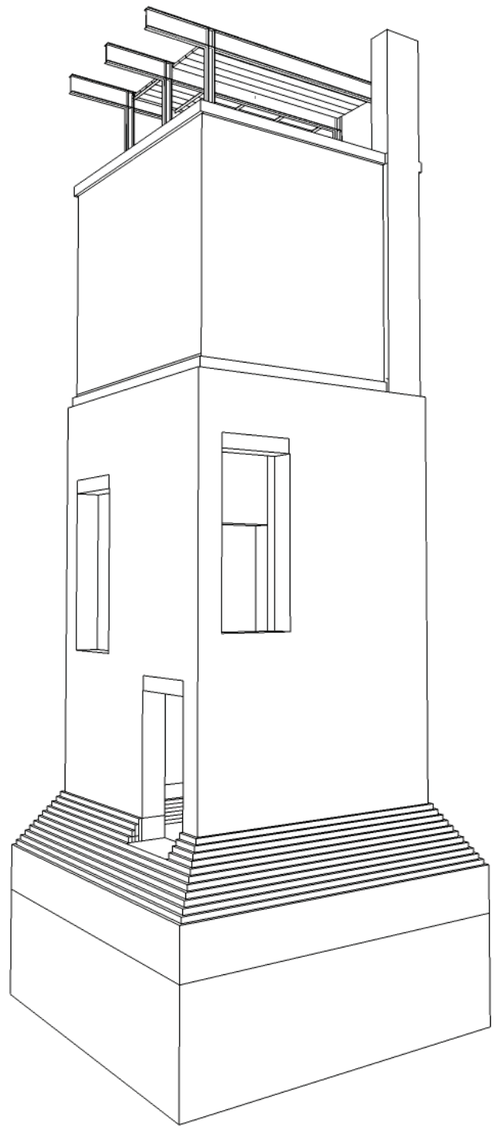
The rooms are reached by the path as it winds itself up and pushes through the tower.

Tower

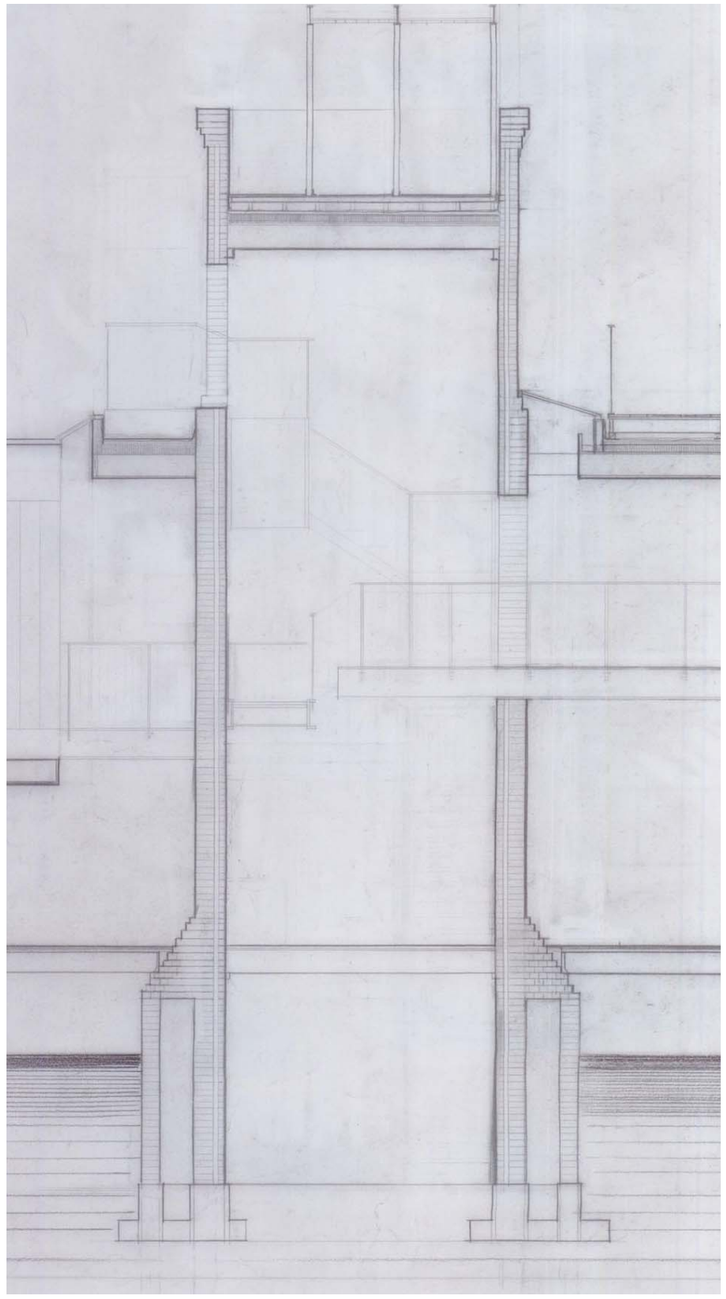
The tower is the grand gesture of the entire house. It stands above its neighbors and provides those who live there a unique relation to the outside world. The tower provides not just transition, but public declaration, in addition to the private and solitary space at its top.

The tower is built of brick. In that regard it bears relation to the fireplace chimneys of traditional housing. Its scale, demeanor and function distinguish it from that notion, and it becomes more of a beacon for the house.





Tower



The tower begins below the floor of the rest of the house, asserting its independence as it resides off center in relation to the wall around it. It pushes through the roof to reach its maturity up and away from the house. The space within the tower below the house floor serves as a basement space, where the services and machines of the house can be located.

Tower

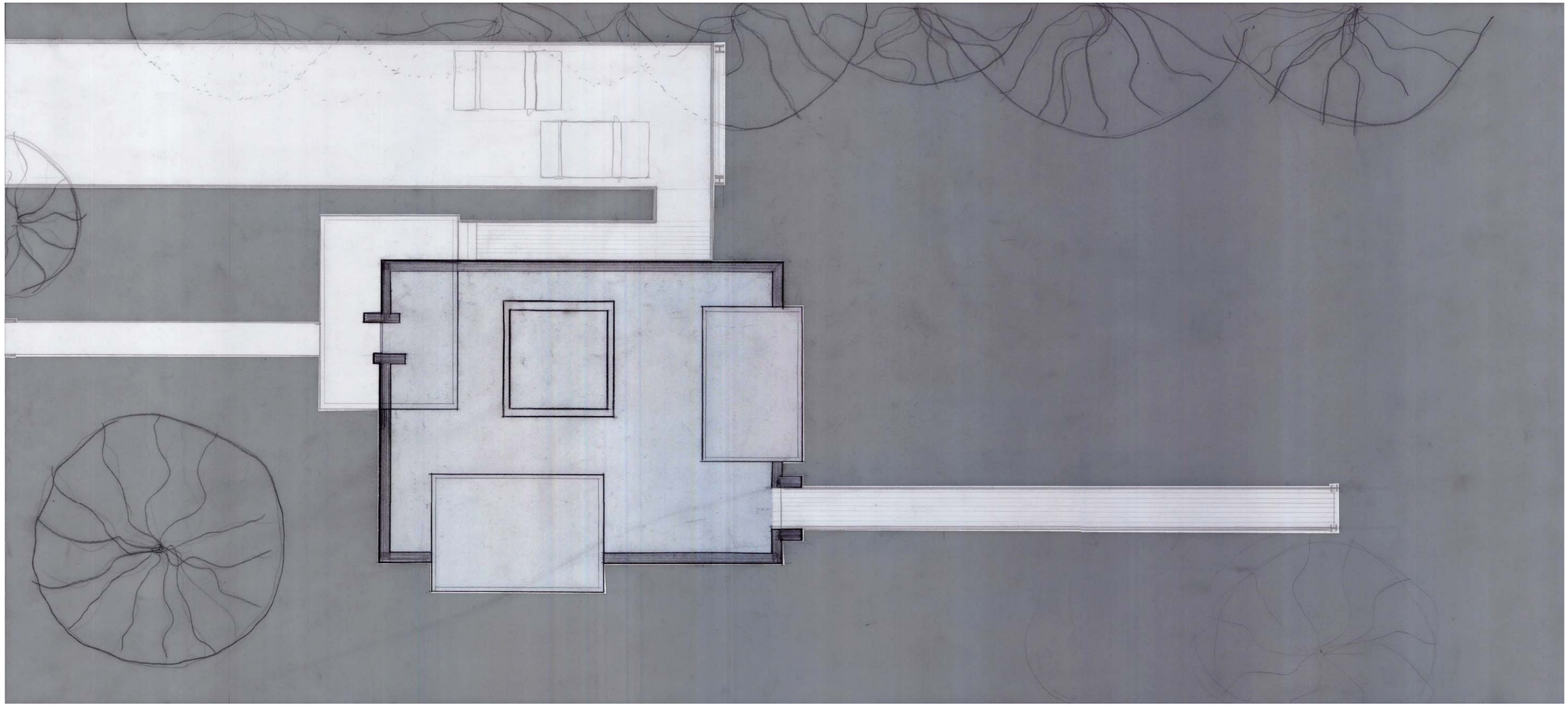
As the tower breaks through the roof of the enclosure, it ascends upwards until it achieves maturity in its relationship with the path. Atop the tower is a solitary space, where one is alone in relation to the larger landscape, beyond the localized neighborhood.

Path

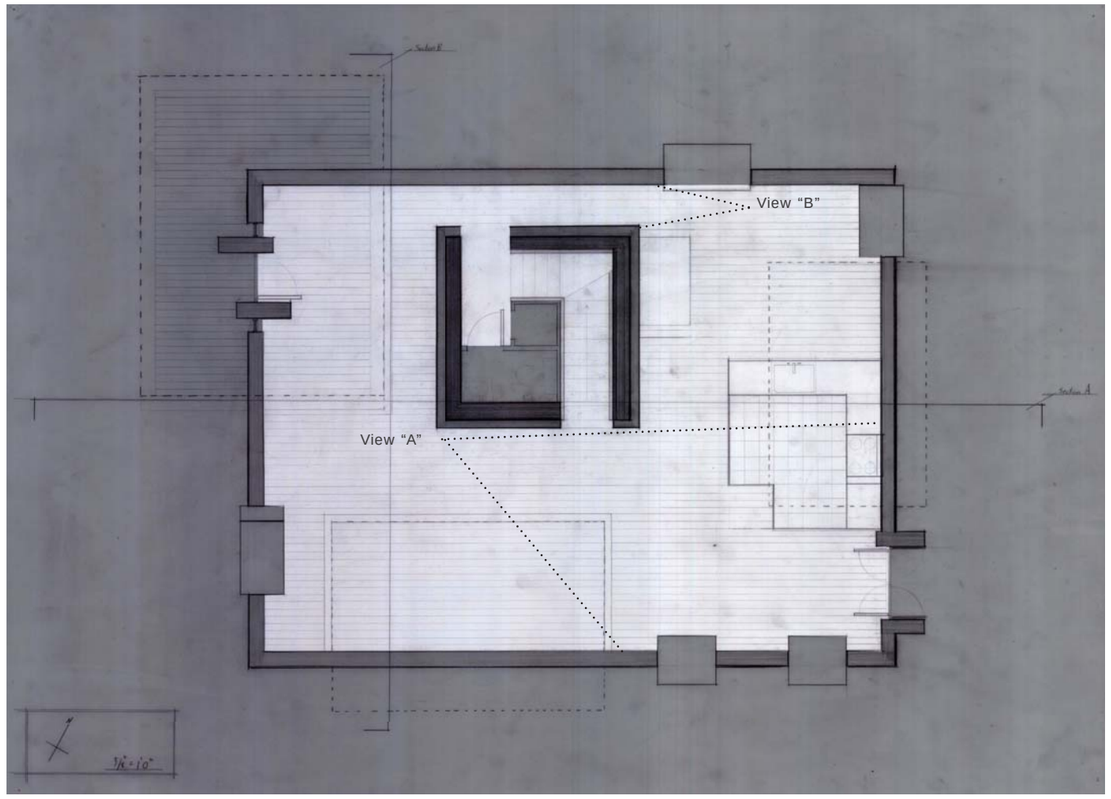
The Path is the mediating element. It interacts with each primary element, having a different relationship to each.

It is identified and conceived as a relation of wood with steel. The wood serves as the surface of the path and the steel defines its perimeter.

It begins at the street, enters into the house, and comes out the back, taking one deep into the yard.



Path

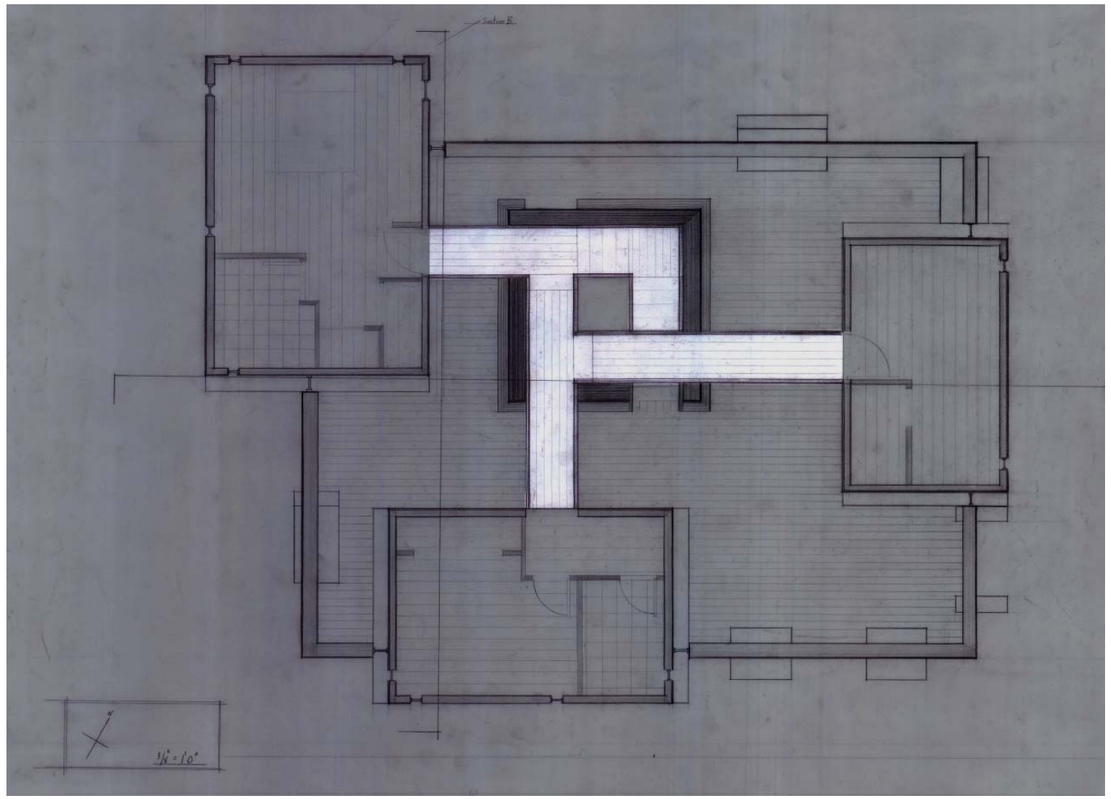


Within the public space, the path becomes the floor, and floods the horizontal.

View “A”

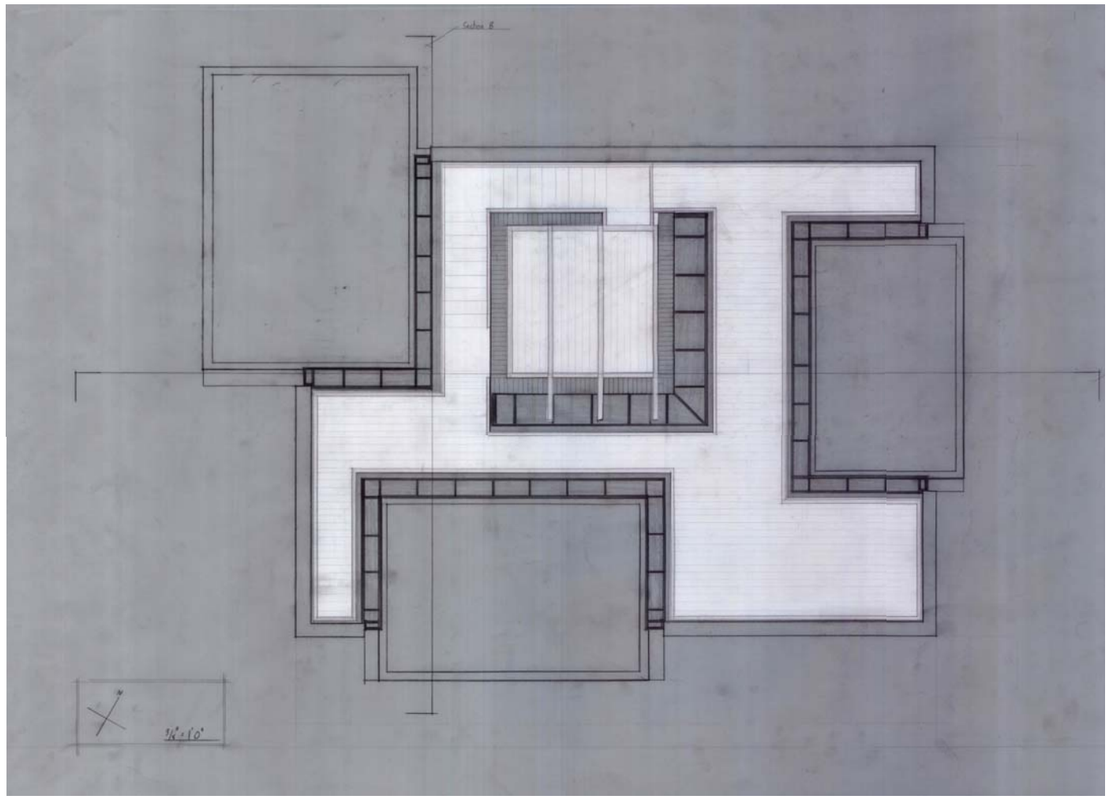
View “B”

Path



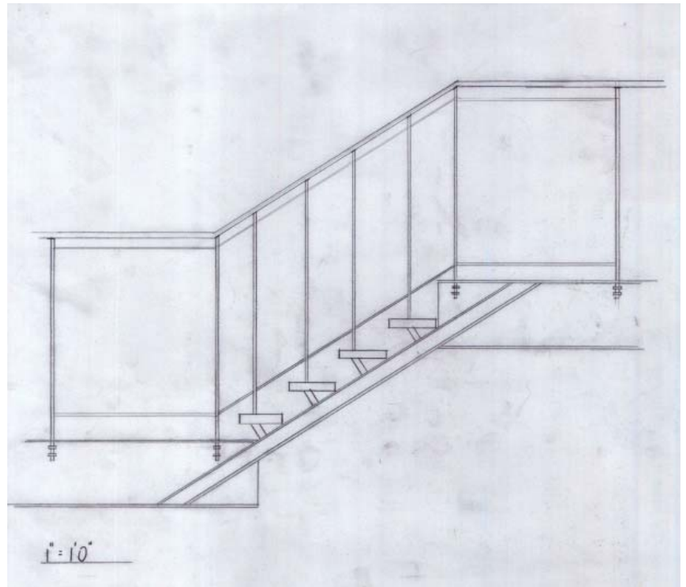
With the rooms, the path functions as a catwalk, bringing one up to the room, but not into it. The path does not enter the private rooms.

Path

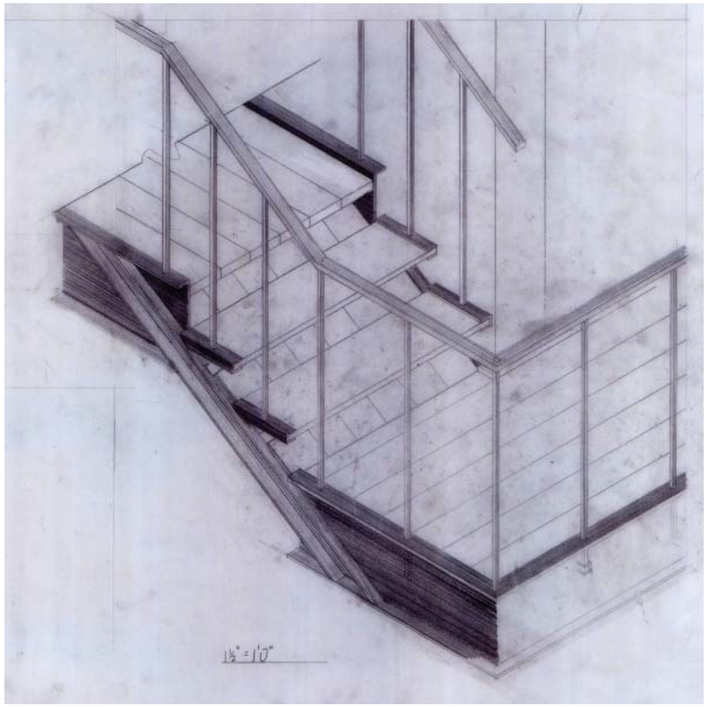


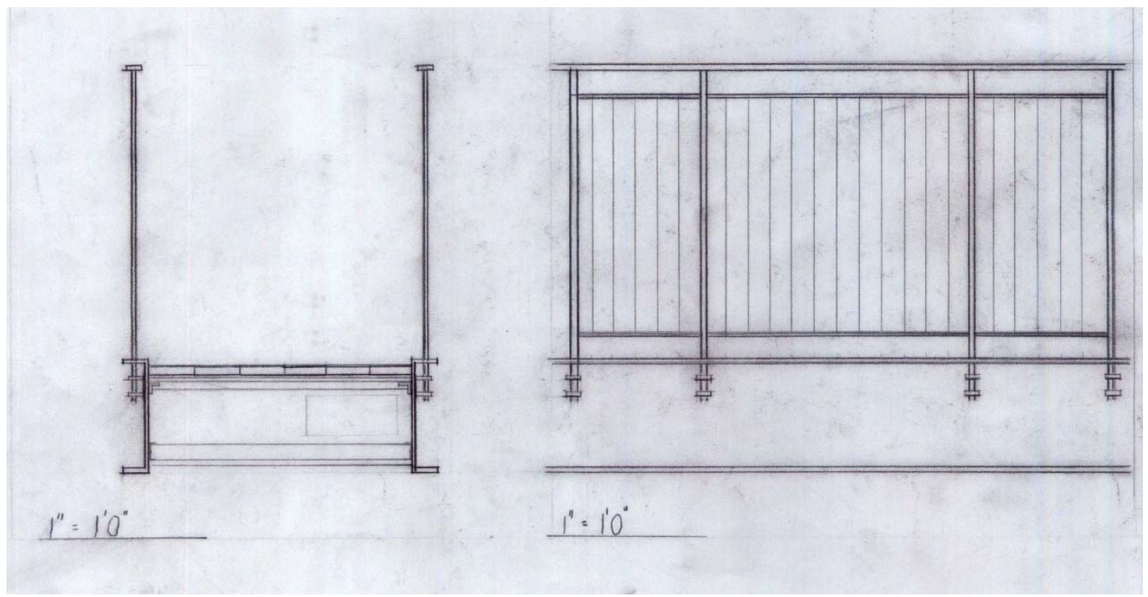
As the path twists up through the tower, it breaks through once again at the roof level, creating an accessible roof deck. It also continues its ascent up the tower to create an additional private space at the top. The path completes the tower visually in addition to providing the final resting point: a room to the sky.

Path

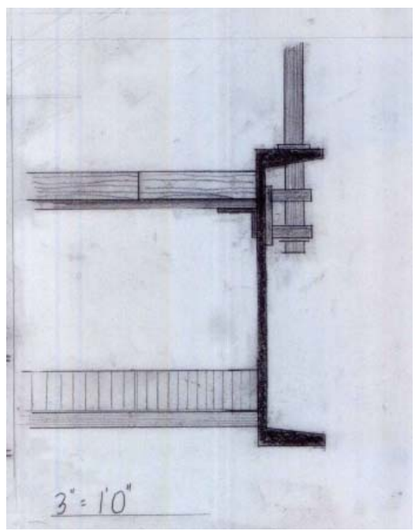


Stair detail



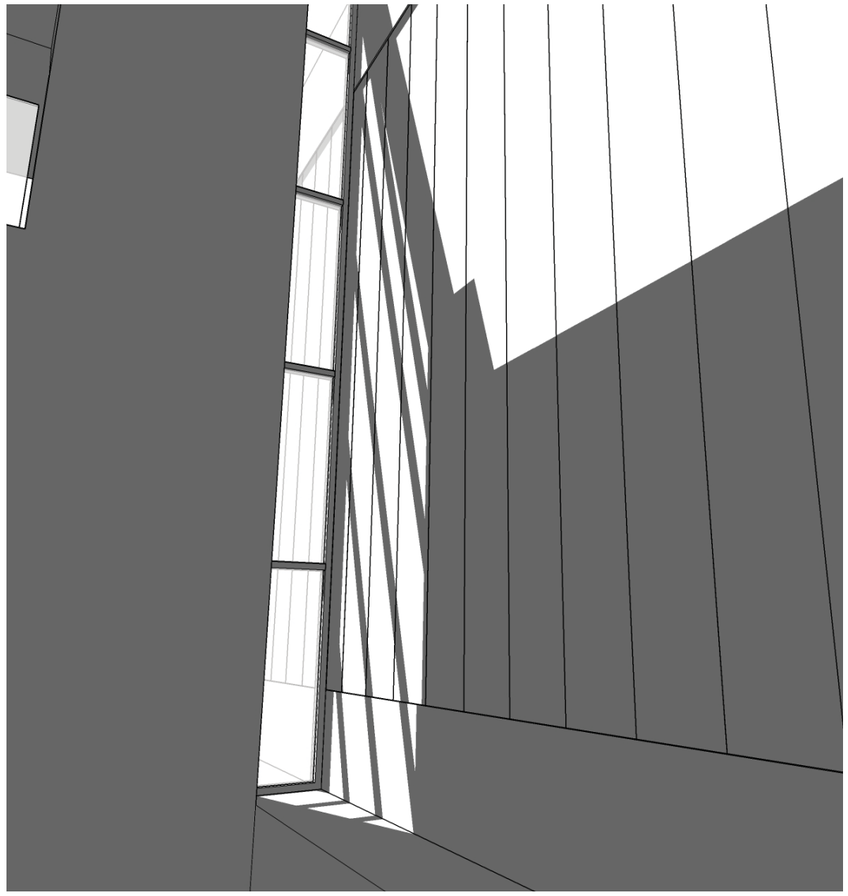


Catwalk section and elevation



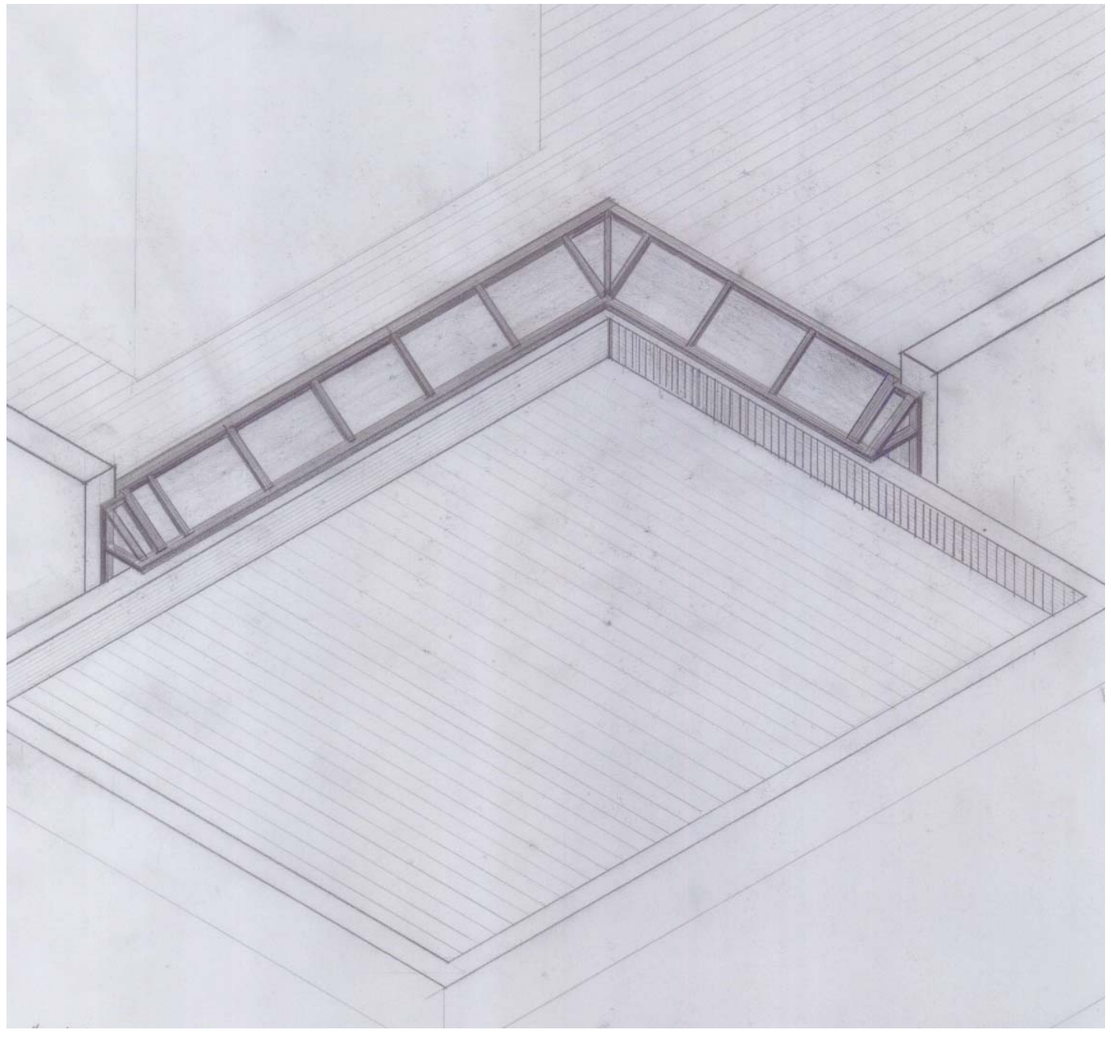
Handrail connection to catwalk

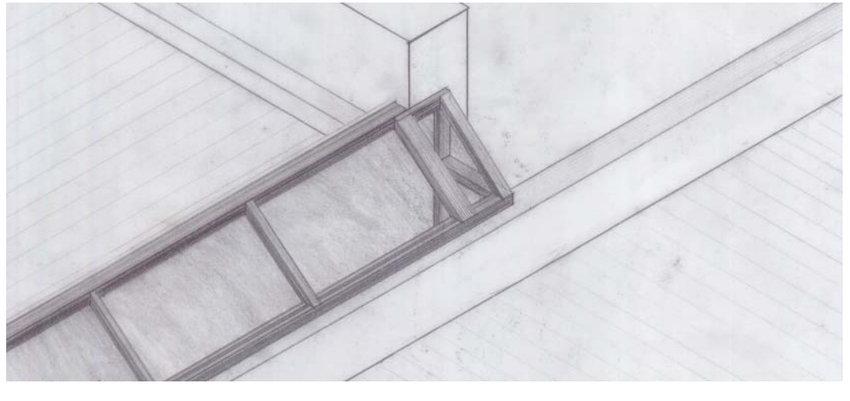
Details of Intersection - Light



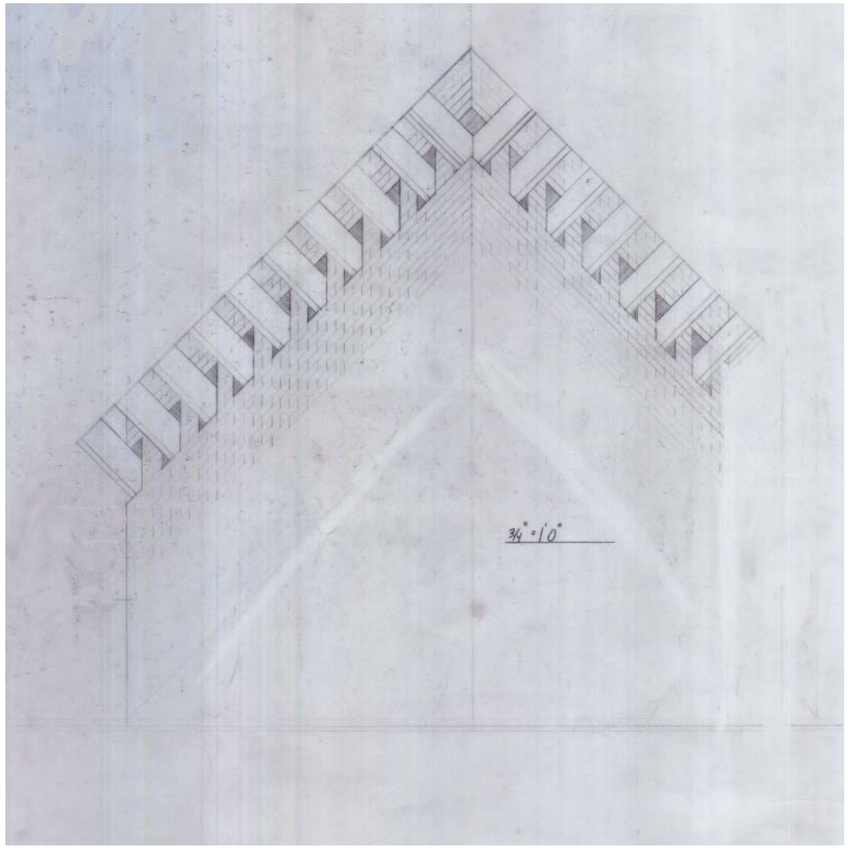
Where two elements meet, something happens. This was articulated with the wall reorienting itself to carry the room. The room is otherwise distinct and separate from the enclosure. Their intersection is defined by a glass joint. Their separateness is displayed through light.

Details of Intersection - Light



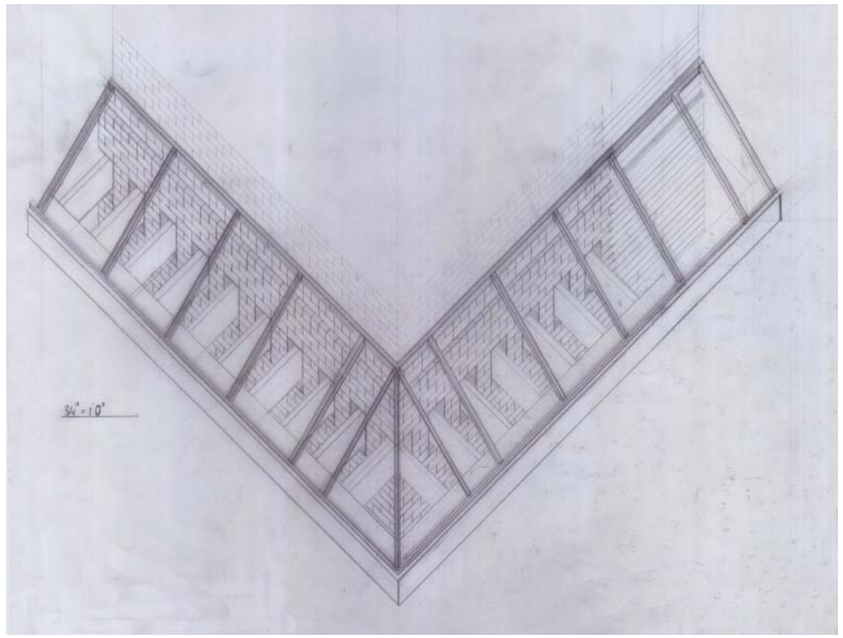


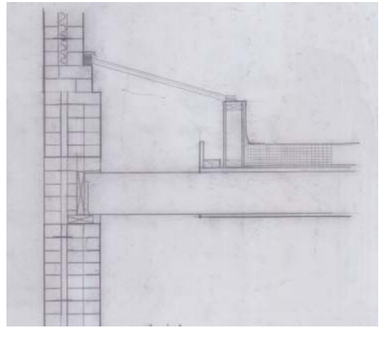
Details of Intersection - Light

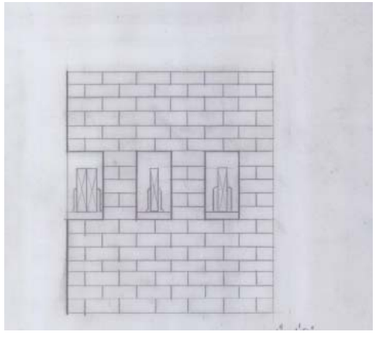


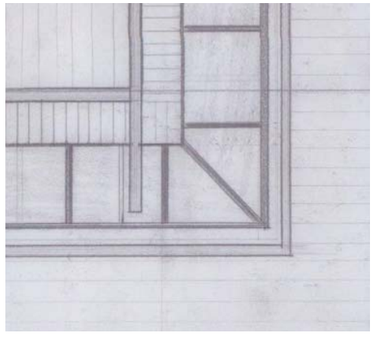
As the rooms pull further from the tower, they bring the roof with them, peeling it away from the tower to reveal the connection. This revealed connection brings light down onto the surface of the tower. It also allows the tower's verticality to be fully experienced as it pushes through the roof, reaching up into the sky.

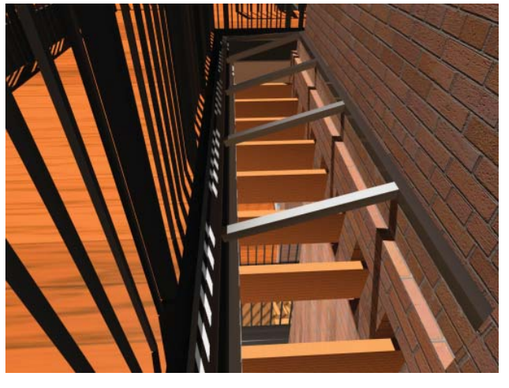
Details of Intersection - Light











Conclusions

The syntactical rules determining the elements of the house, in addition to the syntax of the house itself provoke a textured and more complex interpretation than the surrounding houses on Kabrich Street. In the pragmatical dimension, one's response to traditional building may invoke the ideas of neighborhood, family, childhood. These ideas, however, are not architectural ones, they are social ideas or personal ideas. Architecturally, siding, pitched roof, shuttered windows and column framed porches are the visible aspects.

The Kabrich House's syntactical interplay immediately presents 'parts'. Tradition is not invoked. Ideally, "house" is invoked, but one is unable to take it in as a simple undivided entity as one can with the other houses. The elements are distinct from inside and out, and they present themselves in this manner.

Beyond the house presenting itself as a complex object composed of parts, the parts themselves take on this complexity. While the elements embody the articulated division of public, private and transition through their syntactically determined interaction, they individually invoke each of these aspects. The understanding of the elements, through their interaction with each other, becomes dynamic.

The wall defines the public perimeter inside the house. Within the wall there is a sense of openness. From the street, however, the wall, portrays a sense of privacy, away from the street. But the wall also allows for transition through the carved-out openings.

The rooms stand prominently in the public view. From within and without they are public declarations of the private room. They are essentially on display in a very public sense, and yet they are the places in the house where you can get away from others.

They are physically elevated from the public space of the house. Further, the rooms are a volume of space transitioning through the enclosure wall. Their volume continues from outside to in at a glass joint. One can perceive the inside from the outside, and vice versa.

The tower has a clear public presence by its size and uniqueness. It also has a clear transitioning function in bringing people up to the rooms and the roof and the top of the tower. It is at the top that the tower develops its private dynamic. In the tower perch one is away from others, communing with the landscape, and if desired, unseen by one's neighbors.

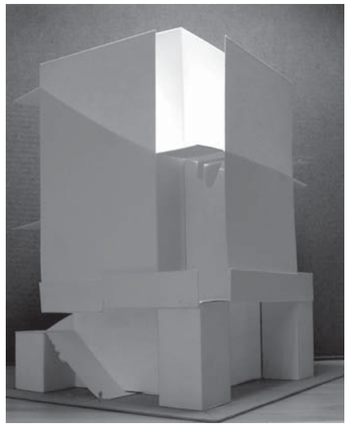
The path, as movement, is pure transition. Yet this act of transitioning is from the public to the private. From the street one can see the beginning of the path as it enters the house. It leaves the public view, but returns as it winds up to the tower perch. It moves through and interrelates the public, private and transitional.

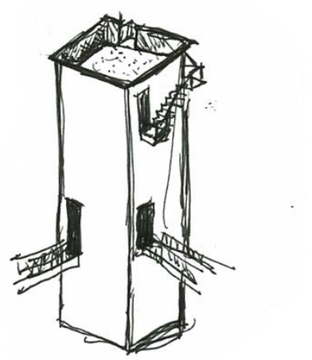
The dynamic character of the elements in the house create a house that is understood differently at different moments. It gives the community a question; what is this? That it is a house can be discerned, yet it is not like its neighbors. When we look at the surrounding houses, we see a wall with windows, and we reasonably suspect their are rooms behind these walls. The nature of these rooms we cannot surmise. It is not inherently wrong for the house functions to be hidden behind a facade, but as this act is repeated over and over down an entire street, an entire community, across the entire sub-urban landscape, our minds soften and we no longer feel inspired.

The house I propose can allow one to stop, investigate, and perhaps be inspired to understand. The character of a good house is one in which you wish you could get inside to see what's really going on.

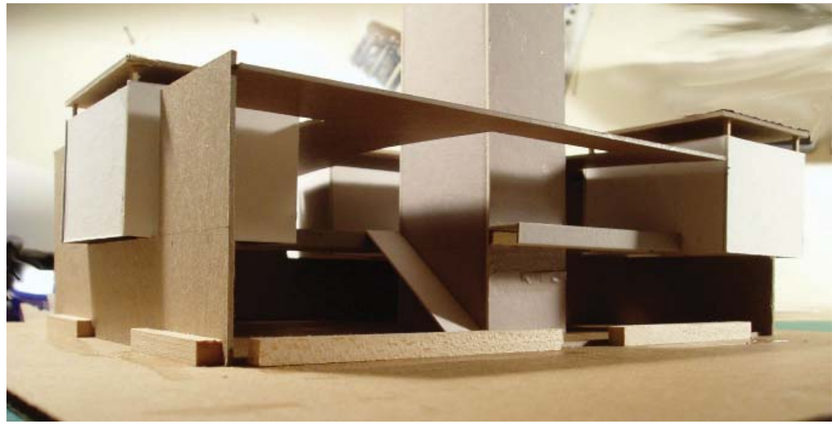
Appendix - Development

The development of the house began with the tower. Multiple iterations were studied in attempt to discern proper dimension, scale and proportion of the tower.

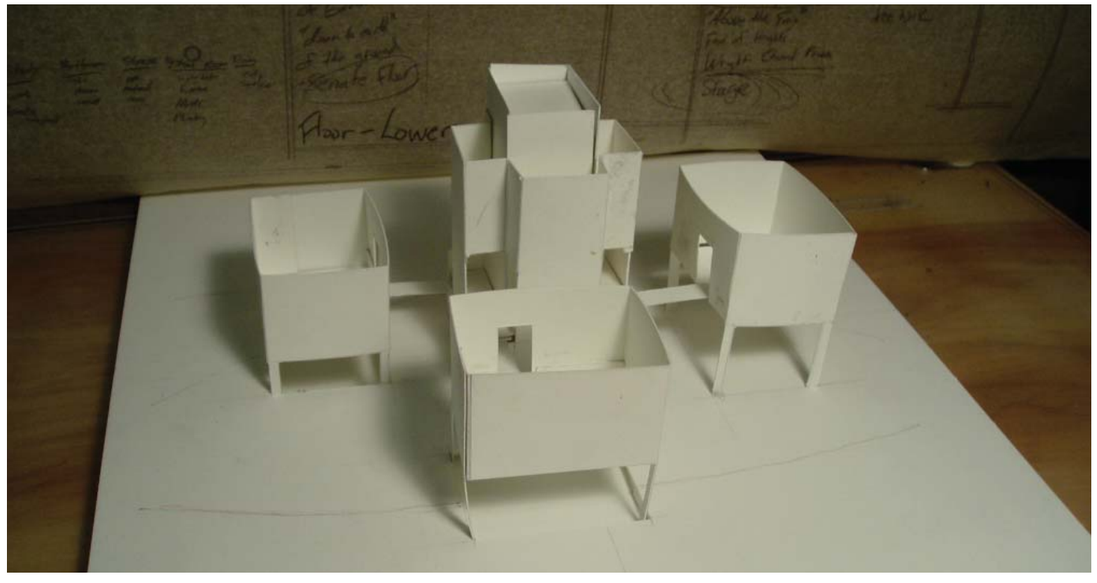


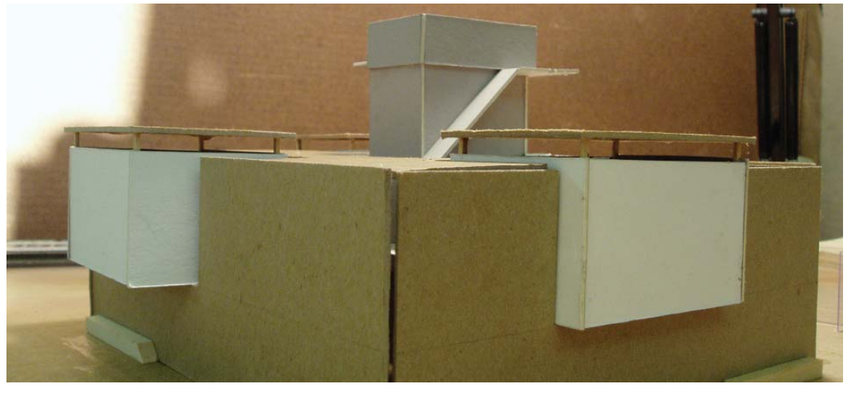


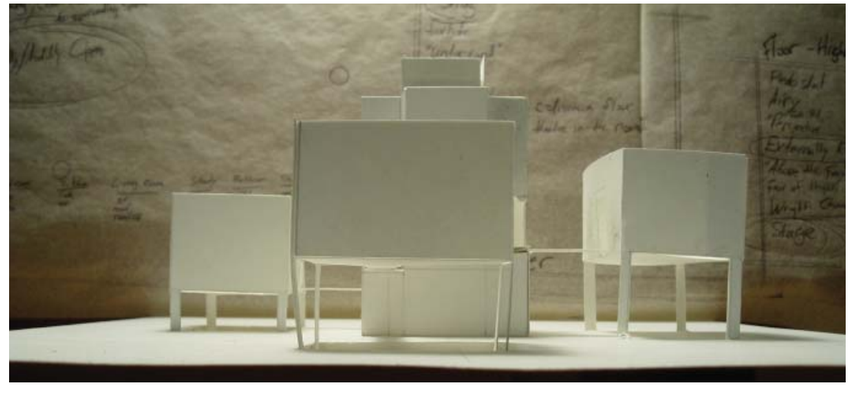
Appendix - Development



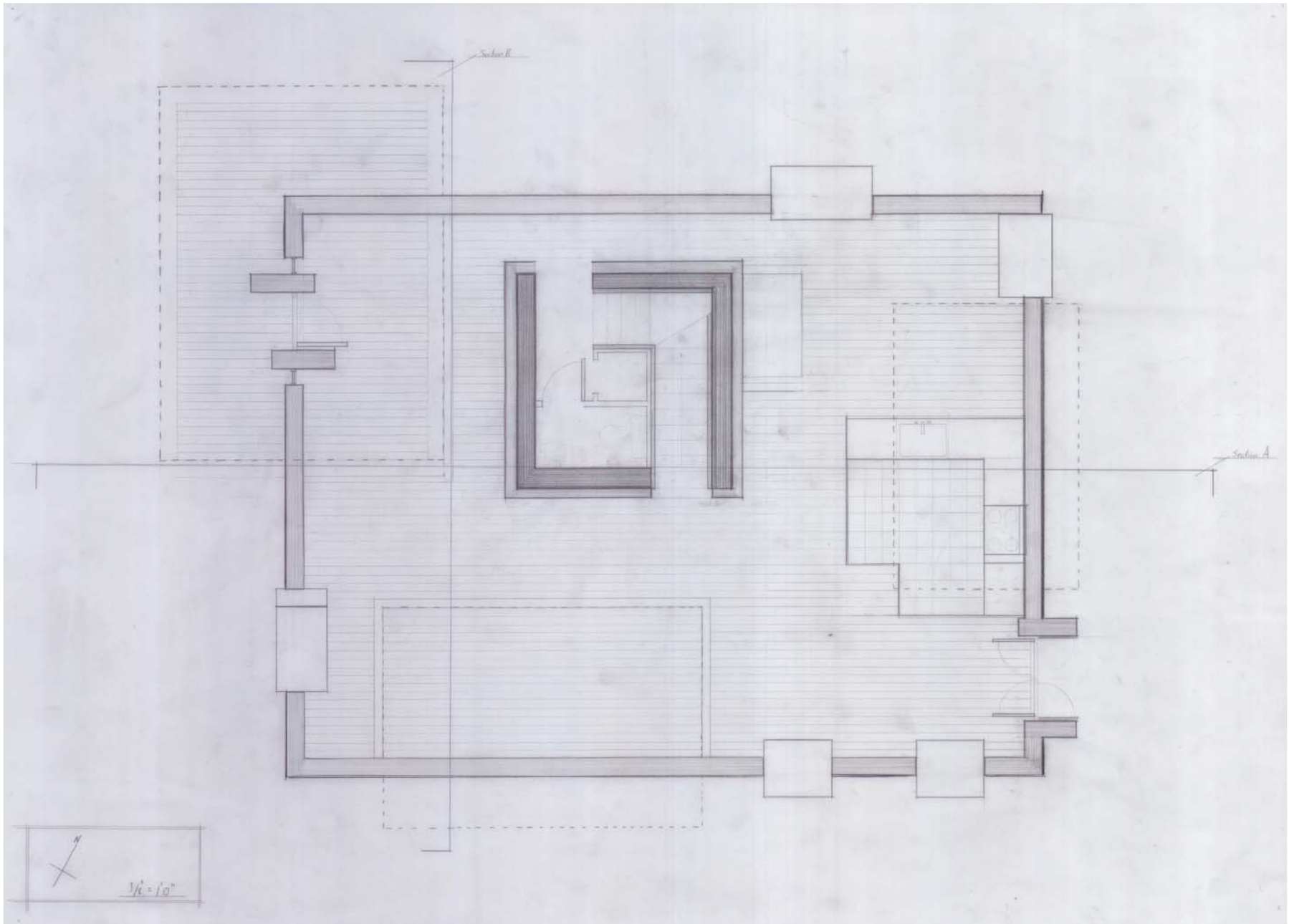
The relation of the path to the tower evolved from one where the path surrounded the tower to one where it was almost wholly enclosed. The rooms were conceived as standing on their own pilotis, prior to the full development of their relationship with the wall.





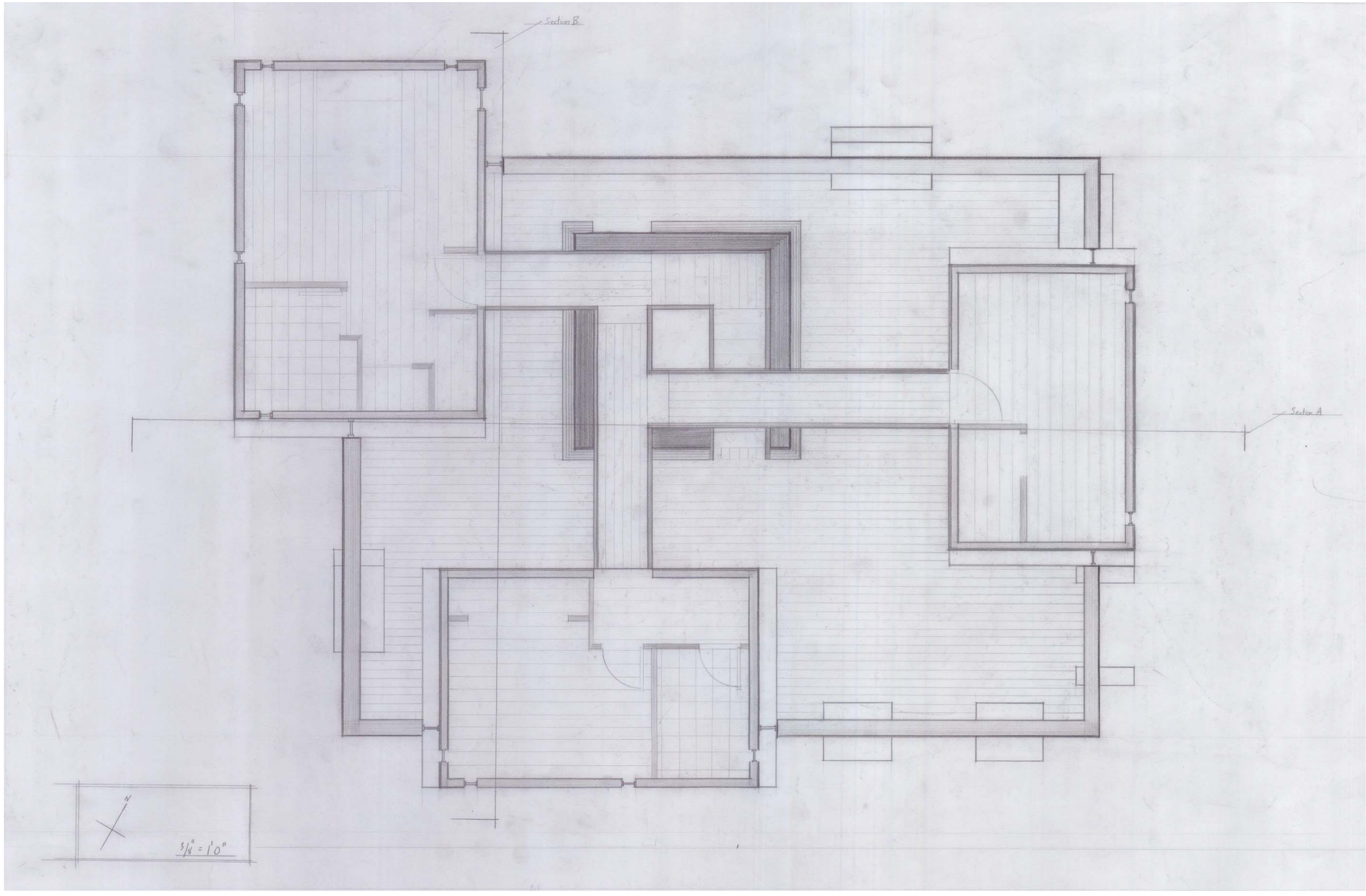


Appendix - Drawings



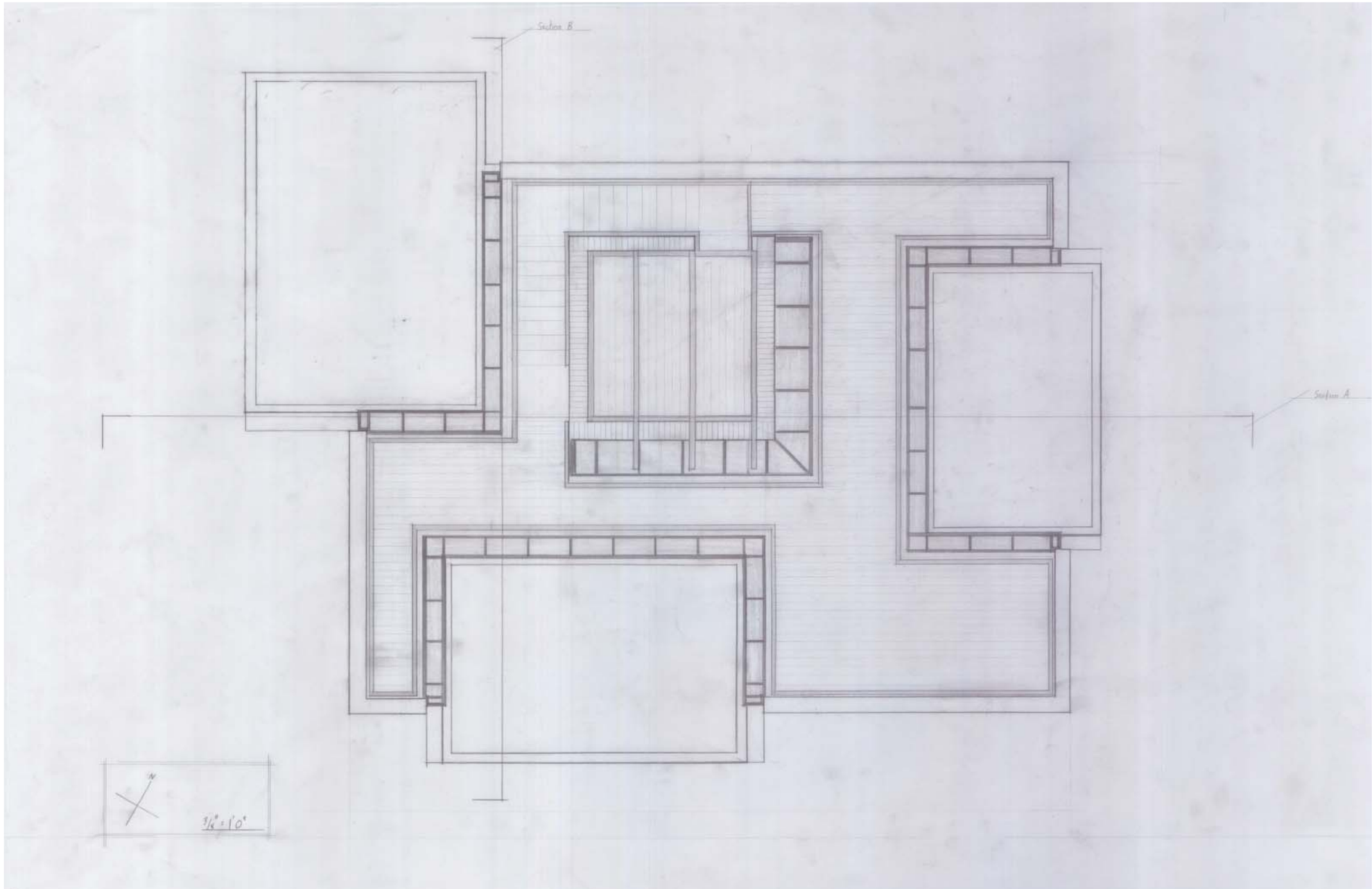
1st floor plan

Appendix - Drawings



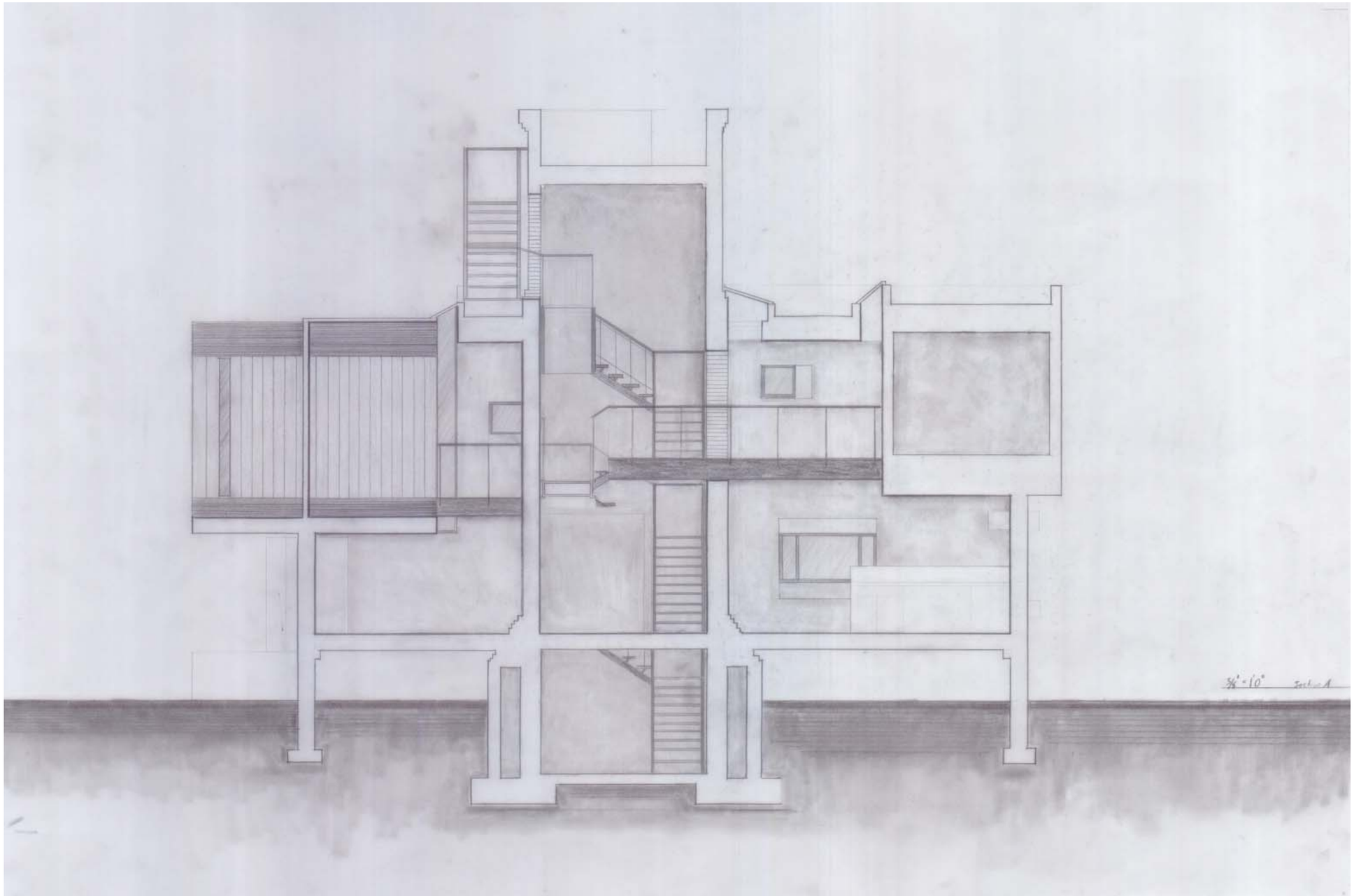
2nd floor plan

Appendix - Drawings



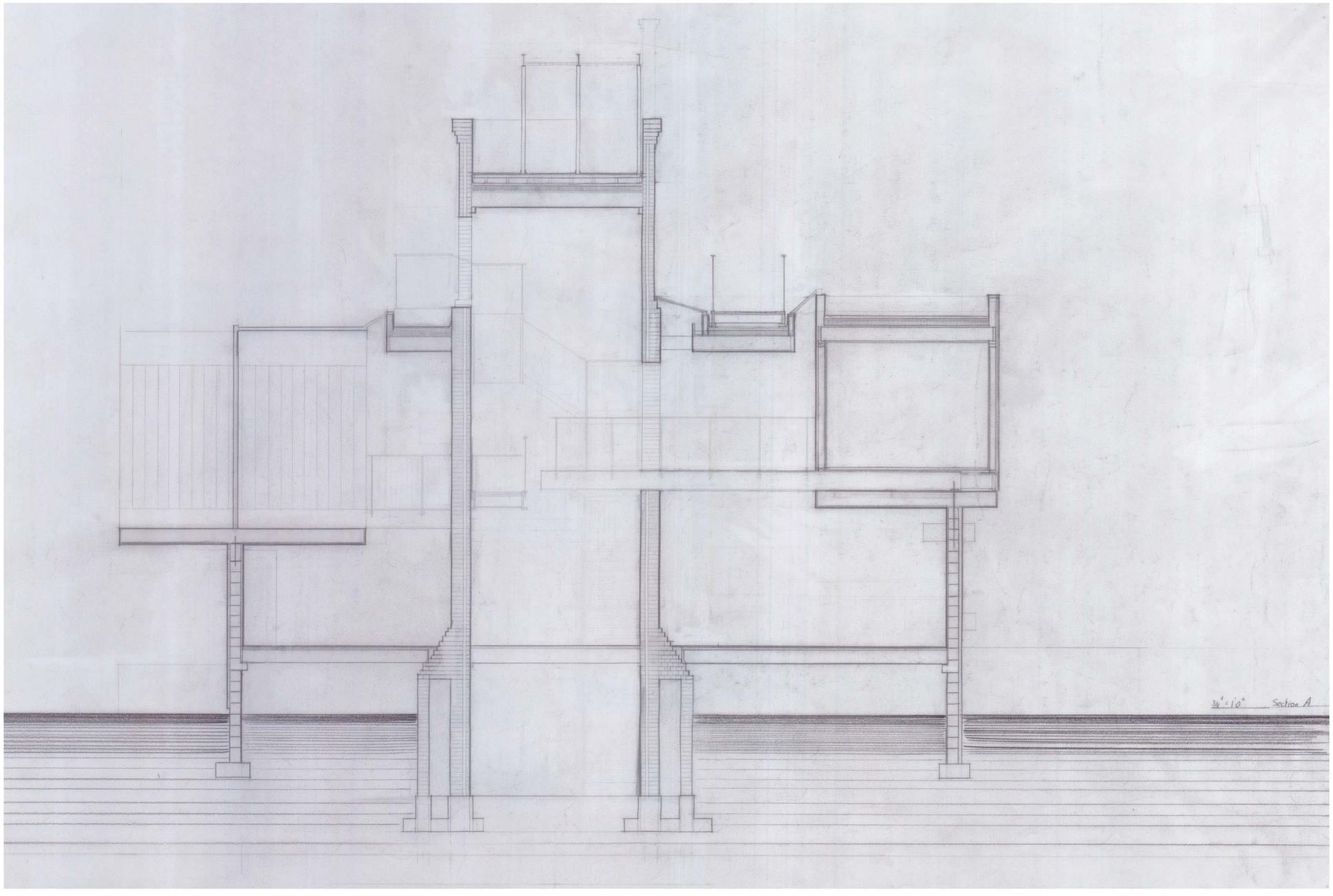
Roof plan

Appendix - Drawings



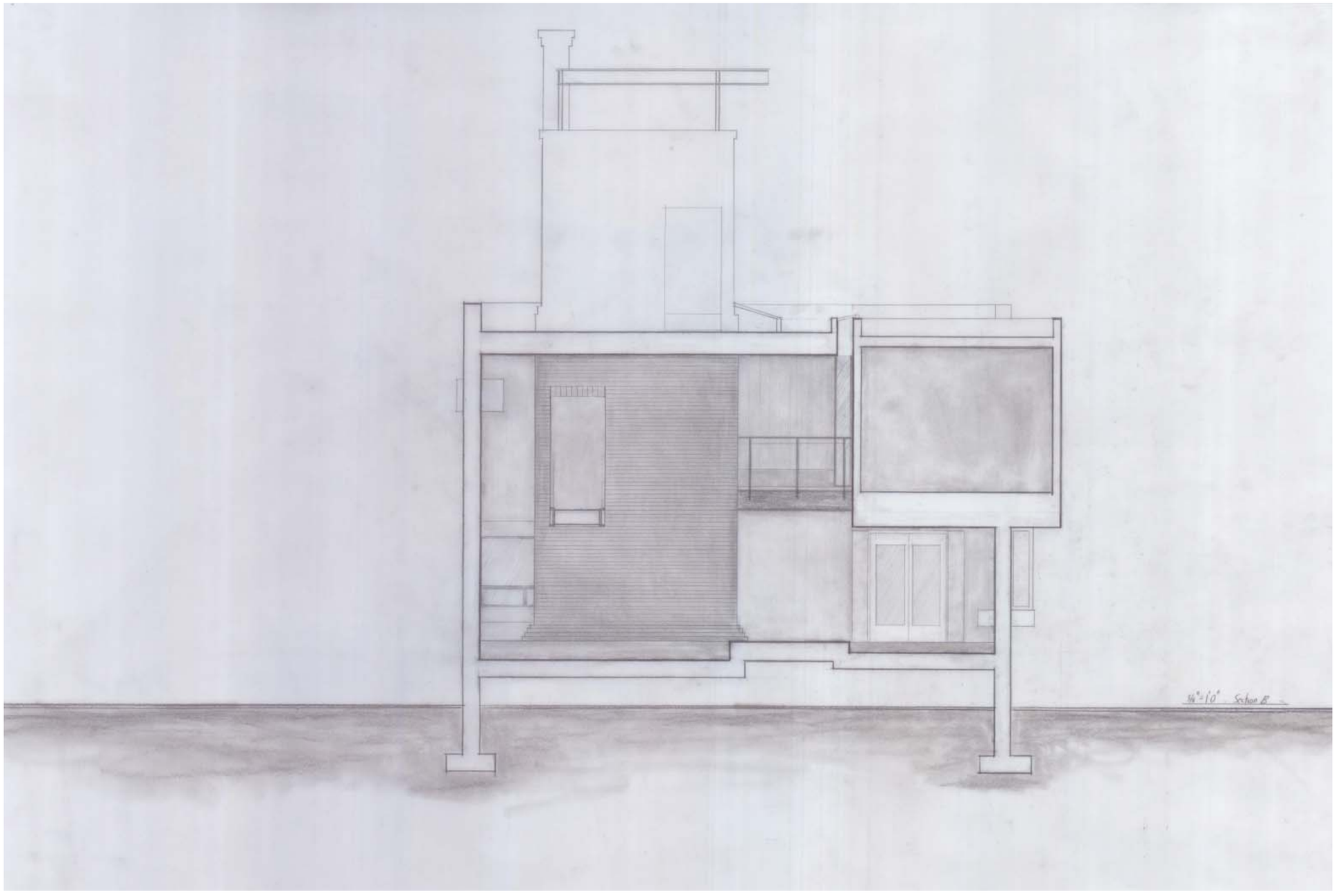
Section A-1

Appendix - Drawings



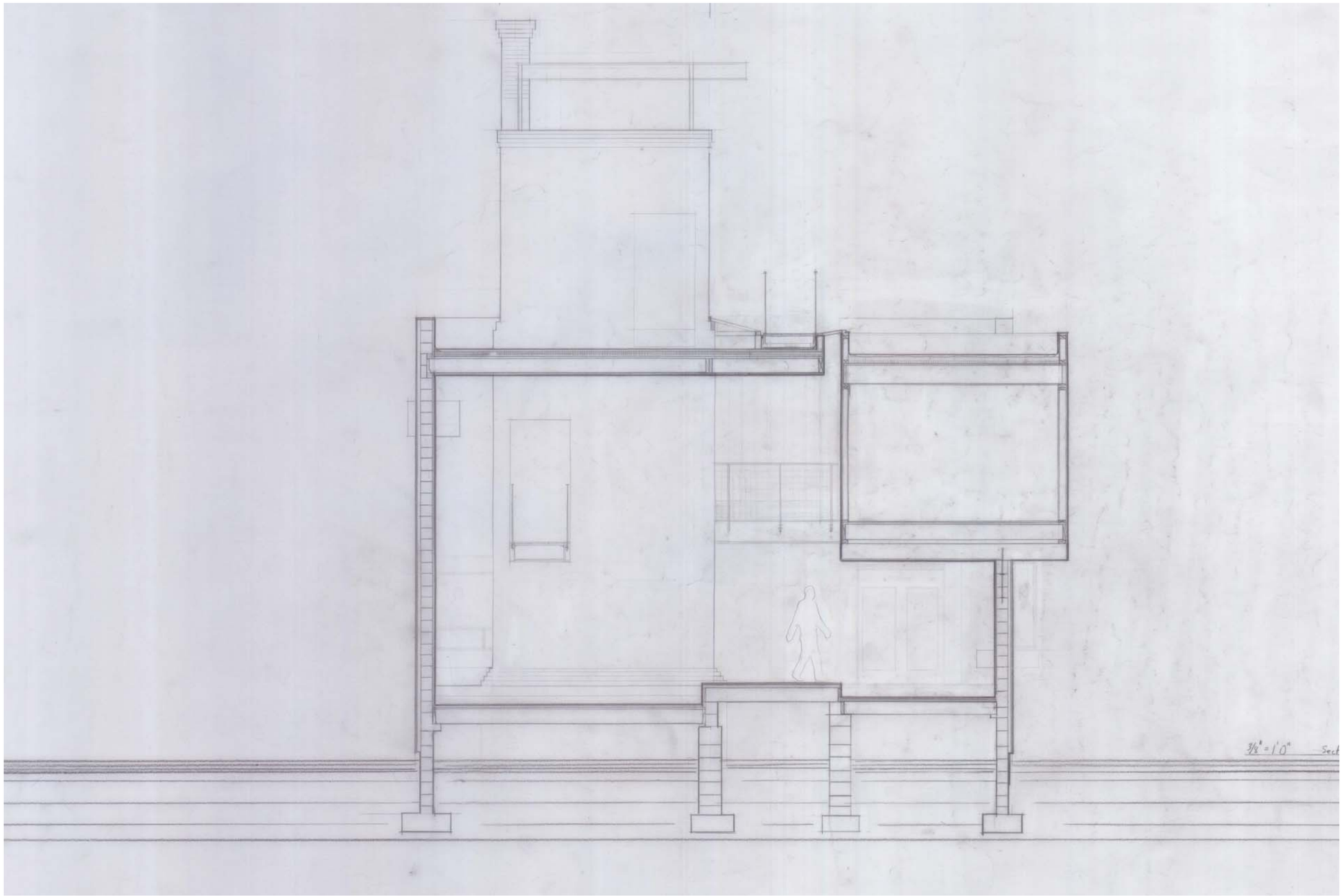
Section A-2

Appendix - Drawings



Section B-1

Appendix - Drawings



Section B-2

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